Flexible Tools for Unique Places

Interim Land Use and Urban Agriculture Opportunities from Berlin, Germany: Strategies for Oakland, California

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2012
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Introduction

Gardening is a topic which I have found to be both personally enjoyable and an interesting topic from a planning perspective. As a native Californian I am lucky to have lived in an area where gardening is an activity which can be sustained year round. During 2009 I resided in Oakland, California and became familiar with the gardening activities going on in the area and began to learn more about food inequalities in the area. California’s agribusiness economy has provoked interest groups to become more involved in their food system; the Slow Food Movement in the Bay Area was an influence for my interest in local food cultivation. When I was given the opportunity to conduct research abroad through NEURUS in the fall of 2011, I was interested to see how Europeans approach their food systems. I was inspired by Berlin’s 150 year gardening history, and was hopeful to find a way to integrate new ideas into American planning approaches.

What I found was an interest base for urban gardening in Berlin which is similar to that of Oakland. The economic challenges Berlin is facing are similar to those in post-industrial cities here in the US, so the study of land use tools and urban agriculture sites evolved from these two interests and opportunities. My master’s project focuses on how planners in the United States can promote access to fresh fruits and vegetables through flexible land use tools; even though both of these cities have different histories and contexts, the activities and tools are useful and can be furthered with the right approach. I used mainly secondary resources for my background research; I was able to visit sites in Berlin to understand their context in the urban environment. My personal experiences in Oakland inform the context of West Oakland’s gardening community.

After learning about community gardening\(^1\) in Berlin, I was introduced to the concept of interim\(^2\) land use used to address challenges within a city. Interim land use policies have allowed the East German cities of Leipzig and Berlin to cope with urban shrinkage, land vacancies, and blight through short term land use agreements (Appendix A). The use of interim policy has allowed urban agriculture to become a land use option during times of disinvestment in shrinking districts. The need for urban agriculture in the United States, for the purpose of food consumption, is different than the reasons for urban gardens in Germany which are more focused on recreation and community participation (Lawson, 2004; Rosol, 2010). However land use policies and historical urban gardening culture in Berlin can offer ideas on how to deal with blight, food insecurity and urban infill in the United States. Interim land use is a tool which planners could use to create agreements

\(^1\) Gardens in the tradition of American community gardens, in contrast to allotment gardens, to operate collectively. Community gardens in the city and often open to the public (Berlin Senate on Urban Development)

\(^2\) Temporary Use or Interim Use (Zwischennutzung) is time-limited, often not primarily economically motivated: Temporary use provides an important strategy for a dynamic, demand-oriented use of the city space (Berlin Senate)
between land owners, communities and local governments to resolve urban ills. These agreements would provide clarity for short term projects while addressing neighborhood needs such as food security\(^3\), blight reduction and increased greenspace through infill development. Oakland, California is an example of an area where interim land uses could be an effective tool for planners interested in addressing food insecurity, vacancy and disinvestment in underserved neighborhoods.

In this paper I will present the ideas of interim land use in conjunction with urban agriculture and how planners can address urban problems with these types of projects. I will show how interim land use agreements have been used for three different urban gardens in Berlin; then I will describe the types of gardens and reasons for gardening in Berlin as well as the structure of garden association networks which have been vital to the preservation of gardening activities and land uses in Berlin. Next I will present the aspects of gardening culture prevalent in America and then focus directly on the attitudes toward urban gardening in Oakland, CA. I will discuss current projects, policies and land uses which will frame how interim land use agreements can correspond to local needs. Finally I will present challenges to urban gardening and interim land uses ideas within the American context and make general recommendations for how Oakland can address these issues.

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\(^3\) Access by all people at all times to enough food for an active healthy life (USDA)
Interim Land Use Agreements and Urban Agriculture

Urban gardening activities have been a part of Berliner’s culture for the past 150 years. Gardening is a practice which is recreational, social, and political; gardening practices have fluctuated in response to changes within political orders as well as social needs. For example, gardens were used during times of war for food production (Groening, 1974), as resistance during political changes after the fall of the Berlin wall (Groening, 2000) and currently for recreation in vacant plots within the city (Mizani, 2011). In this paper I will define urban agriculture as the practice of planting and harvesting fruits, vegetables and flowers for personal consumption or sale within the boundaries of the city. For the purpose of this assessment I am looking at urban agriculture practices being performed by individuals who live within the city, and more specifically garden within their own neighborhood.

Current gardening practices vary depending on the goals of the garden; this gives urban agriculture a rich and diverse role within Berlin. Planners have caught on to the gardening trends in Berlin in order to mitigate negative effects of economic decline within the city. The city’s huge budgetary deficit reduces their ability to fund infrastructure needs, and therefore vacant land goes unused in post-industrial neighborhoods, such as Kreuzberg (Kratke, 2004). Therefore the possibility for garden location on vacant plots is beneficial for both the city as well as the neighbors. In order to use these vacant sites Gestattungsvereinbarung, or interim authorization agreements have been created to allow short term use of vacant sites for activities such as gardening. Interim land use is the transformation of a lot for short-term (Havemann, 2007).

Interim land use is often vague in both German and American studies; definitions fail to capture the complexity of interim uses within the broader framework of land use (Rosol, 2010; Lawson, 2004). In order to understand the complexity of interim land uses I have focused on urban agriculture sites with interim land use agreements within the Kreuzberg neighborhood in Berlin. By understanding the context of these agreements I hope to present ideas on how planners can use interim land use agreements or garden sites in Oakland, CA in order to mitigate negative externalities within neighborhoods and promote healthier communities. Each of these sites in the Kreuzberg neighborhood is unique and shows that interim land use agreements can support different types of garden developments within a neighborhood with the flexible framework it currently employs. This flexibility within planning is an element which could promote uniqueness of place and address urban needs in cities struggling with similar fiscal and spatial issues as Berlin.

Kreuzberg

In order to understand the context of gardening culture in Berlin I looked at three sites within the Kreuzberg neighborhood. This neighborhood has a large immigrant population as well as a concentration of those involved in creative industries; Berlin’s “creative class” as defined by Stefan Kratke differs from that of Richard Florida's focus on the socio-cultural qualities of a place as a significant factor in an urban region’s attractive power and
economic prospects and instead focuses on the development of sustainable economic structures supported by highly networked human resource systems and is not dependent on gentrification (Kratke, 2010). This perspective represents Kreuzberg neighborhood's makeup considering the extensive networks within sectors (immigrant, entertainment, art, music). The unique makeup of this neighborhood is reflected in the physical appearance of the structures; walls are covered in colorful and meaningful graffiti, small business line the streets selling unique clothes, art and food.

The locations of the three garden sites (Map 1) are also quite different and represent the different types of people living within the neighborhood. The first garden location is at the old Tempelhof Airport. A more traditional neighborhood area is located on the outside of the now unused airport, and the garden located on the site is also of a more traditional composition. The second garden site, Prinzessinnengarten Garten, is on the corner of Moritzplatz, about 200 meters from where the Berlin wall once stood. This garden is managed by an NGO and embodies elements of the creative class in the mobility of the garden as well as the goals and production within the garden. The third site, Ton, Stein, Garten, is located behind the old hospital by Marriannenplatz on the border of Freidrichshain-Kreuzberg. This garden is less formalized than the first two, a nod to the squatter movement which protected the site from 'elitist' development. Using the German FIS (Fachübergreifendes Informations System), or interdisciplinary system, I located the gardens on the land use maps.

Map 1
Oakland

For this project I have chosen to focus on the West Oakland neighborhood which is enclosed by the highway system (I-80, I-880, I-980) adjacent to the Port of Oakland (Map 2). This area is historically African American but also has large Hispanic and Asian populations. This area was identified by The Reinvestment Fund (TRF) as an area where supermarkets could locate considering there is a lack of large supermarkets (2010)\(^4\). The HOPE Collaborative has also identified West Oakland as an area which has a need for large supermarkets in a micro zone assessment report (2008)\(^5\). They identified through community surveys that many of the residents shop at large retailers, stores which employ 51-100 persons, (Appendix B) and have to leave the area to get basic food items all in one place (Appendix C). HOPE identified 20 basic food items for their grocery retail survey, most of the items which were unavailable at the small local markets and stores were fresh produce. I am not proposing a large scale supermarket development; instead I would rather see the residents of West Oakland take small steps towards creating an asset for their community, within their community, for their residents. A community garden could lead to greater food security while promoting health education.

Map 2

The gardening movements currently in the Bay Area support these types of initiatives; with partnership and flexible planning tools food insecurity can be addressed in the Low Access Areas. The Oakland Mayor’s Office of Sustainability has taken food systems into consideration within their greater context of sustainability. In 2006, in partnership with UC

\(^4\) [http://www.trfund.com/TRF-LAA-widget.html](http://www.trfund.com/TRF-LAA-widget.html)

Berkeley they produced “A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan” in which they discussed multiple facets of the food system, including urban agriculture and community gardening. The five basic elements of the food system are production, distribution, processing, consumption and waste. On January 10, 2006 The Oakland City Council, Life Enrichment Committee passed a resolution authorizing the Mayor’s Office of Sustainability to develop an Oakland Food Policy and Plan to meet their goal of produce thirty percent of the areas food locally. Although production is only one aspect of the food system, it is pertinent to planners and especially to land use decisions. I chose Oakland since they already have identified their food system needs and are working to increase local food production. Community initiatives in Oakland are engaged in urban gardening for educational and recreational purposes, entrepreneurial food production, job skills training, food security and environmental sustainability (Unger, 2006).

At the time of the food system analysis, 35 community based gardens were operating in Oakland. The city acknowledges that there are “many innovative ways to maximize space for food production with an urban setting” and yet “there are no policies that support or protect future urban food production in the City”. The City also identified food retail challenges: about 85 percent of Oakland food retailers are stores less than 3,000 square feet, and suggested that food retail policy should address small stores to increase communities’ overall food security, reducing price vulnerability and providing fresher, more nutritious seasonal produce. Furthermore, the City estimates that only 23 percent of the eligible population is enrolled in the foot stamps program (SNAP), which results in the loss of over $54 million of unclaimed federal benefits and a loss to Oakland retailers and the Oakland economy. These aspects of food insecurity informed my mapping choices to identify current Low Access Areas in West Oakland.
Urban Greenspace in Berlin

Urban greenspaces are an important aspect of city living. Land use policy since the beginning of city planning has tried to incorporate green spaces in order to promote healthier living, better air quality, and to reduce the negative impacts on a city, such as overcrowding, pollution and disease (Howard, 1898; Beauregard, 2001; Kennedy, 2009). Early planning techniques for balancing nature and city living can be seen in examples such as the General Plan of Riverside, Illinois; this plan then progressed into the Town and Country model by Ebenezer Howard. Greenspace development has now become such an important part of planning that multilevel institutions exist to promote, protect, and maintain these areas.

The United States in the late 19th century produced models for greenspace which have been used world-wide. The General Plan for Riverside, Illinois by Frederick Law Olmstead inspired the Englishman Ebenezer Howard. Howard then created a comprehensive concept for the garden city with his Town and Country model. This served as a guideline in London to solve problems with the lack of open spaces. Germany also took from the Town and Country concept to create more “Freiflächenfrage”, or open space, in their cities, and Berlin was particularly interested in these models.

In a reversal of knowledge exchange in the early 20th century, American planners then looked to Germany for examples in city planning. For example the zoning ordinances of 1916 in New York were taken from the German idea of “Freiflächenfrage”, which “suggested future urban land use and included the provision of various kinds of open spaces such as gardens, parks, and cemeteries” (Groening, 2000). The Berlin city planner Martin Wagner analyzed problems with urban open spaces, and published the difference in open space provision among the classes, or “Bauklassen”. Wagner showed that open space needs were met for more affluent people, which the less affluent petit bourgeois and poor city dwellers had to learn to organize and push for the implementation, of green spaces, and particularly of their gardening interests (Groening, 1974; Groening, 1996). Here the struggle for open space, particularly spaces for urban agriculture, and the convergence of American-German knowledge exchange began.

Incorporating green spaces into city lifestyle have many of the same reasons as 100 years ago. However current issues including urban decline and shrinkage challenge planners to think creatively about how to deal with such issues as brownfields, vacancy, and population decline. Land use policies need to respond to these challenges within cities, allowing flexibility in the timeline of development and promoting mutual agreements between communities, land owners, city planners and policy.

*Berlin’s urban gardening culture and history*

Gardening culture in Berlin demands to be incorporated into land use planning through political action, social structure, and historical participation in these activities (Appendix D). Beginning in the early 20th Century gardening activities were incorporated into the
zoning ordinances of the Greater Berlin Land Use Plan (SDUD, 2010). *Gärtnersiedlungen*, or
special gardeners’ settlements of the 1920’s were "planned in order to secure the provision
of vegetables and ornamentals for a rising urban population. This idea was derived from
the concept of creating a *Fruchtlandschaft*, or fruit landscape, which was ultimately an
unsuccessful idea but did lead to suburban gardening and also on plots of derelict land in
large cities (Gröning, 2007).

Although the fruit-landscape idea was unsuccessful, it did spur an interest in gardening
activities city-wide. Currently *Kleingärten*, or allotment garden, is most closely related to
the community gardens we see in the United State. These garden plots were officially
recognized in *Bundesbaugesetz*, the Federal Building Law of 1965. This gave political
recognition to the voices of gardeners. Though gardeners had been active politically
before this recognition, they have since contributed significantly to the "democratic debate
about urban land use" (Gröning, 2007). Participation and its fundamental connection to
urban agriculture have changed as neoliberal restructuring has influenced policy and
governmental involvement. This has meant that community gardens in Germany
transitioned from a part of urban social movements towards a form of volunteerism as
involvement from the local state has shifted over time (Rosol, 2010).

The development of the garden networks has transformed throughout the history of Berlin;
the physical, social and economic geographies of Berlin have changed dramatically since
the 1960’s. Post World War II Berlin was dominated by political divides, this division
affected land use throughout the city. Between 1949 and 1984, Berlin lost about one third
of their gardening land mostly to commercial and industrial land uses and further losses
were anticipated (Gröning, 2000). Although the reasons for gardening have changed,
gardening is still an important activity for Berliners. As interest in gardening increased and
became engrained in Berliner culture, garden networks developed throughout the
boroughs. In 1995 there was a ratio of one allotment garden to every 42 inhabitants;
collectively these gardens cover about four percent of the total area of Berlin (Gröning,
2000) (Map 2).

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6 Used private garden plots, which may be built only with a gazebo and engaged in an
allotment area are. It is characterized by the coexistence of diverse uses: recreation,
cultivation of vegetables, fruits, herbs and flowers for their own use (Berlin Senate).

7 Urban gardeners: Gardeners in the city, especially as new forms, such as community
gardens, untercultural gardens, guerrilla gardens. Characteristic are limited, often not
originally conceived as a garden area as tree grates, vacant lots, yards, or similar (Berlin
Senate).
Map 2: Kleingarten Land Use Map, Berlin

Representation in many levels of government institutions is currently in place to support the open space needs of the city (Table 1). Community based neighborhood garden associations exist in all of the boroughs that have allotment gardens. The Open Space and Urban Green Space Commission have one representative from each of these boroughs (Table 2). Berlin State government regulates allotment garden lease conditions and the Berlin State Senate for Urban Space has a representative for these gardeners who informs Federal policy makers of the interests of local gardeners. Furthermore, the Federal Allotment Gardening Law (1983) regulates aspects of these sites to provide fairness and support access to gardening for those who are interested.

### Table 1: German Gardening Institution Structure

<table>
<thead>
<tr>
<th>Level</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>Federal Allotment Gardening Law (1983)</td>
</tr>
<tr>
<td>State</td>
<td>Berlin State Government regulates allotment garden lease conditions</td>
</tr>
<tr>
<td>City</td>
<td>Division of Urban and Open Space Planning Commissions</td>
</tr>
<tr>
<td>Borough</td>
<td>Open-Space and Urban Green Space Commission</td>
</tr>
<tr>
<td>Community</td>
<td>Neighborhood Garden Associations</td>
</tr>
</tbody>
</table>

### Table 2: Stock of Allotment Gardens in Berlin as of December 1, 2010

<table>
<thead>
<tr>
<th>Borough</th>
<th>Total Allotment Gardens</th>
<th>Gardens with construction plans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Facilities</td>
<td>Plots</td>
</tr>
<tr>
<td>Mitte</td>
<td>31</td>
<td>2,036</td>
</tr>
<tr>
<td>Friedrichshain-Kreuzberg</td>
<td>2</td>
<td>127</td>
</tr>
<tr>
<td>Pankow</td>
<td>94</td>
<td>10,825</td>
</tr>
<tr>
<td>Charlottenburg-Wilmersdorf</td>
<td>116</td>
<td>8,714</td>
</tr>
<tr>
<td>Spandau</td>
<td>78</td>
<td>4,374</td>
</tr>
<tr>
<td>Steglitz-Zehlendorf</td>
<td>78</td>
<td>5,554</td>
</tr>
<tr>
<td>Tempelhof-Schöneberg</td>
<td>95</td>
<td>7,151</td>
</tr>
<tr>
<td>Neukölln</td>
<td>95</td>
<td>9,561</td>
</tr>
<tr>
<td>Treptow-Köpenick</td>
<td>155</td>
<td>9,309</td>
</tr>
<tr>
<td>Marzahn-Hellersdorf</td>
<td>41</td>
<td>3,324</td>
</tr>
<tr>
<td>Lichtenberg</td>
<td>58</td>
<td>6,271</td>
</tr>
<tr>
<td>Reinickendorf</td>
<td>89</td>
<td>6,848</td>
</tr>
<tr>
<td>Berlin total</td>
<td>932</td>
<td>74,094</td>
</tr>
</tbody>
</table>
The institutional support for urban greenspace, and more specifically for urban gardening, in Berlin reassures gardeners of their important role in German culture and society: the security which gardens are granted through legislation and social activity is vital to the interest in gardening practices (Map 3). I looked at three garden sites in Berlin to understand how interim land use agreements within the existing political structure accommodated diverse interests, supported gardens of varying size and with different goals. Tempelhof airport, Prinzessinnengarten and Ton, Stein, Garten have varied qualities, goals and structures which show the flexibility of interim land use. The principles of interim land use will allow us to show how American planners can use flexible tools to approach challenges within their neighborhoods. The three gardens which I have looked at are located in the Kreuzberg-Freidrischein neighborhood. I will briefly address the history of each site and then outline the status of each site. I used the structure of Marit Rosol’s analysis of three gardens in Berlin to structure my analysis (2010). I added criteria to provide information on the types of activities available at the site: rent, water availability, toolshed, soil usage, composting activities, garden goals and types of produce (Appendix E). The diversity of uses and goals of the gardens shows that interim land use allows for flexibility depending on the community, site location, and the goals and abilities of gardeners.

Map 3: Friedrichshain-Kreuzberg Garden Land Use Map

http://www.stadtentwicklung.berlin.de/umwelt/berlin_move/de/hauptwege/wanderkarte_interaktiv.shtml
Tempelhof Garden

Since the closing of Tempelhof Airport on October 31, 2008, the site has been used to host numerous types of events; fashion shows, concerts, marathons, fairs, horticulture exhibits, and music and entertainment venues. Tempelhof is attractive for large scale venues because of the amount of space available as well as the central location. The historical significance of the airport during World War II is important to Berliners, and therefore the future uses of the site have been controversial. Though there have been proposals for large scale development at Tempelhof, this has largely been rejected. Instead, the City of Berlin has decided to keep it under its ownership though there are few funds which the city can access to invest in the site. The old airport grounds have been transformed into a recreation area, and there are currently two areas at Tempelhof which I observed to be used for urban agriculture practices. I will present the budgetary and ownership restrictions of the site as well as the public response and involvement in Tempelhof’s current uses.

The City of Berlin is currently the sole owner, a relief for the thousands of protestors in 2009 who feared it would be turned over to private developers instead of being made into a public space. It was decided in 2010 that the airport would be opened as a city park; this will cost the city an estimated €60 million and will take about seven years to complete. It will be the largest park in Berlin with an area of 230 hectares, much larger than the famous Tiergarten (The Local, 2009). This is one of Berlin’s largest scale projects it has undertaken since the fall of the Berlin Wall (Goldmann, 2011). In May of 2010 Tempelhof was opened to the public and more than 200,000 people came to enjoy the park. Since then, approximately 50,000 Berlins come to enjoy the park each weekend (Goldmann, 2011). It is anticipated by the City that Tempelhof will remain a park indefinitely.
Open space is on the forefront of urban development issues in Berlin. The significance of urban landscapes and their relationship to climate change, integration and urban populations are issues in development that the Senate Department for Urban Development has recognized (SDUD). The repurposing of Tempelhof for these types of such as concerts, fairs and the 2017 International Garden Show is one of the reasons the City has committed and estimated €60 million into the site. However, the vastness of the field means that architects and developers have only about €25.32/square foot. This minimal amount means that it is necessary to think outside of the box in terms of development. Concerns from the surrounding district also put pressure on developers to comply with citizen concerns. Mattias Gille, a press spokesman from the Berlin State Senate Department of Urban Development said the Neuköln, in the east is interested in seeing picnic areas; Kreuzberg in the north-east is interested in seeing sports and leisure time activities while Tempelhof in the south is concerned with increased traffic flows (Goldmann, 2011).

Overall, the challenges concerning the redevelopment of Tempelhof with the current budget, citizen concerns, and public development constraints is daunting. However, in Berlin today with high unemployment, the City budget in crisis and the looming European economic crisis (Kratke, 2004), Berliners are happy with the green open space provided by the Tempelhof grounds. The flat, green area with dirt trails and unpretentious groups seem to be the epitome of Berlin leisure. The wildness, openness and greenness of the space seem to satisfy the population (Daragahi, 2010). In order to regulate usage of the former airfield, there is a fence that currently surrounds Tempelhof. With six kilometers of fence and five entrance points which are opened in the morning and closed at sunset, the enclosure has caused some controversy, however most Berliners are satisfied with being able to use the space during daytime hours.

In Berlin, many of the gardens which are situated on public land became possible only because of the budgetary limitations. The City of Berlin’s public deficit meant that the City was unwilling, or unable, to fund infrastructure needs and therefore the land became vacant (Rosol, 2010; Kratke, 2004). This in turn opened up the possibility for interim land uses such as urban gardens. Interim urban gardens however are seen as a second-best option by the City in times of slow real estate development, and though urban gardens meet certain aspirations of the local state they also do not address the real problem of larger, existing parks’ maintenance (Rosol, 2010). The case of Tempelhof is a prime example of how the City can allow greenspace to flourish without the higher costs of park maintenance. Furthermore, the acceptance of gardening at Tempelhof exemplifies how gardening culture in Germany demands to be incorporated into land use planning through political action, social structure and historical participation in these activities.

Prinzessinnengarten

Prinzessinnengarten, or Princess Garden, was founded by Marco Clausen and Robert Shaw in 2009. Located in Kreuzberg, a multicultural, immigrant and creative class neighborhood, they chose a site close to the Moritzplatz underpass, about 200 meters from the Berlin Wall. The lot was vacant for decades and was severely neglected with crumbling concrete, an unused plot across from the underground station. They transformed the lot from a
former World War II department store lot to an urban farm that houses 400 different kinds of plants, 8 beehives and a restaurant and a café (Gidsey Lookbook, 2011). Their vision of temporarily transforming vacant sites, such as parks and rooftops, into urban farmland and green meeting places began with Prinzessinnengarten (Bettens, 2011). They took their inspiration from urban gardening which Shaw had witnessed in Cuba (Madden, 2011). Through the use of local volunteers and a vision of gardening in the city center, the two founders used the empty lot to create a prosperous garden in the poor borough of Kreuzberg. The garden is located on a piece of land which is owned by the city of Berlin. Although the city is interested in selling the land they are allowing Prinzessinnengarten to rent the plot for €2300 a month while they look for a buyer (Bettens, 2011). Prinzessinnengarten rents from the City of Berlin’s real estate company who is in charge of selling Berlin’s vacant land.

Since they are renters, the garden is mobile. This means that the plants are in boxes which can be transported easily when the lot is sold to developers; this way the garden does not have to be uprooted and can be transported with little effort and damage to a new location. Plants are in plastic sacks, industrial crates and even milk cartons (Madden, 2011). Shaw and Clausen are very open to this idea and understand that “it's a meanwhile-use project” (Bettens, 2011). Furthermore, the mobility of the garden has several advantages such as when the summers are too hot and dry it is simpler to relocate delicate plants such as tomatoes to preserve your harvest. Similarly harsh winter conditions can also negatively affect the harvest, in the winter of 2011 the garden was moved into the Eisenbahnmarkthalle until spring since the weather conditions were harsh. Another reason for the mobility of the garden is that Kreuzberg is a district of Berlin which is transforming rapidly, in part due to gentrification (Madden, 2011).
Although the garden is explicitly open to the public, about 20 people are involved in gardening at this location on a regular basis; each has a field of responsibility, such as potatoes or tomatoes. However, on the ‘gardening days’ every Thursday at 3 and Saturday at 11, attract hundreds of people (Gidsy Logbook, 2011). During these sessions the responsibilities are more flexible and also include workshops on beekeeping and general gardening skills. Furthermore, some people can watch the gardening efforts, take part in the events or meet at the café where the gardens own vegetables are served (Madden, 2011).

Clausen and Shaw operate the garden like a business; the profit that they make from selling the food they grow goes back into the garden. They created the non-profit group Nomadisch Grün (Nomadic Green) which reflects the mobile nature of the garden. To keep the project going they sell seedlings, compost, pick-your-own herbs and vegetables (Mizani, 2011). The specific goals of the project are mainly education and working with the neighborhood: “transferring knowledge about ecological farming, conservation of food, biodiversity and so on” (Gidsy Logbook, 2011). They also “want to show people where the things they eat daily come from and to become aware of alternative methods of producing food” (Madden, 2011). In the wintertime there is not gardening going on because of the harsh weather conditions. Instead of actual gardening Nomadic Grün organizes activities such as fundraising, networking, and creating their educational programs. They also do consulting for municipalities and also provide support for other gardeners in Germany.

**Ton, Stein Garten**

Ton Stein Garten, which is German for Soil, Stones, Garden, is a grassroots garden located behind the old hospital at Mariannenplatz in the Freidrichshain-Kreuzberg neighborhood. This garden differs from the Tempelhof site as well as Prinzessinnengarten in the sense that it was born from conflict rather than governmental approval or direct individual investment. When the town hall decided to restore the area there was a call for public participation. Residents proposed a community garden for cultivation; however the municipality did not support this use. In response to the lack of municipal support for the community proposed garden, squatters occupied the lot behind the old hospital, who viewed the municipal plan as elitist rather than in the public interest (Arauzo, 2011).

In response to the squatters, Mayor Mark Woweriet negotiated with the public and came up with a deal. The neighbors would be allowed to use 1000 square meters for gardening. They would not have to pay rent or for water usage and can have a small shed with tools located on the site. The soil quality at the site is very high and therefore residents can plant directly into the ground. However, they are not allowed to build fences, walls or take over more land on the site; it is always open to the public. Currently some 60 neighbors use Ton, Stein, Garten as a community garden during the growing season (Arauzo, 2011).
A network of partners support Ton, Stein, Garten. The garden group meets every Monday at the AWO and is open to the public¹⁰.

- Netzwerk Interkulturelle Gärten Berlin (Intercultural garden Network in Berlin)
- AG Kleinstlandwirtschaft Berlin (Micro agriculture, Berlin)
- AWO-Begegnungszentrum in der Adalbertstraße (AWO meeting center in Adalbertstrasse)
- Schülerclub der E.O.Plauen-Grundschule (Student Club at E.O. Paulen Elementary School)
- Bezirksamt Friedrichshain-Kreuzberg (neighborhood district)
- Stiftung Interkultur (Intercultural Foundation).

The site is categorized as a public park by the City of Berlin, with one of the allowable uses being gardening within the designated area of Ton, Stein, Garten. Although they do not have an interim agreement, the site has a five year contract for use of public land. The motto of the garden is “Another world can be planted”; some of the ideas of the gardeners are anti-capitalist and in line with many of the ideas of guerilla gardening, a practice of gardening to promote change in an aesthetic and peaceful way.

¹⁰ http://www.stiftung-interkultur.de/berlin/berlin-kreuzberg-mariannengarten
Urban Gardening in Oakland, California

American gardening culture has evolved in ways which are similar to Germany’s; during times of war, gardening practices are more intensive while during times of national transition gardens can become a way to show political support for certain ideals. From World War II to the Slow Movement today, American gardeners use their labor and ideas to support themselves, their communities and their nation; growing one’s own food and the “frontier” mentality of forging one’s own way are just as much a part of American gardening culture as the views on private property are a part of land use planning. On the forefront of American gardening culture today is the need for grocery service in areas which have low access and it is this premise that I suggest planners to consider new tools for land use which will allow for flexibility rather than rigidity, and to integrate marginalized communities into the larger society and economy.

American gardening culture

Food insecurity in the United States is a major issue; as many as one in seven people\(^\text{11}\) are considered food insecure and many more do not eat the recommended USDA daily amount of fresh fruits and vegetables. Food banks, food stamps, Women Infants and Children (WIC), and emergency food supplies are widely used to reduce food insecurity, yet there is still a gap between those who are in need and the ample supply of food in America. To address these concerns, some local people have started urban gardens. In the early 1940’s, Victory Gardens supplied American people with 40% of the fresh vegetable throughout the country, yet after the war they were mostly discontinued. The motto for that generation was “Food will win the war and write the peace”\(^\text{12}\); everyone did their part to reduce expenses at home in order to put as much resources towards the war effort. Similarly we can win the battle against hunger, unhealthy diets which lead to disease, and the sense of powerlessness families feel when they cannot provide healthy meals because of a lack of access or funding\(^\text{13}\): this will win the war against hunger and truly write the peace.

Economics and Inequality

Food systems and the global economic order play a role in urban design. Laissez faire economics “cannot provide an adequate foundation for urban design” which is inherently public and integrative (Sternberg, 2000). The public nature of urban design is therefore inherently in contrast to the private nature of the economic order. Ellis (2002) further states that free-market enthusiasts reject meaningful urban and regional planning since our current economic order values short term rather than long term investment. This value in short term investment and returns creates distortions within planning which

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\(^\text{11}\) Food Resource Action Center
http://www.frac.org/html/hunger_in_the_us/hunger_index.html

\(^\text{12}\) http://farmtogethernow.org/2010/10/19/from-the-ground-up-trailer/

\(^\text{13}\) http://farmtogethernow.org/2010/07/05/blog-1/
concentrates power in private hands and leans heavily on the markets to dictate what is right within a city. This inherently male-centric methodology has greatly affected our economic and food systems and has continually marginalized women and minorities. Moreover, Grimshaw (1996) shows that a lack of attention to inequality issues “exacerbates political conflict and retards economic development”. Therefore, attention to food insecurity and equal access to healthy foods can ameliorate urban inequalities concerning food systems, and promote political and economic development and cohesion.

Food equity is a subject which has been popular in the Bay Area for the last decade; Oakland, California has been particularly pro-active in identifying areas (specifically West-Oakland) which lack access to grocery stores or markets where fresh vegetables are available. Food deserts, or a lack of grocery markets in a region\textsuperscript{14}, is a product of “free-market” capitalism: allowing markets to dictate (Gordon, 2001), and ignoring the needs of already existing populations with hardship. Sprawl, market choice and the New World Bipolar Disorder (Dear and Flusty, 1998) have contributed to further marginalizing the modern ghetto: where certain African-American populations live in areas where even grocery stores are not within walking distance. How could the planning profession have not seen food systems as inherently vital to the health of populations?

Current regimes have not taken into account historic trends within planning when addressing community health, access to nutritional food and development in historically marginalized or “ghettoized” areas. Recently, interest groups, such as City Slickers, have been working from the “bottom up” to battle food inequality. They advocate for:

“food self-sufficiency in West Oakland by creating organic, sustainable, high-yield urban farms\textsuperscript{15} and partnering with residents to transform their yards into food-producing gardens. [Urban gardens] provide healthy, affordable food and improve the environment. City Slicker Farms seeks to serve all West Oakland residents, prioritizing people who have the least access to healthy food. The farms and gardens demonstrate the viability of a local food-production system; serve as community space; empower children and adults who want to learn about the connections between ecology, farming and the urban environment; and support tools for self-reliance and empowerment.”

On Monday, November 8, 2010 City Slicker Farms was awarded $4,000,000 for a “West Oakland Park and Urban Farm” project. The funds came from Proposition 84, a California bond initiative approved in 2006, which reserves 5.4 billion dollars in bonds for projects involving water quality and access, park improvements, and natural resources and park preservation. Of 475 projects proposed to the Prop 84 committee, only 62 were awarded

\textsuperscript{14} http://www.grist.org/article/food-2010-10-21-new-tool-maps-food-deserts-to-entice-supermarkets

\textsuperscript{15} Urban Farming in the sense of urban agriculture, meaning the cultivation of food and other agricultural products in the city. The spectrum ranges from the apiary on vegetable production to the various new forms of urban gardening
funding. City Slicker’s Executive Director Barbara Finnin states that this award “will be creating a legal structure to ensure that this park remains an open maintained space for all community members to enjoy in perpetuity”\textsuperscript{16}. Through programs such as this, we are returning the commons to the community; it is one step in which policy makers have acknowledged the disparities within planning.

\textit{Oakland gardening culture}

Low income families in Oakland, California are in need of access to fresh, healthy foods\textsuperscript{17}. A lack of grocery stores close to home, coupled with an abundance of fast food alternatives has lead to high rates of diabetes, child obesity and other health issues across the community. Oakland has taken measures to address these problems, such as disallowing new fast food chains in target areas, and investing in programs which promote access to fresh fruits and vegetables. Locally cultivated food products through the creation of urban gardens are a successful way to address all of these issues. Urban garden benefits the local community in the following ways:

- Promote access to healthy foods, especially fresh fruits and vegetables
- Increase social capital
- Convert blighted areas into green space
- Increase urban green space
- Reduced carbon emissions (less need to drive to grocery stores located far from residency coupled with benefits of plants that improve air quality)

In order to promote food-justice in low income urban areas, vacant lots and unused areas can be transformed into productive gardens that feed the community. Co-ops, non-profits and NGO’s have been involved in urban garden projects; however a transformation within planning to account for food security and productivity of a community is a relatively new idea. Policy makers in the San Francisco Bay area have begun to use urban gardens as a remedy, and grants to promote urban gardens are one way to reduce historic planning inequalities.

\textit{Mapping Low Access Areas (LAA) in Oakland, CA}

In order to understand the area’s needs, I wanted to map the West Oakland neighborhoods I have identified and assess their access to grocery retail, farmers markets and community gardens. I used Google Maps to locate grocery stores, and markets which sell food items. I also located farmers markets and vegetable stands. Finally I located existing community gardens through Google Maps and verified their sites through web searches. After understanding grocery locations, I wanted to identify the areas which have vulnerable populations, children and elderly, who are already food insecure. To measure this I looked

\textsuperscript{16} http://farmtogethernow.org/2010/11/11/congrats-to-city-slicker-farms/
\textsuperscript{17} http://www.grist.org/article/food-2010-10-05-would-a-walmart-solve-oaklands-and-nashvilles-food-problems
at the number of household per census tract\textsuperscript{18} which have received food stamps in the past 12 months\textsuperscript{19}.

After I had located the grocery, farmers markets and garden sites I created a scale for measuring what distance is acceptable to travel to these retailers. Grocery retailers were given priority since bother farmers markets and garden sites are potentially seasonal and cannot serve all residents daily, year-round. The populations within one quarter of a mile (5 minute walk) to one half of a mile (ten minute walk) are considered to have decent food access. If residents were outside of a half mile walk, especially to a grocery retailer, they are outside of the service area and in need of access to grocery retail. Areas outside of a half mile walk are considered Low Access Areas. Areas outside of three-quarters of a mile (15 minute walk) are considered un-walkable access; these residents would have to take a car or public transportation in order to have access to fresh produce especially if they are elderly. Finally, I used Supplemental Nutrition Assistance Program (SNAP) data to locate the neighborhoods which have the highest number of households with minors and elderly. These criteria allow me to visually present the neighborhoods which could most benefit from a local garden and access to fresh fruits and vegetables.

**Outcomes**

The SNAP data shows that there are some areas in West Oakland with more households with older adults who use food assistance than other areas (Map A). The northern and southern census tracts are where the majority of those elderly SNAP dependents are located. Households with minors who need food assistance are less stratified and more spread out (Map B). There are a few census tracts which have a greater concentration of needy households with minors in the south-east and the north-central areas as well as those closely located to the Port of Oakland.

Low Access Areas identified from the market analysis are concentrated in the north-west and central areas of West Oakland (Map C). Although this study did not weight the markets considering their business size, produce availability or other factors, none of the markets employ over 50 people and are therefore considered “small markets”. With this in mind, these retailers can probably be considered strained considering the population needs and nearly every LAA is in need of more grocery retail service. However, for this study I identified the north central census tract as the one which could serve the residents most in need. If a community garden were to locate in this area it could improve access for elderly population, as well as many of the households with minors in the census tract.

\textsuperscript{18} ESRI, 2010
\textsuperscript{19} American Community Survey, 2010; 5 year data
Recommendations for Using Interim Land Use to Promote Urban Agriculture

In order to address food insecurity communities can take unused or vacant lots in their neighborhoods and transform them into productive urban gardens. If a community is unable to attract a grocery store chain or other grocery vendor, urban gardens can be created which either sell or distribute goods into the surrounding community. Though some food banks distribute fresh produce, they are not always a dependable option for those who are low income or have limited transportation options. Planners can develop appropriate land use, economic development, and comprehensive planning policies and regulations to promote local and regional markets for foods production in the region. Grants can be awarded to groups who are interested in creating a productive urban garden in their community; however it can be difficult to identify interested parties and to distribute funding. City Slicker is a good example of how community coordination over time has allowed cohesion and attracted interested parties throughout the community and surrounding communities.

City and regional governments can support interim land use agreements as a tool to promote food security in low access areas. In neighborhoods where there is interest in starting a community garden, planners can help facilitate these types of agreements to create mutually beneficial partnerships. They can facilitate incentives for land holders having difficulty attracting investment while supporting the surrounding community with activities which benefit the urban landscape, incorporate diverse community members and promote healthy lifestyles. Gardeners create networks which contribute to greater social capital, availability of fresh produce and can promote grassroots solutions to local challenges. In turn this can help generate income for gardeners, allow for employment opportunities for youth and elderly and increase interest in farmers markets, general food knowledge and reduce the environmental impacts of food transportation. Interim land use regulations could also lead to more permanent garden sites, and planners could promote gardening actives through recognizing gardens in land use plans.
Appendix A: Leipzig

Leipzig is an Easter German city 130 miles (198 km) south of Berlin. Since German reunification the city has struggled with urban shrinkage. Leipzig is a post-industrial city and has experienced some of the most dramatic population decline in Eastern Germany since the fall of the Berlin Wall (Lorance, 2010). The neighborhoods in Leipzig-East have vacancy rates between 25-50%; social problems such as high unemployment, lack of integration and intensified vacancy and decline due to post-industrial disinvestment have forced planners to consider new ways of addressing these spatial issues (Schetke, et al, 2008). In order to revitalize declining neighborhoods the City of Leipzig began a program which uses interim land use strategies.

The “capital of housing vacancies” (Weiss, et al, 2006), Leipzig needed a new approach to deal a loss of almost 100,000 inhabitants, 45,000 vacant dwellings and 2,000 infill sites (Heck, 2007). The authorization agreement Gestattungsvereinbarung was developed for the temporary activation and planting of vacant land and is now seen as an innovative and market appropriate transitional solution" from which both the city and property owners can benefit (Heck, 2007). Leipzig was one of the first East German cities to reorient its planning policy to confront shrinkage through new district development plans; criteria for intervention promoted “more green, less density and greater individuality” (Lorance, et al, 2011). This adjustment in planning included interim land use agreements as a way to mitigate vacancies and promote infill development. This new tool for planner’s necessities authorization of property use and the city has needed to negotiate in order to reach their goals. However, through these negotiations the city has benefited from the transition of brownfield sites into interim use sites rather than leaving vacant lots unused (Lorance, et al, 2010). Brownfield reclamation, greenspace creation and urban agriculture sites are a few ways in which Leipzig has dealt with vacancy and blight from urban shrinkage.

Brownfield Reclamation and Greenspace

The City of Leipzig began has used interim land use agreements to convert brownfields into interim use sites since 1999. Interim agreements for brownfield sites, coupled with sustainability assessments and community input, can prove to be successful; these results correlate to interim urban agriculture agreements and solidify the importance of interim agreements during times of transition, decline and disinvestment.

Interim development by plot greening of previous brownfield sites has since lead to the creation of a greenway connecting neighborhoods on the outskirts of Leipzig. By greening single plots through interim uses, the development of the greenway was created. The greenway addresses the problems associated with low density, such as lack of connectivity, and also improves the negative image of these blighted areas through increased greenspace (Hasse, 2011).
Urban Gardens

Urban gardens using the interim land use model to increase greenspace have a unique issue which differs from other greenspace uses. Gardens need access to water in order to produce and interest groups who want gardens have to come up with ways to provide water to these sites. In Leipzig, water access for private-private agreements has been a challenge. The City of Leipzig has entered into talks with the water authority in order to find solutions for water access for these greenspaces. Subsidized hook-up fees are one option. These types of negotiations underscore the importance of public-private partnerships and community participation when initiating urban gardens.

Benefits

This new tool for planner’s necessities authorization of property use, and the city has needed to negotiate in order to reach their goals. Through these negotiations the city has benefited from the transition of brownfield sites into interim use sites rather than leaving vacant lots unused (Lorance, et. al, 2010). Infill development of Leipzig-East is within the interests of local government considering land consumption rates are a concern for planners and the German government. The city benefits from the activation of a new greenspace for public use, greenspace connectivity and assurance that the site will be maintained by the owner through the agreement. Transitioning these sites improves the quality of life within the area, as well as development attractiveness within the neighborhood (Heck, 2007, Lorance, 2010). The owner benefits from the subsidized land clearance, as well as from exemption from development and property taxes and reduction of some running costs such as sewage or cleanup from vandalism during the interim contract (Heck, 2007)

Sprawl and blight reduction, sustainable land use, increased greenspace and addressing high vacancy rates are the goals of brownfield interim land use agreements. Although my research mostly focuses on interim land uses in the context of urban agriculture, the context of brownfield reclamation can support the proposal of interim agreements for purposes which vary depending on the needs of the city. The success in Leipzig-East of 130 authorization agreements for 250 plots (160,000 square meters) shows that interim projects can make an impact on cities with little money (Heck, 2007). Furthermore, the unsurfaced (non-paved) interim use greenspaces promote accessibility, social integration and recreation, in contrast to paved industrial sites, which abound in post-industrial cities. Overall the context of interim agreements in Leipzig is beneficial to Berlin, considering their similar background and the current needs of the two cities.
Appendix B

**Top places to buy food**

- Corporate supermarket: 54%
- Small neighborhood market: 17%
- Local supermarket: 12%
- Discount store: 12%
- Farmer’s market: 3%
- Liquor store: 1%
- Food program: 1%
Appendix C

City of Oakland: A City Divided
I-580 dividing line

Distribution of retail grocery stores in relation to size (number of employees)

Legend
- Supermarkets - 51 to 100 or more employees
- Large grocery - 21 to 50 employees
- Medium grocery - 6 to 20 employees
- Corner stores - 1 to 5 employees
- I-580 and streets running into the foothills
- Oakland_streets

Data Sources:
New Urban Research Shapefile Warehouse
www.urban-research.info
California Department of Public Health, Network for a Healthy California, GIS Map Viewer
www.cnpgis.org
Prepared by HOPE Collaborative
December, 2000
Appendix D:

History of German Garden Planning and Development: 1877-Present

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1877</td>
<td>Establishment of Park Deputation and appointment of a city public gardens director (overall technical management of urban garden system)</td>
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<tr>
<td>1970</td>
<td>Berlin's population reaches 1 million: demand for more greenspaces and sanitation to be provided by the city to residents</td>
</tr>
<tr>
<td>1910</td>
<td>Functional zoning, traffic plans and city-wide open space plans established in Greater Berlin land Use Plan.</td>
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<tr>
<td>1911</td>
<td>First planning organization Administrative Association of Greater Berlin.</td>
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<tr>
<td>1919</td>
<td>Bundeskleingertengesetz: Allotment Garden and Small Lease Holding Ordinance: Provides legal protection for non-commercially used property such as Schreber (worker) gardens. This provision was for allotment gardens post WWI being used to alleviate malnutrition and unemployment. Municipalities received funds for procurement of allotment garden plots.</td>
</tr>
<tr>
<td>1920</td>
<td>Establishment of Weimar Republic. Borough department of public gardens set up in 20 of Berlin's boroughs. 1.5% of Berlin's city area was parks and green spaces at this time (1,339 ha).</td>
</tr>
<tr>
<td>1925</td>
<td>Urban Planning Department drafts general development plan for the city including an open-space system.</td>
</tr>
<tr>
<td>1939-1945</td>
<td>Production of vegetables and fruit in garden centers as &quot;war measures&quot;.</td>
</tr>
<tr>
<td>1945-1948</td>
<td>Greenspaces suffered from war damage. Berlin loses its function as the capital and the Berlin Wall if built.</td>
</tr>
<tr>
<td>1950's</td>
<td>Department of Green-Space Planning dissolved. Departments of public gardens downgraded to offices for city parks.</td>
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<tr>
<td>1960’s</td>
<td>Simple residential areas built on former bombed-out or allotment-garden land. Inner city reconstruction with open-space design.</td>
</tr>
<tr>
<td></td>
<td>Landscape Development and Open Space Planning Division subordinated to the Senate Department for Urban Development and Environmental Protection.</td>
</tr>
<tr>
<td></td>
<td>City Gardens Department reestablished</td>
</tr>
</tbody>
</table>
1984 United Berlin
Land Use Plan drafted: recognizes allotment gardens as land use

1990
Berlin reunification

1994
Landscape plans approved by House of Representatives. First spatial policy planning guidelines for entire city of Berlin in over 50 years.

1999
February 1: Division of Urban and Open Space Planning under Senate Department for Urban Development combines greenspace tasks.

2000
Urban Development Concept 2020 compiled. Open Space and Urban Green Space Commission identifies 20 Green main routes to interconnect Berlin's parks. Intermediate green use area projects begin.

2008
Tempelhof Airport closes. Identified as a "unique open space" by the city and developed in cooperation with citizens. Urban agriculture allowed as recreational use on airport grounds.