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RE-IMAGINING THE CITY

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Illustration: Judith Kuiken

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‘‘Imagination is the only weapon in the war against reality.’’

Lewis Carroll

ABSTRACT

This thesis is about urban permaculture and its method changing the current way that human needs are met: the globalized capitalist system. The capitalist system is causing environmental issues. In this thesis I argue that the main reason for this, is that the system is disembedded from social values. It is a socio-cultural problems. In order to change the system, culture needs to change first. Future development should focus on the city as this is where most of the world's population will live in the near future. Cities are often associated with an unsustainable way of living. At the same time, certain sustainable practices are only viable in places where a dense population lives, making the city an opportunity for sustainable living. This thesis is written after three months of ethnographic research among urban permaculturists in San Francisco, the United States. The term permaculture was coined by Bill Mollison and David Holmgren in Australia in the 1970s and has spread throughout the world. Permaculturists, and specifically, San Francisco's permaculturists have their own specific way of engaging with society. By altering their consumption pattern, growing their own food and buying locally, they try to subvert the capitalist system. The urban garden is their main tool for changing their surroundings and changing culture. They do this by helping people re-imagine the city as a place where food can be produced and the ecosystem can be supported.

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PREFACE

During the last two years I have been introduced to cultural anthropology through the master 'Multiculturalism in comparative perspective'. Anthropology is a discipline that is not often associated with job security, and I am glad this has not been my reason for enrolling. Anthropology is not often associated with anything, really, as the word 'anthropology' itself merely rings a bell with most. I must admit that I myself have only begun to understand what anthropology entails, and I think that is acceptable for someone who has only entered this broad field of study – anything with humans and the way they sense of the world - two years ago. Two years is nothing. However, I believe that I have learned something invaluable that will stay with me for the rest of my life. In a famous commencement address, author and professor of English David Foster Wallace explained the lesson behind the lessons of a college degree:

> *"I have come gradually to understand that the liberal arts cliché about teaching you how to think is actually shorthand for a much deeper, more serious idea: learning how to think really means learning how to exercise some control over how and what you think. It means being conscious and aware enough to choose what you pay attention to and to choose how you construct meaning from experience" (David Foster Wallace*[i]*).*

This lesson, 'teaching one how to think', is something I immediately recognized when I heard this speech when in the process of writing this thesis. I have often realized that I will never be able to read and think about even a generous part of the wide array of knowledge that anthropologists have gathered. Yet this lesson, to be able to exercise some control over what I think in the daily normalness of life, is one that I have been introduced and carefully keep with me.

It is in this light that I have been thinking about sustainability as part of my studies. Ever since I was little, I have been impressed by things I saw on the news about natural disasters. My family often tells the story of me as a young girl, wanting to stop taking long showers after a newscast on a summer drought in the Netherlands. I would lie in bed coming up with solutions, such as turning an entire province into a hundred meter high basin that we could store rain water in. Now, 20 years later, I find myself thinking about solutions for environmental issues again. The subject of this thesis, urban permaculture, is part of my thinking. For me, learning about permaculture has shown me what a sustainable way of living could look like. I believe that the world could learn a lot from this design system and social movement. I have been privileged to see for myself what permaculture means in the context of the densely populated city. During my stay in San Francisco I have met people that are enthusiastic about permaculture. I have seen their dedication to bettering the world by finding ways to preserve the global ecosystem while enhancing the quality of life.

I would like to thank my teachers at Utrecht University and UPISF for giving me guidance and substance, and my family and friends for giving me support and lightness.

Judith Kuiken, August 17th 2015

CHAPTER 1: INTRODUCTION

"How is your relationship with your wife?"
"...Ah, it's sustainable…"[ii]

- Kevin, teacher at UPISF

Could it be possible to meet everyone's human needs such as water, food, community and shelter in a way that the ecosystem gets restored instead of destroyed? To many people, the possibility that it could sounds as a far off or even a dream-like scenario. Permaculturists see it differently. In permaculture they have found a strategy to change society step by step, transforming it into a place that is part of the natural world, full of life, food, and joy. The permaculture movement, commenced in the 1970s, started in Australia but spread to every corner of the world. The term was first coined by "fathers of permaculture" Bill Mollison and David Holmgren. The word "permaculture" is a portmanteau of "permanent", "culture" and "agriculture". Permaculture gets defined in short as "a design system based on ecological principles"[iii]. Anthropologists Veteto & Lockyer define the larger social movement as "a global grassroots development philosophy and sustainability movement that encompasses a set of ethical principles and design guidelines and techniques for creating sustainable, permanent culture and agriculture" (Veteto & Lockyer 2008:49). Permaculture offers three ethics and twelve principles, of which the ethics will be further explained in this thesis. Permaculturists apply these ethics and principles to design anything, from a single home to an entire economic system. In daily life, a permaculture designer is most often found in a garden. Permaculture principles are most often applied in rural areas. However, there are a many people that use permaculture in the city. This thesis is about the permaculture movement in the urban environment of San Francisco. Even in a dense city as San Francisco, the garden plays an important role in the permaculture way of life and way of changing society. Permaculturists see the problems that the world is currently facing: poverty, conflict, environmental degradation. This thesis is an exploration of permaculture's vision of a world, and about permaculturists' strategies to get there in the dense urban environment of San Francisco.

To explain what permaculture means in San Francisco I will use a number of concepts. In this thesis I will combine my findings from the field with literature on permaculture and urban gardening. I will follow the arguments of anthropologists Veteto and

Lockyer (2008) and others, saying that more and more people are affected by environmental degradation. It is an outcome of human activity, which is also identified as processes of urbanization, a growing population, and industrialization (Kopnina 2013). At the heart of these processes lies capitalism. Following the conclusion of several authors, I point out that the current form of capitalism is the source of world's most pressing problems (Veteto & Lockyer 2008; Bodley 2012; Klein 2014). The economic system needs perpetual growth, and so anything, including any natural resource, will be turned into a good. Many agree therefore that climate change is a direct consequence of human action through which capitalism as we now know it came into existence. Activist Naomi Klein claims that capitalism is the cause of environmental issues and that it is time for change (Klein 2014). I will argue that it is not capitalism in itself that causes problems, but the fact that it is disembedded from society, making it possible for international corporations to do whatever they need in order to maximize profits. In other words, it is a socio-cultural problem. I frame the daily life practices that permaculturists do as re-embedding the economic system. They do this by changing culture, more specifically urban culture. A concept that is most relevant in this thesis, therefore, is the city. In the near future over half of the world population will be city-dwellers (Moates 2011:59). Cities have become places that can only exist when depending on cheap energy (Barthel & Isendahl 2013:1) and the import of resources (Grewal and Grewal 2010:1). Urban culture is also closely knit together with consumerism. Cities, for both these reasons, are major contributors of climate change. At the same time, they have the potential to offer major solutions. The urban garden is a central concept in this thesis as this is the main tool for permaculturists to make cultural changes. San Francisco is home to a number of community gardens that are spread out over the city. Some are small, placed in the most curious of places. Others are large and visible from the highway. These gardens are in high contrast with the concrete, smell, and crowded streets of the city. The gardens are used to educate urban dwellers on where food comes from, re-connecting them with nature. This fits with permaculture's supposition that every culture begins with agriculture. A more sustainable city, in the vision of permaculturists, needs a sustainable way of meeting its needs, hence, a sustainable agricultural system. This is where urban gardens come into play.

In preparation of my fieldwork I asked the question "How do permaculturists in San Francisco view sustainability"? At the level of the dictionary definition, sustainability implies that a given activity or action is "capable of being sustained" (Johnston et al. 2007:61). In

literature, the term "sustainable" and related concepts can mean a number of things. Scientists of sustainability Johnston et al. argue that there are many approaches to what sustainability means. "Sustainable development" has been articulated widely for the first time in the Brundtland Report that was published by the United Nations in 1987, as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Johnston et al. 2007:60) In an attempt to create a working definition of sustainability, Morelli et al. have defined "sustainabilize", the process towards sustainability, as:

> *...the long-term process of transforming the structure and functioning of a system, in such a way that it uses progressively less non-renewable energy sources and exploits ecosystem services at a rate that is smaller than the time needed for self-regeneration, while improving the living standards, environmental well-being and economic performance of human settlements (...) (Morelli et al. 2013:75-76)*

Morelli et al. speak of a transformation of the system. In the field, I soon discovered that permaculture only uses the word "sustainability" remotely. "Sustainability" does not capture the essence of what permaculture is about. Rather, words like "resiliency", "abundance", and "thriving" are used. These words are more fitting for the idea that a system would "*(...)not just sustain things as they are so that they can just replicate, but to make it actually better over time*[iv]. Permaculturists have an elaborate vision of what their environment could look like: a city that is part of nature, managing nature instead of damaging it. As for the inhabitants of the city: permaculturists imagine a network of people that are interdependent. A network of people is stronger than self-sufficient individuals in multiple ways. Permaculture's understanding of sustainability entails far more than simply food provision or replacing fossil fuels. It is about every aspect of life: human connection, politics, the economy, and all other human needs. Even in San Francisco, one of the most dense and affluent cities in the world, permaculturists envision a completely sustainable society. As anthropologists Anna Tsing points out, to understand what San Francisco's permaculturists think about sustainability, one must allow it to be an *emic term* – that is, a local explanation (Tsing 2013:28). As an anthropologist I have learned the local understanding of "sustainability", which is different and even less defined than definitions one encounters in literature. I will, therefore, use the word sustainable in the way that permaculturists use it: as a word that is used to convey this idea of a society in which human activities, communities, and development can be maintained into the indefinite future and are integrated into the natural world (Veteto & Lockyer

2008:48). In order to understand this local explanation, I researched what permaculture entails. I researched what the beliefs and convictions of permaculturists in San Francisco are and how these changed individuals' lives. Lastly, I researched what the movement looks like in San Francisco: which projects were being organized, what the interconnections were, and how permaculturists collectively made an effort to change their surroundings. These questions have helped me to understand what permaculturists is all about.

Conducting Research

For three months I lived in that urban setting called the Bay Area to conduct ethnographic research. I took part in a Permaculture Design course (PDC), the course that is universally recognized within the global permaculture movement. I took this at the Urban Permaculture Institute of San Francisco (UPISF). The 72 hour PDC took place every Wednesday evening and the entire Saturday for 11 weeks. I was able to take the second half of the winter course and the first half of the spring course, allowing me to participate in two classes, thereby meeting about 25 students in each class. Together with my fellow students I had teachings covering numerous topics, such as water management, natural building, soil, and invisible structures. During these classes and in gardens I was able to have a *focusgroup*: a group conversation where I functioned as moderator (Boeije 2010:64). A focusgroup allows people to respond to each other, making it possible for the researcher to compare opinions. Most of the Saturdays involved a fieldtrip, allowing the students to see what permaculture looks like outside the classroom. These fieldtrips were excellent opportunity to use the method called *participant observation*: "a method in which a researcher takes part in the daily activities, rituals, interactions, and events of a group of people as one of the means of learning the explicit and tacit aspects of their life routines and their culture" (DeWalt & DeWalt 2011:1). We visited a permaculture community in Berkeley, where people had built their own homes and live off the grid. We went to a high school where permaculturists are allowed to manage a small farm to show school kids how vegetables grow. We also visited a property that functions as the home base of a living Indian saint who wants the property to be as sustainable as possible. This course gave me the opportunity to learn about permaculture from novices as well as from experienced designers. I got to talk to them while building a mud wall, during coffee breaks, while composting, while weeding in an orchard. All the while I had my

notebook in my pocket to write down *jot notes* that I later turned into *field notes* (ibid:157,160). By being in the midst of permaculture designers, spending time in the garden with them, and attending their meetings, I have gotten to know permaculture and the people who live and breathe this set of design principles. Despite this, a lot of my research consisted of interviewing informants. I have not interviewed a great amount of permaculturists. More so, have I focused on a small group that I consider gatekeepers of the permaculture community of San Francisco. They are well-known within the community, have taught permaculture methods and techniques, and play significant roles at the Permaculture Guild of San Francisco. In Appendix I I have enclosed a short description of who these gatekeepers are.

As a researcher I have had to think about the role I played. During my fieldwork I have been transparent about my mission of conducting research on the permaculture movement in San Francisco's urban context. My fellow students, my teachers and permaculturists whom I met in gardens knew that I wanted to learn about anything concerning permaculture so I could later write my thesis about it. Only with *informed consent* (Boeije 2010:45) have I gathered my information. I have thought about the concept of *reciprocity*: to do something in return to the community where one conducts research (DeWalt & DeWalt 2011:50). I have tried to dedicate some of my time to gardening to give something back to permaculture. It is only a small token of my gratitude. An important part of participant observation has been what is called *being there* (DeWalt & DeWalt 2011:15). I have continually been aware that anywhere I spent time or any conversation that I had was for the benefit of my research as well as an honest human interaction with my surrounding, fellow-student, or permaculturist. The information that I have gathered by being in the field has undergone data triangulation: by comparing data from focus groups, interviews, informal meetings, and literature I hope to have begotten a solid base of information on what San Francisco's permaculture community encompasses. Ethnographic research allows one to experience what a group of people see and what they encounter. I have tried to be aware of anthropologists Tim Ingoldt's concept of *wayfaring*. Ingoldt uses this concept to convey the idea that this is how human being inhabit the earth; along lines of experience. Life unfolds itself along paths, not in places. The same can be said of how a researcher obtains knowledge (Ingoldt 2011: 148-154). I, too, am simply a human being trying to understand another. This thesis, in this sense, is my interpretation of what I have seen, heard and experienced while

making my path move parallel to that of permaculturists in San Francisco for a few months. However small this may sound, I do believe that this is the way one can learn to understand people with specific convictions and practices. As Anthropologist Miriam Ticktin writes, "Ethnographic methods were one of the few means by which to understand what was happening on the ground" (Ticktin 2011:9). By being there, by living among those that have different paths, we can let go of what is normal to us, and create space for other interpretations of the world.

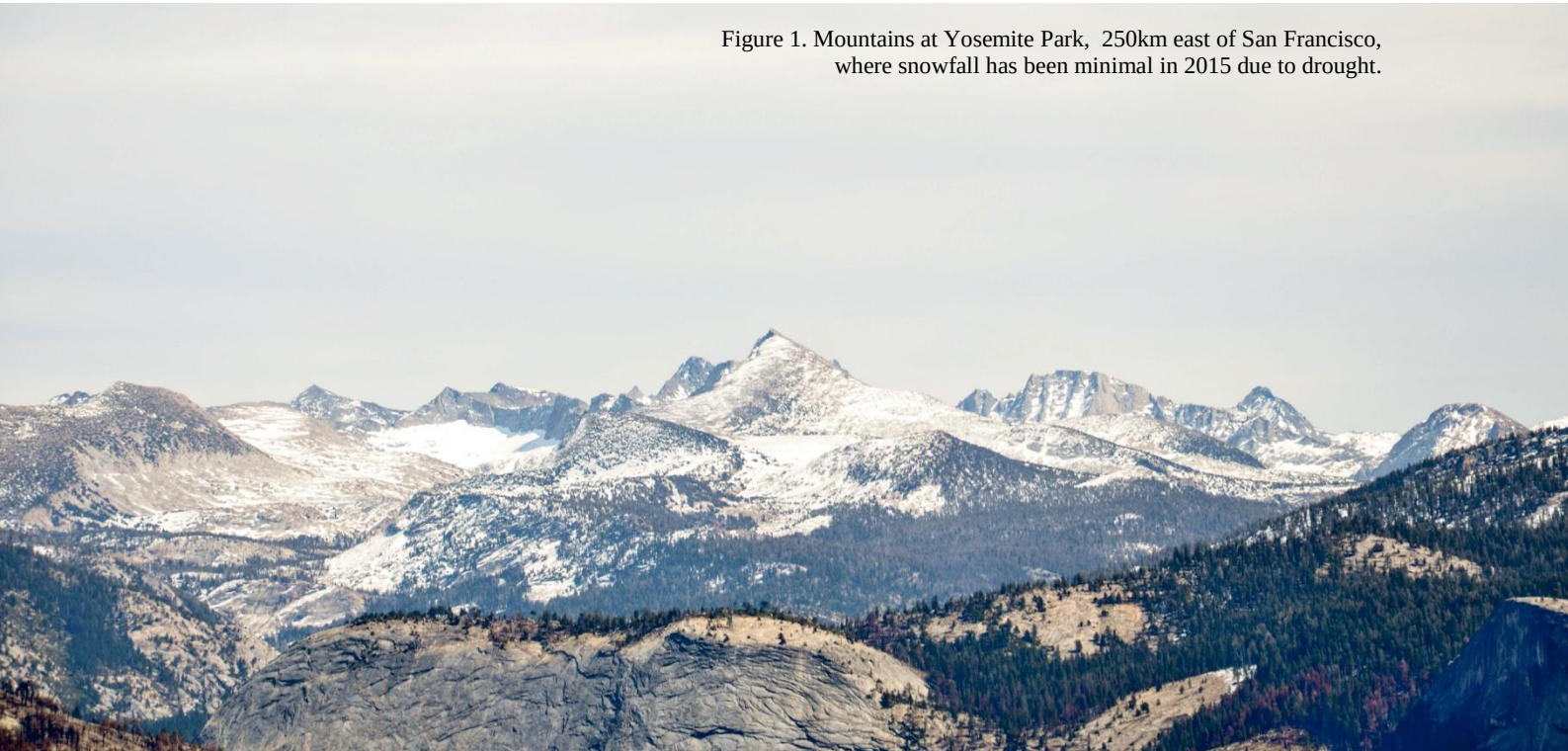
This thesis

This thesis consists of three chapters. Chapter 2 will introduce why those interviewed decided to learn about permaculture. What was it that made them curious and enthusiastic about the concept? A lot of it has to do with a distrust and unease about the current capitalist system. I will show why the system is causing trouble, and that essentially it is a socio-cultural problem. Permaculturists see this, and are therefore aiming to start changing the system by changing culture. In chapter 3 I focus on what the characteristics of contemporary culture are. As urbanity is the future, I will discuss urban culture specifically. It will become clear that permaculturists have different ideals for how to live "the good life". Part of this is a different way of meeting one's needs. Instead of a consumer culture, they strive for a producer culture. Not only does this strengthen interpersonal bonds, it is also a way to subvert the current system. The main strategy that permaculturists use is buying locally. In Chapter 4 I present the vision that permaculturists have for their locality, which is the city. They see the potential that cities have to be part of a solution to environmental degradation. Urbanity, in their vision, would mean living in a green and abundant surrounding of food-producing green. In this chapter I will also show how permaculturists help their fellow-San Franciscans to re-imagine their city; showing them that it is possible to live sustainably and comfortably in the urban environment.

CHAPTER 2: PRESSING PROBLEMS

In this first chapter I introduce the reasons why permaculturists are drawn to the concept of permaculture. It will become clear that most adhere to permaculture ethics, principles and techniques as a response to world problems. Permaculturists see the capitalist system, a system that is dependent on cheap energy, as the source of problems such as hunger, conflict, and environmental degradation. In this chapter I explore why capitalism causes these problems that we face, and how permaculturists view the current system. In their opinion, capitalism is a system that will not live on forever, and that a paradigm-shift is needed to create a society that is in harmony with nature. They believe that a change towards a "greener" world starts with a change of culture. A change of culture, in turn, starts with making small and practical changes in everyday life. Permaculturists want to make these lifestyle changes with the purpose that people around them will be inspired and do the same.

Figure 1. Mountains at Yosemite Park, 250km east of San Francisco, where snowfall has been minimal in 2015 due to drought.



2.1 Facing world problems

"There's got to be something I could do that is more than a paycheck. There's got to be something we can do. There has to be! I refuse not to believe there isn't something out there"[v]

- Kerry, permaculture designer.

Within San Francisco there is a group of people that is enthusiastic about permaculture. They live scattered throughout the city and have different backgrounds. Most of San Francisco's permaculturists have started learning about permaculture in the classroom of the Urban Permaculture Institute of San Francisco (UPISF). In the Permaculture Design Course (PDC), teachers Kevin and David take their students through the internationally standardized subjects in three months. It is an introductory course, in which interested people can learn more about permaculture. Permaculture was founded by Australians Bill Mollison and David Holmgren. Mollison, the author of what is called the bible of permaculture - *Permaculture: a Designer's Manual*, says the original idea came to him in 1959 when he was observing marsupials browsing in Tasmanian rain forests. He was so inspired by the abundance and rich interconnectedness of this ecosystem that he wrote in his diary, "I believe that we could build systems that would function as well as this one" (Mollison *in* Hemenway 2009:5). In the 1970s, he and Holmgren started to identify the ecological principles that made that ecosystem so rich and sustainable. In an interview in 2005, Mollison explains that they not only observed nature itself, but also drew from old folk wisdoms about nature that indigenous cultures have collected after years of living on a certain location:

> "If I go to an old Greek lady sitting in a vineyard and ask, 'Why have you planted roses among your grapes?' she will say to me, 'Because the rose is the doctor of the grape. If you don't plant roses, the grapes get ill'. That doesn't do me a lot of good. But if I can find out that the rose exudes a certain root chemical that is taken up by the grape root which in turn repels the white fly (which is the scientific way of saying the same thing), then I have something very useful"[vi].

The observations made by indigenous cultures were combined with a scientific approach to learn what ecological principles were behind these old folk wisdoms. They reasoned that if life had been thriving on earth for over three billion years, if indigenous peoples had been living harmoniously in their environments for thousands of millennia, then life and indigenous cultures must have figured out some things about sustainability (Hemenway 2009:5). This was one of the foundational reasons leading to the development of the concept

of permaculture: they saw the world moving in a direction that was destructive to the ecosystem. In an interview in 2005, Mollison said:

> "I remember the Club of Rome report in 1967 which said that the deterioration of the environment was inevitable (…) reading that, I thought, "People are so stupid and so destructive — we can do nothing for them." So I withdrew from society. I thought I would leave and just sit on a hill and watch it collapse. It took me about three weeks before I realized that I had to get back and fight"[vii].

In part, permaculture as a design system has come into existence as an answer to environmental problems and with the conviction that nature has the answer.

During a lunch on a Saturday of class, I speak to the students of the course I, too, am taking. I am curious to know why they want to learn about permaculture. One student starts: "C*limate change for me… and just listening to the news every day... bad news after bad news".* Another student adds "human suffering", after which someone explains: *"there's just so much conflict... and it's all interrelated, you know. Climate change in itself isn't isolated, it connects to economic security, it connects to global health, it connects to global inequality...*"[viii] Most students, so I notice, see permaculture as a solution to pressing world problems. Students experience the world's problems as insurmountable. The three ethics of permaculture (earth care, people care, and fair share) are an answer to the predicament the world appears to be in. Permaculture provides a clear ethical foundation and an alternative paradigm. In an interview, UPISF-cofounder Kevin tells me why he first started getting excited about permaculture. He tells me that he used to be very depressed because of the things he saw going wrong in the world:

> *"So... what brought me into permaculture was friends who recognized that my life was meandering and what lid me up was just the possibilities. Seeing the world as this depressed, dark place in terrible condition to holding the hurt but all of a sudden seeing the beauty at the same time. I kind of dismissed the beauty and kind of lost it somewhere. And all of a sudden I saw it and it was glorious. It didn't mean that I had to let go of the hurt... It's just now I had a balancing factor and I could move forward, prioritizing the beauty and creating more of that"*[ix].

Permaculture offered Kevin possibilities, a set of strategies and techniques to do something about things like climate change and unequal distribution of resources. For him, as well as for most of the students, permaculture meant that there was a way to address the problems. Anthropologists Veteto & Lockyer wrote that permaculture, indeed, has been used as one of the main tools for building bridges between global social and environmental awareness and concern, and the development of local, sustainable practices (Veteto & Lockyer 2008:48). As

sociologist Stephen Hart states, it is on a grassroots level that citizens can feel like they can contribute to a better society. Hart writes that often, citizens want to engage in public discourse. Grassroots movements such as the permaculture movement offer a way to do this. People can connect with likeminded individuals and turn ideas and opinions into action (Hart 2001:5). In a world where the media are filled with concerning items about a rapidly deteriorating ecosystem, permaculture offers an ethical foundation and practical solutions that give individuals an opportunity to contribute to a better society.

What permaculturists observe is that the global ecosystem's outlook indeed appears to be very grim: resource depletion, ecosystem degradation, global warming, and escalating energy costs (Bodley 2012:1). Environmental degradation and climate change are issues that have gotten more and more attention from scholars and the media since the 1970s. Climate change is no longer an issue that takes place far away from home. It is no longer a vague statistical indication that something is wrong. Climate change is more visible than ever, also in the affluent world that previously seemed to be safe from the outcomes. On February 13th 2015, the website www.sfgate.com (the sister-site of the San Francisco Chronicle) reported that "The Southwest, including California, along with the Great Plains states, will endure long-lasting 'megadroughts' [sec] in the second half of this century, worse by far than anything seen in the past 1,000 years"[x]. These and related news items are what inhabitants of San Francisco and the Bay Area read on a daily basis. The drought is one among many environmental issues that are becoming more urgent than ever before. NASA reports the effects of climate change on the environment: glaciers have shrunk, the ice on rivers and lakes is breaking up earlier, plant and animal ranges have shifted, and trees are flowering sooner. And what is to come is not very hopeful: loss of sea ice, accelerated sea level rise, and more intense heat waves[xi]. These problems are now reaching every household on the planet (Bodley 2012:XV). On April 14th 2015, two months after the previously mentioned article was issued, www.sfgate.com reported that federal officials were investigating multinational corporation Nestlé for using expired permits to take water out of a national forest to bottle and sell[xii]. Many were angry at Nestlé. Even though Nestlé might be portrayed as the bad guy, they are legally bound to maximize profits, and thus are obliged to do whatever it takes to produce their product. Large corporations are not economically incentivized to preserve the environment: they are legally obliged to seek profit (Grewal & Grewal 2012:1). One can therefore conclude that it is the system as a whole that causes environmental problems.

Permaculture designer Joanna tells me, "*I'm not an anarchist, (…) But I do think that there's a value system and that there's an imbalance in the value system right now that surely must correct itself one way or another. I want to be prepared for that and want to help its transition*"[xiii]. Nature is not valued high enough, permaculturists conclude. They say that the real costs of products are externalized, meaning that natural resources, such as Nestlé's water, is used for production. But the side-effects of using natural resources are not calculated into the price of a product. For this and other reasons, many permaculturists that I met in San Francisco see the capitalist system as the root of the current environmental problems. Permaculture offers individuals a way to respond and help better the world.

2.2 A dying system

> *"I'm surrounded by beautiful flowers and deep green leaves when I talk to Kerry in the garden where she volunteers. In the background I hear cars rush by and construction work going on. The garden is a small strip of land only 50 meters away from San Francisco's city hall. This neighborhood, Civic Center, is where people in suits mingle with the homeless. The garden has a sturdy fence around it to keep out those that are looking for a spot to do drugs, sleep, or accept an incoming call from nature. Permaculture designer Kerry agreed to talk to me today. She has been involved in San Francisco's permaculture community for three years. Before that she was an engineer for a car company, but she quit that job and decided to change the way she lives. Even though I have several questions prepared, I don't need them: Kerry has enough to tell me. She is angry about what she sees happening around her: Salmon that is caught in Alaska gets sent to China to get filleted, and is shipped back Alaska to be sold. Oil fracking companies can extract oil from the Californian soil and don't have to pay for the environmental damage that is being done in the process. Pharmaceutical companies don't take back leftover medication, causing chemicals to pollute the bay and poison wildlife. These are some of the problems that Kerry talks about with vigor. When I ask her what she thinks is the origin of these various problems, she gives me a painful look and says, "I hate to say it but it's capitalism. It's the focus on profit over everything else and the externalization of real cost"*[xiv]*. As we talk about the damage that comes forth from human actions I realize we're standing in a perfectly placed location; a strip of land filled with plants and small wildlife, contrasting with its immediate surroundings; concrete sidewalks and buildings that represent civilization. Nature and human settlement meeting each other"*[1].

[1] Field notes, 15.02.2015

Kerry puts into words what many permaculturists in San Francisco and the Bay Area are thinking: the way society is currently run will not work in the indefinite future. During meetings and classes I have talked to permaculture enthusiasts, and many times this same subject has come up. Particularly, the global capitalist system has been pointed out as the cause of a lot of problems. Ever since the Industrial Revolution, capitalism is the dominant system, meaning that the economy is organized in a way that the things that are used to make and transport products are owned by individuals and companies rather than the government[xv]. According to anthropologist Emil Royrvik, capitalism and free market trade are considered signs of modernity and progress; large corporations are glorified as the beacons of the civilization project (Royrvik 2011:3-4). Yet capitalism has been known in different shapes and sizes, as Royrvik points out (Royrvik 2011:250-260). Civilization is currently familiar with a form that is called liberal capitalism. It triumphs in a world where processes of globalization have produced a global economic system while politics are nationally or regionally organized. Consequentially, large multinational companies have begotten immense power and authority (Royrvik 2011:3-4). The outcomes of this system have become increasingly visible, of which the 2008 economic crisis is an example. Capitalism is building up a negative reputation as it becomes clearer how it is impacting the world.

Royrvik highlights that mega-organizations are seen as good and bad, creative and destructive. "Global capitalism", Royrvik states, "is a gigantic moral battleground on which the major actors are transnational corporations, grassroots movements, the politics of state capitalism, and international affairs and civil organizations" (Royrvik 2011:4). It is this battleground where permaculturists can be found as well, with most of its followers critical of global capitalism. The economy, Kevin and David teach their students, can also be approached as the way people meet their needs[xvi]. Human needs are met in a way that is harmful for the global ecosystem. This system allows big companies to externalize costs of depleting natural resources and pollution. According to activist Naomi Klein, it is deregulated capitalism as a whole that is the cause of the problem and the reason the right solutions are not put into practice. She calls it a "uniquely wasteful model of production, consumption, and agriculture" in which large corporations transport products over vast distances, for which they use up large amounts of fossil fuels and emit carbon (Klein 2014:18,21). Anthropologist John Bodley states that capitalism in itself is not to blame. He attributes its destructive nature to the fact that it needs continual growth. He states that what we are facing is a "global mega-

problem" due to unsustainable growth in production and consumption (Bodley 2012:xv). This is in line with what geographer David Harvey states; the capitalist system cannot exist without perpetual growth. It needs to grow no matter the social, political and ecological consequences (Harvey 1990:80). Sociologist Bauman (2011) has a similar argument, claiming that the slowing down of growth is no option for the capitalist economy. UPISF-teacher Kevin goes on to explain that as a consequence of this need for growth, humanity is on a constant search for anything that can be turned into a product, "*If you assume there's a finite planet with finite resources, if you hold that as an assumption, then you run into a problem: that there's only so much that the economy can convert... from nature to goods, from gifts into services"*[xvii]. What Kevin mentioned is that nothing, not even nature, is safe from being converted into a commodity. Bodley's conclusion is the same. He states: "the globally organized commercial system requires continuous expansion of production and consumption and shifts to new, totally different resources and territories in response to depletion or reduced profits" (Bodley 2015:16). With an ever-expanding scope of capitalist undertakings, every natural resource will be used until they have disappeared.

Abdelal & Ruggie (2009) explain the concept of an *embedded* economy. An embedded economy is tied to political and social relations, meaning that the practices of transnational corporations are legitimized by social values of society. After WWI, U.S. and European policymakers had concluded that a disembedded economy was unsustainable and made agreements to make sure that the consequences of a free market were safeguarded by national governments, thereby embedding the economy. Since 1985, Abdelal & Ruggie write, the economy is once again disembedded, leaving international corporations free to do as they please while regulations are minimal (Abdelal & Ruggie 2009:151-154). This makes it possible for corporations to do whatever is required to keep growing. Grewal & Grewal describe this disembeddedness in a different way. They state that local economic resilience is undermined by processes of globalization, bringing forth an unhealthy dependency on foreign goods that could be produced at home. Local autonomy is undermined while multinational corporations increase their economic and political influence (Grewal & Grewal 2011:1). The current system will reach its limits as natural resources will run out. Permaculturists are well aware that the current system cannot go on forever, as Kevin explains: *"The DNA of that economy is de facto, at some point, 500 years, 1000 years... It's going to die. It has to! (...) We're living in a system that is THE dominant force on this planet, and it will not continue at*

some point. It cannot"[xviii]. Permaculturists thus see the current system as one that is not sustainable and will not last for much longer without devastating results. However surreal and far away this may sound, some academics state the same thing. Anthropologists Friedman & Friedman wrote that the economic crisis that started in 2008 is yet another sign of "a hegemonic decline in the commercial civilization of Western industrial capitalism that has been underway since about the mid-1970s" (Friedman & Friedman *in* Nonini 2013:267). There is a limit to what the capitalist system can convert into goods, and so the end is somewhere. The question is perhaps not 'if' but 'when' the current globalized system will end. It may not be an abrupt apocalyptic ending, but there will be some kind of transformation. The aim of permaculturists is to design a society in which humans do not destroy nature, but support it (Veteto & Lockyer 2008:48-50). This is their approach of sustainability and a sustainable system of meeting needs. An embedded economy is part of the answer of a sustainable way of meeting needs.

2.3 Changing culture

The problem of climate change is, by many academics, considered a cultural problem. Capitalism, I suggest, exists because it is grounded in cultural aspects that allow it to be. Examples are a consumerism and a way of living that is only possible when using fossil fuels. This is in line with what scholars in environmental sciences Lorenzoni et al. conclude: climate change is linked to human behavior (Lorenzoni et al. 2007:445). Bodley paraphrases the Blue Planet report that was issued in 2012:

> *According to The Blue Planet report**, "The Problem" is not just an environmental problem, it is also a human social and cultural problem.** (…) given current political and economic realities we will not be able to create a just world or a world without poverty. There won't be a world in which society, environment, and the economy are sustainable. Our present systems of governing institutions are inadequate to reduce and mitigate the damage we have already done to the natural life-support systems of our planet. We are facing **"a perfect storm of problems driven by overpopulation, overconsumption by the rich, the use of environmentally malign technologies, and gross inequalities**" (Bodley 2013:26, emphasis added).*

This report states that climate change is a social and cultural problem. In a class about economy at UPISF, Kevin explains that from a permaculture perspective, culture is the source

of a lot of the world's problems, "*Look at the predominant human culture around the planet, and look at the manifestation of that culture; beliefs, habits, behaviors, norms, and how we meet our needs... if we call that culture, (…), you could say that the problems on planet earth with humans, all the suffering is directly related to our culture"*[xix]. David Holmgren, co-founder of the permaculture movement, writes that "*the process of providing for people's needs within ecological limits requires a cultural revolution"* (Holmgren 2002:xxv *in* Veteto & Lockyer 2008:51). But what is culture? There have been countless books and debates about what culture is exactly. Anthropologist Kottak uses a basic definition of culture: "Traditions and customs, transmitted through learning, that form and guide the beliefs and behaviors of the people exposed to them" (Kottak 2011:5). Culture, as Kottak explains, therefore has to do with how we see the world and how it influences our behavior. Culture has also defined as "webs of significance, spun by humans" (Geertz *in* Wolf 2010:xi). Cultures, anthropologist Eric Wolf adds, are constantly changing by interaction with other cultures, but are also contested and fraught with internal tensions (Wolf 2010:xi). Permaculturists are one of the parties that internally contest western culture. Culture can and does change. Professor of sustainable development Tim Jackson states that there is a growing attention for "green" products within the dominant culture: re-using, remanufacturing and recycling end-of-life products, thereby improving efficiency that offer clear environmental benefits. Yet Jackson notes those technology-based improvements are not enough to ensure that the scale of material throughput remains within ecological limits (Jackson 2005:20). The question is if changing the production process is enough to stop environmental degradation that is in part an outcome of a lifestyle of overconsumption. Permaculturists believe that these shifts are good, but definitely not enough. Their aim, therefore, is to show people an entirely different way of living and providing for oneself. In this way they are actively reweaving the western web of significance.

Throughout the global permaculture movement there are various opinions on how aggressively the current system should be changed. Kevin explained to me that, especially among permaculturists in North America, there is a massive distrust in the system. I learned that permaculturists either have a naïve or a nuanced understanding of the capitalist system. Kevin tells me: "*If it's naïve, it's either "fuck government" or "I don't care about that."'* In San Francisco, the permaculture community tends to have a more nuanced view, saying *"Yes those systems are corrupt (…). But if that's the way things are now, what can we do to change*

that over time. Radically and simply. What's the least change for the greatest effect?"[xx]. The community has a strong orientation towards finding small and simple solutions that anyone could do. These changes often entail lifestyle choices, meeting needs in alternative ways. In an interview, David Holmgren says: "*by changing yourself and what you do, that is actually not a little stepping stone to contribute to a larger change, it is actually arguably the most powerful thing that you can do"*[xxi]. The small and daily life activities are the essential part of what permaculture has to offer: changing culture from the inside out. It is a movement that is based on a global view, yet it is practiced on a local and regional scale (Veteto & Lockyer 2008:49). And rather than using aggression, it is about leading by example. The hope is that fellow-citizens will get inspired by what they see permaculturists do, as one student at UPISF explained: "*We can create the change within ourselves and then we influence the community to see what we are doing, be inspired by what we are doing"*[xxii]. This method of changing the world by doing ordinary, daily life is what Anthropologist Tania Lewis (2014) describes. She suggests that small activities can be seen as an overlap of a civic form of engagement and ordinary, everyday lifestyle practices. She frames those practices in everyday living – activities that do not get media attention or political recognition – as forms of activism (Lewis 2014:2-3). Lewis points to activities such as managing beehives, sharing skills, and finding new ways to use objects from the waste stream. Those are the powerful small activities and projects that can change society from a grassroots level. Permaculturists in San Francisco do all of these things and more.

By performing these kinds of small things, permaculturists challenge assumptions about how to live and what society should look like. In a class about the economy, Kevin says:

> *"I think those assumptions of how the world works, about how the systems are (…) it's really hard to challenge those assumptions because (…) we grew up in them, we kind of became conditioned to them and so... not knowing anything different... if you start to challenge those assumptions and say 'let's envision a world that works for everyone with no one left out, what would that economy look like'* [xxiii] .

By sharing their vision for the future – a world where people live in harmony with nature and each other – permaculturists provide an alternative paradigm as to open people's eyes to other possible ways of living. Permaculturists experience that their revolutionary take on society is sometimes looked down upon. Kevin continues his class: "*you immediately become*

marginalized as idealist or visionary in a very pejorative sense. Like; you're an idealist, how unreal of you to think that you can change the economy[xxiv]" . However, they see their practices as something that is necessary for a long-term sustainable society. Lorenzoni et al. argue that a different paradigm is needed in order to change the way people meet their needs, and speak of "a need for a radical change in values, behavior and institutions towards a paradigm of lower consumption" (Lorenzoni 2007:445). From a social science point of view, what permaculturists do can have a real impact. The way San Francisco's permaculturists take charge and become engaged in society is a powerful method. Lewis states that grassroots organizations "performatively offer examples of how we might do things differently, not just in terms of encouraging participatory, community-based forms of green engagement but also in recognizing the need to make policy initiatives that enable change at the level of lifestyle practices and habits (...)" (Lewis 2014:2). Networks of citizens can make an impact on the larger society by presenting their surroundings with "new practices of provisioning", as anthropologist Cristina Grasseni states (Grasseni 2013:21). She points out that, as current food styles pose a challenge to sustainability, groups that meet their needs in alternative ways provide examples of social innovation and are therefore globally significant (ibid). Permaculture is not solely about food, but they are all about meeting peoples' needs, be it social, political, etc. UPISF-teacher David tells his students the following:

> *"If you complain about something enough, eventually people get tired of hearing you complain about something and not actually providing an alternative. So let's move from problems into solutions. In a sense, it's not just economy. Pretty much of all permaculture, or any other system or movement like this is doing essentially the same thing. Whether we're looking at economy or an agriculture system or whatever... instead of bitching and moaning about stuff let's work on it, let's figure out some alternatives and provide those'"*[xxv].

This is the attitude of permaculturists: to get engaged, present people around them with an alternative that is easy to learn, and thereby changing culture from the inside out.

CHAPTER 3: DEFYING A CULTURE OF STUFF

As explained in the previous chapter, permaculturists aim to change the global capitalist system by making changes locally, by changing culture. I will show that the permaculture way of life is not just about living a more "green" lifestyle. It is about altering one's view on everything. This includes a view on how a person meets his or her needs. The three permaculture ethics - earth care, people care, and fair share – function as guidelines in making everyday lifestyle choices. In the process, they are helping the death of the current economic system, and the introduction of a system that is in tune with the global ecosystem. At the same time they are improving the quality of life by forming close human bonds and living at a natural pace of life. Especially in the urban context of San Francisco, these aims are in high contrast with the predominant culture.

Figure 2. Farmers market at Fort Mason, San Francisco

3.1 Consumerism & ethics

In an interview, UPISF-teacher Kevin told me how he altered his lifestyle after finding out about permaculture, *"I started changing my consumption patterns. If I needed something I could grow or make myself I would go to the work-our-own/cooperative grocer, or barrow it, or... all my clothing for the last 15 years have been thrift of second hand. I don't buy anything new"*[xxvi]. And Kevin is not the only one. Through my attendance at gardens, the classroom, and meetings of permaculturists I have been able to observe a pattern in the kinds of products permaculturists use. Many would drink their tea from a glass container rather than a plastic bottle, eat nuts as snacks rather than eat cookies, and the food that people brought for our weekly potluck lunch was generally without sugar, gluten, dairy or meat. Although food is a major category in which ethical choices are being made, conscious choices are made in all aspects of life. An example is that of transportation. Most permaculturists that I met do own a car, but they leave it at home as much as possible and use a bicycle or public transport instead. Often, the permaculture lifestyle was harder to detect. When I was early for a Permaculture Guild meeting, I stood waiting outside the EcoCenter where UPISF is located. Peter, a permaculture designer who is currently studying horticulture, joined me after a few minutes. He was carrying a bag of grapes, and started snacking on them while we were waiting. He asked me how my research was going and I told him I wanted to know more about habits and behavior. I said, "*...for example, you are eating grapes. Do you choose grapes over candy because of permaculture?"* He thought for a few seconds and then replied, *"Well, yes I think so, but even more so, I eat my grape and spit out the seed. But I don't spit it out on the pavement; I spit it out over here by the tree, knowing it might turn into a plant. That's because of permaculture."* This example left me to think about how permaculture ethics can change the way a person lives and sees the world, especially his or her way of meeting needs: consumption.

Anthropologists Comaroff and Comaroff state that, "*consumerism became the moving spirit of the late twentieth century"* (Comaroff & Comaroff in Royrvik 2011:29). Indeed, the capitalist system has had impact on the everyday life of the individual. Anthropologists Carrier & Luetchford claim that capitalism has had an effect on how humans think and act: people have come to think in terms of monetary profit (Carrier & Luetchford 2012:8). Bauman states that capitalism has placed individuals in the role of consumers (Bauman 2011:16). Society has increasingly been described as a consumer culture. The city in

particular, sociologist Steven Miles writes, has often been associated with consumerism. Starting in the 19th century, a mass society evolved in western, industrialized countries. The population concentrated in urban centers to find work in upcoming industries, as opportunities steadily increased in factories. The city became the place where people became exposed to a plethora of consumer goods. Miles notes, "Consumer lifestyles have fundamentally altered our everyday experience of city life" (Miles 1998:6,54). The consumerist lifestyle has been linked to western ways of life ever since. Ecological economist Tim Jackson explains how consumption is increasingly looked at from different perspectives. Some assume that an increase in consumption is more or less synonymous with an improved well-being. Others argue that consumption is damaging for two things: psychological well-being and the environment (Jackson 2005:19). Both of these factors are something permaculturists seek to oppose. Consuming, in their eyes, should be done differently. At UPISF, Kevin and David help their students move away from a mainstream consumption-driven lifestyle to a lifestyle in which people choose ethics over convenience. These teachings have been part of permacultural education ever since permaculture was taught by its originators. In the past two decades, there has been a growing public awareness, as well, of the link between consumption and ethical problems such as environmental degradation and unfairness in world trade (Shaw & Newholm 2002:168; Cho & Krasser 2011:3). A growing amount of people are now consuming consciously. There is a distinction to be made between *green consumerism* and *ethical consumerism*. Cho & Krasser, social scientists and journalists, refer to green consumerism as "consumer choices based on ecological concerns such as environmental protection or organic food production" (Cho & Krasser 2011:4). Anthropologist Isenhour observes that living a "greener" lifestyle is widely interpreted as using more efficient commodities, such as better refrigerators. Consumption patterns are altered as little as possible as the same products are used, but with a different label. However well intended, it is questionable whether this is enough to help prevent climate change from furthering (Isenhour 2011:122-123). Ethical consumption includes a wider range of issues than green consumerism does, which make it a more complex way of decision-making. Cho & Krasser state that there are various understandings of why individuals chose to consume ethically (Cho & Krasser 2011:4). Some believe that it relieves people of a sense of guilt. Naomi Klein claims that it is a response to "the corporate hijacking of political power" (Klein in ibid:5). For permaculturists it is about doing what feels right[xxvii].

Carrier & Luetchford define ethical consumption as a process in which the moral nature of a product is assessed before making a decision on whether or not to buy it (Carrier & Luetchford 2012:1). This understanding of ethical consumption is perhaps what best describes the evaluation process that permaculturists go through with every commodity they buy. Permaculturists believe that altering one's lifestyle entails more than switching to more efficient products. On a practical level, this means that following permaculture ethics and principles makes it possible for someone to evaluate anything one does. Instead of being informed by eco-labels or local government, they use the three permaculture ethics to guide them in how and what to consume. Even a simple thing like a trip to the supermarket becomes a radically different experience. Kerry illustrates this point when I talk with her in a garden: *"When you look at the whole thing, earth care, people care and fair share... well, earth care; is it really caring for the earth to fly that salmon to china to have it filleted so that I can eat it in California really cheaply because it's subsidized because the oil operations are not paying for what it costs to extract that oil? I'd say no, that is not earth care"*[xxviii]. The three ethics are always in the back of a permaculturist's mind. With any product one wants to buy, the questions of how it is made, where it is made, and what it took to get the product in that supermarket, come to mind. This thought process means individuals must consider what these products that are, their fate, their potential, and their right to be something more than waste (Lewis & Potter 2002:xxiv). As Kerry describes, "*It's all about honoring life. You don't have to be vegan per se, but you have to be intentional about your use, about your interaction and consumption of anythingg"*[xxix]. This way of being an ethical consumer is one of the parts of daily life that permaculturists do so that they can have a real impact. Something Kevin tells his students is that this is a way to participate in society, "*You get to participate. In terms of your personal vocation, even your consumer choices today, things that you buy... we get to participate in the construction of that new system"*[xxx]. They use their power as a consumer to influence the capitalist system. Among San Francisco's permaculturists this awareness is a factor in making decisions about what to consume. By deliberately not buying certain foods, staying away from corporate chain stores or avoiding clothing that was produced unethically, permaculturists boycott the capitalist system. Political scientist Michele Micheletti's concept of *political consumerism* is helpful to understand what permaculturists are doing. One speaks of a political consumer, Micheletti states, when a citizen converts his or her evaluation of a product into action. The politics of a product can become a public affair (Micheletti 2003:ix).

Permaculturists can be framed as political consumers, using their power as a consumer to change their environment. The three permaculture ethics are their main guideline in doing so.

3.2 Living the good life

> *"It's a regular class-day at UPISF. We start our session with two clips. One about capitalism and its devastating effects on both people and parts of the ecosystem all over the world. The next clip takes place in some exotic place far away. A western man in a business suit tries to give a local fisherman advice on how to expand his business. The fisherman, however, teaches the westerner a valuable lesson: he has everything he needs. He has a family, a guitar, good food, and enough free time to relax. After the clip students react: 'It's such a simple concept that we should do what we love'. 'What do you work for? We put a monetary value on everything'"*[2].

The response to the clip showed me that there is a specific picture of "the good life" among the students. The ethics of permaculture give the permaculturist a different outlook on what life should look like. The students at UPISF have mentioned several characteristics of urban culture that, in their eyes, are not fitting for a sustainable lifestyle. Sociologist Hayward states that every city has its own character and its own ambience (Hayward 2004:2). Through local news items about gentrification and simply by talking to locals, this became very clear to me. San Francisco's character is connected to its technology industry. With big "tech" companies at close proximity, San Francisco's cost of living are skyrocketing. It is also a very dense city that cannot expand due to its geographical limits. Every square meter is fought over. It makes San Francisco a highly competitive place to live. Urban culture in general is known for its individualist culture. Lecturer in social geography and urban planning Aleksandra Kazmierczak states that "The extent, strength and importance of neighbourhood ties in everyday life seem to be declining. Rapid urbanisation in the 20th century has eroded traditional community bonds in cities. Common space, close kinship links, shared religions and moral values have been replaced by anonymity, individualism and competition" (Kazmierczak 2013:32). The picture of what 'the good life' entails is linked to consumer culture. The accumulation of things seems to be associated by permaculturists with a life that

[2] Teaching on economy, 14.2.2015, UPISF, San Francisco

is lived in isolation. In the developed world, consumption has become more than its primary function of meeting basic human needs. Consumer goods have become important in creating an individual identity and building relationships (Shaw & Newholm 2002:167, Bauman 2011:75-79). A classical view on consumerism suggests that consumer culture promotes individualism: the individual constructs his or her identity by buying certain products (Hayward 2004:5-6). Jackson states that the individual consumer is locked into a continual process of constructing and reconstructing personal identity in the context of a continually renegotiated universe of social and cultural symbols (Jackson 2005:31). The object of consuming is not to own material goods or economic value, but the symbolic value (ibid). Bauman's argument is similar. He states that a good part of our lives focus on life strategies and preoccupations in the pursuit of individual identity (Bauman 2011:77). One student at UPISF puts this individualist culture into words, describing it as 'isolating': "*[knowing your neighbor] is foreign to a lot of us, especially in the hyper-urban environment. We are so used to being detached. Especially in the affluent world we are given more and more mechanisms to where we can function in isolation'"*[xxxi]. It is a reason for this student to learn more about permaculture as permaculture is focused on close human connections.

Having close and intimate connections with others is often hard to accomplish, in part due to another characteristic of urban culture: a high pace of life. One UPISF-student explained: *"(...) this expectation that everything should be immediate and everything should be at my fingertips. If a webpage doesn't load in, like, God forbid, a second. Our relationship with time in the hyper-technical, hyper-urban environment is completely distorted '"*[xxxii]. What these students mentioned is perhaps best understood in light of Harvey's idea of time-space compression: a socio-economical process that accelerates the pace of time and reduces the significance of distance (Barthel & Isendahl 2013:224). Time-speed compression is often linked to processes of globalization and technological development which make it easier to communicate across vast distances. Professor Steve Redhead writes about contemporary culture being "accelerated": the speed of communication and the speed of things is what counts in this age (Redhead 2004:2). The individual, Bauman notes, is living a hurried life, having daily relations with bosses, colleagues or clients. We are attached to laptops and mobile phones wherever we go. The line between office and home, free time, and worktime has become very unclear (Bauman 2011:76). The connection between capitalism and a high-paced and individual society is described by professors Howell & Ingham (2001). They

describe how capitalism evolved hand in hand with a hardening of North American culture. After the Second World War and especially since the 1970s, Howell & Ingham state, the individual was increasingly expected not to be reliant on government assistance. Things that formerly were public issues - illness, health care and unemployment - were redefined as private issues of character – as a failure of individuals. "Self-discipline was the means to the good life in all of its connotations." (Howell & Ingham 2001:331) In other words, since the 1970s, the pressure went up to have a successful career in order to support one's family financially, but also to achieve 'the good life'. Howell & Ingham speak of a strong connection between the market place and lifestyle (ibid:333). Having a busy, high-paced life tied to the workplace can thus be understood as a way to show others that you are taking care of yourself and your family. The clip of the fisherman included time for relaxation and meeting others instead of working hard, buying fancy things and taking care of only your own family is quite the opposite. Yet this is what permaculturists see as 'the good life'. One student said: "*Nothing is that complicated about that scenario, but it is probably the happiest you'll be. To think about something, a methodology or system that we can use to simplify, so that we can maximize the number of those sorts of events in our life... that sounds really good"*[xxxiii]. This student points to a picture of what life should look like and how permaculture can facilitate this lifestyle. Again, the motivation to change culture through permaculture is displayed here. Meeting ones need is not only appropriate for food, but also for living life at a natural pace, sharing time with friends rather than at the office.

Permaculture's picture of "the good life" is thus closely linked to forming a community. "Community" is a word that I have heard very often during my time in the field. Moreover, it is a core of what sustainability is according to permaculture. Permaculturists would like to see a community of interdependent people forming a resilient network. One students reflects on this:

> *"Permaculture, because it is based on community resilience and the interdependencies that you make with other human beings, it actually represented a lifestyle that seemed more ideal than the one that I'm living now. Because for me... I work in tech, in an industry that I don't think values immediate community as much as other communities, and one of the results of that has been an isolated effect... I felt that; I felt isolated. And so I want desperately to re-establish the value and the importance of my immediate community and to find something that says 'well you can do that and you can connect with the humans that exist in your immediate proximity, and create meaningful and fulfilling relationships AND come up with solutions to these problems that are*

much bigger and are challenging that we are facing as humanity... it's like, fuck, that is awesome! That's a win-win?''[xxxiv].

The optimistic ideal of changing culture is done by focusing on building relationships with people around them. As was explained in Chapter 2, from the permaculture perspective, resiliency is linked to interconnection. The permaculture view on sustainability thus means forming a resilient network or community. Urban permaculture, perhaps more so than permaculture in a rural setting, is about forming interpersonal bonds. It is about focusing on close interhuman connections, about living a lifestyle that is less consumerist, less hasty and less individualistic. Instead, spending time together and helping each other out is highly valued. A good example of this is given to me by permaculturist Joanna, with whom I got to talk in a downtown garden. Joanna is a permaculture designer who moved to San Francisco a few years ago. She grew up in Texas where her father did organic gardening in the big yard behind their house. While finding her niche in San Francisco she was looking for a way to get her hands in the dirt again, and stumbled upon the urban farm project on which Kevin and many others were working. She decided to do a six month permaculture internship and was introduced to the permaculture community. Via the online Listserve of the community she found three permaculture related jobs. About this experience she said: *''It feels really good to feel supported by [the permaculture community]. It doesn't always work for everything but it is sort of amazing how much it can encompass your life''*[xxxv]. This Listserve, an online group where people post questions and announcements, is one of the main communication tools of San Francisco's permaculture community and the primary medium for communication. The technology that contemporary culture has which makes daily life isolated and high-paced is used to connect with others. The other ways of meeting each other is offline, mostly in gardens and at the Permaculture Guild SF meetings. Besides forming a community as permaculture enthusiasts, permaculturists envision interconnectivity for the whole of society. It is an open community that carries out this way of life with the hope that one day this lifestyle of sharing and supporting each other will become part of urban life.

3.3 Local business

In the previous chapter I concluded that the capitalist system is causing problems because it is disembedded. Permaculturists envision a society in which consumption patterns promote

social relationships between people, thereby forming a community. This, I would like to argue, is a form of re-embedding of the economy that takes place on the local level. Permaculturists are inspired by the gift and barter economy. After having spent much time with permaculturists, I have noticed how focused most are on sharing food, giving time to projects and exchanging knowledge. Meeting needs is done, as much as possible, by using resources directly from a network of people instead of purchasing from corporate chains. Permaculturists avoid supply-chain-stores and instead ask friends and neighbors if they have the item they need, and how a favor can be returned. Kevin and David teach their students about the gift economy and the barter economy. These two systems were in place in earlier times in western societies, and are still used in communities around the world. The gift economy entails that people meet their needs met by giving and receiving gifts [xxxvi]. Anthropologist Bubinas uses Paul Bohannan's ethnographic article from 1955 on the Tiv people in West Africa to illustrate what happens when money is newly introduced in a society. Their economy had the function of 'sustain and reproduce', and was organized as a gift economy. When the British introduced money, their market destabilized completely. The problem was that "the exchange value of market goods was stripped of all socio-cultural meaning and reduced to an objectified monetary number" (Bubinas 2011:154). Anthropologist David Graeber states that money can have an impersonalizing effect. In a gift economy, the receiver has a moral obligation to do something in return. If one owes another person a favor, it is owed to that person specifically. In a monetary exchange as is the case in capitalism, neither parties have to consider what the other needs (Graeber 2014:XX). What both these authors are suggesting is that historically, the value of goods was determined in a social context. Anthropologist Anna Tsing writes that in western capitalist society, commodities are disengaged from their makers, "Things are exchanged for things, and once exchanged, the exchange, and the steps that led to it, can be forgotten; the commodity is available for use or further transactions" (Tsing 2013:22). This process of separating commodity, Tsing notes, is called "alienation", and was put into order ever since the first factories appeared in industrializing England. Tsing argues that capitalist commodities only gain value when social relationships are removed (ibid). A gift economy demands a great amount of trust and a feeling of reciprocity between giver and receiver, thus creating a connection. "Gifts", Tsing writes, "(…) bring something personal with them, drawing the receiver into a social field, and serving as a continual reminder of the need for reciprocation."

(Tsing 2013:22) An exchange, especially in the form of a gift, can thus establish social relationships, provided that it is personal. This mechanism is what inspires permaculturists, and is being carried out by them as much as possible.

Embedding an economy in social relationships means that consumer and producer meet each other. A crucial part of an embedded economy, therefore, is that of consuming locally. Ethical consumers are increasingly demanding food that is locally harvested. As a consequence from distrust in the global food industry, during the last two decades, there has been an increased public interest in the United States around the subject of sustainable agriculture. There is a market demand for "fresh", "natural", and also "local" food (Nonini 2013:268). Numerable non-profit organizations and activist groups have made it their mission to cut loose from the global food system by consuming locally grown food (Grasseni 2013:3). In an interview, UPISF-teacher Kevin told me, "*I try to prioritize the local, work-our-own cooperative, craft, cottage producer where I knew where the supply chain comes from and I know the person who made it"*[xxxvii]. To San Francisco's permaculture community, buying locally serves multiple purposes. In a group discussion during class at UPISF, one student says, "W*hat can I do to ensure the health of my family or my community is built around nutrient-dense food?"*[xxxviii]. This student points to food security as one of the reasons for buying locally produced goods. Buying locally gives the consumer insight into what he or she buys, eats and wears, thus making it possible to ensure an ethical and safe production process. But buying locally has another feature that makes it important to permaculturists. They see buying locally as a way to meet human needs while creating human connections: to know who made your food and to know who enjoys the food you have grown. One student explained to me why this is important:

> *"It feels good to know your neighbor. It feels good to know the person you buy things from. These things make sense, and they resonate with the very inherent human parts of us. It's just that it is foreign to a lot of us, especially in the hyper-urban environment. We are so used to being detached"*[xxxix].

Ethical consumption and connecting with others come together in this concept of buying locally. This is in line with what Grasseni concludes in her ethnography about an Italian food provisioning network. Grasseni observes that buying locally means that members shift from an implicit trust in local farmers, conveyed through commercial mediators and safety certifications, to explicit trust building through community monitoring (Grasseni 2013:4). In

the urban environment it is a major challenge to meet the farmer that produces your food. As urban permaculturists, San Francisco's permaculturists have found another way to consume locally. The online community formed by permaculturists, a Yahoo Listserve, functions as a platform where members can make their needs known. With over 800 members that live within the Bay Area, the Listserve gives individuals a good chance of finding somebody that has the sought after product or service. Buying locally is part of how permaculturists see sustainability. To them, it means being co-dependent instead of self-sufficient. The more people you depend on, the lower the risks are. Permaculturists therefore strive for a network of people that are all consumer and producer, giver and receiver, of anything that is needed. In the city, especially, this forming of a network and relationships is in contrast with the individualist lifestyle of urbanity.

Besides getting more connected, buying locally has yet another function for permaculturists. In the class about economy at UPISF, Kevin explains the two functions of using gift economy principles:

> *"If you can act in any way that is of gift or barter or exchange, or doing things that take away from the GDP... you are doing two things at once. You are hastening the death of the economy that is exploiting life. And... you are reweaving the self-reliant connections amongst trusted people"*[xl].

Buying locally from producers one knows is also a way to change the global economic system. In the urban environment, using gift economy principles has specific implications. Efficiency and other characteristics are understood to be one of the city's key features for sustainability, as people live close to each other. Another benefit of living in the city is its specific waste stream that can be used to produce things and then trade or sell it locally. Permaculturist Kerry told me she knew a fellow permaculturist who used food from famers markets that was too bruised to sell. She, in turn, used his leftovers to make jams and chutneys that she gave away to people and included the recipe so it could be made at home. Kerry explains why she uses the waste stream of the city:

> *"There is nothing as subversive as undermining our economy, which is capitalism based on growth. If you go into a waste stream, start utilizing a waste stream, that is the most subversive thing you could possibly do because you are actually not just not buying into the growth, you are reducing and reversing this whole cycle. Instead of growth, why not minimize. Why can't we as a culture actually be richer on a day to day, quality of life – way, by minimizing our needs for commercial goods. I think that these small individual acts... they, in a grassroots way, will really end up undermining the world economy as we know it. I'm not a revolutionary, but the thing is*

that I am angry about what is happening to this planet. What is happening to this planet is greed. A small number of people is beneficiating. It's a small number of people that is destroying the world for everyone else. That needs to be stopped. For me it's not by taking a gun, for me it's going in the waste stream''[xli].

Kerry illustrates perfectly that buying locally has various functions. It is practices like these that permaculturists use to alter the capitalist system at large and 're-weave the economy' as Grasseni calls it. With this she means that people can change the relational basis of society (Grasseni 2013:60). The aim is to create a local interdependent mini-economy through which social ties are strengthened and ecological footprints are reduced. Besides this it also increases interconnectedness, thus re-embedding the local economy in social relationships while creating a different version of what 'the good life'entails. As Bubinas states, informal economies like this not only prop-up the formal economic sector but provide an alternative system for economic practices embedded within common values of the local community. "They represent an alternative marketplace for exchange that allows for local meanings of resource management to be manifested and re-embeds exchange relationships into communal meanings of morality" (Bubinas 2011:155). In conclusion, buying locally and providing through a network is how permaculturists change culture into one that is sustainable.

Chapter 4: Re-imagining the City

In the previous chapters it became clear that permaculturists see the capitalist system as one that is causing severe problems that urgently need a fitting human response. Changing culture, especially urban culture, is what permaculturists do to change the system at large. In this chapter I explore the context in which San Francisco's permaculturists are operating: the city. The city, historically, is a place where capitalism and consumerism evolved. It is where that predominant culture of consumerism originates. When it comes to the environment, the city is seen as both polluting and efficient. Permaculturists try to utilize the city's benefits. In this chapter I argue that the city offers opportunities for a more sustainable system and society. I will introduce the urban environment and the garden. Also, I will argue that the garden is used as a tool to change culture, and ultimately change the global capitalist system. Permaculturists are doing this by helping fellow-citizens to re-imagine their city as a place where food can be grown.

Figure 3. The densely built urban environment of San Francisco as seen from the air

4.1 The city: a place for crops

The city is where a large part of human history has been played out. Political theorist and author Benjamin Barber explains how organized civilization once was founded in the city. Societies grew larger and developed into empires and later nation-states (Barber 2013:3). Especially in the 19th and 20th century, due to technological innovations, it was possible for urban areas to grow rapidly. Over the last two hundred years, modernity, innovation, and progress have been associated with the city (Barthel & Isendahl 2013:224). Social geographer David Harvey deems the 20th century the age of urbanization. Urbanity is our history but it is our future as well, as Harvey states, "The future of the most of humanity now lies, for the first time in history, fundamentally in urbanizing areas. The qualities of urban living in the 21st century will define the qualities of civilization itself." (Harvey *in* Whitehead 2003:1183) Harvey wrote this in 1996, and today it is even more a reality. It is estimated that currently half of the world's population live in urban environments. In developing countries urbanization has increased even faster with 78% of citizens living in a city (Barber 2013:3). San Francisco is the second-most densely populated major city of the United States of America with over 7000 people per square kilometer[xlii]. The amount of inhabitants is increasing every year, for a large part because of the expanding technology industry nearby. Barber states that urbanity influences life greatly, "Urbanity may or may not be our nature, but it is our history and for or better or worse, by chance or by design, it defines how we live, work, play and associate." (Barber 2013:3) What does this influence mean? In the previous chapter I have shown that urban culture is one with specific characteristics such as an individualist and high-paced culture. Permaculturists defy these characteristics by forming bonds. But they use these characteristics to their advantage as well. Students at UPISF asked Kevin and David why they stay in the city despite the fact that it has all these downsides. They answered that especially in the city, permaculture can make itself relevant. If you want to change laws, showcase a garden, or teach a class about permaculture, the city is the place where the biggest audience is found. On the website of the Urban Permaculture Institute of San Francisco, one can read the following text, "*With over half of the world's population now living in dense urban environments, urban solutions are critical. Permaculture design provides a clear set of tools for designing human habitats that are abundant for all life*"[xliii]. Permaculturists, I found out, are aware that urbanity is the future, and that therefore it is the place where they need to be.

With cities expanding all over the world, urbanization is an important factor in finding solutions to environmental degradation. Geographer Mark Whitehead states that sustainable development cannot be understood separately from urbanization (Whitehead 2003:1184). Professor of sustainability Peter Newman explains that since the 1960s problems of environmental degradation were becoming clear and became a point of discussion among scholars. The focus was primarily on the population. The city, where population density was highest and an urban lifestyle was evident, was seen as entirely negative for the environment and for people (Erhrlich *in* Newman 2006:276). Indeed, anthropologist Joan Fitzgerald also states, "Cities consume 75 percent of the world's energy and produce 80 percent of its greenhouse gas emissions" *(*Fitzgerald *in* McDonogh et al. 2011:113). It would seem, therefore, that cities are clearly a burden for the environment. However, there is also a different side of the story. Fitzgerald continues, "...paradoxically, they are also the greenest places on earth when it comes to efficiency, because of their density" (ibid). According to a 1996 report by UNEP and the UN centre for Human Settlement:

> "Anti-city polemic obscures the real causes of social or ecological ills. It fails to point to those responsible for resource overuse and environmental degradation, and fails to perceive the great advantages (or potential advantages) that cities offer for greatly reducing resource use and wastes" (UNEP/UN *in* Newman 2006:278).

Newman states that one should look further than simply the amount of people living in a city to analyze a city's environmental impact. The matter is more complex than that as there are also factors such as how a city organizes its import, export, and waste. However, if one were to look at the amount of people living in the city, one should consider that density also means more efficiency. Things like public transport, waste recycling and water treatment are used more efficiently in dense cities (Newman 2006: 278). The city can thus also be seen as an opportunity for sustainable development. The idea of a sustainable city has been widely discussed. The European Commission defined this concept as following:

> *"A city where achievements in social, economic, and physical development are made to last. A Sustainable City has a lasting supply of the natural resources on which its development depends (using them only at a level of sustainable yield)"* (UNCHS/UNEP *in* Whitehead 2003:1184).

This definition is rather unspecified, but it makes a point: resources that are used by the city should be in lasting supply. Large cities mainly feed themselves by global food systems relying on fossil fuels (Barthel & Isendahl 2013:224). Presuming that long distance transport

of goods is dependent on oil, and oil-supplies will run out in the near future, one can draw the conclusion that the cities must start to develop into a place where needed resources are locally harvested. This would mean that food, amongst many other products, should be grown within close proximity of the city. Echoing the definition of the UN, the European commission suggests that the sustainable city is an urban space which is modelled upon patterns and rules of nature (ibid). This is exactly what permaculturists envision.

The idea of a society designed by ecological principles was described by author Ernest Callenbach in his book *Ecotopia: The Notebooks and Reports of William Weston* (1975). This book is an inspiration to many people who are looking for alternative ways of arranging society, among them, permaculturists. During a class at UPISF, David presents the class with a design for the United States, which is based on *Ecotopia*[xliv]. It is designed in a fractal pattern on seven different scales. The largest scale is that of the Nation. Some permaculturists believe that it would be more efficient and environmentally friendly if nations were created in accordance with water resource regions, also called watersheds. Borders would be drawn according to natural borders in the landscape. The fractal levels below that of the nation would have the same structure but on a smaller scale: bioregion instead of states, ecoregion instead of counties, towns and cities, neighborhood or district, block or group of dwellings, and the lowest level is the home. The world would look very differently if this were to be realized in the future. Cities and villages would be spread out evenly; blocks of houses would work together in providing daily needs. The most important part of this vision is perhaps that nature and human-created settlements would mingle. There would be a visible gradient from dense urban space into agricultural land.

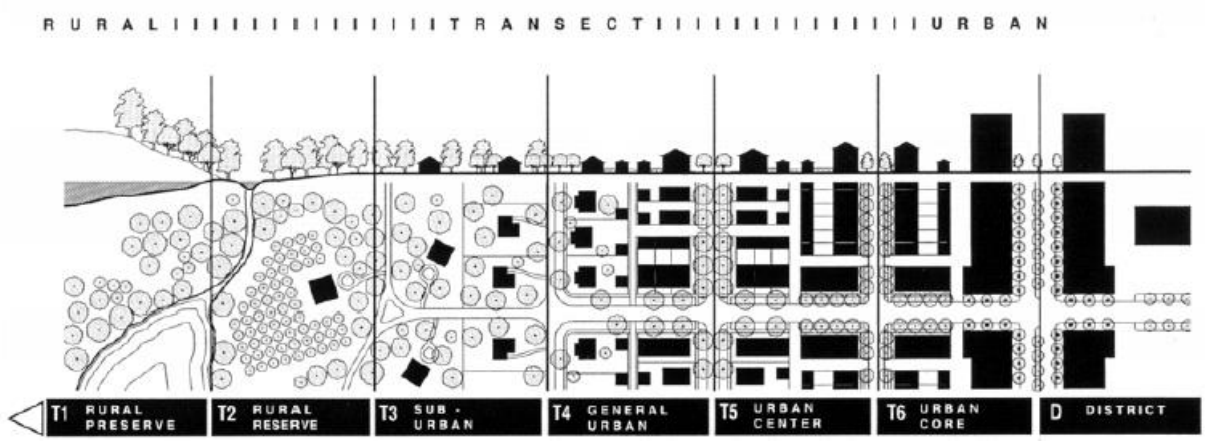


Figure 4. Gradient from Urban core (D) to rural (T1)[xlv]

The urban core on one end of the gradient (D) would look similar to what cities look like now, but with every step of the gradient there would be more nature "mixed in". The other end of the gradient (T1) would be solely wild nature. In between there is a lot of space for agricultural activity. In zone D it would mean having a few herb plants on the balcony of an inner-city apartment. On a different place in the gradient, a family would have a small scale farm as a backyard, being able to grow their food and trade with neighbors. This idead now seems utopian indeed. Historians Barthel and Isendahl speak of a predominant modernist idea of cities as separate entities essentially detached from their broader life-supporting ecosystems, meaning that the city and agricultural areas are seen as two very separate worlds. This view has proved hard to rid and continues to permeate urban policy and planning (Barthel & Isendahl 2013:224). Urban dwellers would be able to buy and produce fresh food within their own ecological footstep. No more polluting supply chains, no more food scarcity in nutrients. This vision of a human settlement mixed with nature and agricultural space is the permaculture interpretation of a sustainable city. Permaculturists do not expect this kind of society to appear on a short term. David and Kevin train students to think on the long term for these big changes, *"In this class we try to practice planning for a 100 year plan of retrofit. What would the ideal Bay Area look like?"*[xlvi]. They know that elements of the city will one day break down and have to be replaced. Buildings, drainage systems, energy systems, etc., will be in need for replacement, and permaculturists want to be ready to offer a design that is based on ecological principles.

4.2 The urban garden

> *"I leave my hostel in the afternoon. The old bicycle that I bought takes me from steep Nob Hill through Tenderloin Civic Center, South of Market, the Mission, and finally Portrero Hill. All these neighborhoods have a different character, but all have that feel of a big and crowded city. Within 20 minutes I have passed beautiful old buildings, countless homeless people, Hispanic fruit vendors, honking cars and crowds of tourists. I look at my map and realize I must be close. When the road leading up Portrero Hill becomes too steep I walk further, and find my destination: 18th and Rhode Island, the garden owned by Permaculture SF. Among colored houses and concrete I*

find a patch of green. I see fruit and almond trees, kale, arugula, and many other plant species. But also butterflies and birds. I simply cannot believe that this is part of San Francisco'[3]

During my time in the field I've done more gardening than ever before in my life. I have weeded, composted, planted, picked fruit, and learned a lot about plants. Typically, this is where permaculturists can be found: the garden. The urban garden is closely linked to permaculture's approach of sustainability. As Veteto & Lockyer state, permaculture challenges people to design and practice sustainable cultural and agricultural systems that are in accordance with environmental knowledge (Veteto & Lockyer 2008:48). UPISF-classes are dominated with topics such as water, vegetables, trees, wildlife, composting, etc. To make a city more sustainable means making human settlement harmlessly fit into the natural world (Veteto & Lockyer 2008:48), of which the gradient between city and agricultural space is an illustration. UPISF-teacher David has imprinted two words in my mind that remind me of why humans should remove weeds, cut trees, etc.: "*Everything gardens*". The intricate system of nature is made so that everything manages something else. Humans, in the eye of the permaculturist, are part of that complex ecosystem. Humans can function as stewards of the earth. For example, where once quadrupeds used to graze fields, now humans can take over that job by weeding. The current system is quite the opposite from this. Humans do not

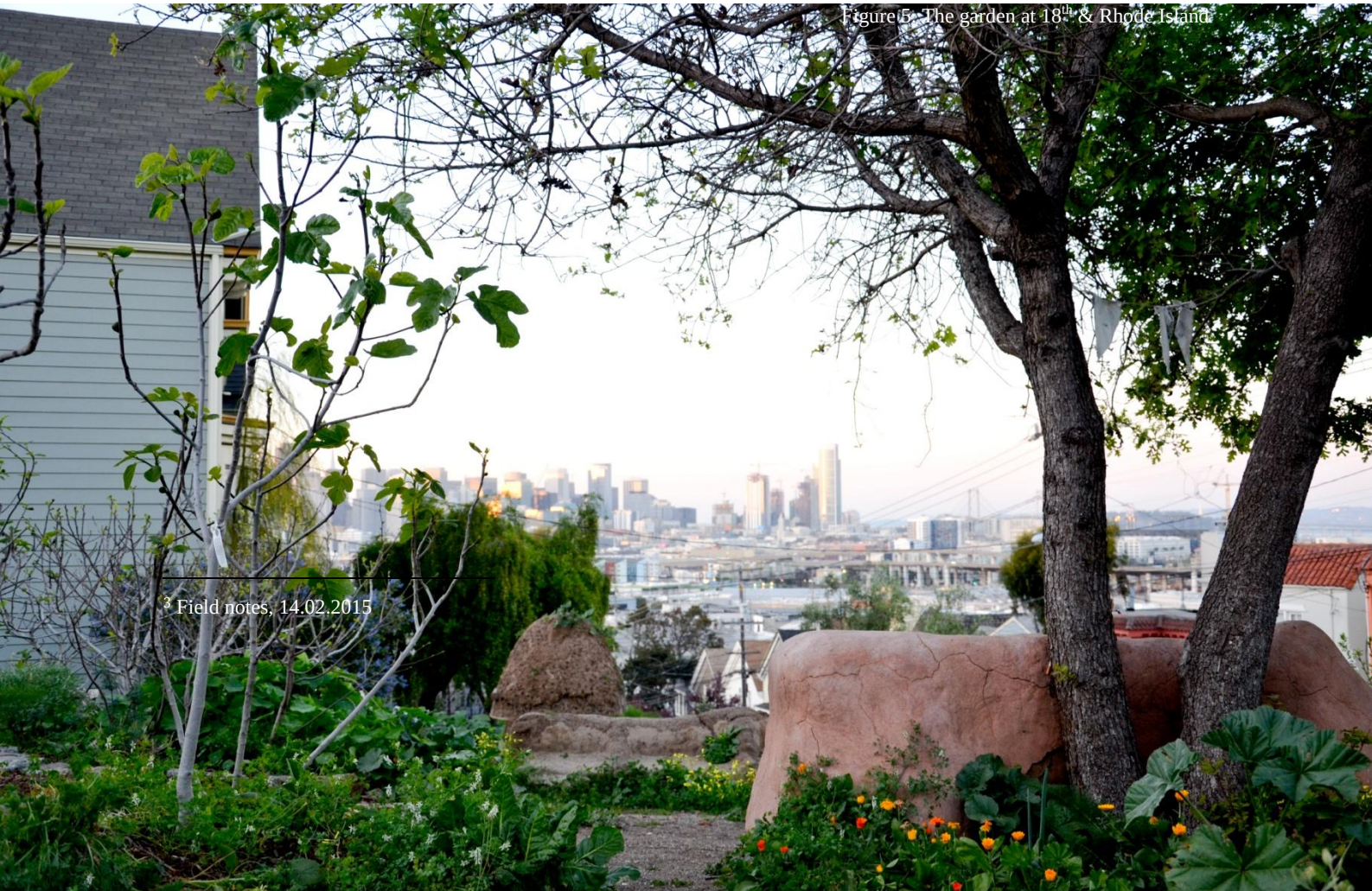


Figure 5: The garden at 18th & Rhode Island

[3] Field notes, 14.02.2015

manage, but break down the globe's ecosystem. Permaculturists believe that if humankind would go back to being managers of nature and follow the three permaculture principles, we would not have the environmental problems that we have, and there would be equal distribution. There is a line by well-known permaculture designer and teacher Geoff Lawton, *"You can solve all the world's problems in a garden*"[xlvii]. During World War II the first lady Eleanor Roosevelt helped victory gardeners plant a food garden at the white house. The secretary of agriculture strongly warned against it, saying it would hurt food processors' commercial interests (Cockrall-King 2012:xx). This is an excellent illustration of how a simple act of gardening can oppose the capitalist system.

Gardens have always been part of cities (Barthel & Isendahl 2013:225). In San Francisco there is a constant struggle to protect green spaces from being turned into concrete. Efficiency and density are often used as an argument to replace parks with housing and infrastructure. I was shocked to find out that a number of people would like to see the Golden Gate Park gone and turned into apartment buildings. Professor in environmental and geographical science Henrik Ernston states that "when space is profit, the question of how to use land—and articulate the value of land—becomes to a large extent a matter of political struggle, partly regulated through urban planning" (ibid). In literature one can find numerous arguments to keep urban green spaces intact. A relatively new concept is that of Ecosystem Services, meaning "...the goods and services derived from biophysical processes that benefit human well-being and support societal functions" (Ernston 2013:8). Ecosystem services can then function to preserve green spaces because it is expressed in a unit that is calculable (Boyd & Banzhaf 2007:616). The concept conveys an important idea: that ecosystems are valuable, often in ways that are not immediately intuited. Urban green spaces have multiple important benefits, such as "stress relief, improved air quality, food production, to heat mitigation and nitrogen retention and many more" (ibid). Parks, wetlands and even grass curbs reduce problems associated with storm water runoff since rainwater can be redirected to gardens and trickle down into underground bodies of water, all the while being filtered in the soil. Another benefit for the ecosystem is that gardens sequester carbon (Grewal & Grewal 2012:2). If the city can become sustainable, these ecosystem services should be calculated in future development plans. During my time in the field I have learned that permaculturists find one benefit of green space very important: sustainability also means having fun. UPISF-teacher David often says, *"If it's not fun, it's not sustainable"*[xlviii]. This is in line with what

Porter & McIlvaine-Newsad state, namely that it is important for green spaces to function also as a leisure-opportunity and an opportunity to socialize (Porter & McIlvaine-Newsad 2013:380). In this light, permaculture gardens differ from other gardens by the intention of letting nature have its way with minimal input of labor. Once the work of the original planting is done, "*the designer turns into the recliner*"[xlix], as Bill Mollison once said. Urban gardens can thus function as a place to hang out, offering a space for meeting with neighbors and enjoying free time. Several studies have shown that urban dwellers meet in places where there is vegetation. The more green space, the stronger interpersonal bonds in neighborhoods seem to be (Kazmierczak 2013:32). While working in the garden on 18th & Rhode Island, I could not help but meet people: either because they were sitting on the bench among the almond trees, walking by and asking about plants, or because they simply wanted to take a stroll among the flower beds. Once, a man walked through the garden with his dog and he thanked me and a fellow-student for maintaining the garden. I asked him whether he liked having a garden in the neighborhood. He smiled and said, *"Oh, It's a gem for the neighborhood!"*[l]. From literature and firsthand experience I conclude that urban gardens are valuable in multiple ways.

One benefit of green urban space is especially relevant to permaculturists. Permaculturists are closely tied to their gardens because gardening is their way of meeting theirs and other's needs. The garden is where the urban environment mixes with the ecosystem. Urban agriculture is important for the resilience of cities. Barthel and Isendahl state that the degree to which a city is resilient, is dependent on many factors and can only be measured per individual city or even intra-city sector. However, one important factor in urban resilience is the management of food resources. In many ways, the city has been a long-term success story: cities have existed for many millennia. Food production and distribution are a big part of their success (Barthel & Isendahl 2013:225). In the past, urban agricultural gardens have been of crucial importance. For example, during World War I urban gardens supplied inhabitants of London with fresh vegetables. Allotment gardens called Victory Gardens were planted in parks and sport fields. Tending a garden was seen as both stylish and patriotic (ibid:231, Cockrall-King 2012:xx). Food writer Jennifer Cockrall-King writes about the worrying numbers of people in America that are living in food deserts: areas in cities devoid of markets or grocery stores. In these urban areas, people have no access to nutritious, fresh whole food because grocery stores moved to suburbs where more affluent customers live.

Low income communities in the city center are left to fast-food outlets and convenient stores as their only option (Cockrall-King 2012:xx). In these cases, urban gardens can be part of a solution to food scarcity and food safety. Gardens in an urban context can take on many forms such as school gardens, urban farms, aquaculture and windowsill gardens. Urban gardening has many benefits: increase in healthy and nutritious food, increased vegetable intake and increase in physical activity. It is also important for the vision of a sustainable city. Urban gardens can have a huge positive impact on the environment as food can be produced locally and does not need transportation over long distances (Grewal & Grewal 2012:2). Besides this it is also part of changing culture, as Kevin tells his students: "every culture begins with agriculture"[li]. Permaculture, therefore, almost always carry the function of agricultural activity. Without even naming all of the advantages, it is clear that urban gardens have various functions that benefit both humans and the rest of nature. Agriculture is not always understood as suitable for a dense settlement such as a city. Yet on a small scale, the city is actually the perfect place. Urban agriculturist John specifies this, "*there's always going to be lots of inputs both in labor, a source of volunteers, and source of compost material"*[lii]. The city has things to offer that less densely populated areas do not. They are an important part of urban sustainable development. The urban garden, where people meet each other and meet their needs, is therefore a great tool for permaculturists.

4.3 Re-imagining the city

Political theorist Benjamin Barber (2013) claims that the problems that globalized capitalism is causing are too big for a nation-state to solve. What the world needs is not an even bigger scale of governance, but a smaller scale: the city. Barber states that the nation-state is not fitting any more for current pressing issues: it is too big for meaningful civil participation and too small to address global power issues. According to Barber, the city can offer the world something that the nation-state cannot. The nation-state is by nature rivalrous and mutually exclusive. Cities, however, are multi-cultured, collaborative and pragmatic. The city is where civic participation is possible: people can contribute to the policy that is relevant to them and their immediate surroundings (Barber 2013:3). Permaculturists in San Francisco work on various projects throughout the city. A slogan that is well known among permaculturists is

"*don't ask for permission, ask for forgiveness."* This means that permaculture designers have a pro-active attitude, slightly crossing a line but never violating laws or using aggression. A great example of this was given by Kerry. She told me about how UPISF-teacher and designer David had the opportunity to work on a project in an alley on city property. He planned to plant 30 fruit trees, knowing that it wasn't allowed. When he had to submit a planting schedule he put the names of the trees in Latin and didn't provide a translation. The plan got approved, the trees were planted. On the day of the ribbon-cutting, one of the councilwomen came up to David and said, *"You knew I would not have approved this if I'd known that these were fruit trees."* His response to her was, "Y*eah I know,"* and she replied, "*I'm really glad I didn't know"*[liii]. It is these small and bold projects that permaculturists do in the city, that make small changes. Other projects that I have heard of during my time in the field are numerous and sometimes surprising. Some permaculture enthusiast go canvassing; going door to door and telling people about environmental issues. I have heard of solar cooking demos, guerilla-grafting, giving away free food from gardens. The city is the right place to do all of these practices. Projects, most of them gardens, get maximal exposure to anyone that walks by and the waste stream is diverse and can be used in multiple ways. Chiara Certoma, professor in political science, frames urban gardening as a form of post-environmentalist political practice. Certoma claims that despite the worldwide recognition of environmental issues, environmental thinking is increasingly de-politicised. She states that "the increasing interest in urban and other public green areas as spaces of collective political involvement may result in a re-politicisation of environmental thinking. Urban green space, thus, from being the materialisation of practices of governmentality, turns into an expression of civic participation" (Certoma 2011:978). San Francisco's permaculturists can be understood as exactly that: citizens that take matters in their own hands when it comes to the public green spaces of San Francisco.

Permaculturists in San Francisco take matters in their own hands largely by maintaining gardens. Permaculturists differ from other urban agriculturists in that their gardens are not solely meant to feed people. An even more important objective of a permaculture garden is that of educating people. Permaculture designer Joanna told me why she comes into the Please Touch Garden every week:

> *"...even just the people that walk in of the street... so much of the time they don't recognize that anything is edible in here at all. They'll say 'this is really nice. Well, is there anything that you can*

eat in here?' and I'll be like 'yeah!' and I start pointing things out and they're like 'o my gosh I didn't know what an apple tree looked like' and 'you can eat the root of a sunflower?!' and all these different things and they have no idea. Also kind of helping people to understand that there's a season for things to. People will be like, in the middle of December, 'don't you have any tomatoes?' and I'll be like 'well no... you can't grow tomatoes this time of the year"[liv].

Joanna explains here how gardens function as a place where people get educated. Besides school classes that get tours, it is mostly passersby that learn from the gardens. People get to smell, feel and see where fresh food comes from. In another garden I met John, a middle-aged man who moved to San Francisco from Great Britain years ago. He is now one of the main characters that run Alemany Farm. This large urban garden is situated in between a highway and project housing. He thinks gardening in an urban context can be of great importance for educating people, *"I am pretty certain that even just exposing people to food growing is a good thing. Anything that gets people to value food... both how difficult it is to grow and how it's okay to it being a fairly significant portion of your life"*[lv]. Both John and Joanna point to a general knowledge of where food comes from and how it is made that is no longer part of everyday life. Even though historically the city has been a place where food was grown, the larger part of western society has forgotten how to do it. The urban citizen can buy anything in a supermarket nearby, so the need to produce your own food is minimal. With over 75% of the world's population living in urban areas within a few decades, this can be understood as a "global generational amnesia about how to grow food." (Barthel & Isendahl 2013:232) In order to make cities more resilient, there needs to be a reconnection between urban people and their life-support systems, such as agriculture. This is where urban gardens come into play. People are in proximal distance to the source of a product when they eat from an urban garden. Consequentially, local knowledge is re-appropriated, as Grasseni states. People get reacquainted with crop seasonality, remembering how to pluck a chicken, learning what grows in a specific farming landscape, and knowing who the producer actually is (Grasseni 2013:4). Permaculture designer Kerry told me, "*The more people know where their food is coming from the better able they are to make choices. This is education. It's bridging people's imagination from the city to what is happening in agriculture"*[lvi]. They serve as places where people get reconnected with nature. If only by walking by and seeing fruit grow, city people get introduced to where their food comes from.

Permaculture designer Kerry told me about a project that she did in a rough neighborhood. Within a few weeks she and others transformed an empty lot into a garden,

"A*ll these people came because all of a sudden instead of pee and poop that you smelled all through the alley you smelled pee, pee, pee, poop and then garden! People would come by and ask if they could eat lunch. (…)It just attracted so many people"*[lvii]. Kerry and her fellow permaculture designers showed people what the neighborhood could be like. They brought nature back to a neighborhood that is mostly characterized by crime, vandalism and neglect. This relatively small project made a big difference in the neighborhood, according to Kerry. These gardens and other projects that permaculturists do are small-scale. Permaculturists know that they are not going to feed an entire city. The goal of all these projects is to open the eyes of urban citizens. Kerry puts this into words, *"Just these projects (…) people walk in and say 'this is just so cool!'. It changes people's mind. You show them it can be done"*[lviii]. The initiative by citizens themselves and educating people in urban gardens add up to a situation in which urban dwellers get re-acquainted with nature, with healthy food, and with an alternative to meeting one's needs. According to Barthel and Isendahl, *"An active civil society and critical scholars are preconditions for mobilizing the ability to protect urban green spaces, to support memory of how to grow food, and to re-imagine the city as a place where food can be grown"* (Barthel & Isendahl 2013:232). Permaculturists can be seen as an active group of citizen that offer their spare time to show people what the alternatives to the current system are: instead of buying your products at a supermarket you could grow it yourself, even in a dense urban area. The idea of a gradient in the layout of the city that was shown earlier in this chapter can then become a possibility. Permaculturists speak of the city and the system being completely different if all people would take up permaculture practices. Instead of deciduous trees there would be fruit trees so people could pick fruit on their way to work, sidewalks could permeate rainwater, buildings could have rainwater catchment systems. The city would look very different. People would meet each other in gardens, spending time together while harvesting healthy food. But for this to happen a re-imagining of the city is necessary.

CHAPTER 5 CONCLUSIONS

The subjects of climate change and sustainability are highly relevant to anthropology. Anthropologist Susan Crate wrote that there is a new anthropological focus on the subject of climate (Crate 2011:175). She mentions an unprecedented urgency that climate change ushers in. Just like globalization is one of the major themes within anthropology, so climate change and sustainability will increasingly be themes that cannot be ignored. This is not simply a trending topic. Climate change, just like globalization, is a factor that constitutes human experiences more and more. How could we understand any facet of human behavior and beliefs, but discard the huge global issue in the background called climate change? Anthropology already has a long history of theory on human interaction with nature. Anthropologists have debated over the impact of nature on culture. Culture, some argue, is the result of adaptations to climate. Cultures have attributed meaning and value to their interpretations of weather, flooding, rainfall, etc. There is already a wealth of knowledge about human interaction with climate in anthropology. What is new, however, is the need for knowledge about the link between global and local that is needed in thinking about climate change and sustainable development of human settlements (Crate 2011:178).

Crate suggests that anthropologists should pursue what she calls 'climate ethnography', meaning a critical collaborative, multisited kind of ethnography. In the face of climate change, anthropologists focus on the global to local contexts. (Crate 2011:175). This is what anthropology has to offer when it comes to climate change: ethnography. This method of research is a powerful tool in learning how humans, in their local context, interact with their environment. I believe that only when researchers immerse themselves in the local context they will be able to understand why people behave the way they do, and make the decisions that they make. As Anthropologist Miriam Ticktin writes, "Ethnographic methods were one of the few means by which to understand what was happening on the ground" (Ticktin 2011:9). Currently, political leaders from around the world are negotiating about how to reduce carbon footprints of entire countries. Even though these negotiations are of crucial importance, I do think that it is equally importance to research how individuals and communities are interacting with the ecosystem as well. This is where anthropology comes in. Anthropologist Anna Tsing mentions ethnographic research as a tool to find "realistic alternatives" (Tsing 2005:271). And Crate states, "It is only through vigorous cross-scale

local to global approaches and interdisciplinary projects, which effectively accommodate and integrate qualitative data, that anthropology's offerings will bring the greatest contributions" (Crate 2011:176). I would like to further this by arguing that not only should there be interdisciplinary collaboration, but also collaboration between scholars and grassroots-organizations. These organizations can function as experts in their context, having years of experience on the ground. Anthropologists can then function as "actors in the policy process.... using the collaboration that has become a hallmark of our research to build relationships with other organizations, associations, think tanks, and foundations, who have a stake in this issue—or create new ones" (Fiske *in* Crate 2011:177). Hopefully, through this collaboration humans can find a suitable answer to the pressing issues the world is facing today.

In San Francisco I have conducted research on a group of people that have much to contribute to one possible answer. San Francisco's permaculturists have a particular outlook on the world. They see the capitalist system and its outcomes, and they are not happy about it. The way that society meets its needs has developed into a system that has horrific outcomes, both for the environment as for humans that are exploited (Bodley 2012:XV). Because the capitalist system needs growth, anything is turned into a commodity. The root of the problem, I argued, is that the globalized capitalist system is disembedded, meaning that it has disconnected from social relationships and values of society (Abdelal & Ruggie 2009:151-154), leaving multinational corporations to do whatever they need to maximize profits. The current system is working as long as there is a consumer culture that supports it. Permaculturists believe that the current system is not working, and that it will die soon. The economic crisis of 2008 is only one of the symptoms that the current system will not last much longer. And so a new and sustainable system must be developed while the old system is subverted. I have framed the problems that stem from the capitalist system as socio-cultural. My argument is that, in order to change the system, it needs to be re-embedded into society. In other words, the economic system must represent what people value: culture is what must change.

Permaculturists have their own specific way of changing culture. Permaculturists change culture by presenting different values. First of all, they see humans as part of nature. Currently, the environment is not valued enough. Barthel & Isendahl call this a generational amnesia, a loss of socio-ecological memory (Barthel & Isendahl 2013:232). Natural resources

are rarely protected from being harvested by large companies. Permaculturists try to reconnect people with nature, using gardens to educate people. But this change of culture is more than reconnecting people with their foodsources. Permaculturists have picture 'the good life' in a different way than the predominant culture does. They value free time, close-knit human connections, and co-dependency for meeting needs. By living a different life, guided by permaculture ethics and principles, permaculturists want to achieve this 'good life' and show fellow-citizens that it is a change for the better. It is what Lewis calls daily life activism (Lewis 2014:2-3). This makes permaculture an interesting focus of research as it showcases how the system at large can be altered starting with individual lives.

In this thesis I have focused on the city. Cities are currently inhabited by more than half of the world's population (Barber 2013:3), and that amount is estimated to grow at a rapid pace. Cities depend on products to be imported, and waste to be exported. This makes urban areas large polluting factors. At the same time, the city is associated with efficiency because of its dense population. This makes the city an opportunity for sustainable development. They use the efficiency of the city, the waste stream of the city, and the publicity of the city to change society from the inside out. Benjamin Barber suggests the city is the future as nation-states have no real authority in a globalized economy. Cities, however, are of smaller scale and can therefore solve problems locally. The city, thus, is where citizens can contribute to policy and thereby to society (Barber 2013:3). The efficiency of dense population and the possibility of participation makes the city the place to be in order to make a real change.

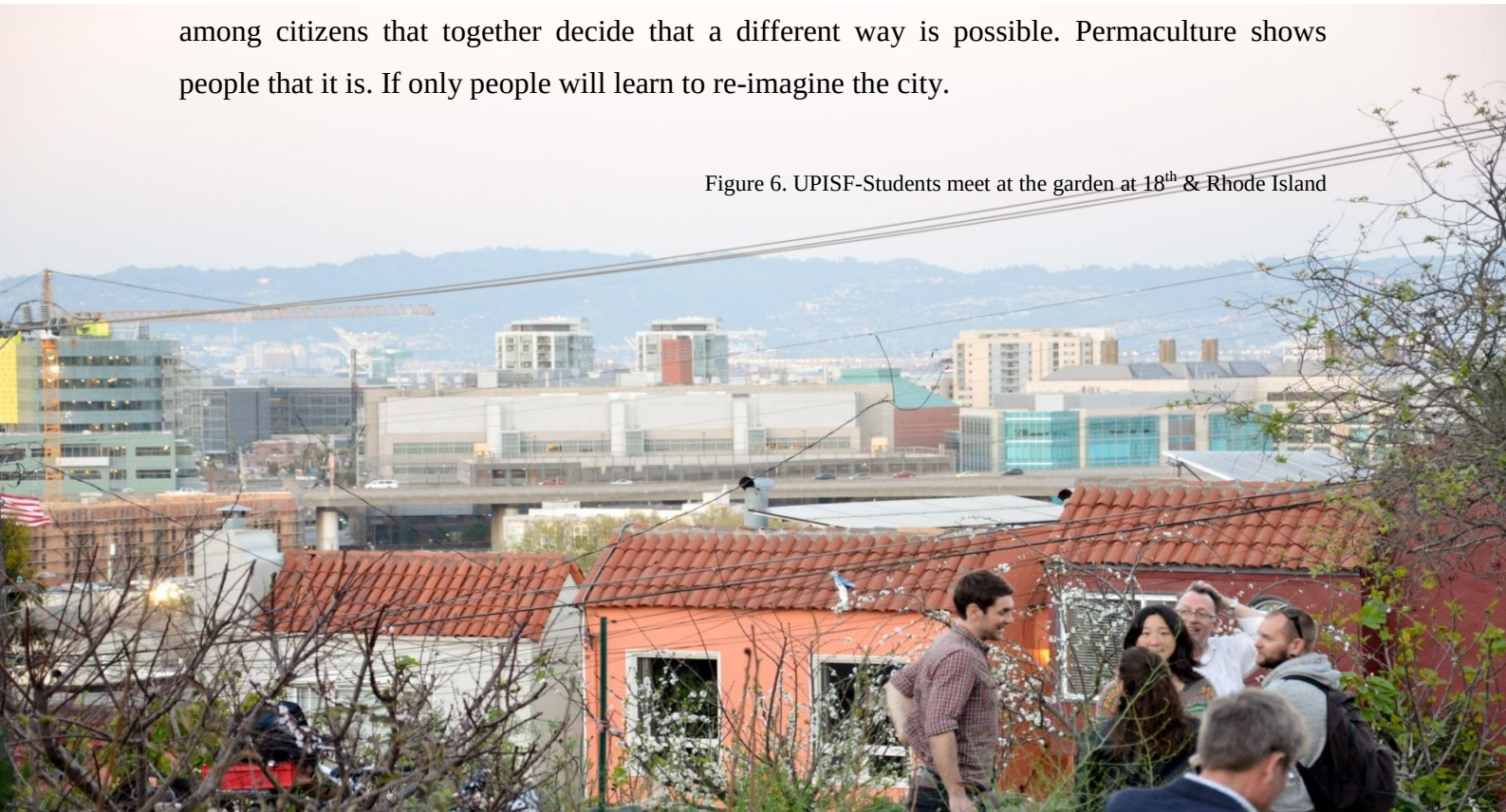
One way in which permaculturists alter the economic system at large is by changing their consumption pattern. Permaculturists aspire to place producer and consumer as close to each other as possible. Permaculture envisions networks of consumers that are also producers, exchanging homemade products. This economic system, inspired by the gift economy, promotes interconnectedness, which is part of that different way of living that permaculturists aspire. Producers and consumers know each other and trust each other. In the meanwhile, permaculturists are weaning themselves off of the current system, buying only locally and thrift. By doing this, they are changing, or "reweaving" the economy, meaning that permaculturists are "reconstituting the relational basis of society." (Grasseni 2013:60). Economic exchanges get meaning because it is a highly personal event. Permaculturists, thus,

are re-embedding the economy by forming a network of producers and consumers. By reweaving the economy they are reweaving urban culture.

The urban garden plays a crucial role in this process of reweaving. Gardens, I conclude, carry important functions. Not only is food produced, but green spaces in general, provide many benefits which are called ecosystem services (Ernston 2013:8), such as leisure, improved air quality, nitrogen retention, heat mitigation, and beyond (Boyd & Banzhaf 2007:616). Historically, urban gardens have always been a part of a city's resiliency (Barthel & Isendahl 2013:231). The garden has one specific purpose on which I have focused: education. Permaculturists design gardens so people can see how nature works and where food comes from. This is what Barthel and Isendahl call "re-imagining the city" as a place where food can be grown and resources can be found (Barthel & Isendahl 2013:232). I conclude that this re-imagening is at the core of changing culture: to change what people value and what people believe is possible. The gardens are the places where one meets, exchanges thoughts and ideas, converses and plans. It is where "webs of significance" are spun, culture is contested. Permaculturists illustrate how urban gardens are an important tool in changing the city, in changing the culture and the economy.

The main question of this research was: what is sustainability from a permaculture point of view? Drawing from what I have seen in the field, I conclude that sustainability is about a way of life and a view of life. Sustainability means that humans are part of the ecosystem just as much as plants and animals. We can choose to ignore this, or we can choose to take part in the ecosystem as stewards of the earth. Human lives would change, and only for the good. The cultural revolution could happen. If it does, it will start on the ground, among citizens that together decide that a different way is possible. Permaculture shows people that it is. If only people will learn to re-imagine the city.

Figure 6. UPISF-Students meet at the garden at 18th & Rhode Island



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APPENDIX I: KEY INFORMANTS

Kevin

Kevin is co-founder and one of the teachers at the Urban Permaculture Institute of San Francisco. Kevin has been involved with the study and practice of permaculture design for ten years. His certifying teacher is Penny Livingston-Stark (her teachers were Tom Ward and permaculture founder Bill Mollison), and he trained with David Holmgren and Geoff Lawton. Kevin works "at the intersection of ecology and economy where permaculture design meets cooperative organizations intent on meeting human needs while enhancing the condition conducive to all life"[4]. He gives workshops, does public speaking, helps design gardens, writes, and mentors. During my time in the field Kevin taught the classes of the Permaculture Design Course that I participated in and from which I got a lot of my data.

David

David is the other co-founder and teacher of UPISF. His background lies in a number of trades. He has worked as a chef, a laser machinist, and as a contractor. Because of this background he has a detailed knowledge of materials and how they best work together. Besides teaching permaculture design at UPISF he consults on agricultural and ecological projects. He is passionate about conservation, agroforestry, and more, this much became clear during the PDC. He helped build the Permaculture Guild and was the lead designer at Hayes Valley Farm, a big urban farming project that occurred a few years ago in downtown San Francisco. He was also the lead designer of the garden at 18th and Rhode Island in San Francisco.

Kerry

Kerry is a permaculture designer. She was trained as an engineer and worked at several companies before she learned about permaculture. She had a busy life and flew around the world for the projects that she worked on. During this time she was looking for ways to

[4] Via http://www.upisf.com/instructor-team/, last visited 15.08.2015

design systems to be completely sustainable. As she learned more about capitalism and environmental degradation, she decided to quit her job. She met Kevin, David and more pioneering permaculturists at Hayes Valley Farm and learned about permaculture there and during a PDC. In permaculture she found the method of design that she was looking for. I have gotten to know her as someone that is passionate about permaculture and spends a lot of time on several projects that promote it. She is an active member of the permaculture guild.

Joanna

Joanna is also a permaculture designer. I met her during meetings at the permaculture guild and at the garden where she works every Wednesday. Originally from the Midwest, she moved to San Francisco a few years ago. At Hayes Valley Farm she met David, Kevin and also Kerry and learned about permaculture there and during a PDC.

UPISF-students

During my time in the field I have participated in the second half of the winter-PDC and the first half of the spring-PDC. This gave me the opportunity to meet two classes of students. They have been important for my collection of data, as they were urban dwellers that were drawn to permaculture. Because of them I could learn about the first attraction of people to permaculture. Each class contained about 25 students. Most of them were middle-class, white, between 20 and 50 years old. Most of the students that take a PDC have an interest in sustainability, design, architecture and ecology. Some are looking to make their lifestyle more sustainable, others are planning to start a farm or homestead.

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iii Via http://holmgren.com.au/about-permaculture/, last visited 02.08.2015

iv Interview Kevin, teacher at UPISF, 22.04.2015, UPISF, San Francisco

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v Interview Kerry, 04.03.2015, Please Touch Garden, San Francisco

vi Via http://www.scottlondon.com/interviews/mollison.html, last visited 07.08.2015

vii Via http://www.scottlondon.com/interviews/mollison.html, last visited 07.08.2015

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x Via http://www.sfgate.com/science/article/Megadroughts-predicted-to-ravage-the-Southwest-6078504.php, last visited 28.05.2015

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xlii Via https://en.wikipedia.org/wiki/San_Francisco, last visited 09.07.2015

xliii Via http://www.upisf.com/, last visited 09.08.2015

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