

Playing with the Built City

Eleanor Saitta*

2009.12.29

Abstract

Architecture and urban planning define much of the world we interact with. This has a wide variety of deep and not always immediately obvious effects—everything from the kinds of things we can do in public spaces to the kinds of families we can live with. While the transparency and responsiveness to actual community need varies, even the best architecture is usually conservative. The cities we end up with rarely allow us the kind of flexibility and humanity we want.

Cities, buildings, infrastructure: all of these things are systems. They are heavily politicized with embodied power structures on a number of different levels—structural, functional, aesthetic, economic, political, and social. At each level, we can intervene, alter those power structures, and create the spaces we need and want. Architecture is generally the domain of the rich and powerful, but it does not have to be—we can intervene and hack the city.

In this paper, we will explore the power structures of the modern city at the level of architecture and urban planning. Then, we will look at a variety of different techniques—prototypes for ways we as individuals can subvert the city. We will move outside the design-culture consumer conversation around architecture and urban futurism, and explore how to actually change our cities, one brick at a time.

Introduction

The human race is an urban race. We live in cities in ever-increasing numbers—as of the end of 2008, more than half the world's population is urban [UN Population Fund]. Cities unavoidably represent huge conglomerations of wealth and embed and reproduce the socioeconomic hierarchies of the societies that build them. Life in the city changes us, necessarily—our environment feeds back into our actions, defines what we can and cannot do, and shapes our desires. The postmodern city of post-Fordist capitalism frequently changes us in ways which we do not like. We may find many good things in the city—community, culture, friends, and resources, just to name a few, but we also find a totalizing schema of consumption, social alienation, hypernormativity, and disengagement.

As individual citizens and residents, we frequently think of ourselves as having little or no control over our environment. Cities, as reproductions of power structures, are often hostile to the changes we wish to see in them. Cities are also systems, however, and within the hacker culture we understand how to change systems, whether or not they wish to be changed. This paper is addressed to people, potentially but not necessarily members of this culture, who are interested in directly improving the places they live on any level. In this paper, we will examine schemas that can help us understand cities as systems, understand the structure of control embodied in the functioning of those systems, and see how we can respond to those systems.

Given the nature of cities as embodiments of power structures, it should be obvious that an apolitical urbanism is impossible by definition—the left and the right view those embodied power structures very differently and react to them in different ways. Above and beyond this, the tools we use for understanding—sociology, history, geography, and economics, among others—are not neutral and demand a political interpretation.

As we explore the city and our responses to it, we are interested in quality of life for all citizens. The specific quality we care about is not the more traditional efficiency-based criterion used in most urban planning, but a more human one. Is the city alive? Do the people

enjoy it, not in a shallow, consumptive, Dubai-hedonism sense, but in a deeper way, the quiet pleasure of time well lived? Does the city support play and spontaneity? These questions are opposed to a mindset of urban planning based on the maximization of extracted value and efficient conduction of business. Thus, we are necessarily opposed to the core processes of capitalism. Moreover, by acting as individuals instead of through commercially entrenched governance, we take another political stand. Traditional civic engagement is a good thing, but we want to poke cities in the ribs and make them squawk.

How We Understand the City

Architects and urban planners have created many systems to represent how we see the city. Most of these traditional constructions provide an inhuman view of space. This is useful for urban planning, where planners need a theoretically unbiased statistical vehicle for policy decisions, but they do not help us see the subjective and the human. Instead, we will use three less concrete but more appropriate concepts as tools for examining how we interact with the world around us and how specific interventions can change that. If we are to intervene in the city, we need a rubric to evaluate the potential of our interventions, and these tools can help provide that.

The City We See

The city you live in is not the same as the concrete, factual city; it is not the city outlined on the map, which is also not the real city. When you interact with the city, you deal with one small corner of it—for me, the apartment where I live when in Seattle, the cafe where I write, the local hackerspace where I work on projects, etc. I see one facet of the city, but miss many, many others; the same is true for everyone else. Moreover, the significance I attribute to the spaces I interact with and the actions I take, their affect and meaning, is not the same as that attributed by others. While we may walk down objectively identical streets, their subjective identity is different.

*ella@sldrc.com; twitter:@dymaxion

This difference extends further, to the literal structure of our subjective cities. When people navigate, they construct a mental map, with some set of nodes connected by paths [Lynch]. Nodes are chosen by a combination of relevance to the navigational problem (in terms of how they identify a branch in a path, define a portion of a path, or mark a region or its boundary), and their subjective importance. While the nodes, paths, and regions identified by different people will share features, there will also be differences; different people habituate different paths. One person chooses one route between two points, someone else another, and they each may not realize that the other route is even possible—their cities have different shapes. One person walks by the cafe on the way to the office, another by the grocery store, despite walking down the same physical street. One person may experience the boundary of a neighborhood in one place, someone else in another; a map may record yet a third line. Boundaries, especially, are messy, conflicted objects, and here maps are fictions more often than not, except in a purely legal sense.

These literal differences reinforce the subjective differences of how people understand their cities. This understanding of an environment is called an “imaginary”. The scope of the imaginary is not only personal understanding of the shape of an environment but also the myths and stories people tell about their city and its emotional character. The production of a common imaginary that is unified to any extent is a cultural process. People talk about their experience of the city; they share experiences. The city exists in conversation, writing, image, and music, all of which shape the shared imaginary. To a great degree, the imaginary *is* the city. Change the imaginary and you change the city.

Affordances

The notion of an affordance, or “how the perceived and actual properties of an object... determine how it can be used” [Norman], is an idea used in industrial design. The classic example is the hardware on doors—a flat plate affords pushing a door open, while a handle which can be grasped affords pulling. Affordance mismatch occurs when an object works differently than its appearance suggests or when the object does not satisfy user desires for objects of its type. In the first (more common) case, a door has a handle which affords pulling but which the user must push in order to open the door. In the second case, they might wish to shut the door for privacy, but it is transparent.

Affordances as an idea are rarely applied to city design, but the concept can be very useful. Specifically, we can think about affordances for living, or the perceived and real properties of a space that determine how it can be lived in, in a fully contextual manner. A bench on a city street has one immediately obvious affordance, sitting. If we build a bench which is more comfortable to sit on, more durable, or that uses less material, this is just industrial design.

To move beyond industrial design we need to examine the context people will use the bench in. Many urban benches are designed to meet a bare minimum specification—they provide a place to sit and wait, where one is off the ground and marginally comfortable. In especially beneficent cases, the bench may even be partially shielded from the elements. These benches are often fairly hostile to their users, actively discouraging long stays with

relative discomfort. They may even require active work on behalf of the user to stay on the bench. It is rarely possible to lie down on a public bench. This only permits a single use context.

What if, instead of only waiting briefly, we want to sit for a while and enjoy the sunshine? Or eat lunch? What about having a conversation with a friend? These are all reasonable actions, and they imply different considerations for the arrangement of the bench in each case. Perhaps instead of siting the bench to face the street directly, it could face down the street toward oncoming traffic, still allowing a user to watch for a bus but also providing a more hospitable context, inclusive of the life of the sidewalk, so they can sit and people-watch. A bench might include a thickened armrest, to make balancing a drink and a sandwich less precarious. If we look at how benches are used, other affordances appear—people frequently use them as ad-hoc signboards and bike racks, for instance. We can improve their functionality in these respects and shape how that use is made, e.g. by building a bench where a bike can easily be locked to the back, but not the front, which avoids obstructing people sitting on the bench and encourages users with different needs to share the resource. And so on; a simple bus stop bench can be altered to afford a much wider variety of activity. In short, new affordances for life can be created.

The Liveness of Spaces

Because we are concerned about the quality of the experience of the city, as shaped by its built form, we need some kind of evaluation criteria for that form. Functional efficiency, while technically part of our evaluation criteria, is not our main concern. We are also not interested in a purely aesthetic judgment. The quality we are looking for is not defined by architectural style or even beauty. Instead, we are interested in the degree to which a space supports everyday life. This concept, originally due to Christopher Alexander [Alexander 2001], is fairly subtle and complicated. There is no single objective scale on which we can rate the life of a space, but we can reliably (and generally cross-culturally) compare spaces and come to an understanding which most people will agree with, after some consideration. This suggests that some degree of commonality of human experience affects the universal impression of space. Spaces which better support life allow people to more readily experience the kind of pleasure that we want in our cities. The liveness of a space is not the same as the delightfulness of a space; the space may cause delight, but this is not the goal.

Take, as an example, two open squares between buildings. They are each about 25m across and surrounded on all sides by three or four story buildings. One of them is a perfect square, a flat expanse of asphalt with openings exactly at each corner. The other is irregular, the front of some buildings pushed in a bit and others stepped back. Its surface is cobbled, except for a band defining a path around the edge 2m back from the buildings and 3m wide. In the center, a small stone plinth 3m across is slightly raised. Neither square is otherwise distinguished and yet, if there are half a dozen tables with chairs and umbrellas sitting out in each square on a nice summer day, the second square will be much more populated. Some people may see the second square as more beautiful, but the difference is more subtle than that. The irregularity and the differentiation of the space directly makes it feel more alive, and this liveness makes the space more habitable.

The humanity of a space is a concrete aspect of that space; it is closer to the engineering considerations of a building than to the cultural meaning ascribed to the completed space. A positive imaginary can help dead space a little, but no amount of positive association will make people want to spend time in a dismal and uninteresting alleyway when other, more living options are available. On the other hand, a more living space provides a richer surface for the imagination. A more complex imaginary can take root there. Liveness is no more optional in good space than any other more traditionally functional criterion is if people are to use the space. The study of what makes a space more alive is complex, but small changes can make large differences. It is not necessary to rebuild spaces from scratch to repair them.

Capitalism and the City

With this set of tools, we can begin to frame actions in their context. To act, however, we need to understand why cities take the forms they do. We will first look at macro-scale economic pressures, and then in the next section at their more concrete ramifications. An understanding of the forces that have historically shaped urban space will help us obtain a meaningful context for the modern cities we work in.

A city can be defined by the economic activity it supports. The city supports this activity, and this activity generates the city. People congregate for many reasons, only some of which are economic, but people trade in order to live, regardless of de jure policy. Even in theoretically anti-capitalist societies, trade shapes and alters the city. In industrial and post-industrial capitalist societies, market forces shape the city more profoundly than any other factor. This purely economic understanding of a city problematizes our notion of it as a living, human space, and we will see that economic processes dehumanize space.

The Extraction of Value

Capitalism provides a central schema for urban life that optimizes for things disconnected from and frequently in opposition to quality of life. Capitalism forces all spaces and activities to be valued for their potential to generate wealth. Capitalist pressure attempts to reduce the role of the state to maximizing the potential extraction of value for enterprises while assuming as much risk and cost from those enterprises as possible. Whenever people create spaces or undertake activities for other purposes, the capitalist schema marginalizes and forces the spaces and activities (and sometimes the people) to both continually justify themselves and compete for scarce leftover resources, frequently constructed as charity, while more traditional economic activity is unquestioned. In more geographic terms, this yields the concept of the “highest and best use”—wherein there is pressure to convert land currently under economically marginal use (such as an artists’ collective) to a more profitable use (such as a luxury condominium development)—and the related concept of a “rent gap”, the difference in income to the owner and city between what is currently realized by the property and what could be extracted from it.

Many of the things that improve quality of life—parks, affordable and useful public transportation, social services, and cultural programs, to name a few, are considered in capitalist circles to be either an overly expensive

drain on the tax base or to be services which should not be provided municipally because they could instead be provided by a profitable private enterprise.

The time scale on which capital operates has an effect here as well. Enterprises attempt to maximize profit over the course of at most a few years. This shortsightedness has profound effects for how enterprises operate; the destruction of longer-term resources for short-term gain is considered to be wholly justifiable. This causes further concern for us, because many of the things which improve quality of life do so over a long time scale.

Coercive Efficiency and Competition between Cities

Globalization inside the capitalist schema alters the scale at which capitalist processes operate, turning what were previously disconnected national markets for major commodities and a relatively disjoint set of local markets for minor commodities into a fractured collection of interlinked markets operating at both the global and local scale where localities compete directly against each other. In globalized post-Fordist capitalism, capital is far more mobile than labor is, permitting business to rapidly move operations and switch markets to take advantage of small or transient efficiencies.

The interlinking of markets and the mobility of capital force localities to attempt not only to maximize profit for local organizations, but also to attract new enterprise in the global market. This produces a coercive efficiency. If any city decides maintaining parks is too expensive and that they should instead direct money towards tax subsidies for new international investment, this creates an immediate responsive pressure on all other cities to do the same lest they lose business to the theoretically more enterprise-friendly location. The pace of capital mobility means that even projects which will directly increase local efficiency on a longer term, like worker education, are frequently underfunded and receive little corporate support due to their short-term costs. Unlike projects which directly provide short-term profit to enterprise, municipalities must fund and establish such activities without corporate support. [Brenner and Theodore]

Capital Sinks, Urban Planning, and Urban Renewal

The end result of a capitalist economy is the concentration of wealth in an increasingly small owning class; this is an inescapable structural effect, especially in post-Fordist capitalism. This causes two problems, closely related. The first is the dissatisfaction of the working classes, whom the state and owning class must control, and the second is the problem of excess capital—the wealth of the owning classes must have some outlet. A number of different strategies of control have evolved for the first problem, like public education systems and mass media. One tactic for both problems that is particularly relevant here is the use of large-scale urban renewal as a tactic of civil control, a means to enforce class boundaries, and an effective capital sink.

Baron Haussman, under Napoleon, performed the first large-scale urban renewal in Paris, starting in 1852. Work gangs demolished large areas of what he deemed slums—or, in other words, traditional working-class neighborhoods from medieval Paris. They built broad

avenues to allow goods to be moved more efficiently, at the cost of destroying much of the street life. The working class was dispersed, destroying existing organizations and making the formation of new ones more difficult. The wide streets were also designed to allow the rapid movement of troops and even artillery inside the city core, to allow the army to swiftly put down any uprising that did occur. Housing for the growing bourgeoisie classes was built along the avenues, providing a visible class marker. Much work was put into regularizing the city, even down to ensuring the regular spacing of trees, further promoting an atmosphere of uniformity and control. The working classes soon established new neighborhoods, as the reasons for their existence had not changed—the work had merely further impoverished them by removing what infrastructure they had. [Cinar and Bender]

None of this was accidental; the language used to describe the work being done was very plain about its intentions. This was repeated when Robert Moses, the infamous New York City planner of the mid-20th century, attacked the Bronx—in his words, “when you operate in an overbuilt metropolis you have to hack your way with a meat cleaver.” Although massive urban renewal projects are slightly less common in the modern West, they are still occurring in other parts of the world, and the same tactic is used on a smaller scale (with more media-savvy presentation)—see the current Olympic redevelopment work in London. The concept of eminent domain, the legal framework which allows the state to seize land (with frequently only nominal compensation) for some redevelopment purposes, has even been extended in recent years in the US to further favor large enterprise and capital accumulation—in the landmark case *Kelo v. City of London*, the city of New London Connecticut seized land to be used for a purely private function, a pharmaceutical research facility, with the justification that it would increase tax revenues to the city—a higher and better use. [WP Kelo]

The Concrete Expressions of Capital in the City

The same forces that cause major disruptions and distortions of city form also affect cities in more discrete ways. These more concrete changes have just as much impact on our lived experience, and they also provide a more accessible approach for response and action. The deep systematic effects of capitalist urbanity can be countered (to some degree) by mass organized civic involvement. While critical, this is not the type of action we are concerned with here.

Suburbanization and Zoning

The changes in transit technology at the end of the 19th century and during the early 20th century profoundly reshaped cities in the West. Before the transit revolution, people with the means to do so lived close to where they worked to avoid a long walk. As new transit technologies (first electric trams, and then automobiles, motor buses, and motor trucks) appeared, the better-off moved outside of the urban core, affording themselves room and privacy. This process continued (again, in the West) throughout

much of the 20th century, accelerating after the Second World War.

Zoning laws first appeared in Germany in the 1870's, and spread from there, first reaching America in 1910, and becoming relatively universal there by the mid-1920's [Williams]. At first, they were used primarily as a tool to prevent particularly noxious heavy industry from building too near to residential areas, a generally agreeable goal. Their uses rapidly expanded as new building technology allowed for taller construction and as new transit technologies and the modern project reconfigured the desired shape of the city into one where all activities were strictly partitioned into separate commercial, residential and industrial districts and started the process of the suburbanization. One of the primary drivers of the popularity of zoning in America was the desire (among developers as much as land owners) to protect the value of single-family homes in the suburbs as developers encouraged families to put the majority of their income into a single undiversified asset. [Fischel]

This split between actions in support of the general public good (protection from noxious heavy industry) and actions in support of class and capital values (protection of property value) defines much of the history of zoning. Zoning has been both an occasional tool of the progressive left, and, more frequently, a tool of socioeconomic control on the part of the state and capital. Much of the progressive work of zoning laws had been previously accomplished by a range of nuisance laws which were sufficient to handle the case of most heavy industry, but not to deal with the new flexibility of the automobile, bringing with it the threat of class integration.

Specific tools for class segregation in zoning have included: minimum lot sizes and minimum house sizes per lot; prohibitions on multi-family residences, even if they follow the formal typology of other local buildings; land use patterns which require car ownership (and frequently, multiple-car ownership with at least one car per person, not just one per family); and a prohibition of any live-work land use, even where the commercial use would be nondisruptive. Zoning districts tend to operate in conjunction with other administrative regions, including school and tax districts, allowing for segregation of other services along class lines without any explicit legislative requirements. This same segregation also allows silent racial discrimination despite de jure bans, and is an active tool for the enforcement of traditional family structures. As recently as 2006 in the United States, the state has actually forced families with unmarried partners out of houses they owned for violating zoning laws against multiple adults sharing a residence.¹

In cases where progressive organizations have challenged this kind of class discrimination zoning, some municipalities have responded by enacting “growth management” regulations, preventing any new development. The environmentalist left has found itself complicit in some of these actions, especially in the area of open space demarcations. Where zoning laws have not been sufficient, homeowners' associations have stepped in, formed by the initial developers of a subdivision as a way of assuring the new owning class of the continued value of their investment and providing a much higher degree of local control and uniformity than possible under pure zoning law.

The selective enforcement common among legal structures designed to reinforce social structures is literally written into zoning law with the concept of a vari-

¹Loving v. City of Black Jack, 2006.

ance, where planning boards may exempt developments deemed sufficiently acceptable from large portions of zoning law. It is also common, especially in urban developments, for planners to create a system of incentives, whereby they grant a developer variances in exchange for building in public amenities; for instance, taller allowed building height in exchange for the creation of a public plaza. As the developer is frequently actively disinterested in bringing life from the uncontrolled, class-integrated street onto their property where their tenants might have to deal with it, these plazas are almost universally dead space in our conception of the liveness of spaces—barren expanses of concrete with neither shelter nor facility, and heavily patrolled by private security and video surveillance. In other cases, the developer will design the amenities as actual, functional space, but will construct them to make the space appear as private and closed to the public as possible, discouraging non-tenant use.

Gentrification and the New Urban Core

After World War II, capital in America (and to a lesser degree in other Western countries) shifted from the cities to the suburbs. The urban core was suffering from neglect due to the exigencies of war and the Depression and much of the housing stock was in poor condition. In America, the GI Bill allowed many returning soldiers who otherwise would have been unable to afford homes to buy in. Insurance companies, considering the housing stock in the city to carry greater risk, frequently refused to allow mortgages there. Additionally, urban cores were still designed around the streetcar; America's newfound fascination with the car fit no better in urban environments than it does now. Suburbanization had started many years previously, but these factors combined to radically accelerate it. Lacking capital and emptied of all inhabitants but those unable to escape, city centers became as undesirable as they had been culturally defined to be.

The countercultural movements, starting in the 50's and 60's, moved into this vacuum. In the city, they found cheap space which allowed a kind of freedom unavailable in the restrictive suburbs, at the price of a lack of stability and social convenience they were more willing to tolerate. In other words, they found the affordances necessary for the kind of lives they wanted to live. Sometimes they took over abandoned property but in other cases they displaced existing residents of the neighborhoods they moved into, especially as they arrived in greater numbers. Many of these epithetically termed "urban pioneers" had access to outside resources, whether in the form of college degrees or inherited wealth, or simply a middle or upper class background. As they moved in, they generally kept to their own circles and reinforced perceived racial and class boundaries, instead of integrating into the communities of their neighbors. They worked to improve their neighborhoods but much of the value of those improvements stayed in their circles. As new businesses moved into their neighborhoods to service the new residents, those businesses frequently displaced existing ones. Eventually, people outside of these neighborhoods noticed the newly thriving "cool" urban communities, and the next stages of gentrification occurred, where those countercultural elements were driven out of the neighborhoods they had "found" by increasing rents and cultural change. Displaced, they moved to the next disadvantaged neighborhood where the process repeated itself.

This process of gentrification has been one of the dominant mechanisms of neighborhood-level change in Western cities over the past fifty years, excepting large-scale urban renewal projects (which also generally have a gentrifying effect). The above example, while prototypical in the US, is hardly the first case, nor will it be the last; Vienna after the First World War offers another example, particularly interesting because of the city government's response [Wetzl]. As Austria was suddenly forced to compete on the world market (coercive efficiency), the tight supply of housing in Vienna caused serious problems. In response, the Viennese government enacted a payroll tax and purchased fully one-third of all property in the city, putting up a huge number of apartment buildings designed to be lived in by citizens of all classes and carefully integrated into the fabric of the city. The city gave the apartments away in a socially equitable manner. This large-scale collective action is unthinkable in a modern neoliberal city, a fact that poses a problem for communities attempting to respond to gentrification. Several tactics to oppose gentrification have been tried in various areas, to different degrees of success, including rent controls, housing subsidies, and various kinds of community organization. The most successful schemes have involved common ownership of resources; without ownership, it is difficult for communities to resist the coercive effects of capital. However, the capital required for establishing common ownership rarely exists and the time scale the modern real estate market moves at rarely provides sufficient time for entrenchment. This is problematic for both existing neighborhoods and arts communities that move into those neighborhoods.

As we look forward to increasing oil shortages and the bubble-driven results of chronic suburban overbuilding, the motion from the suburbs back into the city will accelerate, further driving the disadvantaged back out of the cities and out to the periphery.

Commercialization and Privatization of Public Space

In renaissance Europe, the plaza was considered the heart of the city; in smaller cities, the church, the main administrative buildings, and the homes of the city's wealthiest citizens were generally found around it. On market days, it became the prime commercial space of the city. In larger cities, the plan was more varied and the square less singular, but the typology remained. The social life of the city revolved around the square, frequently literally. The plaza, and civic public space in general, took on a very important role in the city, becoming a place where culture was constructed, where social interaction occurred, and where ideas were contested.

This notion of the public did not appear in Europe until after the feudal structures of the pre-renaissance era had been replaced with the idea of the nation as a shared imaginary and the feudal economy had begun to be replaced by a capitalist one. The public is literally the child of the bourgeoisie, as prior to their existence the figures we might now consider public were the literal embodiment of the state. The king could not be a public figure when he was the state, because the public cannot exist without the private; when it became possible for the king to be private, he no longer was the literal embodiment of the state and the transition to a nation of the imaginary and a market economy was under way.

The public is differentiated from the private by the fact that access to the public is not controlled [Habermas]. The tightly guild-controlled town markets of medieval Europe were not sufficient to create a public. Only when this was supplemented by the advent of large-scale inter-city trade operating outside of this schema of control did a public appear. Any space where the introduction of divergent ideas can be blanket-restricted cannot be considered public. In fact, we can define public spaces as those spaces which are openly contested by different groups, where different ideas and understandings come together. This leads to the standard where reasonable actions must be permitted in public space, regardless of their relevance to the nominal purpose of the space. While harassing individuals need not be permitted, but general religious proselytization or political campaigning must be. These activities define public space as contested space.

Historically speaking, access to public spaces has been restricted to only a small subset of the population. Prior to the advent of feminism and the related social changes at the end of the 19th and beginning of the 20th centuries, women had no access to public space in the west, categorically and often by law, and even now our access is contested. Similar lines have been and are drawn on race, ability, class, sexuality, and other identity categories. This contestation of access to public space on social lines is one axis that distorts public space. In modern society, public space is theoretically defined as space where no one group has any greater access right, but social enforcement of access restriction makes this *de facto* not true. Many restrictions on the use of public space are only enforced selectively, depending on the social group membership of the potential offender.

As the social center of a city, public spaces are desirable frontage for retailers, especially in areas frequented by the upper classes. This immediately creates a second axis of distortion, where the mechanisms of social control act to preserve the economic function of high value space. Unsurprisingly, this has led to the creation of areas taking the form of public space but not the function, and attempting to divorce the economically useful congregation of people from the socially divisive and potentially economically harmful aspects of a true public space. The first private creation of public space came barely after the creation of the concept of public, when the Earl of Bedford built Covent Garden in London in the early 17th century, and the first large truly private spaces explicitly mimicking the social function of public spaces were built during the 19th century. However, it was the suburbanization of the city and the appearance of car culture that gave private-public spaces their current form. This shift gave developers the ability to move spaces outside of the city and to restrict access only to those who had geographically demonstrated their class allegiance. Only then did private-public spaces truly flourish.

After the concept of a private-public space was established as a social category in suburbia, developers engineered it back into the existing urban core, providing an entirely new legal basis for excluding undesirable activities and people. New categories of semi-public space have since been created, where private entities take over some government functions². As cities have become more dense, more and more space has become monetized, reducing the spaces where dissent is tolerated or where people who cannot or do not wish to pay are permitted. Advertising has further eroded the distinction between pub-

lic and private space as capitalism finds new ways to extract value from the presence of people in nominally free space.

Architecture of Fear and Control

Much architectural history, from the first megalithic structures on through ancient city walls and medieval ghettos, etc., can be viewed through a lens of fear and control, especially the elements mentioned above (zoning law, suburbanization, large-scale urban renewal, and the commercialization of public space). However, there are two specific elements which deserve further consideration. First, the continuing increase in social fear through the modern period and the concomitant increase in state control as expressed architecturally at a human scale, and second, the co-evolving commercial control of space.

The single defining characteristic of the modern period has been the disruption of traditional structures of life, but not of larger social power structures—society has become more polarized in this process, not less, especially in the post-Fordist era. As these traditional structures have disappeared, new categories of cultural fear have been generated hand in hand with the new cultural freedoms which have appeared. Fear is one of the most effective weapons of social control, and it is used by all sides—whether to push the furtherance of the modern project, to attempt to reinstate traditional social categories, or by the state as a means of control. Beyond the direct manipulation of fear, both state and capital have found the existing fears of the populace to be both useful and lucrative points of leverage. Of course, numerous features of the architecture of control are seen as actively needful by many if not most people. Control expressed in the built environment is a way of combating uncertainty, but more control also breeds more uncertainty and more segregation allows stronger and worse stereotypes to appear.

As more and more of public life has become consumptively driven, a disturbingly easy partnership has arisen between the state and private enterprise to ensure that public and pseudo-public space provides a controlled environment for undisrupted and predictable commerce. This partnership also provides a strong force for behavior normalization, far beyond anything required for a basically civil society. As new objects of fear have come into existence and new crimes have been created for those categories of fear, new tools have been added to the dizzying array of technologies and systems of control available to the modern state. The development of these technologies is a major project of the military-industrial complex.

In the built environment, we see a wide range of responses and tools deployed. Office buildings have turned inside out, focusing on self-contained interior atriums. Companies have moved their operations entirely out to office parks on the outskirts of the city in space they can more carefully manage, mirroring suburbanization. Universities have built new campuses specifically designed to provide little or no public space that can support gatherings, split campuses up into smaller pieces, or moved them to the suburbs, far from the uncontrolled city center. Suburban communities have literally fortified themselves behind glass-topped concrete walls with gates and armed guards. Bank tellers now stare out through two inches of bulletproof glass, and sidewalks have sprouted rows of bollards to keep cars away from buildings in case of car bombs, despite laughably small risk. Those same bollards

²Commonly known as Metropolitan Improvement Districts.

are likely designed to make sitting on them impossible, lest they encourage the use of the street as anything other than a place of swift passage, but not too swift—many of those same outdoor surfaces will also be designed to inhibit skateboarding. Surveillance has become almost ubiquitous in many urban areas, with overlapping levels of control—closed circuit TV cameras, gunshot-locating microphone systems, and tracking technologies built into everyday conveniences like cell phones and transit cards. As the penetration of technology into space increases, it is becoming more popular as a means of control. It is both cheaper than physical control, and also less visible, thus provoking less protest.

Even if we agree with the nominal purposes of the systems deployed, the capabilities of these systems far exceed the stated goals and these systems are abused on a rapidly increasing scale—hence the sudden appearance of “free speech zones” and similar radical underminings of civil rights. Furthermore, public discussion about the damage done to quality of life is scarcely ever acknowledged by the officials who authorize these controls. When space is made hostile to users as a form of control, everyone has to live with a space designed to be so horrible that even someone with nowhere else to go does not want to be there.

Responding to the City

Looking at the state of the city can draw a very grim picture of post-modern urban life. While this is not unwarranted, the situation is obviously not as one-sided as it seems. The distortion and control of life are far from total, still, and municipal governments are coming to understand the importance of quality of life, even if it is narrowly defined and socioeconomically limited. Large- and small-scale civic involvement remains essential to countering these pressures. However, direct action is equally important. For people to become civically involved, they must understand what is at stake, they must understand their role in the system, and they must be able to see the possibility of a different way of interacting with the system. This is the power of direct action—it makes possible that sudden shift of perspective, the moment of awakening to the potential of the city. In this section, we will examine the schemas under which we can understand direct action.

The Right to the City

The first and most essential question we need to consider in our response is by what right we act. We may not like the effect that the modern city has on us, but do we have a right to object to those effects? At a deeper level, this requires considering the degree to which the ownership society is justifiable, as it is the logic of that society which exerts the forces we have examined. We can leave those more radical notions of ownership out of the picture for our purposes, though, and focus on a less contentious level. We have seen that the city changes us. From this and from the fundamental rights to equality and to self-determination, we come to the idea of the right to the city, per Henri Lefebvre and David Harvey [Harvey].

Understanding spaces to be social constructions, we see that all citizens, regardless of how poor or marginalized they are, must necessarily have the right to collabo-

rate in the production of the spaces where they live. Furthermore, they have a fundamental right to have those spaces serve their needs and aspirations, not just the needs of capital. While this right does not eliminate ownership rights, it does supersede them in some cases; human rights are more fundamental than property rights. This is not to say all design decisions in a city must be taken in some purely open process, of course, but sufficient heed must be paid to the participation of all citizens to satisfy their right to the city.

The right to the city has a few specific applications in light of the issues discussed above. The displacement of existing communities, whether by destructive urban renewal projects or by gentrification and market forces, is an act of violence against those communities that denies them a voice in the creation of their environment. Architecture that forces people into patterns of behavior they do not wish to undertake denies them a place in the city. The neglect of poor districts in favor of high-value downtown developments make the citizens of different districts distinctly unequal in the degree to which they may shape their city, especially when all available money in poor districts is consumed with the maintenance of basic utilities while the residents of more affluent areas are consulted about improvements they would like to see. Even in wealthy areas, when all development is private and the residents have no say in its course, they are unable to participate in the shaping of their city.

The right to the city and related issues about equitable distribution of wealth in spatial terms are the fundamental concerns of the spatial justice movement, which brings a geographic perspective to existing social justice concerns. While a relatively new concept, spatial justice provides a strong framework for us to understand the rationale for intervening in the city. Legal progress is being made, slowly, in turning the right to the city into a more widely recognized legal right. For instance, it is featured prominently in the European Charter for Safeguarding Human Rights in Cities, which has over 350 signatory municipalities.³

Working with the Inclusive City

The worldview the right to the city is founded on is one of basic equality, and this has an effect on the ways we intervene. The fundamental constant in any urban environment is a limit to available resources, whether they are land, money, or attention. Working for equality in this environment means reaching out across boundaries, even (and especially) boundaries that may be uncomfortable to breach. When we intervene, we claim space; doing so in an inclusive way, across the boundaries of race, class, sex, orientation, language, ability, nationality, etc., is an important aspect of equality, as is paying attention to the kinds of intersectional conflicts that can silence participation even within activist communities. This is particularly important when working with the imaginary of a space. When we imagine or re-imagine a space, defining who is part of the group doing the imagining is critical. For example, although the economic aspects predominate, gentrification can also be read as one narrowly defined and privileged group re-imagining a neighborhood without being able to see a place for the existing residents.

An important corollary of including others is working with others; we (those attempting an intervention) should not and indeed cannot affect meaningful change on our

³See <http://www.comune.venezia.it/flex/cm/pages/ServeBLOB.php/L/EN/IDPagina/2198> for more information.

own; working with existing progressive networks or social circles. Working with other groups is important in both creating the kinds of interventions we might like to create and in making sure they have the desired effects.

Informality and Tactical Urbanism

Informality is one of the most effective tactics for the subversion of control. Doing things the right way is often difficult or impossible; presented head-on with a threat, systems of control understand how to respond and do so readily. However, work done outside of official channels can get away with a surprising amount. Much of the effort of controlling power structures goes into attempting to combat informal behavior, but there is also a tacit acknowledgment of its necessity in many systems and a certain amount of allowance for informality around the margins, in part because controlling the last five percent becomes extraordinarily expensive for little functional gain.

Informality begets tactical urbanism, where economic and life activities take place outside of sanctioned spaces, whether that means startups working in coffee shops, street vendors gaming oversight systems, or pranksters installing swings. Informality brings a direct social cost in many cases, its actors frequently becoming the target of police brutality and selective enforcement, but this is precisely because it can be powerful in subverting the established order. That social cost means that informal actions are pushed into a space where little certainty exists and change can happen very quickly. This can be both good and bad; speed is essential to the character of tactical urbanism [Wai]. As the informal operates outside the protections of the state, it can also be a site of danger and abuse, so while it can be functional for us, romanticizing it is problematic. Informal modern communications systems are very helpful in enabling action across strong social networks, but it is unlikely that this type of activity can challenge control in a deep way. The state and enterprises have both shown a readiness to violate privacy flagrantly to maintain control. In the same way progressive networks act as a power multiplier, the state has scale on its side when performing data mining and similar surveillance activities, should it feel actually threatened.

Interventions

Architecturally speaking, an intervention is an action, whether an act of construction, performance, or reconfiguration of knowledge, which changes the space that encompasses it in some intentional manner. Not all buildings should be considered interventions; much building is just that—building, to solve some human or capital need, without any intent to challenge anything or cause any change in the world. We care about the remainder.

There are limits to what this kind of interventions can do; there is a common fallacy in the design world that design can solve everything. As the problems we are trying to address are frequently social issues, this is blatantly false—at best, we can relieve social pressure, draw attention, or change how people see problems. We may be able to trigger the tectonic shift of the masses that cause those social pressures, if we are very good and very lucky, but this is not the same as solving those problems through design directly; we must be aware of this.

As we work, we need to return to our first principles constantly. Interventions that work in one place and context will likely not work elsewhere. We have seen

large scale tendencies sketched out here, but the functional structure of every place is as heavily determined by its own unique history as it is these larger tendencies. We must work from our understanding of what creates and feeds living places of joy, not just repeat the recipes of others; the work we do is specific and subjective.

We have a working understanding of some urban power structures and we have three ways of evaluating the quality of alterations: by looking at how they change people's understanding of the city; at how they create or help affordances; and at how they help make spaces more human and alive. We understand the necessity of inclusiveness and the value of tactical informality. We can now look at doing real work.

Space as Event

All spaces have a lifespan; they come into existence and then disappear again. This can be as simple as the space created under a tree while eating a picnic lunch with friends; as you spread out a blanket and sit down to eat, you create a social space of which all the participants are very much aware; you interact with it as an outdoor room with well-understood boundaries. When you pack up, that space suddenly disappears. Where you might have previously walked slowly, as in an indoor space, and addressed the ground as a piece of furniture, you now walk briskly, not noticing the old (no longer existing) boundaries. All spaces are like this. Thus, one of the things which we as interventionists can do is to create spaces in the city.

Space, understood as a living structure, is surprisingly flimsy. It does not take bricks, stone, or building permits to create it—if a blanket on a patch of grass can create a space, almost anything can. The most important thing for creating a space is differentiation; if it is easy to tell what the boundaries of the space created are, people will more readily see it as a distinct space. A boundary can be as little as a line of tape on the ground, or even light. For event spaces, bringing people into the space is frequently as important as demarcating the space; the goal is not to create a private region, but to bring other people, strangers, into the same space, to catalyze interactions rather than create exclusivity.

Altering Imaginaries

The imaginary is one of our most powerful levers for creating real change. If we change the way people understand their city, we can change the actual, real, lived city, without driving a single nail. We are not trying to shock people, here; this is not about force, and the modern mass media/post-mass-media have made shock largely useless as a tactic; people simply ignore it. However, direct human engagement, an emotional connection, still has real power. People still dream and hope and laugh and love, and this is the space in which we want to intervene—play, not spectacle. This is where we can still make people pause and reconsider—Deleuze called these created pauses vacuoles [Thoburn]—and that pause is what gives them room to change their understandings.

The fact that we are using play as a tactic means we need to understand its rules. The theatrical world can be our model here. Even if we are creating relatively concrete functional artifacts, we still need to pay close attention to the way we present them, to how people understand them and come across them. While there are times when an intervention must be an unnoticeable part of the

fabric of the city to succeed (see the example of DIY bike lanes below), there is frequently room for just a little bit of delight, and this will turn something from just a part of an undifferentiated field into a vacuole-generating entity. Even something as little as a bed of flowers growing where they are not expected can change a stretch of street in the eyes of those who pass by, making it a bit more friendly, a bit more human. As changes like these add up, they can rewrite how people interact with a neighborhood. We are dealing with mass culture, so we should neither over or underestimate the power of individual acts. Working with imaginaries involves a social process for gathering momentum to change culture and ideas. While it does not happen overnight, it can also surprise us by moving faster than we expect.

Creating Affordances

Direct action in the city to provide functional conveniences or utilities (like free wireless Internet access) is the most immediate category of intervention, but also one of the more limited. Small actions, both individually and en masse, can make the space around us more livable. There is no need to wait for the state to act when we can reshape our cities immediately. However, changes in affordance, although very important, resonate less in the imaginary of the city than changes which are less functional but more evocative. In the end, both are necessary.

A Hierarchy of Materials

In creating interventions, we have our choice of materials to work with. In order to work efficiently, we want to make the smallest change that will suffice—if there is no need for brick, we do not want to go to the expense of laying it. Weight ends up being a very good proxy for the difficulty of using a material. Information is the most lightweight way to change an environment. An intervention in the form of a story is often easier to create than almost anything else. Information about a city, gathered and presented in the right context, is very powerful, but it can prove transient and too ephemeral for many types of intervention.

Working with lighting and sound is also useful, as they are present in a way that pure information is not, and yet they still leave no trace behind. Light and sound are sometimes sufficient to define social space, for instance. Paint (and tape, stickers, etc) come next; they are materially present and more permanent. They persist outside of our presence and extend the scope of our event space.

Next come deployable structures; tents, scaffolding, and temporary installations of all kinds which can be installed and removed quickly and retain the simplicity and price of informality. They are not always optimal, but a deployable structure can suit a huge variety of needs and still be gone on a time frame between minutes and a day, depending on scale, resources, etc. This puts deployable structures on the right side of the informality line. You can frequently get away with putting them up in all sorts of places where traditional structures would never be allowed.

True buildings come last in our hierarchy. This is the scale of the formal, concrete city. It brings with it the permanence and solidity which that implies, but it also puts the project into an entirely different relationship with the law, and an entirely different price range. They are largely outside the scope of these small-scale interventions.

Examples

As an inspiration toward actual work and to further explain the concepts that we have covered so far, we will now see a range of examples, both created and theoretical, with some discussion about what they can mean.

Mapping and Imaginaries

Our first set of examples are all intended to alter either a shared imaginary or a single, personal conception of the city. Some but not all of them also create functional affordances.

Urban Exploration

Urban spaces are full of abandoned spaces, places where people no longer go for one reason or another, or spaces where people were never intended to go—underneath the streets, on the margins, or in between places where people live. To explore these spaces is to approach a city as a place of wonder, a realm of the unknown. Exploring these places, talking about them, and sharing their stories changes how people see the world around them.

Exploration does not even have to mean going to places where there are no people. We all have routines we fall into of where we live, commute, and go to eat and play. Make a point of breaking those routines. Learn more about where you live. Tell people about it. Bridge communities, and increase the scope of facets of your city's imaginary you draw on. Many city games serve this same function in passing; see the section on them below. Some specifically exploration-oriented games include letterboxing, scavenger hunts, and (urban) geocaching. Also related is the idea of the psychogeographic walk, where some planned or random element is used to determine the direction of travel, e.g., a die is rolled at every corner to decide among available options. This has the immediate effect of removing familiarity and subjective judgment to push the walker into discovering the unexpected and unlooked-for, outside of their comfort zone.

Augmented Reality as Architecture Functional Graffiti

Augmented reality (AR) involves digital information, either rendered in 3D or just text and 2D graphics overlaid onto a video stream being captured in real time from the viewer's position. For example, one can hold a phone up to a scene, and have it act as a lens, appearing roughly transparent. The information overlaid is located positionally in the world, augmenting the view you have of the space. In some implementations, markers (specific patterns easily parsed from the video stream) are printed and placed in the scene, either for registration of images or to control the system. 2D barcodes can be used in the same way, and can also embed free-form data, either directly or as a reference to an online resource.

Although not properly AR, similar but lower-tech systems can either read barcodes or use GPS data to trigger events or present information without video overlay. These technologies allow information to be situated directly in the city, with suitable intermediation.

As an architectural tool, AR is quite flexible. At the most literal level, we can create buildings in virtual space to act as memorials, remembrances or alternative visions of reality. For instance, there is an AR application for the

iPhone which recreates the World Trade Center in Manhattan. The same things can be done for other no-longer existent buildings, showing what a neighborhood looked like before redevelopment destroyed the previous fabric, or virtually rebuilding spaces after conflict to memorialize and sustain their previous social context. Not-yet-existing buildings are just as easy to create; this can help envision new plans, but the affect of the visualization can be either pro- or anti-development. The renderings released by developers frequently show the building without context, to disguise the degree to which the final building will overshadow its neighbors. With AR, we can show the buildings in their real, built context.

This kind of visualization can be a useful way to organize communities against development initiatives. As individuals we may not be happy with a given development, but only widespread community support can prevent their construction. AR as a site for community interaction has other possibilities—even without visualization, we can provide communities with alternate ways to interact with the planning process or with municipal government. Although it is in some ways low tech, a good example of the power of AR and AR-like systems is the site <http://www.fixmystreet.com/>. It provides a direct, easy to access way for people in the UK to alert their municipal governments to pending maintenance issues, via both a web site, and more interestingly to us, a location-aware mobile phone application. AR can provide for spatially situated comment in a variety of ways. Graffiti is a blunt instrument for public comment, but a barcode that links to an active online discussion could provide a much richer forum. To do this effectively in the city requires a degree of electronic anonymity, but no more than many other types of electronic civil disobedience. Distinguishing between community content and advertising may cause problems, but this is also a problem with any other situated media.

AR can be used for storytelling. Mixed-reality games where fictional elements invade the real world have been around for some time. While their reach may be limited, they are an effective way to provide alternate readings for places, changing their meaning, and to engage people with their cities. Games can encourage people to explore new parts of their environments. Fiction has the freedom to comment on life in ways which would be ignored or discounted in more serious narratives.

The limited reach of AR is worrying as it is not just a matter of personal preference—one problem with AR as a tool is the hard class division it creates between the people in the city who can afford the entry fee of a smartphone and a data plan and those who cannot. Beyond that, it requires buying into an entire consumer mindset that alters how we interact socially. This must be carefully considered when evaluating AR initiatives, especially those intended to involve community. Providing SMS-only interfaces as an alternative, when possible, is a useful alternative.

Mapping Resources

Cities are rich places. Frequently, things we are looking for may exist without our awareness of them. Commercial resources advertise their existence, putting noncommercial resources at a disadvantage. Mapping available resources makes cities more understandable. While doing this for an entire city is obviously a huge undertak-

ing, broadcasting the existence of specific resources can be done trivially, and it allows people to experience their city as a richer and possibly more friendly place. The fallen fruit map⁴ is a great example of this. In many places the fruit of trees growing on or overhanging public property is also public, but it is rarely eaten. The fruit map helps people find it, turning what would be a rotting mess into something useful. The same thing can be done with lists of dumpsters where good food or useful objects are routinely discarded (like overage at bakeries), or with curated collections of pointers to hard-to find and poorly known commercial resources. This kind of mapping breaks down barriers, whether they are based on who has the money to live in the city or who has the trade connections to find specific goods.

Public Art

Good art stops people in their tracks and makes them think, especially outside of the neutered environment of the commercial gallery or sanctioned public museum. Art in the street has to negotiate a complicated boundary between artistic expression and property damage when it is not authorized. While getting permission can avoid this, it can also rob art of much of its subversive power—simply putting up an image can express a challenge to authority. On the other hand, many people will dismiss the message of illicit art out of hand, and they may be outright hostile to it if they do pay attention. The pervasiveness of advertising is another challenge to public art; we are used to filtering out a flood of images every day, and this jadedness is difficult to break through. If you can break through however, it provides a very direct means to tell a story in public space.

Street art is a democratic medium, but by creating it without consent, we can deny others their right to determine the structure of their city. Being aware of who else uses the spaces you are using as a canvas is an important component of understanding how a piece will be interpreted. Temporary work, whether that means working with light, with impermanent media, or by creating performance spaces, can be more acceptable to the community you are working in but it also lacks the inherent challenge to authority. In some cases, temporary (and especially interactive) work may be more effective at engaging people. However, it can be much more resource intensive to provide the same number of people with the experience of interacting with a piece when working with temporary or interactive art. We talk more below about performance art.

For more information on public art used in ways which can challenge authority, the Graffiti Research Labs site at <http://graffitiresearchlab.com/> is a good place to start, especially their work with light painting as a (generally) legal and thus easier to sustain but still authority-challenging graffiti medium.

Guide Book

In 1913, a fascinating (from our perspective) book was published in Berlin, *Was die Frau von Berlin wissen muss*, or What a Woman Must Know about Berlin [Stratigakos]. The book was published as a guidebook for women in Berlin, not as tourists or housewives but as first-class members of the city, an act that was quite revolutionary at the time. The book was not intended for people un-

⁴<http://www.fallenfruit.org/maps.html>

familiar with the city, and so was not an introduction to Berlin in a factual sense, but rather to a way of interacting with the city. In our terms, it was an explicit introduction to a specific imaginary of Berlin. The guide included both pointers to specific resources the reader might be interested in and not familiar with and, more importantly, essays exploring opportunities available to interact with the city.

While a book may not be the relevant format any more, the idea of a guide with which to pull someone from one imaginary into another as an explicit, coherent shift presents fascinating opportunities. Instead of the women's Berlin, we can think of the hacker's city, either as a guidebook to a specific city, or, more likely, a version in the generic with specific references inserted as relevant, the guidebook presenting an interpretation of the world and how to interact with the city.

Infrastructure

Our second set of examples are all directly practical extensions of the city, correcting the shortcomings of the environment as it exists. Some of these interventions will be effectively invisible, but others will either inspire delight or act as direct attacks on existing structures of control.

Semi-legal WiFi

Access to information is now a mark of effective citizenship, and while being able to get online at all is a basic level of engagement, doing so while out and about is increasingly important as the Internet becomes a more localized resource and more basic social functions move online. Paid wireless access points and expensive mobile data plans make mobile information access a site of class stratification. While only providing Internet access does not solve device availability or space constraints, it does help to equalize different groups' access in a space, changing their understanding of the space and their interactions with other people in it. The economic interests of those providing paid network access, in conjunction with municipal rules about antenna placement, can cause problems for projects like this, but those problems are mostly just a confirmation of the worth of such a project.

Providing point-to-point links cheaply or for free is another place where hackers can uniquely enable groups, in this case for poor and small non-profits and similar organizations where the cost of Internet access is a significant barrier. Beyond its direct utility, this kind of shadow infrastructure projects an understanding of the city as a more living, caring place.

Citizen CCTV

Closed-circuit TV is a tool of social control and a means for the expansion of police power in cities. In many cases where CCTV might be useful to record police brutality it is either mysteriously missing or suppressed, particularly during demonstrations where handheld video may be seized and destroyed. Depending on the level of police brutality in question and the degree of systemic corruption, video may or may not be a useful tactical tool in fighting police violence. However, the existence of independent video documentation can frequently be at least a strategic, long-term tool. A system of decentralized video

cameras, when possible sending the video off-site for automatic archiving and publication—if necessary in a different jurisdiction—could provide both a long-term means for publicizing abuse and a short-term means for pressing charges against the police and freeing activists.

In the US, video evidence is generally admissible in court with the proviso that the owner of the video must testify for its veracity. It is not clear what, if any, specific standards might be required to anonymously verify video. Video recording is generally allowed provided that the camera is located on private property with the permission of the owner or tenant, or on public property, even if the subject is on private property, while audio recording requires consent of all parties. Consult a lawyer for details in your jurisdiction.

The right to the city is heavily tied into the freedom to assemble and be heard. Making the city safer for people being heard makes the city more inclusive and helps encourage a sense of ownership of space.

DIY Bike Lanes

Bicycles make good cities. They provide a way for people to get around cheaply and they maintain the human scale of pedestrian traffic. They are a good fit for our evaluation criteria of things which make cities alive. Integrating bikes into heavily car-centric cities is difficult, though, even in places which should, climate- and terrain-wise, be very bike-friendly.

Bike lanes are not an optimal strategy here. They are frequently abused by drivers when they are just a line on pavement without any physical separation from cars, and even when respected, they imply (regardless of the law) that cyclists are not to use any other part of the street. That said, in some places they are the only way to ride safely—for instance, on a busy street with no sidewalk, narrow shoulders, and high-speed vehicle traffic, especially when constrained by a bridge or similar geography. Given the car-centrism of most departments of transportation, bike lanes are not always forthcoming even in places where they would literally immediately start saving lives and enabling more people to travel the city. In many cases, there are significant class implications, where the lack of bike accommodations restricts riders who are seen as lower class from entering or using a space.

Why wait for the municipal government to act, when a bike lane is just paint on the ground? Reflective paint for striping parking lots is readily available at hardware stores, and the specifications for bike lanes are often available online. It is worth doing some background reading before installing one, because a homemade bike lane is both more likely to last if it blends in, and more likely to be safe—drivers may not recognize bike lanes which are not properly marked or too narrow. As with many interventions, a bit of planning and official-looking reflective vests go a long way toward making things go smoothly, as does familiarity with similar actions in other cities⁵.

Street Furniture

The streets of our cities are the most immediate place which determine the degree of life a city has. Frequently, they are actively designed only as places of consumption and passage, and intended to deny all other uses. Furnishing a street lets it live in new ways. A table and chairs can turn a wide sidewalk or the edge of a small square

⁵See <http://artoftheprank.com/2009/07/17/diy-bike-lanes/>.

into a place, an outdoor room. Likewise, a simple canvas overhang can make sitting at an existing bench more comfortable, and a hammock can make a park a nicer place to spend a lazy afternoon.

While the users of a space are likely to enjoy (thoughtful) interventions, immediately adjacent tenants and city authorities may not, whether because they feel it interferes with commerce or simply because it does not follow the rules. It is best to work cheaply for this sort of intervention because it may not last very long. On the other hand, in some cases one may be able to match existing street furniture carefully enough that the city does not even notice—for instance, installing new bike racks and matching the existing design, possibly obtaining the racks via city surplus sales.

Guerrilla Gardens

Grey concrete and bare dirt do not make a city alive. Gardens de-stabilize cities and make them more human—a median that comes up with wildflowers brings a bright, uncontrolled note to a harsh space. Not only that, but gardens can be actively productive. Assuming the air and soil is clean, fruit and vegetables will grow just as well on an abandoned lot as on a farm. Greenery can make buildings look better, too—even the bleakest cement wall looks less offensive covered in ivy. Plants which are native to a region can frequently live with little or no care, and small plantings can be created in literally ten minutes. Ivy can be planted in thin soil and still climb tall walls.

Clearing and planting larger abandoned lots is often easier to accomplish with permission from the land owner, which at least reduces the worry that gardens will be trampled mid-season. A large movement around urban and guerrilla gardening exists⁶, and larger projects will often find allies there.

The Event-city

The third set of examples are events that change how we see the city, and turn spaces of function into spaces of delight. While many of these could be sorted into other categories, they all emphasize the event nature of space.

BART Swings and Subway Tea Parties⁷

Mass transit is commonly considered a purely functional space. It is an environment of long, boring commutes to work or school. Even when traveling with friends, it is rarely a site to meet people, interact with strangers, or play. Obviously, mass transit must be functional first, but there is no reason the experience needs to stop there. Due to its liminal nature, events on transit can show people that anywhere can become living, enjoyable space. The transit experience, with its defined and separate environment and understood beginning, middle, and end, lends itself well to transformation into a performance space.

The most critical part of a good performance in a transit-like space is getting people to participate. Putting on a spectacle can be entertaining for friends, and passers-by may enjoy it, but in the end, it is a less powerful experience than one where complete strangers get involved in

the action directly. In Mike Burnstein's two swing installations on BART in San Francisco, the most critical components of the experience were not the swings, but the planted "normal" transit riders who encouraged strangers to use the swings and enter the experience directly; this was the point at which it ceased to be a spectacle and became something larger.

Public City Games

Using a city as a playground is a literal way to change how people understand it. Play is a fundamental activity and many activities use it as a medium, from getting people to explore a city to the creation of public art. A game can last a few hours, like *Journey to the End of the Year*⁸, or it can be a large, ongoing game, like *SFZero*⁹. In either case, pulling in people outside of the small subculture which originates the game is key to having a larger effect; playing entirely within a social circle will not alter the larger city. Games allow us to tell stories in a very direct way, similar to public art and essays, and this allows them to speak very directly to the imaginary of a place.

Parking Day

Parking Day¹⁰, initially created by Rebar¹¹, is a very literal example of both event-space and of events making a city more liveable. On Parking Day, people all over the world take public parking spaces and turn them into parks for a day, paying the meters for the spaces. The effort is intended to draw attention to the problem of limited open space in cities, especially relative to how much space is used by cars. Building a park can be as simple, in this case, as putting out a marker around the space and setting out a few lawn chairs, but many parks are more decorated, frequently with sod and potted trees (reflecting the way plantings and green space defines park space as a type in Western culture).

Done properly, even these temporary parks are inviting for outsiders, bringing them into the space in the same way a real park would. Ideally, a temporary space like this could be deployed and left for passers-by to discover it, even outside of the scope of semi-organized events. Sadly, this is not possible in most cities, but it may point to other, similar events where that could work.

Temporary Art in Commercial Spaces

Space for art is scarce normally, and in times of economic hardship, it tends to get scarcer still. However, at the same time, much commercial real estate is sitting empty. For the property owner, completely idle space is bad. A space which has not seen any use in a year or more is more difficult to rent. Owners may be skeptical depending on the type of event planned, but a temporary gallery is generally seen as a safe use compatible with their intent of getting space rented. The owner may require some assurance that the space will be returned clean and that it will be relatively secure during the event, but this is often a low bar.

Putting on even a short event lasting just a few days is a surprising amount of work, but it can be a way for

⁶See <http://www.guerrillagardening.org/>.

⁷Credit and inspiration for this section belongs, in part, with Mike Burnstein, twitter:@burnstein

⁸A game of urban exploration, held on December 31, 2009; more information at <http://totheendofthenight.com/berlin2009/>

⁹<http://sf0.org/>

¹⁰<http://www.parkingday.org/>

¹¹<http://www.rebargroup.org/>

groups of artists working together to get exposure they cannot get through the mainstream commercial art world. A gallery space will of course have to be staffed while open, so this may only make sense for short events. However, a rotating display of pieces in a window can provide a lot of exposure without as much work.

The Inflatable Cafe

Third space is one of the most important categories of public space; a third space is somewhere neither work or home where people spend significant time working and socializing. They are a building block for community. However, third places do not need to be made from bricks. Space can literally be created from thin air—thin sheets of plastic and a battery-powered blower can create an inflatable space that can be set up in minutes, anywhere a small patch of empty land exists. Folding chairs and LED lamps complete the picture, and with care the space can be heated in the winter. A space like this can pop into existence over the course of an evening in a corner of a park or a parking lot, and can go away just as easily.

Affordances for Life

Our final section covers serious actions that require much more time and investment. They are still in reach for small groups of individuals, through longer and more concerted effort, and we can understand them within the same framework we have used for our other interventions. Through these longer-term actions, we see how the same set of concepts we use for small interventions scale up to larger and more permanent work.

Third Spaces and Hackerspaces

Temporary third spaces can be wonderful, but they can only supplement the needs of a community. It is difficult or impossible to accumulate resources in temporary space, and it is challenging to build a lasting shared culture. To do these things, the community needs more permanent space. A permanent third space requires longer-term commitment, and while a group of friends can still start one, the group will need to grow to sustain and build out a space of any size. The existence of physical space for a community is key to that community's survival and influence in their larger social context.

In the hacker community, a lot has been said about hackerspaces¹². While these can meet some of the needs of our community, many of these spaces are (unintentionally) exclusive and all privilege some activities over others. This may be partially unavoidable, and the creation of more new spaces by other groups can help to provide more room for diversity, but it is also important to be aware of the need for diversity in all spaces. When we ignore our neighbors and fail to reach out to the community around us, we recreate the class segregation and the power divides that limit our full participation in the life of our cities.

Squats

Squatting, taking over property without the permission of the owner, is one of the most direct subversions of capital

control of land possible. It is also at least as time-intensive as creating a third space, and generally more so. Squats can allow community space to be created on a scale not typically available to rent-paying groups, and virtually require community support for long-term existence. The law varies widely between jurisdictions; in many places, squats will survive only as long as they go unnoticed; in others, they may be able to obtain some degree of legal protection from land owners. Squatting is not something to be taken lightly, and a more in-depth discussion of it would be out of scope here. However it is worth mentioning, as it fits into our general theme of changing the power structures of the city.

Housing for Non-Normative Families

We have seen how the shape of the city determines the kinds of lives we can live; this is rarely more true than with housing. Housing in most cities is built to accommodate only a few types of households. The cost of housing is the single largest expense in most people's lives. Only a relatively small elite have the available capital to buy property and construct or alter buildings to suit their needs. Everyone else attempts to fit their lives into the available housing stock.

Households with more than two adults are frequently especially ill-served, whether they are polyamorous families where three or more people live together in a relationship, groups of friends who want to share their lives, or single parents raising their children together. In some cases, groups of households can come together to create housing that better suit their needs, via a co-op or a co-housing community¹³. Even when dedicated space is not possible, landlords are sometimes amenable to tenant improvement of apartments, such as the combining of several one bedroom flats to form a shared residence for a group of single mothers who constitute a household. In addition to the affordances for life, shared housing can be economically important for many families. Specifically in the case of single parents, good shared housing can mean shared workload for parenting, along with a more secure, if not actually cheaper, housing situation.

Directly working for the housing you want for your family is one thing. Working with larger community groups to ensure a wider variety of housing stock is available is another important step.

Unselfish Building

Creating a human city is hard, but it happens one step at a time; one bench, one garden, one awning. Chances to help this process pop up unexpectedly. If you are involved in a larger construction project, taking a few fairly small steps can make a huge difference. If you do your part to push for the project you are involved toward a more human cast, piece by piece, a better city will take place. Christopher Alexander, mentioned earlier, has a set of patterns for building [Alexander 1977]. Only a few of them may be relevant to the project you are part of, but they can be a useful starting point for creating living spaces.

¹²See <http://hackerspaces.org/wiki> for more information.

¹³See the Cohousing Association of the United States at <http://cohousing.org> for more information.

Conclusions

You can change your city! Right now! The changes may not be big or permanent, but they do not have to be; small and light changes have a real effect on the city over time. With a better understand of the change that we want to see, a toolkit for creating change, and the means to understand the changes that we make, let's get to work.

Acknowledgements

I would like to thank the following individuals who have contributed ideas and critique to this paper, who have pointed me at invaluable resources, and who have supported and encouraged me while writing it: Tiffany Laine De Mott, Eldan Goldenberg, Johannes Grenzfurthner, Natarajan Krishnaswami, Aaron Muszalski, Rachel Hestilow, and Rose White. Finally, a very special thanks to Ari Lacenski, my editor, sounding board, tireless supporter, and loving partner.

References

- [Lynch] Lynch, Kevin. 1960. *The Image of the City*. The MIT Press.
- [Alexander 2001] Alexander, Christopher. 2001. *The Phenomenon of Life: Nature of Order, Book 1: An Essay on the Art of Building and the Nature of the Universe*. CES Publishing.
- [Alexander 1977] Alexander, Christopher. 1977. *A Pattern Language: Towns, Buildings, Construction*. Oxford University Press.
- [UN Population Fund] United Nations Population Fund. 2007. *State of the World Population Report*.
- [Cinar and Bender] Cinar, Alev and Bender, Thomas, editors. 2007. *Urban Imaginaries*. University of Minnesota Press.
- [Norman] Norman, Donald A. 2002. *The Design of Everyday Things*. Basic Books.
- [Ellin] Ellin, Nan, editor. 1997. *Architecture of Fear*. Princeton Architectural Press.
- [Brenner and Theodore] Brenner, Neil and Theodore, Nik, editors. 2003. *Spaces of Neoliberalism: Urban Restructuring in North America and Western Europe*. Wiley-Blackwell.
- [Williams] Williams, Frank Backus. 1922. *The Law of City Planning and Zoning*. The Macmillan Company.
- [Habermas] Habermas, Jürgen, trans. Burger, Thomas. 2001. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. The MIT Press.
- [Baudrillard] Baudrillard, Jean, trans. Glaser, Sheila Faria. 1995. *Simulation and Simulacra*. University of Michigan Press.
- [Nadel] Nadel, Barbara A. 2004. *Building Security Handbook for Architectural Planning and Design*. McGraw-Hill.
- [Fischel] Fischel, William A. 2001. "An Economic History of Zoning and a Cure for Its Exclusionary Effects", 2001 Florida State University Critical Issues Symposium.
- [Stratigakos] Stratigakos, Despina. 2008. *A Women's Berlin: Building the Modern City*. University of Minnesota Press.
- [Thoburn] Thoburn, Nicholas. 2006. "Vacuoles of Non-communication: Minor Politics, Communist Style and the Multitude" in *Deleuze and the Contemporary World*. Edinburgh University Press.
- [Robertson] Robertson, Susan 2007. "Visions of urban mobility: the Westway, London, England". *Cultural Geography*, 14; 74.
- [Wai] Wai, Kin, and Siu, Michael. 2007. "Guerrilla Wars in Everyday Public Spaces: Reflections and Inspirations for Designers". *IJDesign*, 1; 1.
- [Fabricus] Fabricus, Daniel. 2008. "Resisting Representation: The Informal Geographies of Rio de Janeiro". *Harvard Design Magazine*, 28.
- [Conley] Conley, Verena Andermatt. 2009. "Small Pleasures in Huge Webs: The Insights of Recent Cultural Theorists". *Harvard Design Magazine*, 30.
- [Harvey] Harvey, David. 2008. "The Right to the City". *New Left Review*, 53.
- [Wetzl] Wetzl, Tom. "Learning from Vienna". <http://www.uncanny.net/~wetzl/vienna.htm>
- [WP Soja] Wikipedia. "Edward Soja" http://en.wikipedia.org/wiki/Edward_Soja
- [WP Hausmann] Wikipedia. "Hausmann's renovation of Paris". http://en.wikipedia.org/wiki/Hausmann%27s_renovation_of_Paris
- [WP Lefebvre] Wikipedia. "Henri Lefebvre". http://en.wikipedia.org/wiki/Henri_Lefebvre
- [WP Hyper] Wikipedia. "Hypermodernity". <http://en.wikipedia.org/wiki/Hypermodernity>
- [WP Kelo] Wikipedia. "Kelo v. City of London". http://en.wikipedia.org/wiki/Kelo_v._City_of_New_London
- [WP Psycho] Wikipedia. "Psychogeography". <http://en.wikipedia.org/wiki/Psychogeography>
- [WP Public] Wikipedia. "Public space". http://en.wikipedia.org/wiki/Public_space
- [WP Spatial] Wikipedia. "Spatial Justice". http://en.wikipedia.org/wiki/Spatial_justice
- [WP Third] Wikipedia. "The Third Place". http://en.wikipedia.org/wiki/The_Third_Place

All URLs accessed during the months of November and December, 2009. References not specifically cited are either primarily included for further background or have been general sources of inspiration for the paper.