FALLOW FIELDS: DESIGNING A RESTORATIVE, TRANSITIONAL STATE FOR VACANT LAND IN DETROIT, MICHIGAN

by

JESSICA E. HYDE

(Under the Direction of David Spooner)

ABSTRACT

Detroit, Michigan is one of many postindustrial cities plagued by a cycle of depopulation, disinvestment, and increasing land vacancy. Negative perceptions of vacant land exacerbate this problem because they hinder the public's ability to see such land as a potential resource. This thesis examines whether landscape architecture could counteract this perceptual obstacle, by devising a fallow state for vacant urban land. This fallow condition would be: long-term, restorative, transitional, adaptable, interactive, and true to a sense of place. A study of scholarly literature, periodicals, and case studies, along with personal interviews and the author's own explorations of Detroit, indicated that the proposed fallow state does hold promise as a catalyst for positive perceptual and physical change. The results also suggested it would be possible to develop a framework for systematic implementation of fallow urban land design on a citywide scale, although further research would be required first.

INDEX WORDS: Landscape architecture, Vacant land, Terrain vague, Shrinking cities, Brownfield redevelopment, Temporary land use, Urban agriculture, Phytoremediation, Deconstruction, Ecological art, Aesthetic remediation, Adaptive management

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DEDICATION

For Melrita Westerlund. She never saw this work completed, but her afterglow of unshakeable faith in my abilities gave me courage each step along the way.

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So many people have contributed to this thesis that I hardly know where to begin in expressing my gratitude. This work truly is an amalgamation of countless interactions and experiences from throughout my life, and I could never have done it alone or in a conceptual vacuum. A long list of thanks — in no particular order — may have to suffice. With that said, many heartfelt thanks go out to:

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TABLE OF CONTENTS

CHAPTER ONE: NEW PERSPECTIVE FOR AN OLD CITY

Speramus Meliora; Resurget Cineribus

We Hope for Better Things; It Will Rise From the Ashes. It would be difficult to find a more poignantly fitting official motto than this for the city of Detroit, Michigan. Although the phrase directly references a fire that utterly razed Detroit in 1805, it also rings true with the city's broader history and indomitable spirit. Detroit, sadly, is no stranger to trouble — even the most cursory study makes that readily apparent. Over the centuries since its inception in 1701, Detroit rose several times to economic and cultural heights, only to crumble under the strain of inequity, corruption, crime, and the loss of its central industries. Still, despite it all, the city refuses to die. Those who love it do so deeply, passionately, fiercely, hanging on to a visceral knowledge that this once-great city can and will rise again from the ashes of its own destruction.

That is where this thesis takes root. At its core, it is about an abiding faith in the promise of Detroit, and an exploration of how the city might begin — only *begin*, mind you — to realize that promise. It is about sowing the seeds of inspiration in the public consciousness and, like most seeds, it all originates with the land: in this case, the vacant land that now comprises about one third of Detroit's 139-square mile landscape (Gallagher 2010; Kraus 2009; Mende and Oswalt 2004). To put that statistic in perspective, consider that a recent survey of American cities with

populations greater than 50,000 found average and median proportions of land vacancy in the Midwest to be about *twelve* percent (Pagano and Bowman 2004). Thirty percent is an incredible amount of space to have in a major city, and a feature that sets Detroit's landscape apart from the rest. What are the origins of this astonishing land vacancy? It is far beyond the scope of this thesis to wade through the full quagmire of past and present woes that led to the emptying of Detroit. Scholarly literature on the subject is fairly extensive, and it would be impossible to do the topic justice here. However, a brief history lesson is warranted as orientation to the issue.

HISTORICAL CONTEXT: WHAT MAKES YOU MAY BREAK YOU

The historical era most relevant to this thesis began with the advent of the automobile at the turn of the 20th century. Prior to this, Detroit had been a small to modestly sized city of less than 30,000 citizens, with kitchen stove manufacturing as the dominant industry (Herron 2004). As the automobile rose to primacy, however, the city boomed like never before. The city's first auto factory arrived in 1900, followed a year later by the world's first stretch of concrete road (Herron 2004). The groundwork for Detroit's future identity was laid. Ford Motor Company, General Motors Company, and thirty-six other automobile manufacturers joined the city by 1910 (Reichert 2005), creating a wealth of jobs and initiating a wave of immigration to the city (Kerr 2001). Significantly, a large proportion of these new residents were foreigners and blacks from the American deep South (Kerr 2001). By 1930, the city's land area had expanded to 139.6 square miles — larger than present-day Manhattan,

San Francisco, and Boston combined (Pitera) — and the population topped one million (Herron 2004). Detroit built upward, adding skyscraper upon skyscraper, but mostly spread outward in broad expanses of single-family homes (Mende and Oswalt 2004; Sugrue 1996). Detroit did struggle after the stock market crash of 1929, but the advent of World War II helped reinvigorate it in time to avert collapse (Kerr 2001). The war machine demanded additional manufacturing jobs and Detroit responded enthusiastically, churning out more than 92% of American military vehicles and 12% of all American-made war materials, earning itself the nickname "Arsenal of Democracy" (Kerr 2001). The city's population continued to rise until 1953, when it peaked at 1.85 million residents (Hagermann et al. 2004).

The manufacturing industry abandoned Detroit almost as quickly as it had arrived. After the war, automobile companies began closing down inner-city plants and constructing new ones outside of the city center, where there was greater space (Herron 2004; Kerr 2001). Residents (mostly white, it should be noted) followed the jobs and settled in suburbs like Warren, where they could afford more space of their own as well as larger homes (Gallagher 2004). The growing web of massive expressways not only carried these people outward, it also cut swaths through existing neighborhoods, displacing more than 7,000 (mostly minority) residents (Kerr 2001). This process was part of a larger strategy that city planners called 'urban renewal,' an effort to clear out inner-city slums while simultaneously making way for highways and new development (Sugrue 1996). Yet instead of rejuvenating Detroit, the strategy

only rent its urban fabric and social unity more deeply. It splintered communities, tightened the housing supply, and exacerbated existing racial tensions (Sugrue 1996).

Racial conflict and Detroit have long been bedfellows. From the outset, black residents faced substantial social and economic discrimination. Even when Detroit boomed in the first half of the 20th century, the burgeoning auto manufacturers hired far fewer blacks than whites and paid those they did hire less than their white counterparts (Sugrue 1996). This undermined black residents' ability to acquire adequate housing in the first place, and made it more difficult to maintain what housing they could afford (Sugrue 1996). Overwhelmingly, this relegated them to crowded, sub-standard rental housing in neighborhoods perceived as disreputable (Sugrue 1996). This job and housing discrimination was fully institutionalized: as one race relations official stated, "most discrimination was a consequence of public policy" (Sugrue 1996). Appraisers 'red-lined' neighborhoods that had even a few black residents, branding them as high-risk areas for private-sector mortgages and loans (Sugrue 1996). The Federal Housing Authority turned down black applicants who, based on their economic status, would have qualified for loans if they were white (Sugrue 1996). The government even sanctioned neighborhood covenants that overtly restricted certain minority groups from purchasing homes there (Sugrue 1996).

The steady undercurrent of unrest that such discrimination caused surged up into a full-blown race riot in 1943 — the third such riot in Detroit's history (two smaller ones occurred in 1833 and 1863) (Herron 2004). Conditions only deteriorated from the 1950s on (Herron 2004; Mende and Oswalt 2004). Then, in 1967, the worst race

riot in Detroit history exploded, killing 43 people, injuring 467, and leaving about $50 million of property in smoldering ruin (Kerr 2001). The fear this riot ignited accelerated the 'white flight' to the suburbs that had begun over a decade earlier (Kerr 2001). By 1998, the racial composition of the inner city had entirely reversed: 79% of residents identified as black. The suburbs were equally white (Mende and Oswalt 2004). This distribution differential reinforced inner-city vs. suburban inequities in income, employment, and education, perpetuating racial inequality and further damaging race-relations.

And still, Detroit's troubles did not end. The oil crisis of 1973 and increasing global competition dealt additional critical blows to the auto industry, contributing to the loss of another 208,000 jobs and a further decline in population (Hagermann et al. 2004; Mende and Oswalt 2004). Increasing poverty, racial tensions, and other social problems spurred rises in crime and vandalism, which only worsened the city's reputation for danger (Mende and Oswalt 2004; Kerr 2001). During the 1970s, Detroit added another nickname to its growing list: "Murder Capital" (Kerr 2001). By the 1980s, it had added the self-destructive tradition of Devil's Night as well, celebrating each October 30th with a round of arson. Over 800 fires blazed between October 29th and 31st in 1984 (Moceri 2003). The national economic crises of 2001 and 2009 hit the ailing auto industry hard once again, bringing still more rounds of layoffs, plant closings, and cuts to employee benefits (Kerr 2001). Much violence, few jobs, low-value housing... these aren't exactly incentives to set up shop or house in Detroit. More residents left. More people and business stayed away. More land became vacant.

The rapid depopulation of Detroit revealed something that had been in the making since the 1920s: extreme decentralization (Waldheim 2002). The very automobile industry that had spurred Detroit to economic and population heights had simultaneously encouraged a dispersed pattern of development (Sugrue 1996) and a weak public transportation system. At its population peak, the sheer number of residents seems to have compensated somewhat for the city's physical lack of connectivity. When the population flow reversed direction, however, the retreating wave left numerous gaps in its wake. As the physical urban fabric wore thin, so too did the city's society, economy, and infrastructure. Detroit has now become a case study the world over for the 'shrinking cities' phenomenon (Park 2004), a term coined to describe cities with inexorably declining populations and, frequently, expanding peripheral suburbs (Lindsey 2007). This status is hardly surprising, given that Detroit's population is currently hovering around 950,000, nearly half of the 1953 apex (Hagermann et al. 2004; Mende and Oswalt 2004). With such a dramatic and protracted population decrease over the past half-century, the city could not possibly have avoided the high proportion of land vacancy we see today.

PRESENT-DAY: TROUBLE FOLLOWS DETROIT LIKE A FLY AFTER A CORPSE

The unfortunate offspring of Detroit's troubled past is a tangled web of current problems. Unemployment is now around fifteen percent (Hagermann et al. 2004). Violent crime rates are at least twice the national average, arson is six times more common, and packs of feral dogs increase the level of danger on the streets (Kraus

2009; CityRating.com 2002). Theft is ubiquitous; it is not unusual to see buildings decked out with razor wire to safeguard air conditioning units and other appliances from metal scrappers. High school graduation rates in the city's public school system hover around sixty percent (Detroit public school district 2008 graduation rate 2009). Recent political scandals have broken as high up as the mayoral office. As noted earlier, nearly thirty percent of the land sits vacant or underutilized, and approximately 4,000 buildings stand vacant (Mende and Oswalt 2004). The list of troubles goes on *ad infinitum*, *ad nauseam*. As shown in Figure 1.1, these issues drive each other in an array of self-perpetuating feedback loops.

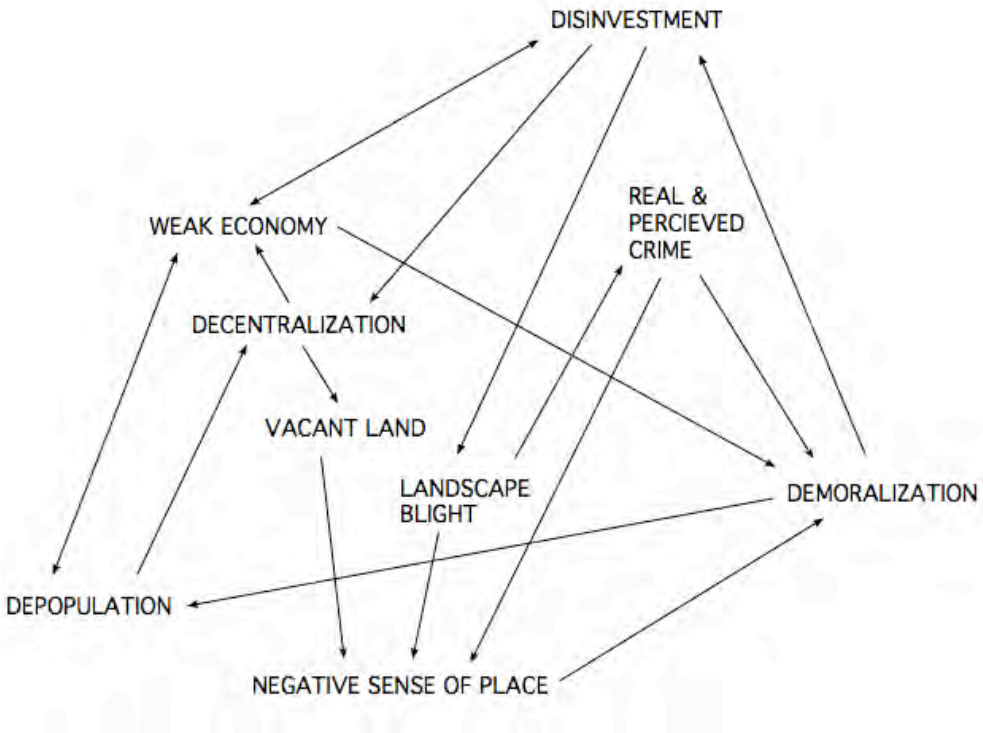


Fig. 1.1: Relationships between various problems currently facing Detroit. Arrows indicate the direction of effect.

The 'negative sense of place' and 'demoralization' components noted in the diagram are particularly strong, albeit indirect, drivers of continued land vacancy. They encourage those residents who can leave the city to do so in droves, and discourage new people and businesses from moving in, both of which exacerbate the precipitous population decline that began in the 1950s. This weakens the local economy further and fractures community cohesion, increasing poverty and opening the door even wider to crime. In turn, this perpetuates Detroit's unfavorable reputation.... and the toxic cycles continue.

Land vacancy may be just one component of Detroit's complex knot of problems, yet it exerts powerful psychological and economic effects. It is an ever-present visual reminder of misfortune and thus contributes greatly to the demoralization mentioned earlier. As Jakle and Wilson (1992) describe it, "Where disrepair, litter, emptiness, violation, and other signs of diminished habitat prevail, a derelict zone exists in mind if not in reality. It symbolizes failure." As Pagano and Bowman (2004) explain,

> Abandonment of a single building may trigger more abandonment. ... If the economic viability of the area weakens, more vacancies occur. Maintenance of the structures may be deferred or stopped, thereby creating potentially unsafe conditions. ... Some may be demolished, leaving gaping holes in the area where the newly vacant lots gradually accumulate litter and trash. Eventually, there may be more vacant lots than occupied buildings. ... Conventional efforts by city government to induce investment are not likely to be sufficient. In fact, unsuccessful attempts by a city government to transform the area add another negative layer to the mix: policy failure.

Thus, the more desolate the landscape gets, the more demoralized residents, potential residents, and would-be investors become. Detroit's reputation for crime and poor leadership only worsen the case for brownfield redevelopment (Brachman 2004). Lack

of hope blinds people to what potential the city *does* have and enervates their will to invest in the city, economically or otherwise, against very long odds.

LOOKING FORWARD: HOPE FOR BETTER THINGS?

Considering the wicked problems presented above, few could deny that the legendary Motor City is now officially stalled out and rusted through, with some crucial parts stolen long ago for scrap. And yet, Detroit is simultaneously brimming with potential. This may seem like an paradoxical statement — delusional even — but consider this: Scattered across those acres and acres of vacant land, the magnificent bones of things that once were thrust up from the landscape, waiting for someone to imagine what new skins might cover them. Returning to the phoenix metaphor, if those gaps in the urban fabric are the ashes of the Detroit's most recent downfall, what new manifestation of the city could we shape from them?

In truth, 'vacant' land in Detroit is not empty and is far from inert. Physically, it includes historic skyscrapers, immense factories with half-broken windows glinting, residual frames of abandoned homes, grand boulevards and narrow alleys along which more ghosts than actual cars drive, and everywhere a wild tangle of old-field vegetation (Kraus 2009) rife with pheasants and dotted with old fruit trees. People do move through and use such spaces in informal ways, as shortcuts, dumping grounds, extensions of their own property, loitering, and even play (Pagano and Bowman 2004). This land has been abandoned by conventional economic production, yet past, present and future intertwine on it like the vines, brambles, and grasses that grow wild on its

surface. In trying to rebuild and revitalize Detroit (as locals have admittedly been trying to do for decades) why start from scratch when so much already exists?

Although most people consider vacant and abandoned properties to be overt signs of urban blight, some see them much differently: as opportunity, freedom, and resources (Pagano and Bowman 2004). The idea of transforming these spaces from a burden into an amenity presents an exciting possibility. As Pagano and Bowman (2004) put it, "Vacant lots and abandoned properties form the raw material with which a city reinvents itself." In this view, the French term *terrain vague* would be a better descriptor of Detroit's marginalized land than the word vacant. According to Solá-Morales (1995), the phrase *terrain vague* connotes "void, absence, yet also promise, the space of the possible, of expectation." It is land, "in its potentially exploitable state but already possessing some definition to which we are external." What effect might it have on investment and involvement in Detroit if more people saw vacant land in this alternative light? It is conceivable that such a perceptual shift might trigger beneficial reactions along the very same lines of cause and effect that now resonate with negativity.

A TWO-FOLD QUESTION, AND A POTENTIAL ANSWER

Now, to the heart of this thesis, which comprises a two-fold question: How could landscape architecture reveal the latent potential of vacant land in Detroit, with the hope that doing so might help initiate reinvestment and repopulation? Additionally,

how could design highlight this potential in a way that resonates with the unique spirit of the city? These two lines of inquiry underlie all that follows.

In response to the primary research questions above, this thesis proposes that landscape architecture could visibly emphasize the resource potential of vacant urban land by devising a fallow state for it. In this context, the term *fallow* will refer to a restorative, transitional land condition that is as self-sustaining as possible. This state would be restorative in two ways: *aesthetic remediation*, or modifying the appearance of Detroit's vacant land so as to spark an alternative, positive perception of it; and *physical remediation*, or improving ecological health and removing physical impediments to vacant site re-programming, such as remnant infrastructure and building ruins. The fallow state would be transitional in the sense that it is intentionally temporary, filling the time between two more active land uses and easing the shift between them. This thesis posits that fallow urban land design could remain true to Detroit's characteristic sense of place by employing a recycled aesthetic. Such an aesthetic, grounded in a strategy of onsite salvage and reuse, speaks to the landscape's unique past and present, as well as its future possibilities.

THESIS STRUCTURE AND RESEARCH METHODOLOGY

The overall progression of this thesis is as follows: after this introduction, Chapter Two reviews the array of creative land uses already taking place on vacant land in Detroit. By examining these, we can ascertain some possible types of site reuse to which a fallow urban land condition might lead. Chapter Three elucidates the rationale

and remediation strategies that underpin the proposed fallow urban land approach, and examines the theoretical and real-world support for them. Chapter Four presents a preliminary framework for vacant site analysis and design. Chapter Five envisions the fallow state graphically, with several examples of how existing vacant sites in Detroit might be reconfigured. Chapter Six concludes with a thesis summary and discussion of the lines of future study that might proceed from the research begun here.

The research process for this thesis was based heavily on a review of scholarly literature and recent periodicals, with an emphasis on those sourced from or pertaining specifically to Detroit. Much of the information on case studies of current vacant land reuse in Detroit came from Internet-based sources, including several blogs maintained by the organizations conducting the redevelopment. Interviews with a few members of these organizations supplemented both the case studies research and development of the vacant land analysis and design framework. Initially, the intent was to conduct such interviews with a representative sample of vacant land reuse groups. Unfortunately, the number of willing interview participants found in the time available fell short of this goal, and the scope of this thesis had to be adjusted accordingly (this is discussed further in Chapter Four). The author's own wanderings up and down the near-empty streets, back alleys, and abandoned rail lines of Detroit provided additional source material and first-hand inspiration for both the overall concept of fallowing urban land and the example fallow state designs included in Chapter Five.

RELEVANCE: WHY BOTHER?

Several researchers have investigated the historical factors that spurred the proliferation of abandoned land in Detroit, and the properties' current pattern of distribution (Shrinking Cities, Working Papers, Detroit III.1 2004; Daskalakis, Waldheim, and Young 2001). Others have explored potential types of vacant land reuse in shrinking cities that extend beyond conventional economic goals to incorporate social functions (Schwarz and Rugare 2009; Yun 2008; Bolofer 2007). However, most of the resulting concepts would require assets that Detroit simply does not have right now: public works funding, population density, investment interest, governmental support, and the like. The current economic climate of both Detroit and the nation makes it highly unlikely that widespread redevelopment of abandoned properties — conventional *or* creative — will occur anytime soon. Detroit's particular suite of social problems makes the prospect even bleaker. Even the spatial arrangement of vacancy works against the city. The recently published Detroit Residential Parcel Survey revealed that vacant land and the most derelict structures are concentrated near the city center (Fig. 1.2) (Detroit Residential Parcel Survey 2010), which would make it very difficult to 'right-size' Detroit and consolidate its infrastructure (Macdonald and Nichols 2010). A more feasible intermediate redevelopment state seems in order. As of yet, it appears that no researchers have sought to define such a state. This thesis attempts to fill that void.

Clearly, the central purpose of this thesis is to explore a novel idea for how the city of Detroit might approach revitalization and treatment of its vacant land.

However, the conceptual framework also has broader relevance for the discipline of landscape architecture. Fundamentally, this thesis investigates the nexus of two concepts: designing intentionally transitional landscapes, and creating landscapes whose primary function is psycho-social. This synthesis is applicable well beyond the boundaries of Detroit, to other degraded landscapes and shrinking cities awaiting transformation.

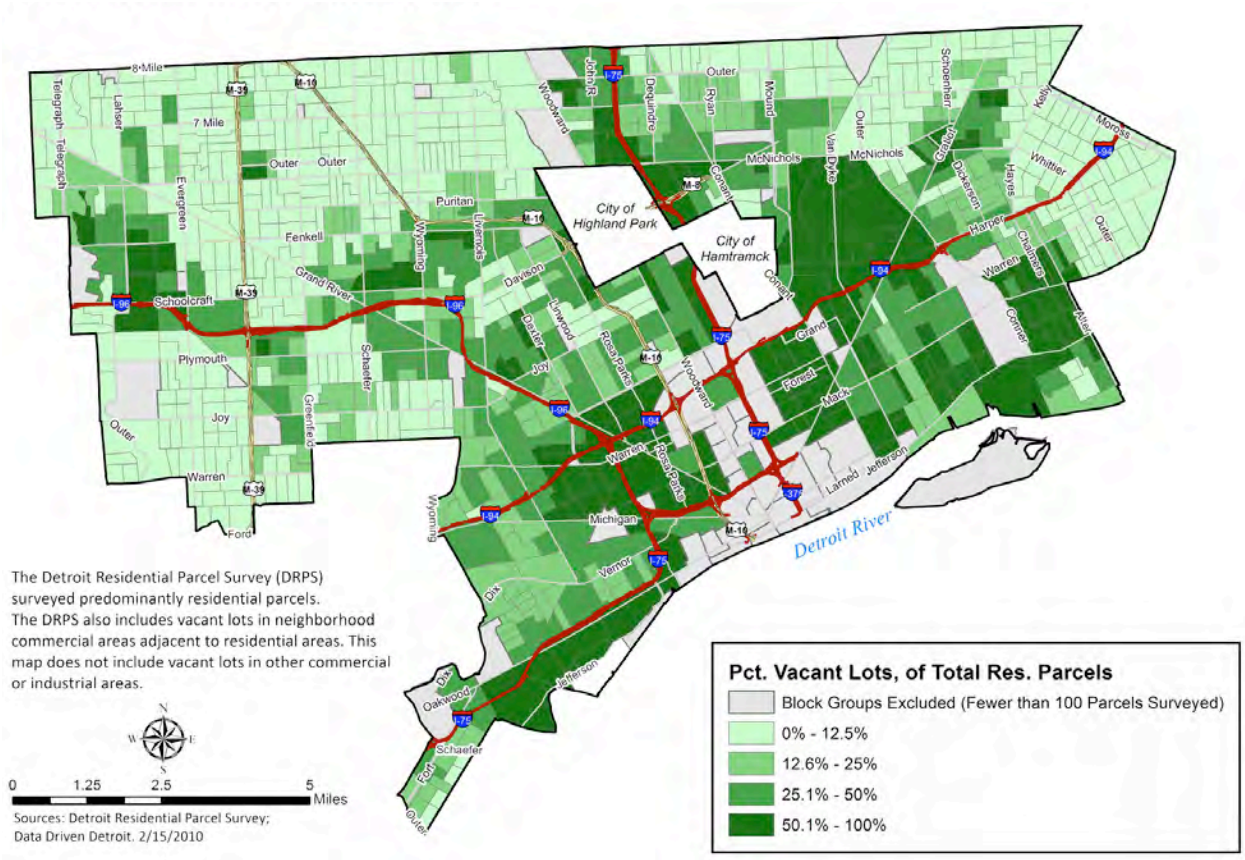


Fig. 1.2: Vacant Lots, as Percentage of Residential Parcels, by Census Block Group (Detroit Residential Parcel Survey 2010)

CHAPTER TWO: NO BLANK CANVAS

Precedents for Resourceful Vacant Land Use in Detroit

As important as it is to understand the historical origins of Detroit's vacant land, we cannot afford to ignore all that is going on in the city now. Detroit is not a *tabula rasa* — let us clear up that popular misconception from the outset. It is easy to understand how an outsider might see the city thus, given its high rate of land vacancy, derelict conditions, and poor economic state. Some authors and academics have even gone so far as to treat Detroit as though it were devoid of any existing life or use, proposing extreme scenarios like mothballing the entire downtown as an urban ruin, a monument to the bygone industrial age (Vergara 1995). Yet, a blank canvas it is not. Without even considering the weight of history, there is much afoot in Detroit today stirring just beyond the bounds of the nation's collective awareness — and a great deal of that activity centers on the expanding network of vacant land. Although many see vacant urban land as unruly, unproductive, wasted space, there is a corps of individuals who view it as a tremendous resource, brimming with great potential for unconventional transformation and creative solutions to the city's many woes.

URBAN AGRICULTURE

Arguably the strongest and most structured of these activities is the urban agriculture movement, comprising numerous formalized organizations and motivated individual gardeners, working both for-profit and not-for-profit at a variety of scales. Much has been said of late about the necessity of local, sustainable food systems, and these groups are working to establish a more robust one in Detroit. Aside from the popular and well-established Eastern Market, the city has a dearth of places to purchase fresh food, but a wealth of open land on which to grow it (Gabriel 2009). One solution, cultivating vacant land, appears so obvious that it is a wonder Detroit hasn't capitalized more on its open space as a way to integrate food production with the city. Nevertheless, the fact that Detroit's current urban agriculture movement is strong enough to be considered "a national example" (Josar 2009) attests to the fact that a significant number of its citizens have the wherewithal to turn their proverbial lemons into lemonade.

In fact, there is a historical precedent for urban agriculture in Detroit that the current city government might do well to reexamine. In 1894, then-Mayor Hazen S. Pingree, with help from the aptly-named Captain Cornelius Gardener (Fig. 2.1), initiated a visionary "Relief by Work" program to aid Detroit's poor during a fierce economic crisis when, "nearly all of the manufacturing establishments were at a standstill, and but few public improvements were being prosecuted" (Pingree and Gardener 1895). More than 8,000 acres within the city limits lay "idle and unused" and in these spaces, Mayor Pingree saw an opportunity to help struggling Detroiters survive the coming

winter. The aid program, dubbed "Pingree Potato Patches" by the press, used charitable donations of underutilized land and money to provide citizens who applied for financial assistance with quarter-acre garden parcels and the seeds necessary to cultivate them (Fig. 2.2). Some instruction in gardening was available for those who lacked prior experience. Parcel recipients kept the entire harvest of their plot. The program was an unconventional experiment, as Captain Gardener himself admitted, and it encountered substantial "ridicule" from some segments of the public. Yet despite this criticism, late-season planting, generally poor soil, and a nine-week drought, the program was so successful in its first year that the city continued it in 1895 with even greater participation and organization. Moreover, several other cities from Omaha, Nebraska to Buffalo, New York took a cue from Detroit and implemented similar programs. As Detroit's economy rebounded and later boomed, however, Pingree's Relief by Work program fell by the wayside and systematic urban agriculture (as opposed to individual home gardens) largely disappeared from the city for decades.

Fig. 2.1: Mayor Hazen S. Pingree (seated at left) and Captain Cornelius Gardener (Lochbiler 1998)

Fig. 2.2: Polish women of Detroit, walking to one of the 'Pingree Potato Patches,' circa 1890 (Lochbiler 1998)

Now, with Detroit mired in another protracted economic slump, vacant land cultivation as a survival and revitalization strategy is coming to the forefront once more. This time, however, it is manifesting primarily at the grass-roots level. As estimated by the Garden Resource Product Collective, Detroit currently has about 600 neighborhood- and school-based gardens (Gabriel 2009). These represent a spectrum of scales, organizational structures, and financial goals. Many began with assistance from the Detroit Agricultural Network's Garden Resource Program, which provides seeds, transplants, information, and a support network for a small fee (*Garden Resource Program Collaborative* 2010).

Some community gardens, like the Georgia Street Community Collective, Hope Takes Root Community Garden and the Farnsworth Community Garden operate at a neighborhood scale through the efforts of residents and some non-local volunteers (Hyde 2010; Crouch 2009; Jackman 2009; Josar 2009). The Farnsworth Community Garden is fairly modest: a large residential corner lot marked by a rainbow-colored starburst sign and containing some raised beds that dedicated neighbors maintain in their spare time (Hyde 2010). The Georgia Street Community Garden (Fig. 2.3) began as a vacant lot litter-cleanup project by one man, Mark Covington (Fig. 2.4), and has since burgeoned into a five-lot garden and orchard overseen by the Georgia Street Community Collective and maintained by Covington and a suite of volunteers from throughout the region (Jackman 2009). There are plans to transform an adjacent house into an affiliated community center (Fig. 2.5) (Jackman 2009).

Fig. 2.3: Raised vegetable beds in the Georgia Street Community Garden; unknown photographer, http://georgiastreetgarden.blogspot.com/

Fig. 2.4: Mark Covington, founder of the Georgia Street Community Collective; photo by Gary Malerba (Josar 2009)

Fig. 2.5: An abandoned liquor store slated to become the Georgia Street Community Collective community center; photo by Marvin Shaouni (Georgia Street 2009)

At this smaller-scale end of the spectrum, urban agriculture in Detroit frequently involves 'guerilla gardening' wherein the farmers do not actually own the land they are cultivating and in some instances may even be going against the property owner's wishes (Ponnekanti 2009). Near the Farnsworth Community Garden, for example there is a well-maintained guerilla orchard and apiary that was established fifteen years ago and has endured despite the former landowner threatening a lawsuit a few years back (Hyde 2010). Others do obtain legal rights to the properties they cultivate, although they face many bureaucratic obstacles in the process (Hyde 2010). As in many cities, Detroit's zoning policy and other legal restrictions are not conducive to farming within city limits. Raising chickens, for example, is technically illegal within city limits (Josar 2009), although they can be seen scratching the soil of many an urban garden (Fig. 2.6). On the whole, neighborhood-scale urban farmers in Detroit appear less concerned with marketing their produce and turning a large profit than community sustainability.

Figure 2.6: City chickens scratching out a living in Detroit; photos by Jessica Hyde

Moving toward the larger-scale end of the spectrum, there are several urban agriculture programs affiliated with schools and non-profit organizations. One of the most prominent of these is Earthworks Urban Farm, begun in 1997 by Brother Rick Samyn and others at the Capuchin Soup Kitchen (*History of the Earthworks Urban Farm* 2008). Since then, Earthworks has expanded greatly and formed partnerships with other Detroit programs, including: Women, Infants, and Children (WIC); Gleaners Community Food Bank; Iroquois Avenue Christ Lutheran Church's WISE Coalition; as well as The Greening of Detroit and Michigan State University Extension, as part of the Detroit Agriculture Network partnership (Josar 2009; *History of the Earthworks Urban Farm* 2008). Earthworks now comprises a 1.5-acre farm, 1,300 square-foot greenhouse (Fig. 2.7), and an apiary with more than forty beehives (Fig. 2.8) (*History of the Earthworks Urban Farm* 2008). It sells some of its products locally, but focuses on supplying the Capuchin Soup Kitchen (*History of the Earthworks Urban Farm* 2008).

Fig. 2.7: Earthworks row crops and greenhouse; unknown photographer, http://www.cskdetroit.org

Fig. 2.8: harvesting honey at Earthworks' apiary; unknown photographer, http://www.cskdetroit.org

The Catherine Ferguson Academy for Young Women (Fig. 2.9) represents another type of mid-scale urban agriculture program in Detroit. The Academy is an alternative school solely for teen mothers in grades seven through twelve, providing a college-prep curriculum alongside childcare services and parenting classes (Poppenk and Poppenk 2009). Another feature that sets this school apart is the agribusiness course it offers, complete with access to the school's 'farm.' There are apple trees and row crops, an apiary and chickens, and even a barn with a horse and some goats, all on property that once sat idle (Poppenk and Poppenk 2009). The goal of the class is to teach the young women about nutrition, marketing, and organic food cultivation through hands-on experience with urban agriculture (Poppenk and Poppenk 2009). Although the primary goal is educational, the school does sell some of its surplus produce locally to give students marketing practice (Poppenk and Poppenk 2009).

Although the vast majority of urban agriculture taking place on the vacant lands of Detroit is community-based, it looks as if a large-scale commercial operation may soon join the mix. Hantz Farms, LLC has grand plans to create the world's largest urban farm system there: a pilot program of approximately 50 acres, with multiple 300-acre farms added over time (Whitford 2009). Depending on site conditions and location, these farms would vary in form and products. Some would have row crops, others greenhouses; some would support high-density orchards, while those with more contaminated soil might yield lumber or Christmas trees (Hyde 2010; Berman 2009). The project has already involved a great deal of collaboration between Hantz Farms, soil scientists, hydrologists, agricultural experts, the Kellogg Foundation, Michigan State

University, and the University of Detroit Mercy (Hyde 2010; Berman 2009). The vision has been widely publicized in various newspapers, magazines and internet blogs, generally to a positive reaction from the public (Hyde 2010). The primary dissenters have been from among the existing urban gardening community, who are wary of the venture's motives (Crouch 2009).

In stark contrast to guerilla-gardening operations, which operate more or less outside the 'system,' Hantz Farms would be firmly rooted in capitalism. Although the company is dedicated to proceeding in an environmentally-sound manner (e.g. zero-percent stormwater runoff, soil remediation, renewable energy sources, and generating wildlife habitat) and sees its endeavor as a catalyst for revitalization (e.g. by contributing to the tax base, creating jobs, serving as an agricultural research and educational resource, and providing high-quality locally-grown produce, all in a visually attractive way), it is first and foremost a business, intent on turning a profit (Hyde 2010). In the minds of some, including Matt Allen, the Senior Vice President of Hantz Farms LLC, this makes the venture more viable and sustainable in the long-run (Hyde 2010). Others, however, are wary of the approach lest it undermine community-based urban agriculture projects, or turn into a plantation monoculture system run by workers with mostly low-paying jobs (Maynard 2010).

INNOVATIVE HOUSING RENOVATION AND INFILL

There may not be a rush of people looking to relocate to Detroit, but that does not mean no one is interested in moving in. The city has an abundance of extremely

inexpensive houses and lots available, some costing as little as $100 to $500 (Barlow 2009). Properties in slightly better condition can be purchased at public auction for a few thousand dollars (Hyde 2010; Barlow 2009; Thompson 2009). These properties almost invariably require extensive repair from fire damage, water damage, stolen electrical and plumbing hardware, blown-out windows, and collapsing roofs. Given the ubiquity of metal scrappers, it's often necessary to live onsite while making the repairs and forego the conveniences of electricity, heat, and indoor plumbing for a while — no easy feat when the temperature dips well below freezing in winter (Hyde 2010). As one Detroit resident stated,

> "Detroit is a particular kind of place that demands utmost respect and attention, sort of like lion taming: it is not for everyone and it is not easy. Detroit is a beautiful, strong and passionate city, but it is also unpredictable and aggressive and therefore must be handled with the proper tools and caution. If moving to Detroit is done with good intent and care, the experience of living in Detroit can be amazing and profound, like no other, yet you will most likely at some point get scratched and hurt you but you must not run. Instead stand your ground and try again." (Cope and Reichert 2009)

Yet, for industrious and innovative types who are willing to defer personal comfort and endure setbacks along the way, these properties and the abundant space around them are an alluring opportunity.

These are not the type of loft conversions that you see in most post-industrial cities, although there are certainly many such redevelopments in Detroit. No, these infill housing projects are further out on the fringe of the conventional housing market. Intriguing stories abound: A group of architecture students bought land for $500 from a strip-club owner and used it to practice design and construction (Thompson 2009).

A man purchased the only house still standing on a block specifically because it provided sufficient space to raise goats (Hyde 2010). A local teacher moved to Farnsworth St., then systematically bought up, renovated and sold or rented eight vacant properties nearby, sparking the block's resurgence into a strong community (Hyde 2010). There is even a group of architects and city planners from Amsterdam who created the Detroit Unreal Estate Agency to "produce, collect, and inventory" projects like these, the "new types of urban practices ... that came into existence, creating a new value system in Detroit" (About the Detroit Unreal Estate Agency 2009). Drive around the residential areas of Detroit and you are sure to see a few clearly unconventional structures scattered amid the sea of urban 'prairie' vegetation and remaining inhabited homes.

The Power House (Fig. 2.10), a project undertaken by Mitch Cope and Gina Reichert of Design99, LLC, is an unconventional house and lot renovation that has received widespread recognition and community support (Barlow 2009; Thompson 2009). The house, a 1923 bungalow, and two adjoining vacant lots in East Detroit together cost only $4,900 when purchased in 2008 (Cope and Reichert 2009). As the couple describe it, the Power House is both an architectural and social art experiment, meant "to stimulate communication and action" in a "space where people feel comfortable to share ideas, knowledge and expertise about the fundamentals of neighborhood living" (Cope and Reichert 2009). It is essentially a prototype for additional Power Houses: affordable renovations (less than $99,000 total) which would simultaneously serve as self-sustaining housing, community hubs, and energy sources (Cope and Reichert

2009). The Power House generates enough electricity via solar power to supply itself and at least one other neighboring house, hence its title (Cope and Reichert 2009). On a social level, Cope and Reichert intend it to "become a symbol for creativity, new beginnings and social interaction within the neighborhood (Cope and Reichert 2009).

Fig. 2.10: The Power House in October 2009; unknown photographer, http://www.powerhouseproject.com

VACANT LAND AS ART MEDIUM, SUPPLY SOURCE, AND SITE

Like Cope and Reichert, a substantial number of those tackling unconventional or extreme housing and vacant lot redevelopment projects are artists and people with a design background (Hodges 2009). Time and again, these creatively-minded people comment on the liberty they have in Detroit compared to other cities. "Friends are always struck by how much freedom and time we have," says Gina Reichert of Design99 (Hodges 2009). Toby Barlow, a novelist, remarked, "There are so many interesting things going on here that you couldn't do in New York, both because of

cost and crowding, and the fact that everyone's overseeing everything" (Hodges 2009). A resident of the Farnsworth neighborhood and member of The Yes Farm echoed these sentiments, noting that low land prices and a degree of anarchy allow hardworking artists to flourish in Detroit and create work that would be difficult if not impossible elsewhere (Hyde 2010). This freedom and autonomy has yielded some remarkable uses of vacant land as art and performance space.

Tyree Guyton is perhaps one of the most famous examples of an individual Detroit artist who has appropriated vacant land and abandoned structures as both medium and site. In 1986, Guyton began what came to be known as The Heidelberg Project, a series of outdoor art installations running the length of a block on Heidelberg Street in East Side Detroit (*Connecting the Dots: Tyree Guyton's Heidelberg Project* 2007). It began with a few vacant houses, cleaned up and painted with thousands of colorful dots that symbolize diversity (Fig. 2.11) (*Connecting the Dots: Tyree Guyton's Heidelberg Project* 2007). Over time, Guyton's paintings and found-object sculptures have sprawled over nearly every available surface: sidewalks, yards, front porches, up walls, and onto roofs (Nasar and Moffat). The works are a riot of color and reclaimed garbage. A line of broken vacuum cleaners, for instance, stands as a statement about cleaning up the city (Fig. 2.11) (*Connecting the Dots: Tyree Guyton's Heidelberg Project* 2007). Old car hoods bear stylized portraits. Old shoes dangle from tree-tops as symbols of lynching victims (Fig. 2.11) (Nasar and Moffat).

Fig. 2.11: The *Dotty-Wotty House* and other images from the Heidelberg Project; unknown photographer, http://izismile.com

Guyton's work has an intentional and undeniable social purpose: to serve as commentary on civil society's neglect of Detroit; to inspire hope and arts-awareness in local children; to draw attention to place and history; and to spark positive change in the neighborhood (Nasar and Moffat). According to Jenenne Whitfield, executive director of The Heidelberg Project, Guyton's work has had a noticeable impact. "These houses that Tyree has transformed used to be magnets for drugs, for prostitution, for crime," she has said. "You won't really find that there anymore" (Thompson 2009).

The Heidelberg Project has been highly controversial from the outset. The city has threatened multiple times to demolish installations on property to which Guyton and The Heidelberg Project lack title, and has followed through twice, in 1991 and 1999 (Thompson 2009). Once, the city notified Guyton less than an hour before the wrecking crew moved in (*Connecting the Dots: Tyree Guyton's Heidelberg Project* 2007). Many suburbanites and non-Detroit artists applaud the project (*Connecting the Dots: Tyree Guyton's Heidelberg Project* 2007; Nasar and Moffat). Some neighbors

defend it, while others despise it for it's unkempt appearance and the influx of gawking tourists it lures to their street (*Connecting the Dots: Tyree Guyton's Heidelberg Project* 2007). Nevertheless, the fact that Guyton's work incites such strong reactions from the public verifies the power of outdoor art to draw people's attention to the overall landscape and prompt some sort of action.

Scott Hocking is another native Detroit artist who uses vacant land, in his words, "as a medium, as a material" (Thompson 2009). "I want to do work that speaks to Detroit history, the heart of the place," says Hocking (Mazzei 2008). For a time, Hocking accomplished this by salvaging materials and found objects from abandoned sites and hauling them back to his studio where he modified, amalgamated and incorporated them into richly-textured sculptures and paintings (Thompson 2009). The installation *Relics*, a collaboration with Clinton Snider, is a prime example: it consists of a wall of 18"x18"x12" fiberboard boxes filled with all manner of fractured and collaged urban artifacts (Fig. 2.12) (Hocking and Snider 2001-2005).

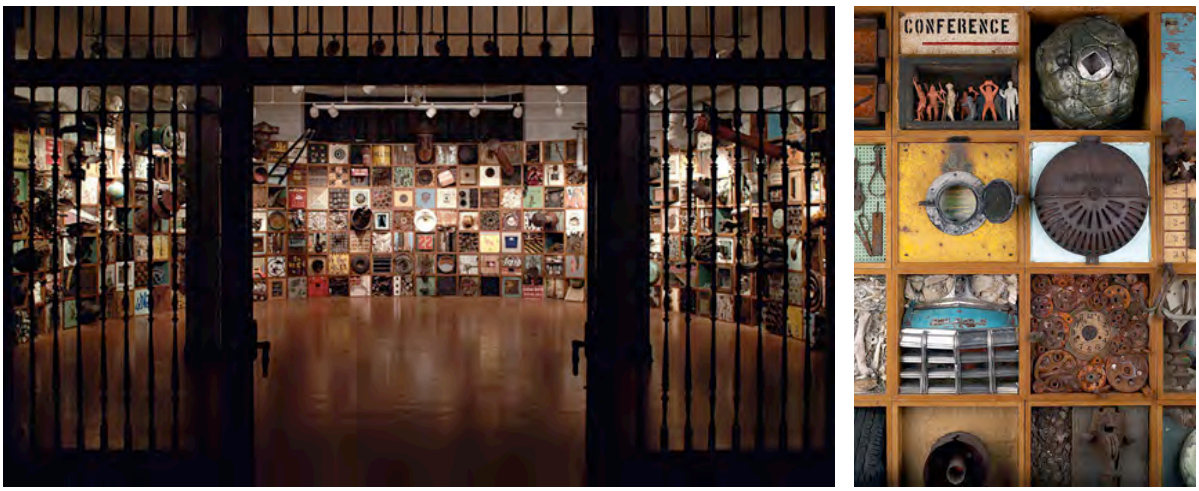


Fig. 2.12: *Relics*, 2003 Arc version installed at Marygrove College, Scott Hocking with Clinton Snider; photo by Scott Hocking, http://scotthocking.com/installations

Recently, however, Hocking began installing his sculptures in-situ on abandoned industrial sites and inside of ruined structures. He documents them in stunning photographs for public display, then leaves them to deteriorate (Thompson 2009).

These abandoned-site installations are often less public than Guyton's Heidelberg Project, being located where most people do not (and probably should not) venture. Yet, the resulting photographs have an equally strong, if different, means of provoking altered perceptions of the Detroit landscape. After seeing Hocking's photographs of a brick ziggurat in the midst of the crumbling Fisher Body Plant (Fig. 2.13), or a tire pyramid rising up from a front lawn then leaving behind seared brown rings in the grass (Fig. 2.14), one looks at abandoned landscapes a bit differently — possible reorganizations and modifications spring to mind. The deliberate ephemerality also challenges common notions of worth. We so often intend our creations to be permanent. In fact, it could be argued that this is part of why people find Detroit's physical decay so disturbing — structures meant to last are clearly *not* lasting. Hocking's work challenges the notion that value lies in permanence by highlighting the beauty of cyclical creation, destruction, and reincorporation (Hocking and Snider 2001-2005). Doing so within the context of Detroit's structural corrosion suggests that the landscape itself, like the art within it, could someday undergo metamorphosis.

Fig. 2.13: *Ziggurat*, 2007-2008 at the Fisher Body Plant 21; photo by Scott Hocking, http://scotthocking.com/

Fig. 2.14: *Tire Pyramid*, 2006; photos by Scott Hocking, http://scotthocking.com/

Graffiti art is yet another excellent example of how resourceful Detroit artists appropriate the city's marginalized spaces for their work. Graffiti may not be unique to Detroit, but it is undoubtedly a characteristic component of the city's landscape. If you take a glance at nearly any abandoned factory while you speed past on the highway, you'll catch a bright flash of color amidst the monotonous concrete drab and shattered glass. The windows of the historic United Artists building downtown (Fig. 2.15) were a veritable celebration of graffiti until the city scrubbed them clear for Superbowl XL in 2006, to the chagrin of many.

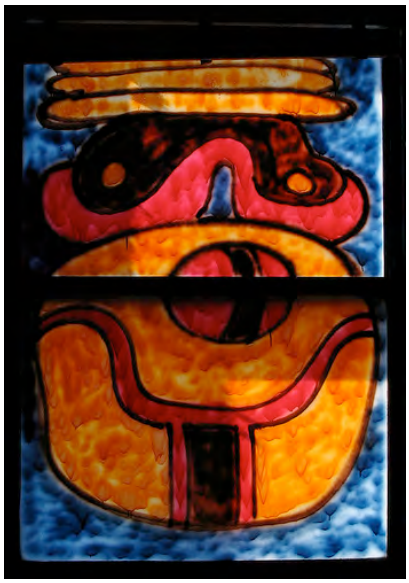


Fig. 2.15: (above left) United Artists Building, prior to a city 'cleanup' in 2006; photo by Allen Machielse, http://www.flickr.com/photos/allanm; (above right) detail of window; photo by Rich Ayers, http://i171.photobucket.com/albums/u317/hodgesmh/unitedartistswindows.jpg

The prime showcase for graffiti art in Detroit is arguably the Dequindre Cut, a stretch of abandoned, mostly below-grade railroad bed that runs northward from the riverfront warehouse district (Fig. 2.16) (Terek 2009). It is flanked by empty industrial

buildings, buried in wild Midwestern vegetation, and covered with layer upon layer of astonishing works by local graffiti writers (Fig. 2.17). According to artists interviewed in a recent short documentary, the Dequindre Cut is the "Hall of Fame for the city of Detroit," where only the very best can rightfully claim a piece of the wall (Terek 2009). Because of the Cut's relative invisibility to the general populace, these artists have free reign there to unleash their talents. As Shades (a.k.a. Antonio Agee) said, "It was like our own little world right there in front of us — and nobody would even mess with us" (Terek 2009). The city recently converted a mile-long segment of the Dequindre Cut into a public greenway for walking and biking (Terek 2009). Thankfully, in a rare show of local pride and respect for its underground artists, the city left the graffiti masterpieces more or less intact.

Fig. 2.16: Views of the Dequindre Cut in summer, 2009; photos by Jessica Hyde

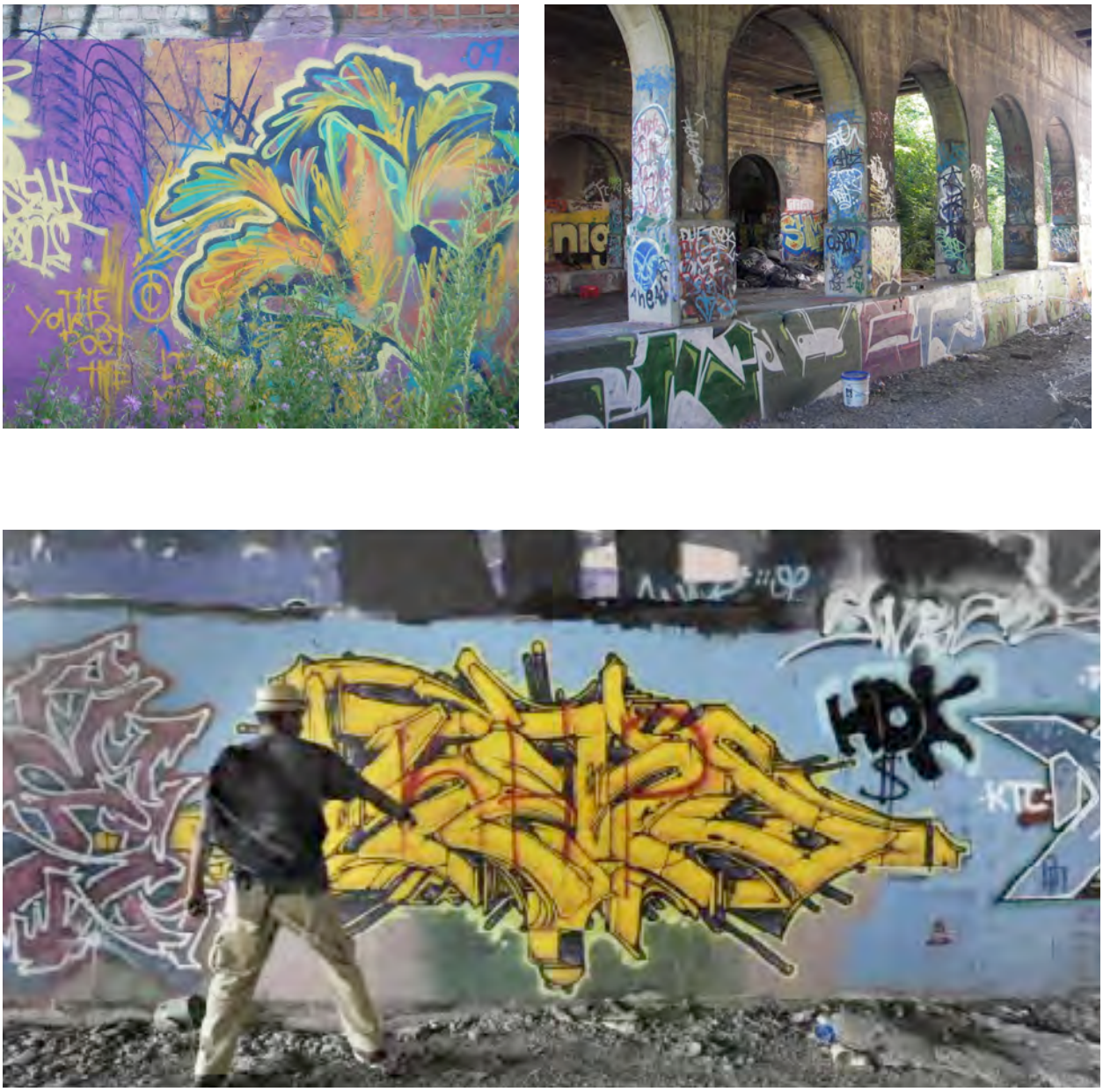


Fig. 2.17: Examples of graffiti art in the Dequindre Cut; top row photos by Jessica Hyde, bottom row photo by Donna Terek (Terek 2009)

Detroit artists use vacant land collectively as well as individually. Consider The Yes Farm, a community arts organization of "painters, sculptors, printmakers, photographers, activists, teachers and farmers working to create a safe, stimulating space to live, work and visit" (About Me: The Yes Farm 2010). The organization's physical presence is a fairly unassuming two-story abandoned store, standing on the corner of a residential street in Detroit's Near-East Side (Fig. 2.18). Illustrative paintings on a few exterior walls are one of the only signs that something more remarkable is stirring within: a venue for the arts and community activism (About Me: The Yes Farm 2010).

Fig. 2.18: Exterior of The Yes Farm building, renovations still in progress; unknown photographer, http://theyesfarm.blogspot.com/

At the moment, The Yes Farm is still tackling serious structural renovations to its building: replacing and securing windows; removing lead-based paint; repairing

floors, walls, and ceilings; and hooking up indoor plumbing. There is also the issue of getting a reliable electrical connection — the building currently runs on power shunted via extension cords from the (consenting) neighbor's house (Hyde 2010). Yet, these hindrances have not prevented the building from fulfilling its purpose as a community hub. The space has hosted events as diverse as music concerts, clothing shows, and visual arts exhibits (About Me: The Yes Farm 2010). In the future, Yes Farm organizers hope to set up a community wood shop there, as well as an industrial kitchen in which local urban farmers can legally process value-added products like honey for sale (Hyde 2010). All in all, The Yes Farm stands as a prime example of the positive transformation that a typical abandoned storefront can undergo in the hands of a few creative, highly-motivated individuals and a supportive community.

The Lot is a slightly different manifestation of vacant land as art and performance space. True to its name, The Lot is literally a cleared vacant lot next to the North Corktown home of its creator, artist/musician/curator Kathy Leisen (Leisen 2009). Begun in March 2009, it serves as an experimental arts venue and curatorial project (Leisen 2009; Wright 2009). In creating it, Leisen was focused on "the idea of taking artists out of the typical setting for creating and showing work" (Hyde 2010). The possibilities for using The Lot are as open-ended and unbounded as the space itself. As Leisen puts it,

> "Manipulating the land is ok. Landscaping is ok. Bringing in outside materials is ok. For example, proposals so far have included: creating a cemetery, hut sounds (sounds emitted from a hut), arranging an archeological dig (ancient Cheetos wrappers), making a gallery of inflatables, and holding African dance classes." (Leisen 2009)

Although still a young venue, The Lot has already hosted an offbeat rotation of exhibits and events, including a "Cooking with Power Tools" opening performance, a 20-foot tall painting entitled "1,000 Frogs," a nine-hole miniature golf course (Fig. 2.19), plus several dance and audio-visual performances (Leisen 2009).

The Lot was not intended to be a social experiment, but it nevertheless has engaged the local community. Leisen hesitated to claim that the Lot had directly altered the rest of the neighborhood, but she did note that it seemed to give neighbors "a positive boost," prompting them to clean up the area a bit and tackle projects they had been planning but postponing (Hyde 2010). The popularity of The Lot has far exceeded Leisen's initial expectations, with high attendance at events and plenty of offers to help (Hyde 2010).

Fig. 2.19: *1000 Frogs,* 2009 at The Lot, by artists Davin Brainard and Chris Kerr; photo by Kathy Leisen, http://thelotdetroit.blogspot.com

VACANT LAND'S TECHNO PULSE

Venturing deeper into the underground of Detroit's, there is one final form of collective vacant land use that cannot be overlooked: the use of abandoned warehouses and industrial buildings as settings for epic parties, specifically techno raves. The intertwined nature of techno/rave culture and Detroit's landmark vacant structures represents a physical layering of two key aspects of Detroit's historical identity: industry and music. Within the ruins of one, a new genre and subculture of the other was born (Sicko 2003). In this respect, it is a particularly intriguing example of ongoing activity in supposedly vacant land.

Techno — a multifaceted genre of music that defies precise definition, but could be described very broadly as a type of electronic music — emerged during the late 1970s and early 1980s, the offspring of innovative DJs and recording artists concentrated in the vicinity of Eastern Market (Sicko 2003). Before long, an associated 'rave' culture evolved from an existing party club tradition (Sicko 2003), and adopted Detroit's marginalized land as its home. Event producers commandeered vacant buildings to host competing DJs and swarms of dancers in heart-pounding, music-driven, illegal all-night parties. The locations changed randomly at first, but over time they began to recur at the most spectacular of the vacant downtown shells (Sicko 2003). The sprawling 36-acre *Packard* plant (Fig. 2.20), designed by well-known architect Albert Kahn in 1907, became a particularly popular and symbolic site for raves, with some events even recurring there annually (*onlyndetroit.com* 2009).

The frequency of raves in abandoned Detroit buildings diminished somewhat after the 1990s, as the city became more efficient at shutting the parties down. However, the pulsing electronic beat can still be heard emanating from ghostly warehouses from time to time. Techno music may have ventured into the light of day now at events like the annual Detroit Electronic Music Festival, but it hasn't entirely abandoned its (already once-abandoned) birthplace.

Fig. 2.20: Exterior and interior views of the Packard Plant on East Grand Blvd.
upper left, unknown photogapher, http://greenset.wordpress.com/2009/11/04; upper right, unknown photographer, http://onlyndetroit.com; bottom, unknown photographer, http://www.flickr.com/photos/16939591@N04/3712198

CHAPTER SUMMARY

As this rather lengthy chapter demonstrates, there is a strong precedent in Detroit for seeing and using vacant land as a resource. As described in this chapter, examples include: urban agriculture at various scales and with different financial goals; unconventional infill housing; art spaces; and underground music and party venues. Informal use also occurs on a daily basis in these marginalized space: the desire lines, parked cars, barbecue pits, and other miscellany on vacant lots provide clear enough evidence of that. Can such land truly be called vacant? Unused and useless?

The scholarly literature presents many additional, hypothetical uses for vacant urban land, whether in Detroit or elsewhere (Malloy 2009; Oswalt, Overmeyer, and Misselwitz 2009; Schwarz 2009; Schwarz and Rugare 2009; Yun 2008; Bolofer 2007; Gerend 2007; Daskalakis, Waldheim, and Young 2001). Several of the potential land uses, however, are closer to what might be called 'end-state' redevelopment or re-programming: land uses intended to persist for as long as possible, rather than as stop-gap measures. These examples may be more feasible than conventional redevelopment like office and retail buildings or professional sport venues, whose premise is economic production of one sort or another, but they still require a substantial amount of human capital and ongoing support. At present, Detroit simply does not have a sufficiently large and concentrated population or the financial means for redevelopment to occur on the majority of its vacant land. In all likelihood, it won't occur in the foreseeable future. A viable alternative is needed.

CHAPTER THREE: UNCONVENTIONAL, BUT NOT UNREASONABLE

Strategies for Fallow Urban Land Design

Chapter Two of this thesis presented numerous examples of ways that forward-thinking individuals and organizations are currently using vacant land, often quite successfully. Obviously, there is a subset of the population who will take action solely under the force of their own motivational stores. Nevertheless, such developments are sporadic and scattered at best, with a discernable but comparatively small impact on overall public perception of Detroit. How might we prompt more widespread initiation of vacant land reuse? If the previous chapter's examples are the sort of land uses we wish to promote, how could we systematically and strategically set the stage for them? How could we prepare vacant land so that it is both more conspicuous and more useable by land use visionaries? Addressing these sub-questions would go a long way toward answering this thesis' central inquiry: How could landscape architecture reveal the inherent potential of vacant urban land, with the hope that doing so might help initiate reinvestment in and repopulation of Detroit? How could it do so in a way that resonates with the unique spirit of the city?

As previously described, this thesis proposes that we work toward this goal by devising a restorative, transitional state for vacant land, intermediate between complete disuse and full-fledged redevelopment. This state would be akin to a fallow

agricultural field: an intentional, remedial phase that is relatively self-sustaining. Ideally, fallow urban land would be sustainable with few capital and labor inputs for a long period of time — on the order of decades — until economic and social conditions allow full site reuse to occur. The site intervention would be designed for easy removal or reorganization to accommodate such subsequent redevelopment. Fundamentally, the fallow urban land design process would be about initiating a trajectory toward redevelopment, then leaving much to chance. It would exist at the protracted interface of previous and future land use in Detroit, ameliorating the physical and psychological landscapes of the city all the while.

Two primary strategies would drive the design and implementation of the proposed fallow state: physical remediation and aesthetic remediation. To some extent, these strategies do overlap. This chapter will describe the tactics involved in each of these broad remediation categories and provide supporting evidence for each. Specifically, each tactic will be weighed against the following criteria: Does it seem logistically feasible in terms of economics, manpower, legal issues, etc.? Could it help improve public perception of Detroit's landscape? Could it ameliorate the site ecologically or help prepare it for subsequent reuse? Finally, could the tactic be implemented in a manner consistent with Detroit's character, thereby reinforcing a sense of place? The relative importance of each criterion naturally varies depending on the tactic in question and the specific context in which it would be applied. It would be impossible to exhaustively examine or conclusively answer any of these questions here.

Instead, this thesis will present a general survey of the responses that scholarly literature and real-world case studies suggest.

PHYSICAL REMEDIATION

Like other 'rustbelt' cities in America, Detroit's landscape bears the physical remnants of its industrial past. In addition to the structural remains of former automotive plants, industrial warehouses, power plants and the like, there is the infrastructure that supported them, and the material and chemical residue of the processes they housed. These industrial relics can pose environmental hazards, of course, but they significantly hinder site redevelopment as well. Brownfields are notoriously difficult and costly to contend with (Brachman 2004), even for large companies who have substantial capital to invest in demolition, environmental testing, and site cleanup. For small-scale developers, the hurdles posed by brownfield redevelopment are often insurmountable.

Offering government incentives like subsidies and tax breaks, and easing the legal process of conducting brownfield redevelopment can help (Brachman 2004; Leigh 2004), but are outside the purview of landscape architecture. Yet, careful landscape architectural design could certainly initiate low-cost physical processes that would ameliorate site contamination and dismantle obstructive residual infrastructure. In the context of designing a fallow state for vacant land, then, such *physical remediation* encompasses those techniques that address environmental quality issues typical of urban areas, like stormwater volume and contamination, air pollution, soil compaction

and contamination, and the heat island effect. Notably, physical remediation also includes methods that specifically help prepare vacant sites for reuse by enhancing potentially beneficial site attributes and reducing or eliminating those that are impediments to such reuse.

Phytoremediation

Phytoremediation — employing plants to treat soil and water contaminants — is one of the first possible physical remediation tactics that springs to mind. Just as farmers use nitrogen-fixing and 'green manure' cover crops to replenish soil in fallow agricultural fields, fallow urban land design would deliberately incorporate plant species able to sequester or break down organic and inorganic soil contaminants.

Before addressing why phytoremediation could serve the fallow design approach, let us cover some basics about the process. The term phytoremediation actually refers not to a single plant-mediated decontamination mechanism, but a suite of many. These are listed in Figure 3.1 on the following page, along with their mode of action and the plant tissues involved. Plant species differ in their mechanism of remediation and, as a result, are able to treat only specific compounds or classes of compounds. The appropriate phytoremediation approach for a given site therefore depends on the contaminants present and the plant species that will grow in that environment. Figure 3.2 lists some common treatable soil contaminants, the plant species that address them, and the mechanism by which phytoremediation occurs. The field of phytoremediation research is still relatively young, with about two decades of investigation and implementation to

support it (EPA 2001). Knowledge is still somewhat limited as a result, but is expanding rapidly.

Phytoremediation Categories

Mechanism Name	Plant Tissue Location	Mechanism Description	Treatment of Contaminant
Phytodegredation	above ground	Metabolic processes within the plants, or compounds secreted by the plants, break down or modify the contaminant into a nontoxic form.	complete breakdown or transformation
Rhizodegredation	root zone	Root-microbe symbionts break down soil contaminants.	
Phytovolatilization	above ground	Plants take up, modify, and release the contaminant into the atmosphere.	
Phytoextraction	above ground	Contaminant is taken up into the plants' aboveground tissues and accumulates there in its original form.	sequestration
Phytostabilization	root zone	Roots absorb, adsorb, or precipitate contaminants, accumulating them in their original form.	immobilization
Rhizofiltration	root zone	Roots absorb, adsorb, or precipitate contaminants that are in solution in the root zone soil. The contaminant's form is unchanged.	
Hydraulic Control	root zone	Plants control movement of contaminated subsurface water by taking up large volumes of it.	

Fig. 3.1: Phytoremediation Categories; information courtesy of the U.S. Environmental Protection Agency (EPA 2001)

Phytoremediation Species for Soil and Sediment Contaminants

	Hybrid poplar (*Populus x sp.*)	Willow (*Salix sp.*)	Bald Cypress (*Taxodium distichum*)	Black locust (*Robinia pseudoacacia*)	Red mulberry (*Morus rubra*)	Indian mustard (*Brassica juncea*)	Alfalfa (*Medicago sativa*)	Alyssum (*Alyssum maritimum*)	Alpine pennycress (*Thlaspi caerulescens*)	Sunflower (*Helianthus annuus*)
petroleum hydrocarbons	RD PV PE HC									
BTEX	RD PV PE HC									
PAHs	RD HC									
PCBs										
TCE	RD PV PE	RD PV PE								
lead						PE				
zinc									PE	
nickel								PE		
phosphates and nitrates										
unspecified organic contaminants	PD RD		PD RD	PD RD	RD					
unspecified inorganic contaminants	PV PE PS					PV PE PS	PV	PE	PE	PE

BTEX: benzene, toluene, ethylbenzene, and xylene
PAHs: polycyclic aromatic hydrocarbons
PCBs: polychlorinated biphenyls
TCE: trichloroethane and similar chlorinated solvents

Fig. 3.2: Phytoremediation Species for Soil and Sediment Contaminants; information courtesy of the U.S. Environmental Protection Agency (EPA 2001)

Phytoremediation does have some known limitations. Certain contaminants, particularly inorganic compounds like heavy metals, cannot truly be broken down — only immobilized or sequestered by plant tissues, which must be removed from the site before they decompose and re-release the substance, or become a food source for wildlife (EPA 2001). Others, such as those beyond the rooting zone, cannot be treated by phytoremediation (EPA 2001). Extremely high contaminant concentrations may be phytotoxic and prevent plants from growing at all (EPA 2001). The lengthy timeframe of phytoremediation — years, rather than weeks or months — can also limit its applicability. Admittedly, phytoremediation does involve more ongoing maintenance than the immediate methods of contending with soil contamination. Plants that merely accumulate or stabilize contaminants in or on their tissues (e.g. through phytoextraction, phytostabilization, or rhizofiltration) must be harvested and disposed of in a landfill approved to handle hazardous wastes (EPA 2001). Also, it is necessary to ensure that the plants involved remain healthy, since the rate of remediation depends largely on their growth rate. Periodic monitoring may be required to determine the treatment's efficacy (EPA 2001).

All of this entails cost. However, the total cost of phytoremediation is about 50 to 80 percent less than soil excavation, soil washing, or site capping (EPA 2001) and, as mentioned before, the expense would be distributed over several years. Taking a broader view, the additional labor required might actually offset its own cost: hiring Detroit companies and residents to perform the management and maintenance work

would ease unemployment rates and bolster the local economy, possibly even improving public opinion of Detroit's job market.

Phytoremediation may not be a panacea for site contamination, but it has some distinct logistical, aesthetic, and functional advantages over other methods of site cleanup that would be beneficial for putting vacant urban land into a fallow state. First, the process is less disruptive than entirely excavating, replacing, and disposing of contaminated soil. It requires far less heavy and specialized equipment, which makes it possible to treat sites with limited accessibility, physical features that must be avoided, or sensitive populations nearby (EPA 2001). True, the results are not as immediate as soil replacement, since plants must become established over multiple growing seasons before they begin to have a significant effect (EPA 2001). Then again, redevelopment is not exactly on the near horizon for Detroit. The extended time requirement for phytoremediation could actually be an asset, allowing the cash-strapped city to spread the cost of site remediation out over time. In some cases, it is possible for the site to remain in use during treatment (EPA 2001), making the prolonged time requirement even less of a problem.

Second, phytoremediation is a more complete solution than merely 'capping' sites with impermeable contamination barriers like concrete. Site capping leaves contaminants in place and merely prevents rain from leaching them into groundwater, or humans from coming into contact with them. Phytoremediation, in contrast, can permanently reduce or even eliminate site contaminants (EPA 2001). Organic contaminants can often be broken down entirely via phytodegredation and

rhizodegredation, rendering the soil safe without further action. Inorganic contaminants like heavy metals are more difficult to treat because they typically cannot be broken down or modified into harmless forms. However, phytoextraction and proper disposal of plant matter is still an option that eventually removes contaminants from the site. As such, it too would help physically prepare vacant land for future uses, like urban agriculture, that require low levels of soil contamination.

Third, and perhaps most importantly, plants have visual and ecological capacities that other remediation methods lack (EPA 2001). They can provide habitat for wildlife, reduce stormwater loads on municipal sewer systems, control erosion, and reduce the urban heat-island effect (EPA 2001). The visual appeal of trees, flowers, grasses, and shrubs presents an additional avenue by which design could achieve some aesthetic remediation (described in greater detail later in this chapter), with associated positive psychological and behavioral effects on passersby. Study after study has demonstrated that well-placed vegetation in urban areas can have a restorative affect, improve neighborhood satisfaction, and even reduce crime (e.g. Lim 2005; Kuo 2003; Kaplan 2001; Kaplan and Peterson 1993; Kaplan and Kaplan 1990).

The AMD&Art Park of Vintondale,Pennsylvania is a prime example of the aesthetic advantages that biological remediation can offer. The passive remediation ponds in this project, which treat acid mind drainage (AMD) in the local stream, double as a striking "environmental art piece" (Foster 2007). As the contaminated, reddish-orange water passes from pond to pond, it's color shifts, first to yellow, then to green (Fig. 3.3) (Foster 2007). This visual transformation parallels the physical clarification

of the water, serving as an overt ecological lesson and reminder of Vintondale's coal mining past, but also turning what would otherwise be a toxic site into a place of beauty and experiential value. The AMD&Art Park design revived a "fundamental pride in and concern for a place," that had been stagnant and economically struggling ever since the coal industry abandoned it. As this example shows, biologically remediation as part of ecorevelatory design — design that highlights and interprets ecological processes and relationships (Thompson and Sorvig 2000) — can address sense of place and garner public support for a project by making it more informative and attractive (Karmanov and Hamel 2008; Kaplan and Peterson 1993). It also demonstrates how such design can acknowledge the darker history of a place in a sensitive and constructive way.

Fig. 3.3: Views of the AMD&Art Park in treatment ponds; (above) unknown photographer, http://farm4.static.flickr.com/3023/2283319807_ddc26a36fe_o.jpg; (at right) photo by Dana Zufall, http://www.amdandart.org/projectindex.html

In the case of Detroit, the aesthetic benefits of phytoremediation could also soften the relative oddity of fallow state site interventions, making the approach more palatable for city residents and visitors. Familiar non-'weed' species like poplars, red mulberry, and sunflowers would reinforce the message that the design was intentional. Colorful foliage and flowers would break up the monotonous grey of Detroit: it's grey concrete, charcoal colored asphalt, and too-often cloudy grey sky. Furthermore, coupling vacant land with the vitality and seasonality of plants could also help restore a sense of the city as a place of life, growth, and continual change.

Recycling Ethic

Commitment to a recycling ethic would be another crucial physical remediation tactic in the fallow design approach. Taking a cue from artists like Tyree Guyton and Scott Hocking, who salvage urban discards and material from abandoned buildings for their sculptures, fallow urban land design would rely heavily on *in situ* reuse of existing structural and infrastructural materials. If vacant urban land contains an abundance of unused concrete, asphalt, lumber, brick, steel, etc. that hinder redevelopment, why not reuse them in a way that would also ease future removal? The process would be a specific type of deconstruction (also called unbuilding or selective dismantling) — the careful and methodical "disassembly of structures for the purpose of reusing components and building materials" (Chini and Bruening 2003). However, whereas most deconstruction projects include resale of salvage for conventional reuse, the fallowing process would be more along the lines of material re*organization*:

reconfiguring remnant structures and infrastructure in architectonic, sculptural, and functional ways. For example, one fallow state design might entail ripping up unused existing concrete slabs and shifting them around to create a visually interesting site boundary, or to formalize an existing pedestrian short-cut through the space. The conceptual diagram on the below (Fig. 3.4) illustrates the general principle of reorganization.

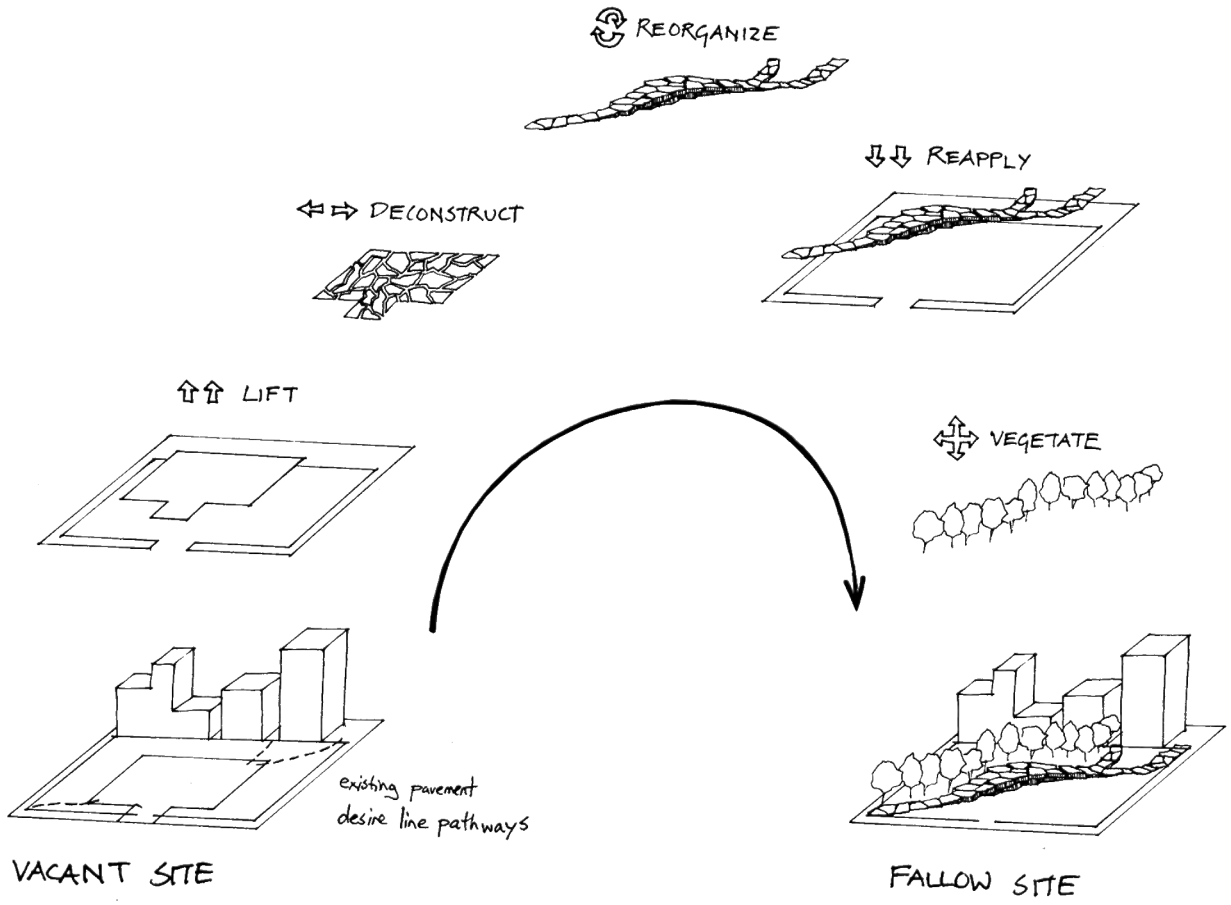


Fig. 3.4: Diagram illustrating the material salvage, reorganization, and reapplication that would occur in fallow urban land design.

This deconstruction and reorganization process would do much to set the stage for future redevelopment. Ideally, the 'new' structures would be significantly less difficult to remove than their prior incarnations would have been, should the opportunity for site redevelopment arise. Thus, the process would simultaneously meet the initial goal of demolition — breakdown of an existing, unwanted structure — and make subsequent redevelopment faster and less costly than it would have been otherwise. The difference might be just great enough to sway a hesitant potential redeveloper. In a way, implementing deconstructive fallow land design would be like making a long-term investment in marketing or home improvement: accepting up-front costs to increase the desirability or affordability of an item that will eventually be for sale. In this case, however, the goal would be promoting reuse of vacant land in Detroit rather than selling a home or a product. The process would have some side benefits as well: few new materials would need to be purchased to make the site improvement, and the existing materials would evade the landfill.

Clearly, adhering to a recycling ethic in this way would address the question of preparing vacant land for reuse. The tactic's feasibility, on the other hand, is admittedly of some concern. Financial limitations would likely be the greatest barrier to using this tactic. Numerous scholarly studies indicate that the greatest expense of deconstruction is due to labor costs (Dantata, Touran, and Wang 2005; Chini and Bruening 2003; Macozoma 2001). The process takes anywhere from two to ten times longer than conventional demolition, and often requires larger work crews (Dantata, Touran, and Wang 2005; Chini and Bruening 2003; Guy and McLendon 2000).

Typically, it is the resale value of salvaged materials that reduces the net cost of deconstruction and makes it adequately cost-effective relative to conventional demolition (Chini and Bruening 2003). However, most of the salvage from fallow urban land design would be reused on site. Deconstructive fallow design would still avoid the disposal costs that demolition entails, but these are proportionately less than labor costs and would make the process more expensive than demolition (Dantata, Touran, and Wang 2005). This presents a considerable problem. As it is, the city of Detroit is reluctant to pay even for demolition of abandoned structures, despite substantial public outcry. It is highly unlikely that the city would be willing, or even able, to pay thousands of dollars more per site for deconstruction. Without substantial indirect or direct governmental support, deconstruction is much less successful than it potentially can be (Macozoma 2001).

This is not to say that economic hurdles render deconstructive fallow design impossible, but it would be necessary to find ways to minimize labor intensity and cost. Making use of volunteer and nonprofit-based labor might be one way to do so. Since deconstruction does not require highly skilled workers (Chini and Bruening 2003), such individuals could handle the task with a moderate amount of training. As discussed later, in Chapter Four, local participation could also be advantageous for ensuring a design's contextual sensitivity. Even if volunteer labor proved unattainable or unworkable, there would still be compensatory mechanisms for the higher up-front costs of deconstruction. Having competent foremen and contractors oversee the process would ensure that deconstruction and design implementation proceeded as

efficiently and quickly as possible (Chini and Bruening 2003). Paid deconstruction jobs could indirectly compensate for the higher up-front cost of deconstruction because, relative to demolition, the process generates more employment and training opportunities for low-skilled workers (Chini and Bruening 2003; Macozoma 2001). In a city with shockingly high unemployment rates, especially among construction workers, every job incrementally strengthens the local economy.

Consider, as well, that some potential positive outcomes of deconstruction don't show up in a traditional cost-benefit analysis. The simple act of training local people in deconstruction techniques would give them marketable skills in similar lines of work (Chini and Bruening 2003; Macozoma 2001). Just as importantly, engaging in the process of deconstruction can have demonstrable psycho-social impacts. Consider a phenomenological study of nine participants in a deconstruction program, working in New Orleans after Hurricane Katrina devastated the city in 2005 (Denhart 2009). According to Denhart, these individuals experienced,

> "a sudden psychological shift from despair to enthusiasm as they regained control of their property and then discovered value out of the ruined buildings. ... Informants shifted perspective from believing that they had nothing left of value to recognizing that they still had considerable value."

Several of them described how, compared to conventional demolition, deconstruction seemed a much more respectful and "dignified death" for the buildings, which had little architectural significance but great human significance simply because they were once homes. Some of the participants who gave away all of their salvaged materials evocatively compared the process to organ donation, a life-giving "resurrection." One

person's comment reveals how participation in deconstruction was even strong enough to counteract an ingrained, external message of worthlessness:

> "When they was tearing it down, I really believed the city that it was no good, it was an eyesore... But when I started seeing how much they was getting out of it... I wanted to go back to the city and say, 'wait a minute. Look what you had us all believing and look what happened.'"

How is this New Orleans-based study relevant to Detroit? Although it was no hurricane that devastated Detroit, the resulting situations are analogous. The cause and highly personal nature of the property loss may be different, but the physical aftermath — vast tracts of ruined and abandoned buildings — is strikingly similar. Moreover, the sense of despair, devaluation, governmental neglect, and even social invalidation experienced in post-Katrina New Orleans exists in Detroit as well. The fact that engaging in the deconstruction process had such a marked effect on the informants' psyches convincingly (if not conclusively) indicates how perceptual change that restores a sense of value to one's home environment can heighten motivation and empowerment. It suggests that fallow urban land design, via a similar deconstruction program, could very well improve perceptions of Detroit even as it revives residents' belief in their ability to effect positive change there. The reverberations of this psycho-social effect may be well worth any extra monetary expense that a deconstructive fallow design approach entails.

Demolition-by-Design

A third and final physical remediation tactic of fallow urban land design might best be called *demolition-by-design* — letting the design intervention itself partially

disintegrate residual infrastructure and buildings over time. We have all witnessed the damage that tree roots, sunlight, wind, acid rain, freeze-thaw cycles, etc. can do to sidewalks and streets, newly-planted trees and aging structures, walls and fences (Fig. 3.5). Normally, landscape architects do everything in their power to prevent such weathering of infrastructural materials, aiming for durability, not destruction. Yet, in the unique case of vacant land, why not channel this power toward useful ends?

Fig. 3.5: Examples of hardscape damage due to frost heave, skateboard grinding, and roots; (top row left) unknown photographer, http://www.concretenetwork.com; (top row right), photo by John Sale, http://www.commercialappeal.com; (bottom row) unknown photographer, http://www.photographersdirect

Accelerating the weathering process could have some unique advantages in fallow urban land design. For instance, strategically planting certain species in pavement

cracks could accelerate the rate of decay and thereby facilitate pavement removal at a later date. Likewise, it might be possible to take advantage of Michigan's winter weather by calculatedly promoting frost heave and ice damage. The design might even be calculated to prompt wear-and-tear by the activity of people: skateboard grinding is one such activity that springs immediately to mind, although it is not necessarily the most appropriate example for Detroit in particular.

As might be expected, there is little to no scholarly research on the subject of demolition-by-design, so a case study will have to suffice. To this end, consider the recent Ice House Detroit project, begun in late 2009 on an unassuming residential block on the city's East Side. The leading artists, photographer Greg Holm and architect Matthew Radune acquired the foreclosed, demolition-bound house from the state land bank (Rich 2010), then set about the intense process of giving their creative vision physical form. Layer upon layer, 24-hour shift after 24-hour shift, Holm, Radune, and an army of volunteers covered the house and surrounding yard with spikes and sheets of glistening inches thick (Fig. 3.6) (Radune 2010; Rich 2010). What was the artists' intent? According to Radune, it was to create a temporary installation "that's visually meant to inspire people, that's not about the bottom line of paying rent, or mortgage, or getting by" (Rich 2010). As Holm described it,

> "The Ice House project seeks to demonstrate that ... as building materials are reclaimed from the many abandoned houses in Detroit, so too can the affected neighborhoods themselves be repurposed through the creativity, spirit, and sense of community clearly demonstrated by the residents themselves." (Radune 2010)

Many people also interpreted the house as a metaphor for the frozen housing economy in Detroit (Rich 2010). The process — and stunning product — of the installation did draw incredible support throughout Detroit and beyond. One man, who worked in the area and had stopped by to show his family the Ice House enthusiastically remarked,

> "Beautiful artwork, that's exactly what it is. ... No, I'm not an artist, but I recognize art. That's beautiful man. It's quite rare here, too, ... you don't see it every day. ... I'm glad you brought it here." (Rich 2010)

Fig. 3.6: Views of Ice House Detroit, before and after project installation; photos by Greg Holm (Radune 2010)

After a week under ice, the house was to be released from its frozen shell so that it could be deconstructed for material salvage and repurposing (Radune 2010). The Ice House obviously is an extreme and imperfect example of demolition-by-design, since the artists did not intend for the installation to damage the building, and the process was both costly (upwards of $11,000 (Rich 2010)) and labor-intensive. It does, however, provide a striking suggestion of what demolition-by-design could look like, and the type of positive public response it might receive.

The ASLA award-winning Crack Garden, designed by CMG Landscape Architecture, (*Crack Gardens* 2009) is another point of reference for demolition-by-design. In this residential design, long linear cracks just a few inches wide were created with jackhammers in existing concrete (Fig. 3.7). Vegetation planted in the newly exposed soil was intended to, "reveal the potential for beauty that underlies the concrete and asphalt that is the predominant ground plane material of the urban landscape" (*Crack Gardens* 2009). Again, the design intent was not to demolish the pavement, but the resulting aesthetic is very similar to the early stages of demolition-by-design.

Fig. 3.7: Crack Garden in San Francisco, CA, by CMG Landscape Architecture; photos by Tom Fox, http://pruned.blogspot.com/2009/05/crack-gardens.html

From a practical standpoint, demolition-by-design has several favorable characteristics. First, it would be even less costly and invasive than deconstruction, described earlier, since it could require very little manpower to execute and virtually no maintenance. Initial site interventions would be made and then nature or site users would gradually accomplish the rest. Once the structures had sufficiently deteriorated, the materials would be more manageable to remove or process further. Additionally, this form of demolition could complement other remediation tactics, like phytoremediation: the plants slowly breaking up the hardscape could simultaneously be breaking down contaminants in the soil below. Like phytoremediation, demolition-by-design would also open up interesting aesthetic and eco-revelatory possibilities. In eye-catching ways, it could highlight natural processes that transpire daily, and the inexorable loop of seasonal change — things people often take for granted or completely fail to notice in urban environments.

Undeniably, demolition-by-design would be a slow process: change would come by centimeters and over years, rather than in meters over the span of a few hours or days. Yet, the very time requirement that makes it undesirable for conventional 'time-is-money' development confers advantages for the intentionally protracted fallow state. Incremental change provides time for adaptive management (which will be discussed further in Chapter Four). It allows the strategy to keep pace with ongoing economic changes. It leaves room for people to establish a long-term interaction with the space and develop personal ties to it, increasing their sense of personal investment. True, the demolition-by-design tactic would require additional foresight on the part of

the designer. It would also be far more unpredictable than conventional demolition or deconstruction. Yet, these attributes are part of its appeal. There is something to be said for taking the long view, and for the intrinsic value of surprising landscapes.

Physical Remediation Summary

The aforementioned techniques — phytoremediation, a recycling ethic, and demolition-by-design — would, first and foremost, help accomplish the physical remediation prerequisite for vacant site reuse. Importantly, however, they also emphasize innovation and visual appeal so as to command greater public attention. Fallow urban land design would differ in this respect from remediation that focuses solely on improving environmental safety and ecological function. If the overall goal of this design method is to prompt perceptual change by highlighting vacant land's potential, catching people's interest and challenging their preconceptions is imperative.

AESTHETIC REMEDIATION

The psychological contamination that haunts Detroit — a pervasive sense that the city is doomed to failure — may be an even more pernicious obstacle to revitalization than physical problems. For reinvestment in the city to occur, people must believe that it will be worth the effort and risk required. Currently, however, several demoralizing factors are contributing to an overall atmosphere of hopelessness: widespread poverty, high crime rates, governmental corruption, a struggling school system, and skyrocketing unemployment. The very landscape of the city acts as yet

another disheartening influence. It's state of dilapidation and pollution serves as a perpetually visible reminder of the city's overall deterioration. Spurring reinvestment in Detroit and reversing its fortunes will require substantially changing people's perception that the city is beyond help.

Achieving such a perceptual change is obviously an incredibly complex and multifaceted goal, well beyond the scope of landscape architecture alone. However, the physical appearance of the Detroit landscape *is* within the capacity of landscape architecture to change. *Aesthetic remediation*, in the context of the proposed fallow state, thus refers to design-based techniques that visually cultivate the perception of vacant land as an untapped resource rather than a signifier of blight, danger, and hopelessness. If "human inhabited landscapes ... act as communication systems," as Lynch (1971) suggests, then visually transforming vacant land into an iconic and attractive landscape element could inspire some hope among the general public, potential investors, and public officials. Such hope is crucial, if not sufficient, for positive change.

Indicators of Care

One of the major ways that fallow urban land design would work to improve opinions of vacant land would be to inject visual indicators of care into the landscape. As a sizeable body of scholarly research indicates, certain landscape characteristics are correlated with perceived neglect and others with perceived care (e.g. Nassauer 2005, 1995, 1997, 1988; Westphal 2003; Wilson and Kelling 1982). The ramifications of

this manifest socially, psychologically, and physically in the way people interact with and treat the landscape. Care seems to beget care, and neglect appears to precipitate further neglect, both of which are interpreted as reflections on those responsible for the landscape, as "the persona of its owner" (Westphal 1999; Nassauer 1997). To quote Nassauer (1997), a lead scholar on the subject, "The place tells about the owner's pride, work ethic, or wealth. It tells about the owner's involvement in the future of that landscape."

The so-called 'broken windows' hypothesis (Wilson and Kelling 1982), has spawned extensive research in a similar vein, and accumulated a respectable degree of supporting evidence (e.g. Perkins, Meeks, and Taylor 1992; Hope and Hough 1988; Taylor, Shumaker, and Gottfredson 1985; Skogan and Maxfield 1981). The hypothesis maintains that the perceived level of physical disorder in a given setting broadcasts a subconscious message about security and how the landscape (and the people in it, by correlation) should be treated. The presence of physical incivilities such as litter, derelict buildings, graffiti, abandoned vehicles, vandalism, and signs of illegal drug use, suggest to viewers that the landscape is not subject to surveillance or care and therefore additional incivilities would go unpunished. In turn, this invites further incivilities. Conversely, physical signs of care and oversight improve viewers' opinion of a landscape and foster continued respect for it (Westphal 1999). Settled landscapes that appear neat, well-maintained, and have "the look of human intention" are those that people generally prefer, and find more attractive and tranquil (Herzog and Chernick 2000; Westphal 1999; Nassauer 1997, 1995). Such landscapes reflect well on their

caretakers and the surrounding neighborhood and encourage people to "do better" by it (Westphal 1999). As Nassauer puts it, "care implies that a person or community has ownership of a place — if not as personal property then as social identity" (Nassauer 1997).

Fallow urban land design would tap into these aesthetically-based psychological effects, seeking out low-maintenance designs that nevertheless imply a greater degree of care than vacant land currently receives. Typically, vacant properties in Detroit are rife with physical incivilities: trash, deteriorating structures, abandoned vehicles, and un-maintained vegetation. The physical form of these landscapes appears entirely unplanned, left to the vagaries of nature and public use. If the hypotheses mentioned above are valid, then creating a network of vacant site interventions that appear highly intentional and cared-for, even if they are unusual or a bit chaotic, could help overcome the sense that vacant land has no purpose, potential, or oversight. By extension, this would encourage the perception that the entire city landscape has promise.

What specific landscape attributes would convey a message of care and intention to people from Detroit and the surrounding suburbs? Knowing the answer could make the difference between success and failure of a fallow urban land design. Specific signs of neatness vary somewhat due to cultural factors (Nassauer 1988), so it would be imperative that a fallow state designer determine local preferences. Nassauer's studies in the Midwest (1997, 1995, 1988), however, do offer some insight into cues to care that likely hold true for Detroit as well:

- Mowing or a mowing strip along human paths
- Flowering plants and trees (especially in linear planting designs)
- Trimmed shrubs
- Few weeds
- Foundation plantings around structures
- Wildlife feeders and houses
- Bold patterns
- Well-maintained fences, architectural details, and lawn ornaments
- Painting (especially white paint)

In contrast, Midwesterners seem to categorize unkempt landscapes as unattractive (Nassauer 1995). Unfavorable characteristics they noted included:

- Dead or rotten things
- Absence of flowers, shade, or other landscaping
- Presence of weeds
- Unmown lawns
- Clutter
- Garbage
- Ongoing Construction
- Appearance of abandonment

Westphal's (1999) study of urban greening projects in several Chicago neighborhoods corroborates these findings. Respondents in this study repeatedly used 'dirt' and 'weeds' as metaphors for irresponsibility, neglect, and illegal activity in the neighborhood, as well as to literally describe landscapes they found unappealing. Actions taken to 'clean' the neighborhood, like successful urban greening projects and neighbors who took the initiative to maintain properties, were described positively and seemed to improve feelings of self-worth. As one individual said, "Keeping clean is a way to show that you care about where you live and that you deserve care in return."

At first, it would seem that human preference for neat and organized landscapes bodes ill for fallowed vacant land: its appearance would be fairly wild even with careful design and occasional maintenance, and certainly would not fit the conventional

suburban aesthetic model of evenly trimmed lawns, manicured shrubs, and picture-perfect shade trees. However, as Nassauer (Nassauer 1997, 1995) has found, it is possible to make 'messy' landscapes more palatable by giving them 'orderly frames' based on "familiar aesthetic conventions." This may take the form of a mowing strip along property edges (Fig. 3.8), or an orderly planting design comprising native field plants instead of exotic ornamentals. One preference study conducted in a Midwestern suburb showed that residents perceived a well-kept yard that was half indigenous plants and half mown grass as being nearly as attractive as a yard with conventional landscape treatment (Nassauer 1995). Fallow land design could achieve this sort of framing fairly easily, making the sites' inherent disorder less offensive to typical aesthetic sensibilities. In other words, it could strike a balance between cultural norms and unconventionality.

Fig. 3.8: A mowing strip framing the vacant site of a former gas station in Detroit; photo by Jessica Hyde

Scholars *have* found some evidence that undermines the broken windows and cues to care hypotheses, which warrants mentioning. A number of studies suggest that perception of physical disorder is determined less by the actual presence of visual disorder cues than by social factors, like neighborhood composition and economic status (Franzini et al. 2008; Sampson and Raudenbush 2004; Perkins et al. 1993). That is to say, people's observation of a landscape can be skewed by implicit bias — they *perceive* a different amount of disorder than they physically *see*. Racial bias appears to be a particularly insidious force in this regard. In a Chicago-based study, Sampson and Raudenbush (2004) found that the racial composition of an area was a stronger predictor of perceived disorder than observed physical disorder. Specifically, the higher the percentage of black residents in the area, the more disorder people perceived, regardless of how much was disorder was actually there. Quite shockingly, they also found that "blacks were *not* significantly more or less likely than whites to view predominantly black neighborhoods as high in disorder" — in other words, both groups seemed equally subject to implicit racial bias. Factors other than racial bias may also come into play. Age, gender, ethnicity, and being separated or divorced versus widowed all significantly predicted perception of disorder in the Sampson and Raudenbush (2004) study.

Such evidence does not entirely negate the possibility that thoughtful fallow design could successfully reduce the perception of disorder in vacant land, but it does suggest that the impact might not be as great as could be hoped. Metro-Detroit's history of palpable racism and continued segregation would be particularly detrimental

in this regard. Bear in mind, though, that while other psycho-social amendments would be necessary to effect dramatic perceptual change about Detroit, incorporating clear signs of landscape care in a fallow urban land program could still be beneficial. This tactic may be insufficient alone, but it is important nonetheless as a facet of the aesthetic remediation strategy.

Indicators of Safety

Visual indicators of safety also have important psycho-social ramifications. The prevailing notion that vacant properties are rife with crime and danger significantly discourages their redevelopment. On an individual level, the belief that vacant properties are unsafe could deter people from using or tending to them as they otherwise might — one isn't likely to begin a community project on a vacant lot, for example, if one is afraid to even enter the space. On a broad scale, perception of danger lowers people's opinion of the surrounding neighborhood, making it an undesirable place to live and work, which perpetuates depopulation. Fallow urban land design would deliberately focus on indicators of safety as a way to make vacant land more appealing, or at the very least, neutral. Heightening the sense of safety and comfort in those landscapes would help wear down another persistent psychological hurdle to vacant land reuse.

Prospect-refuge theory (Appleton 1984) and defensible space theory (Newman 1972) would figure largely in this component of aesthetic remediation. Prospect-refuge theory posits that humans, as a result of biological adaptations for survival,

exhibit a strong link between their perception of the environment and their behavior. Specifically, the theory suggests that we are predisposed to favor landscapes in which we have sensory clarity (especially sight) and the possibility of refuge from danger or environmental discomforts — attributes which would facilitate noticing potential danger and responding quickly to it. Defensible space theory (Newman 1972) has a similar premise. It maintains that certain design features can increase the natural surveillance of a space and encourage social contact as a way to deter crime there.

Most of the visual cues that elicit fear of crime are just those you would expect: darkness, obstructed sight lines, places for someone threatening to hide, and obstructions blocking escape routes (Nasar, Fisher, and Grannis 1993). The opposites of these would therefore be visual signs that the space is relatively safe. Light and open space in particular, appear to have a strong effect on perception of safety (Loewen, Steel, and Suedfeld 1993). Some cues are more surprising: in one study, the presence of benches and porches on which to sit was correlated with higher *perceived* crime even though it was correlated with lower *reported* crime (Perkins et al. 1993). The broken windows theory (Wilson and Kelling 1982), mentioned earlier in the context of perceived care, plays a role in perception of safety, too. For instance, Perkins et al. (1993) found a positive association between the presence of dilapidated housing and perceived crime rates. Similarly, Herzog and Chernick (2000) reported that greater setting care was linked to lower perception of danger in urban environments.

Overall, it would be quite feasible for fallow urban land design to heed these correlations between visual landscape elements and perception of safety. It could

favor canopy trees and low perennials over tall shrubs, to maintain open sight lines. Any structures built could be designed to enhance prospect, or at least not create too many places of concealment. Providing refuge would be less about designing places to hide from danger, and more about creating places to seek shelter from the elements or to gather socially (in plain view, to discourage more illicit gatherings). Largely, it would come down to issues of design, and the designer would need to be attentive to the results of local preference studies (e.g. surveys or interviews).

It must be noted that the shadow of implicit racial bias can distort perception of crime just as it does perception of physical disorder and landscape care. For example, as Quillian and Pager (2001) found, perception of crime in three cities (Chicago, Seattle, and Baltimore) was positively correlated with the percentage of young black men living in the area. The correlation remained even after controlling for official rates of reported crime. Perkins et al. (1993) also found some discrepancy between perception of physical incivilities and perception of crime. Nevertheless, the apparent disconnect between reality and perception does not necessarily sound a death knell for the value of including visual safety cues in fallow urban land design. It simply requires that we have realistic expectations about its effect on perception. As Nasar *et al.* (1993) note, fear of crime in urban environments operates at two scales:

> "At the large scale, convergence of various factors may create 'hot spots' of crime and fear. ... Once there is a climate of fear at the large scale, more immediate factors in the proximate environment may take on greater importance."

This seems exactly the case in Detroit, and it underscores the need for indicators of safety to be part of the fallow design approach to vacant land — in Detroit's city-wide climate of fear, people are primed to respond to such cues.

Recycled Aesthetic

The discussion of physical remediation presented a recycling ethic as one of the fundamental techniques of fallow urban land design. The visual counterpart to this would be deliberate use of a recycled aesthetic, which keeps one foot in the past and one eye to the future. By way of definition: recycled aesthetic refers here to the aesthetic that arises when salvaged objects are reused as components of something new, with the salvaged object's original identity still partially recognizable. This found-object aesthetic tradition is nothing new. It seems to crop up wherever people lack resources and make do with what they have: inverted tires used as planters; gutted school buses used as (highly mobile) homes; mechanical odds and ends transformed into whirligig weathervanes; makeshift tables and benches made from old auto parts (Fig. 3.9). The recycled aesthetic is also readily apparent in the art that emanates from Detroit. Tyree Guyton and Scott Hocking served as examples earlier in this thesis, but there are countless others, both formally trained and not, who work within a similar aesthetic (Kraus 2009). The images that follow show just a random smattering of what can be seen when wandering the streets of Detroit (Figs. 3.10 and 3.11).

Fig. 3.9: (top row left) Bottle tree in the community garden adjacent to Spirit of Hope Presbyterian Church; (top row center) Restaurant planter made from a recycled keg; (top row right) Residential yard with found object assemblages; (bottom row) Dividing walls made of old tires in the same community garden as the bottle tree; photos by Jessica Hyde

Fig. 3.10: (top and center rows) Mural-sculptures by unknown artist; photos by Jessica Hyde

Fig. 3.11: (bottom row) *Nkisi Iron House* by Olayame Dabls; full view, unknown photographer, http://www.flickr.com/photos/8734821@N03/2769109637/; detail of one of the hundreds of mirrors adorning the house, unknown photographer, http://www.flickr.com/photos/8734821@N03/2769955774

The recycled aesthetic seems a natural fit for fallow urban land design. On a purely practical level, it would make use of the residual debris and infrastructure that clutter vacant land, allowing for new site interventions without the purchase of many new materials. Perhaps more importantly, using the remnants of destruction as the raw materials for rebirth inherently mingles past with future. The recycled aesthetic makes this process highly *visible*, since it retains traces of past form even as it functions in the present. Such visibility opens the door for perceptual impact. It reminds observers that the new object could be recycled in turn, which hints at future possibilities. Applied to Detroit's landscape, the recycled aesthetic could thus seed the notion that vacant landscapes are sites in transition, awaiting creative reuse — that they are rich with future potential, not simply fallen history. As evidenced by the aforementioned psycho-social effects of building deconstruction and landscape care, perceptual change can increase people's motivation and trigger action.

The cyclical nature of the recycled aesthetic is also particularly appropriate for Detroit as a place. Like a phoenix, the city has literally and metaphorically burned and risen multiple times. Each time, some remnants of history became incorporated into the next incarnation. Why should fallow land design, or subsequent redevelopment for that matter, be any different? Does a city have to be entirely sparkling and new to be vibrant, alive, and even beautiful? A recycled aesthetic would resonate with Detroit's scrappy, resourceful, and persistent nature, helping to capture the elusive sense of place that designers so often seek. It would also acknowledge history and, in doing so, imply respect — respect for the people who have lived and worked in that landscape,

and even respect for the painful side of history, which serves as an important lesson and reminder for all.

Aesthetic Remediation Summary

The overarching goal of the aesthetic remediation strategy could be described metaphorically as turning a battle scar into a badge of honor. Currently, the network of vacant land is a perpetual reminder of Detroit's most recent downfall. The tactics described above — indicators of care and safety, and a recycled aesthetic — could reverse this, turning vacant land into a positive iconic component of the city. It would not erase the traces of struggle, but rather let Detroit wear them proudly as an emblem of its enduring spirit. Vacant land will likely never fit conventional definitions of landscape beauty — it is too wild, too chaotic, too informal. Yet it might be very possible, through the tactics described above, to encourage people to see unique worth in vacant sites as liminal landscapes somewhere between humanized and natural environments, offering some benefits of each as well as opportunities all their own. Initiating such a perceptual shift would go a long way toward removing some of the stigma surrounding cities with prevalent vacant land and increase the likelihood that people would take action to use that land as a resource.

CHAPTER SUMMARY

The main strategies of fallow urban land design stem from a premise of aesthetic functionality and functional aesthetics. That is to say, the strategies are about

working to achieve functional goals by means that simultaneously have aesthetic value, and consciously having those aesthetic effects serve a greater purpose of their own: triggering thought, challenging common opinions, prompting a sense of responsibility that promotes care and oversight, strengthening a sense of place, or communicating a message or story, for example. As Westphal (1999) found, "By changing the environment, it is possible to change a sense of self at the individual and group level. It is possible to shift from feeling unworthy to worthy of respect and dignity." That is the overall goal of fallow state remediation. Mutual reinforcement between the physical and aesthetic remediation strategies would be largely intentional, a deliberate act by the fallow state designer. However, as the next chapter demonstrates, an inherent flexibility in the underlying framework for fallow urban land design would still allow serendipity and contextually sensitive adaptation to occur.

CHAPTER FOUR: KEEPING OPTIONS OPEN

Balancing Direction and Flexibility in Fallow Urban Land Design

Every site has a long history that bears on its present. Every site will have a long future, over which the designer exerts only partial control. The new site form is one episode in a continuous interplay of space and people. Sooner or later, it will be succeeded by another cycle of adaptation.
(Lynch and Hack 1984)

At heart, fallow urban land design is about facilitating and subtly guiding beneficial redevelopment, *not* attempting to dictate a vacant site's future. It is an attempt to spark imagination and bolster motivation, in hopes that doing so will increase the likelihood of site reuse at some unforeseen point in the future. To this end, it is essential to strike an appropriate balance between directing the trajectory of site redevelopment and leaving room for nature and the public to influence the outcome. How to strike such a balance in fallow urban land design? This thesis suggests that it would be possible to remain attentive to both by combining an open-ended directional design framework with an improvisational adaptive management philosophy.

THE FRAMEWORK: MAINTAINING A SENSE OF DIRECTION

As Chapter Two demonstrated, vacant land reuse can take an incredibly wide variety of forms. Each is best served by a different set of landscape characteristics.

For instance, an arts venue may favor sites close to existing hubs of community activity, whereas a homeless population settlement might prefer a site with more privacy. Community vegetable gardens require very low levels of soil contamination, but this would be of little concern for an urban forestry operation. Even within the realm of community-based urban agriculture, different neighborhoods have different needs and goals for their undertaking. Ideally, potential user groups in the immediate vicinity of vacant sites would inform each fallow state design. However, this would be prohibitively difficult if trying to systematically implement a fallow state strategy on a citywide scale. It would also be problematic in severely depopulated Detroit, where many of the vacant sites in question have virtually *no* surrounding community, only a scant handful of scattered neighbors.

This thesis proposes that we simplify the process by developing a framework for systematic but site-specific design — something that could be broadly and loosely applied to land in Detroit, matching vacant sites with compatible types of reuse. This framework would be firmly rooted in a three-fold temporal awareness: site history, present conditions, and the future possibilities that those present conditions might yield. Remaining cognizant of all three would encourage sensitivity to place and foresight in the resulting fallow state designs. The proposed design framework would consist of two sequential components: a guided site inventory and analysis, followed by a compatible future land use table. In combination, these two components would address past, present and future.

The inventory and analysis would catalogue each site's characteristics according to a carefully winnowed list of possible traits. These traits would have been selected for their relevancy to the preferences of vacant land reuse groups. In other words, the inventory would not just ask, "What characteristics does the site have?" but instead ask, "Does the site have any of the following characteristics, which are particularly relevant to those who might redevelop the site?" The compatible future land use table would assist the designer in choosing a land use to keep in mind as they envision the fallow state of a given site. This table would tally information gleaned from the site inventory and indicate which types of possible future land use have requirements that overlap most with the site's existing features. In essence, it would answer the question, "What land uses require a site like this one?" Together, the two components would use each vacant site's unique array of characteristics to narrow the field of possible futures. In a sense, using the proposed design framework would be like conducting a McHarg-style suitability analysis on a citywide scale. Instead of mapping out areas to build or avoid building on a single property, the framework would be a piecemeal mapping of currently vacant areas that are suitable for different types of development later on. With this information in mind — a catalogue of site characteristics to work with, and future uses to aim toward — the designer could then tap into the well of contextually well-informed creativity.

Creating the Framework

Generating a fallow urban land design framework would be a lengthy and involved process, requiring substantial on-the-ground research in Detroit. Moreover, the resulting framework would not be definitive and static, but rather meant to continually evolve with the city's unique populace and situation. It is therefore beyond the scope of this particular thesis to reveal *the* final framework Detroit should use for fallow urban land design. This chapter will, however, present a basic exploration of how one might set about gathering the information necessary to develop such a framework, and what the resulting framework components might look like. The flow chart on the following page (Fig. 4.1) shows the overall sequence of this process. A descriptive explanation follows.

As shown in the flow chart, holding numerous interviews with a representative sample of potential vacant land reuse groups (e.g. artists, urban farmers, housing infill developers, etc.) about the landscape characteristics they seek out or avoid in prospective sites would be the first step to take. Their responses would reveal important preference differences between the groups — information that will be necessary for determining which types of vacant properties are most compatible with which types of reuse. It would also indicate which characteristics the site inventory component of the framework should focus on. In all, the interview step in the overall process would address the forward-looking aspect of temporal awareness, so that fallow land designs are sensitive to future possibilities.

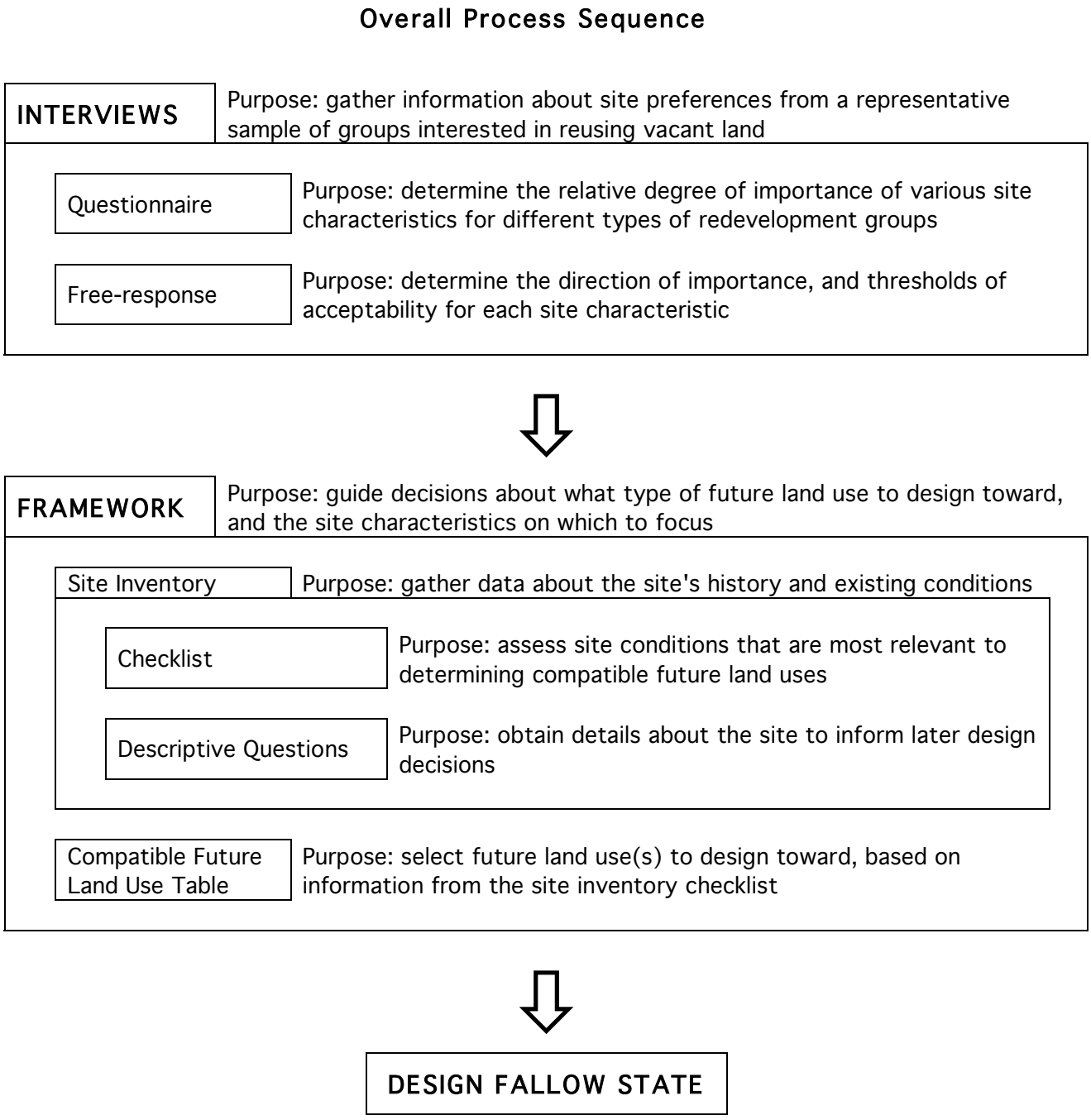


Figure 4.1: Overall Process Sequence

How might these interviews proceed? First, respondents would complete a very basic questionnaire (Appendix A) about the relative importance of several physical and contextual site characteristics in their decision to use or not use a given vacant site. Importance would be measured using a six-point Likert scale, with zero indicating irrelevance and five indicating necessity. This questionnaire is intended to assess variation in the degree of importance of several landscape characteristics, helping sort different types of vacant land reuse groups according to which site features are most relevant to their needs. Distinguishing the groups from each other in this way would be necessary to create the compatible future land use table. Additionally, the basic information derived from the questionnaire would indicate which site characteristics are most likely to catch the eye of potential redevelopers. Since these are the characteristics likely to have the strongest impact in terms of prompting them to acquire the property, they are the ones to which the designer should devote more attention.

In subsequent discussions, the respondents would answer more detailed free-response questions (Appendix B) about the reasons behind their preferences, whether the various characteristics are incentives or deterrents, and specific acceptability thresholds (e.g. at what percent coverage does the extent of existing pavement become unacceptable?). These free-response questions would be intended to further sort vacant land reuse groups by the *direction* of importance of various landscape characteristics (i.e. whether each site feature represents an incentive or disincentive to use a given vacant site). Knowing this would tease apart groups that both rated a

specific landscape characteristic as important on the questionnaire, but for opposing reasons — one because the characteristic is desirable, and the other because they want to avoid it.

The next step in developing a decision-guiding framework would be to use interview respondents' preference data to generate a site inventory checklist and list of related descriptive questions. This checklist might look something like Figure 4.2.

Site Inventory Checklist and Questions (Example)

Site Characteristic	Present?	Highly Compatible Future Land Use	Descriptive Questions
Within one mile of major community hubs	✓	1,3,4,5,7,8	See p.XX
More than 75% urban upland vegetation coverage		1,2,6,10,11	See p.XX
Available for purchase		2,3,6	See p.XX
Existing structures in useable condition	✓	2,3,4,5,8	See p.XX
City-owned property		2,3,7,9,11	See p.XX
Cultural, historical, or social significance	✓	4,5,7,8	See p.XX
Adjacent to highway exit		2	See p.XX
More than 70% surrounding land vacancy		2,6,9,10,11	See p.XX
30% to 70% surrounding land vacancy	✓	1,3,4,5	See p.XX

Figure 4.2: Site Inventory Checklist and Analysis Questions (Example)

The site characteristics listed in the first column would primarily be those that the interviews revealed as most useful in matching an existing site with compatible types of land reuse. The acceptability thresholds determined in the course of the interviews would come into play here, helping to phrase the checklist strategically. The compatible reuse column would contain numerical abbreviations representing each type

of future land use that would benefit from the site characteristic listed in the same row (note that the abbreviations would simply be a space-saving feature in the checklist, not a means of weighting responses). The corresponding descriptive questions, likely contained in a separate document (again, for reasons of space), would basically obtain additional descriptive details about each characteristic in the checklist. They might, for instance, ask about features like: the condition and material of existing structures and hardscape; vegetation health and species composition; the nature of the site's historical or cultural relevance; or which types of community hubs are located nearby. Overall, this inventory component of the framework would address the past and present aspects of temporal awareness by revealing details about existing conditions and site history.

The same preference data necessary to create the inventory checklist and questions would be used to craft the compatible future land use table, which would look something like Figure 4.3 on the following page. The table would refer back to the compatible reuse column in the inventory checklist, asking the designer to count the number of checked-off characteristics each type of reuse had. The land uses with the greatest number of checked boxes would be considered those most suitable for the site, and the direction in which the fallow state should aim. Note that it might be necessary to introduce some sort of weighting factor to compensate for the fact that some types of land use simply have a longer list of site characteristics that would benefit them.

Compatible Future Land Use Table (Example)

Potential Future Land Use	Number of Preferred Characteristics Present (see second column of inventory)
1. small-scale urban agriculture	2
2. large-scale urban agriculture	1
3. residential infill	3
4. arts venue (performance/display space)	4
5. arts work space	4
6. urban tree nursery or lumber operation	0
7. public greenspace (e.g. park)	2
8. community gathering space	3
9. biological water treatment facility	0
10. pheasant hunting range	0
11. wildlife habitat corridor	0
Highest-scoring Land Uses (i.e. most compatible with the site)	4. arts venue 5. arts work space

Figure 4.3: Compatible Future Land Use Table (Example)

As evidenced by the sample above (Figure 4.3), the compatible future land use table would actually be quite simple in format — little more than a means of determining the types of potential reuse for which the site has the greatest number of favorable existing characteristics. This simplicity, however, would be the distillation of substantial background work: conducting interviews with numerous vacant site reuse groups and analyzing the implications of the resulting preference data.

By completing the two components of the framework — site inventory and compatible future land use table — the designer would obtain detailed information about the site's history and existing conditions, and also arrive at a basic conclusion about which type(s) of land reuse would be most suitable for the site, given those characteristics. They could then design a fallow state for the property that would be

sensitive to both past and present, while facilitating redevelopment in appropriate directions. Physically, the fallow state design would initiate processes that make reuse easier, safer, and less costly. Aesthetically, it would use the suggestive power of landscape to prompt awareness of the compatible potential reuse — in other words, to make suitable options *look* like good options, so that people want to implement them.

Pilot Research for a Detroit-Specific Design Framework

Preliminary interviews were conducted during January 2010, according to the method described earlier, with a Detroit-based representative from each of the following vacant land reuse group categories: neighborhood-scale urban agriculture, large-scale commercial urban agriculture, and neighborhood-scale arts venues. All respondents had lived in Detroit for more than a year, so they had some first-hand knowledge of the city. One individual had been a resident for forty-four years. Figure 4.4 shows the characteristics that the representative of each group deemed moderately to very important on the questionnaire (a score of three or greater on the Likert scale).

The interviews did reveal a few areas where similarities in degree of importance mask differences in direction of importance that would be useful in determining compatible future land uses. For instance, both the commercial-scale urban agriculture and arts venue representatives noted cultural/historical/social significance as an important consideration. As it turned out, though, such significance represented an *impediment* for the agriculture project (because it would complicate clearing the land),

but an *attractive* feature for the arts venue (because it would enrich the site's relevance). Additional differences and salient preferences that came to light in the interview are included in tables in Appendix C.

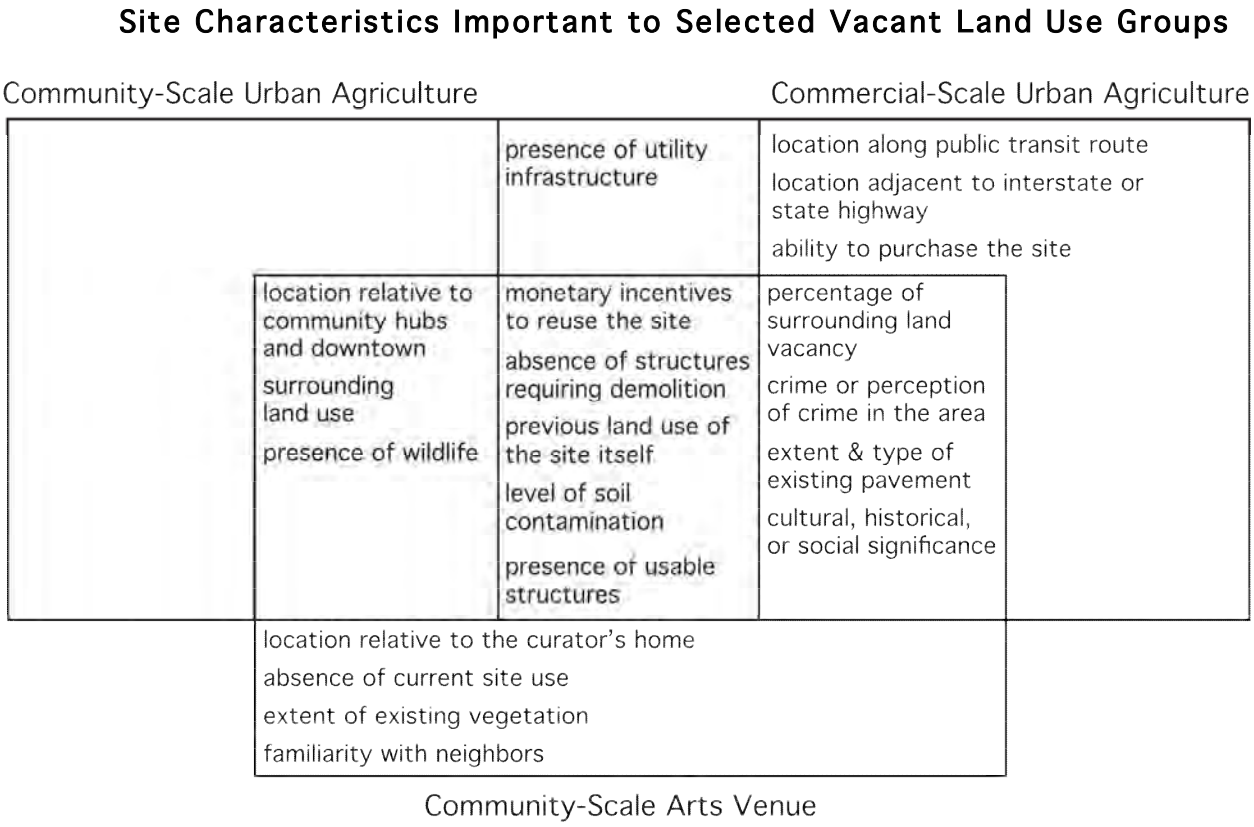


Figure 4.4: Site Characteristics Important to Selected Vacant Land Use Groups

In order to construct a valid design framework for Detroit, it would be vital to hold similar conversations with a far greater number of individuals than was done here, to ensure that the sample was representative of the broad array of vacant land reuse groups. The results shown here are merely an illustrative example of the data-gathering process, and a suggestion of the types of preference differences that might emerge between different groups. Furthermore, the interview process should also

occur repeatedly over time as new types of vacant land reuse come to light, so that the design framework can be modified accordingly. As mentioned earlier, the product is meant to evolve with changing circumstances.

MAINTAINING FLEXIBILITY

Although there is a need for some direction in fallow urban land design, it is critical that the end product be physically and visually open-ended, so as to allow for greater site specificity in an ever-changing context. It would be hubris to think that any guiding framework could yield a definitive, 'correct' decision for any vacant site — the variables in site characteristics and user needs are too numerous, and the future is inherently too uncertain. Prompting a certain land use does not mean it will necessarily come to pass, and it would be a mistake to overly constrain alternate possibilities. The fallow design should not remove some physical impediments to redevelopment, only to *introduce* others. Fortunately, there are a number of ways for the proposed approach to achieve such flexibility.

For one, the indeterminate and long-term nature of the fallow state allows for adaptive management, which is an iterative process of planning, experimental action, monitoring, evaluation, and response (U.S. Department of the Interior 2007). Without plunging into the details of adaptive management theory, suffice it to say that the underlying principles of adaptive management are to acknowledge uncertainty and adjust to change (U.S. Department of the Interior 2007). Therefore, incorporating the method into the fallow urban land approach would inherently maintain a degree of

flexibility. After the initial design implementation, periodic monitoring of response indicators like environmental conditions, crime rates, levels of community participation, and rate of redevelopment would measure the efficacy of the fallow state designs individually and as a citywide program. Adjustments could then be made, and another cycle of design experimentation, observation, and assessment begun. Such a method would allow fallow urban land design to self-correct where it was not working, continually improving the approach. The room for adaptation would also accommodate changes in social, political, economic, and environmental context that could alter land use needs and thus the potential for redevelopment. Overall, incorporating adaptive management into the fallow urban land approach would make it both more sustainable and more relevant to context.

Tapping local creativity and manpower during the design, construction, and post-construction phases of the fallow state approach would also help safeguard landscape adaptability. If the people who are familiar with a vacant site and its context intimately participate in creating its fallow state, the result will be truer to both the current desires of the community and their vision for what future types of redevelopment would be suitable. Personal involvement in landscape-based projects had been shown to nurture a sense of personal investment, which in turn increases oversight and continued care of the landscape (Winterbottom 2007; Westphal 2003). In essence, initiating planned public interaction with vacant sites during design and installation would encourage people to continue interacting with it in improvisational ways, helping ensure that the fallow state evolves in a contextually sensitive way.

Community participation would have additional economic benefits that could make the fallow state more sustainable in the long run: volunteer involvement would make design implementation and maintenance less costly overall, whereas paid work would ease local unemployment problems.

The open-endedness of the design process itself would also ensure some flexibility. The design framework described previously is deliberately suggestive rather than prescriptive — something more like a wave of the hand and vague suggestion to "head that way," rather than an explicit road map to a pre-determined destination. The framework would only take the designer so far, leaving ample room for their imagination, knowledge, and skill. It would be up to them to give physical form to the amorphous concept of preparing for future possibilities, to choose which physical and aesthetic remediation tactics to use, and to decide how to use those tactics in shaping an effective fallow state.

To some extent, maintaining the capacity for design adaptation would be a matter of public policy, under the jurisdiction of municipal government and urban planners rather than landscape architects. Nevertheless, it is worth mentioning here, since maintaining some freedom of land use would be critical to the success of the proposed fallow state design process. The relative lack of enforcement of official restrictions is a crucial part of why so many creative land uses are flourishing in Detroit today. The city's decidedly laissez-faire attitude about regulation and enforcement admittedly makes the city a more dicey place to live, but it also allows room for experimentation and innovation that would be quashed in other cities by high prices,

strict regulation, or a conformist social atmosphere. Artist after artist has cited this freedom as a benefit of working in Detroit (Hyde 2010; Hodges 2009). To sacrifice this quality for greater control of land use would be counterproductive to promoting vacant site redevelopment. Creating a separate zoning category for fallow urban land, with relaxed regulations about allowable structures, land use, and so on, could help significantly in this regard.

CHAPTER SUMMARY

As this chapter demonstrates, all components of fallow urban land design would be calculated to balance direction with flexibility, in a way that remains cognizant of past, present, and future. The direction that the design framework provides would help standardize baseline decisions about putting vacant land into a fallow state, so that the endeavor could have some consistency when implemented on a citywide scale. The flexibility of the design, implementation, and site management phases would help ensure that the design could maintain its relevancy within the constantly changing urban environment. The interviews that inform the framework keep one eye looking ahead to the ambiguous, but nevertheless malleable, future. The carefully crafted site inventory and analysis component keeps the other eye fixed on the landscape's present condition, and the past that led it there. Together, all of these features would firmly root fallow state designs in reality, but still allow them to bend, rather than break, under the forceful winds of change.

CHAPTER FIVE: VISUALIZING A FALLOW STATE

And so we have arrived
At the crossroads of asphalt and fertile ground.

Nora Naranjo-Morse, "Always Becoming"

Now, to address the crux of this thesis: in order for people to see the inherent potential of vacant land, it will be necessary for them to *see* it in the first place. There is a vast difference between merely registering an image that crosses your field of vision and truly considering its details, relevance, and implications. In a city where vacant land is so ubiquitous, far too many people simply pass by without giving it any thought. Those who do notice it do so just enough for their brains to flash a negative response — *blight, waste, problem, disgraceful, neglect* — before they move on. Such automatic responses undermine the positive psychological effect that fallow urban land could have. Since the fallow design approach is intended to improve perception of vacant land, it will be critical for the land itself to command public attention.

This is where an artistic approach will come into play. Very often, an artist's express purpose for creating and presenting their work is to provoke awareness and thought — to activate the observer's senses and thereby initiate nonverbal commentary or dialogue. By doing so, art can act as a powerful catalyst for social, psychological, and even environmental change (Foster 2007). Fallow urban land design would attempt to accomplish the same by treating landscape as striking, large-scale,

public sculpture, rather than just an environmental backdrop. Vegetation and salvaged material would be the sculpture media, and positive suggestions about the potential of vacant land, the unspoken message.

In this respect, fallow urban land design would take a cue from artists whose work falls within the realm of 'ecological aesthetics' (Strelow 2004). This term encompasses a fairly broad spectrum of art and landscape design, from the largely sculptural creations of artists like Nils-Udo (Fig. 5.1), Nancy Holt (Fig. 5.2), Herman Prigann (Fig. 5.3), and Patrick Dougherty (Fig. 5.4), to more architectural inventions like the living-tree structures designed by Project team Sanfte Strukturen (Fig. 5.5) and Giuliano Mauri (Fig. 5.6).

Fig. 5.1: *Sun sculpture for equinox* 1979, by Nils-Udo (Strelow 2004)

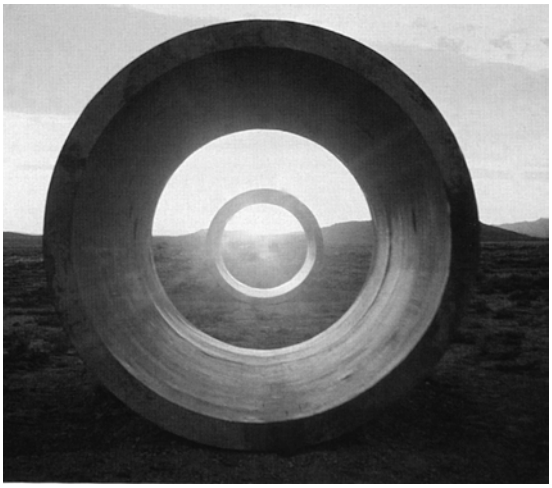


Fig. 5.2: *Suntunnels* 1973-76, by Nancy Holt (Strelow 2004)

Fig. 5.3: *Tower of the Roots* 1999, by Herman Prigann (Strelow 2004)

Fig. 5.4: *Owache* 1999, by Patrick Dougherty (Strelow 2004)

Fig. 5.5: *Auerworldpalast project* 1998, by Project team Sanfte Struckturen (Strelow 2004)

Fig. 5.6: *Cattedrale vegetale* 2001, by Giuliano Mauri (Strelow 2004)

Despite the differing emphases, however, there are common threads of material reuse and reorganization, temporal change, site-specificity, and attention to natural

processes running through their work. The end products are undeniably the work of human hands, yet their arrangement and materiality bring awareness to the non-human landscape. Fallow urban land design would aim to have a similar effect. Instead of using purely 'natural' found materials, however, it would incorporate industrial and other manmade urban relics into the mix.

A few groups and individuals in Detroit already use a similar artistic strategy to call attention to abandoned buildings and vacant land. For example, DDD (Detroit Demolition Disneyland) sends this message through its Object Orange project (Detroit. Demolition. Disneyland 2006). The group systematically, surreptitiously, and illegally paints abandoned buildings a vivid orange that the city cannot easily ignore (Figure 5.8). As seen in the previous chapter, Greg Holm and Matthew Radune drew attention to an overlooked vacant home by transforming it into a glistening ice sculpture and performance piece (Rich 2010).

Figure 5.8: Object Orange house; unknown photographer, http://www.flickr.com/photos/90624885@N00/269494365

Such projects do capture attention, but they also acutely reinforce the message that vacant land is a problem that needs to be addressed immediately. Such criticism certainly has its place but, as noted in previous chapters, it can also perpetuate demoralization that *inhibits* action and change. What positive stories about vacant land could be disseminated? What other stories told? Specifically, what suite of nonverbal messages might fallow designs convey, and what physical form would this communication take?

Ideally, fallow land designs would 'say' things like: This land has purpose. *Something* interesting is going on here. This landscape has potential — just look at how good a _____ it could become. Someone clearly cares about this place. This space is relatively safe and comfortable; Feel free to enter and interact with this landscape. As for what these messages might look like... regrettably, that cannot be stated conclusively in this thesis. Some hints about visual cues to care and safety were brought to light in Chapter Three, along with suggestions about the aesthetic potential of phytoremediation and demolition by design techniques. As pointed out in the previous chapter, however, the inherent (and intentional) flexibility of the process leaves much up to the creativity of the designer.

Yet, it is well worth taking some time here to explore this amorphous side of fallow urban land design and to visualize it on a conceptual level. This chapter will do so by running five examples of vacant lots in Detroit through the fallow state design process. The sites were selected to represent a variety of vacant land types, in terms

of previous land use, relative location, site area, and material resources. They intentionally are *not* among the most well-known or spectacular vacant sites in Detroit (e.g. Michigan Central Station or the site of the now demolished Hudson Department Store) so as to better depict typical vacant land. After a brief description of each site's location, context, and physical characteristics, loose sketches and modified site photographs will show how a fallow state might take shape on the land there. Overall, the result has much in common with the work of the artists and activists mentioned above, for it bears the same sense of reorganization — using what already exists to generate something new. However, the fallow state designs have an especially strong focus on site remediation and future land use joining the quest for an aesthetic punch and powerful message.

As mentioned in Chapter Four, the sample of vacant site reuse groups interviewed for this thesis was not representative enough to construct a full-fledged, refined design framework (site inventory and compatible future use table). As a result, the direct application of a fallow state design framework to the selected sites unfortunately could not be shown here. To compensate for this shortcoming as much as possible, the choice of a compatible future reuse to guide each site's fallow design was based on those site characteristics that the interviews did indicate are relevant to the distinct site preferences of each vacant land reuse group.

Bear in mind that these are but a few possibilities, applied to a scant handful of sites. There are far more types of vacant land than those represented here, but it would require a much more exhaustive first-hand exploration of Detroit to develop this

typology and generate an example design for each than could be completed in the course of this thesis. It is hoped, however, that the examples presented here will show the general character of fallow urban land design: its flexibility, artistic mindset, contextual awareness, and forward-looking view.

SITE ONE

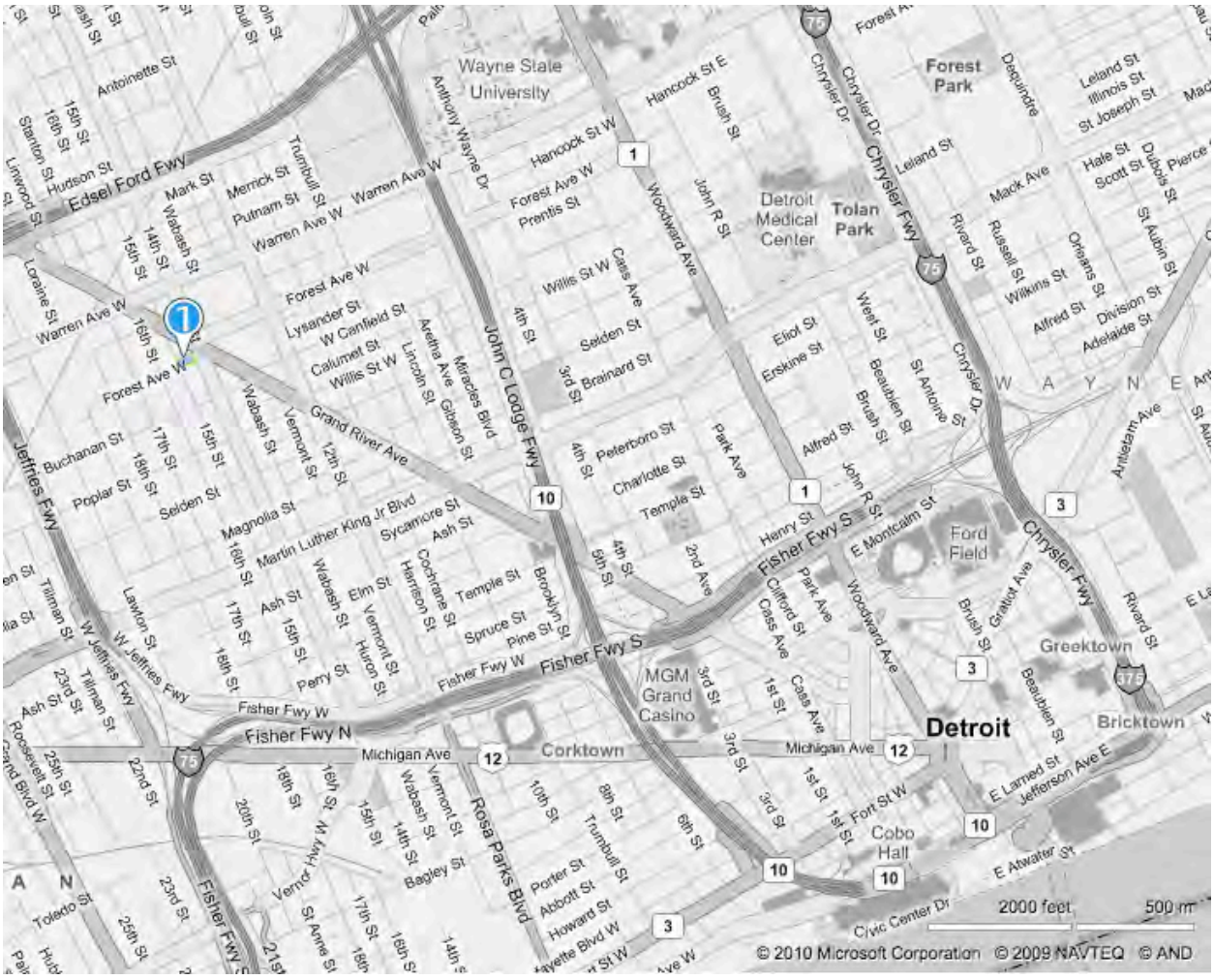
Examining past and present…

Approximate Area: 30,500 square feet (0.7 acres)

Land Use History: appears to have been commercial, or (less likely) residential

Location:

- northwest corner of 14th St. and W. Forest Ave. intersection
- Near West Side area
- less than two miles from the downtown Central Business District



Physical Context:

- close to both commercial and low density residential land uses
- some street frontage on an arterial road, Grand River Ave.
- neighbors include: an art gallery/studio complex, a church and a school

Physical Characteristics:

- composite of at least three properties
- prominent corner location
- one residual structure: derelict, possibly abandoned two-story commercial building, missing the back two-thirds of its roof
- very little residual pavement on site interior
- one aerial electric or telephone line onsite, and a few street lights along Grand River Ave.
- subsurface water and sewer infrastructure likely, but connection may be difficult
- a few large trees and shrubs, concentrated on southeastern part of the site
- vegetation is primarily unmown grass and urban upland groundcover
- mostly intact alley along western site edge
- mostly intact sidewalks along remaining site edges
- some evidence of informal site use
    - established pathway through center of site (boards and old carpet)
    - barbecue grill
    - occasional mowing of the grass/field

Existing Conditions:

Looking ahead to the future...

Target Compatible Reuse: Community-based Arts Venue

The art curator interviewed during background research for this thesis indicated a preference for sites that are mostly open and unpaved with a few large trees for shade, minimal existing hardscape, and a prominent location close but not immediately adjacent to residential neighborhoods. Utility connections and vehicular access were considered assets because they facilitate setting up, hosting, and removing large installations and events. Sites covering an area equivalent to about two residential lots were deemed an appropriate size. Given these preferences, the scale, location, and material qualities of this particular site all seem conducive to a community arts venue's needs, so this was chosen as the future land use to design for. The presence of an unoccupied building, which appears to be repairable, would also be advantageous for such a land use, since it could potentially become an indoor complement to an outdoor performance and display space. The established art gallery and studios adjacent to this site would further reinforce an arts-based land use.

Resulting Site-specific Design Goals:

- Use plantings, topography, and structural elements to direct views, imply site entrances, and suggest gathering/performance/art installation spaces.
- Maintain open site character and mostly level grading, to accommodate sculpture installation, large audiences, and space for performers.
- Make site appear welcoming and semi-public.

- Clear site interior of residual debris, salvaging brick and concrete for the fallow state design.
- Clear sight-lines through existing dense vegetation and keep new plantings below waist-high, especially along adjacent alley, to maintain a sense of safety.
- Keep access to alley open, so as not to impede maintenance or delivery vehicles.

Conceptual Master Plan:

Visualization:

SITE TWO

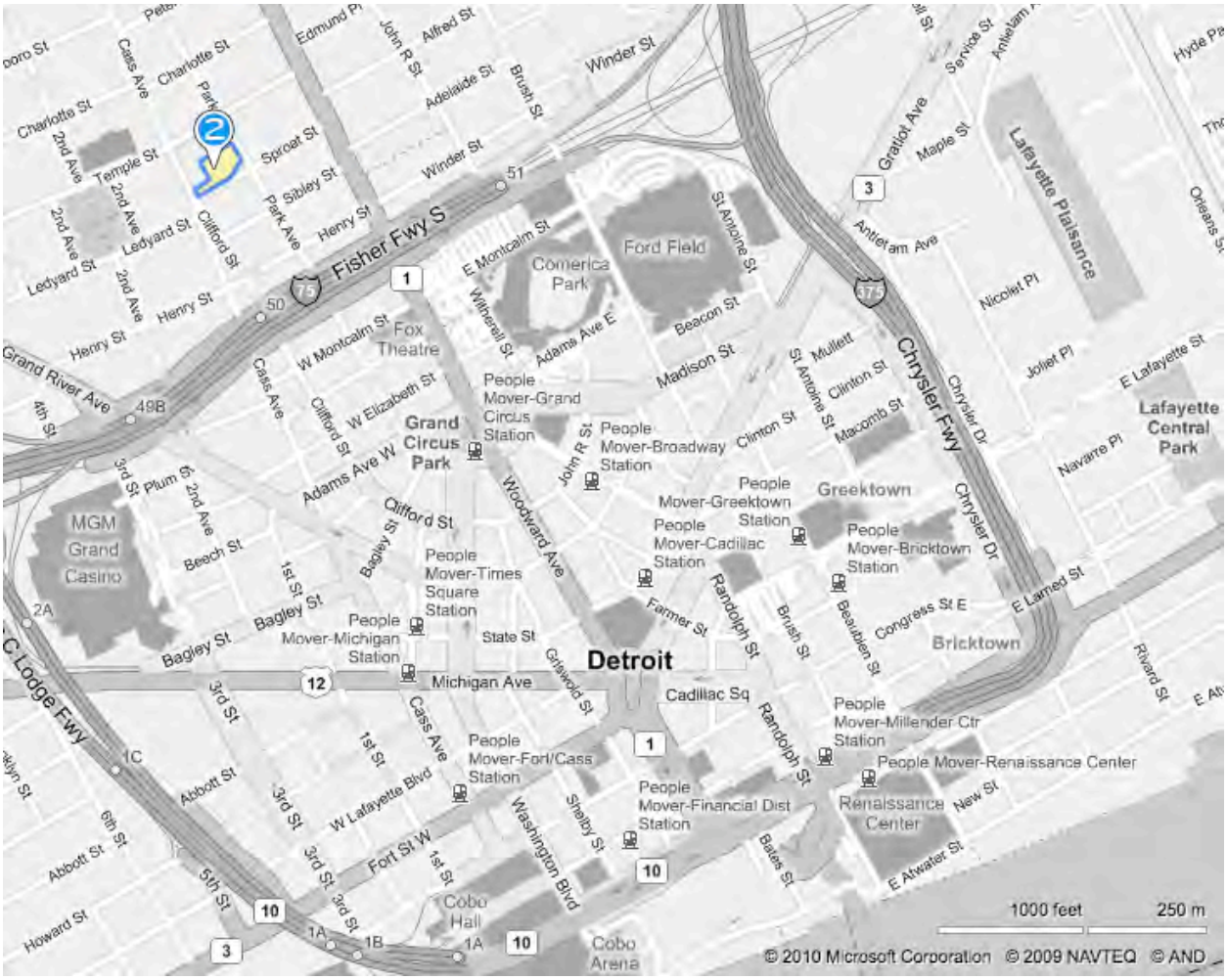
Examining past and present…

Approximate Area: 48,560 square feet (1.1 acres)

Land Use History: zoned as High Density Residential or General Commercial; unclear exactly what occupied the site previously

Location:

- northwest corner of Park Ave. and Sproat St. intersection
- Woodward area
- less than one mile from downtown Central Business District



Physical Context:

- close to both commercial and high density residential land uses
- neighbors include two single-family residences (apparently occupied), a few two- to four-story buildings (possibly residential) and two vacant high-rise buildings (Hotel Eddystone and Harbor Light Center)
- two blocks from Cass Park and the Masonic Temple Theater; relatively close to the Fisher Theater and two sports venues (Comerica Park and Ford Field)
- three blocks from a highway (Fisher Freeway)

Physical Characteristics:

- composite of at least three properties
- extensive concrete pavement, somewhat weathered but more or less intact
- raised concrete foundation, approximately 6" high at northern side of site
- large pile of debris, including: CMU blocks, some pipe, brick, rubble, a few used tires, loose concrete aggregate, concrete rubble, and some large concrete blocks
- adjacent high-rise vacant buildings appear gutted, with no glass left in windows; three ~2.5x5 and four ~2.5x2.5 iron window grates on first level
- a few volunteer trees (mostly Ailanthus) and shrubs around the site perimeter
- substantial Chicory, Spotted Knapweed, Queen Anne's Lace, and other low-growing 'weed' species growing in pavement cracks
- two large (unmown?) grassy areas, one with distinct desire-line pathways
- utility infrastructure includes water drainage outlet, telephone line on three sides of site, and a few streetlight posts along the site perimeter

Existing Conditions:

Looking ahead to the future...

Target Compatible Reuse: Public Gathering Space, or Infill Structure

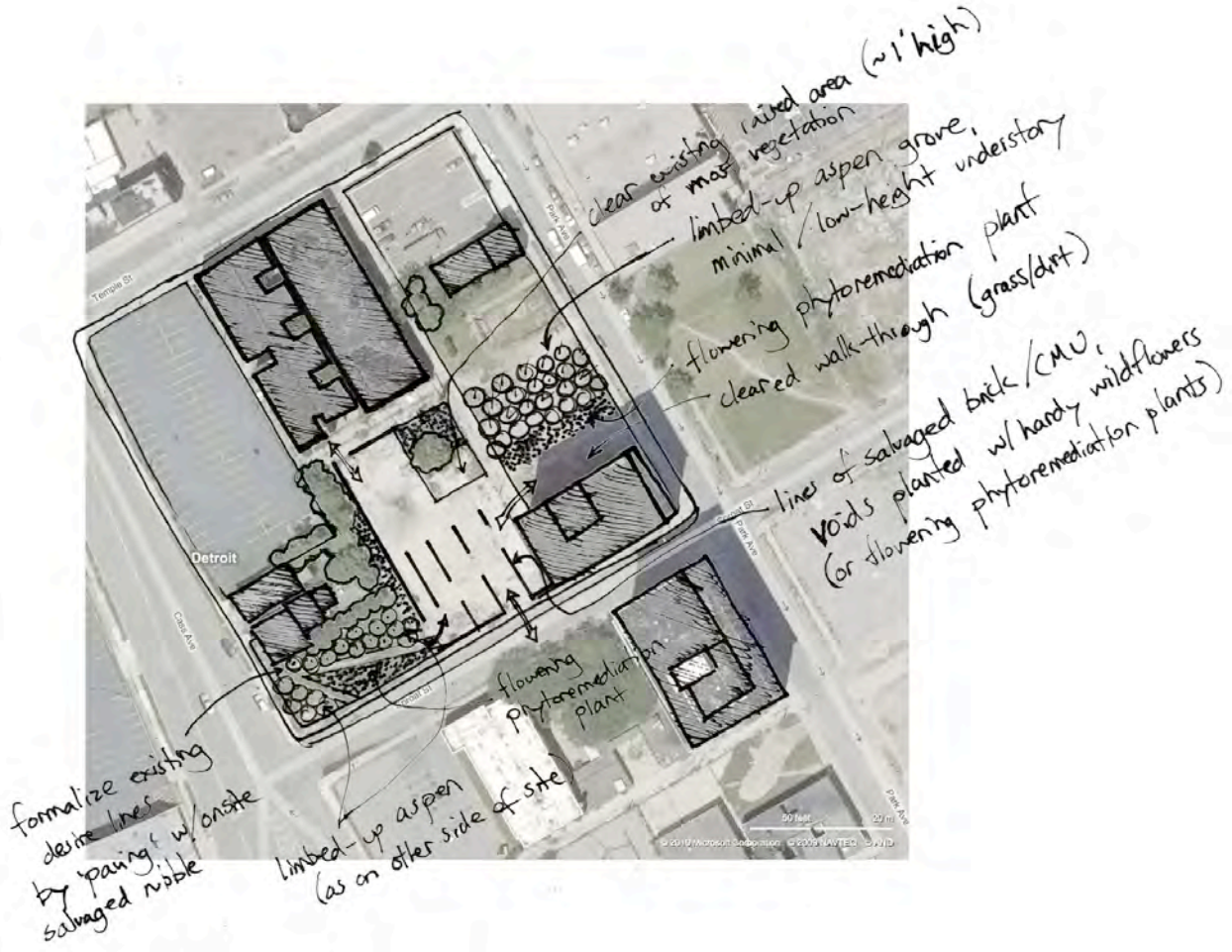
The selection of a compatible future land use was less clear in this case than the previous one, since none of the interview respondents expressed a preference for sites with extensive existing hardscape like this one has. However, the site's zoning and location close to downtown seemed to suggest a more public, non-agricultural use, such as a plaza or site for a new commercial building. The large pile of concrete and brick rubble onsite bolstered this decision, since it could supply materials for a more architectonic fallow state design, which would suggest this sort of future land use. The scale of the site also seemed appropriate. The two unpaved areas flanking the residual hardscape presented an opportunity to balance the paved expanse with large areas of vegetation. Given that the choice of a compatible future reuse was less well-informed for this site, it seemed wise to create an even more open-ended fallow state design. Striking a balance between vegetated and paved areas would facilitate this.

Resulting Site-Specific Design Goals:

- Imply gathering spaces and seating by delineating subspaces within the paved area of the site.
- Use material salvaged from the debris pile to construct spatial dividers and to formalize existing desire-line pathways.
- Use plants with seasonal color to accentuate spatial divisions and emphasize that they are deliberate design elements.

- Incorporate broad swaths of phytoremediation plantings, both trees and groundcover, to increase proportion of green space on the block.
- Maintain open sight lines in vegetated areas, to maintain sense of safety.

Conceptual Master Plan:



Visualization:

salvage onsite rubble, brick, etc. + reorganize into rectilinear pattern

widen existing pavement cracks slightly + plant sedums + similar vegetation

seed tough, flowering plants in brick/CMU voids ... directional, eye-catching, space-dividing lines of seasonal green + color

define site edge

subdivide site into smaller, human-scale areas (as in a public plaza)

SITE THREE

Examining past and present…

Approximate Area: 580,000 square feet (13.3 acres)

Land Use History: zoned as Low Density Residential

Location:

- bounded by St. Aubin St., Pierce St., Chene St., and Wilkins St.
- Near-East Side area, just over a mile from downtown Central Business District

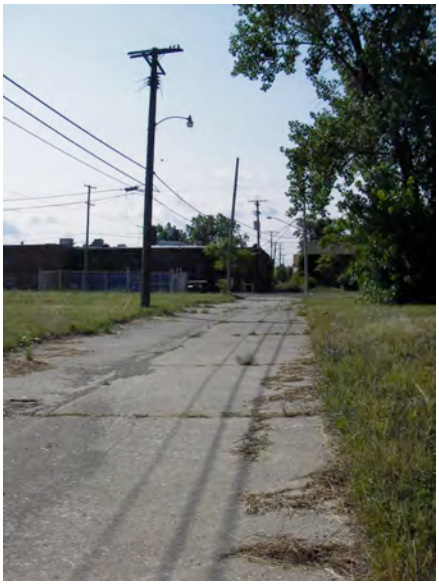
Physical Context:

- composite of six residential-scale blocks, comprising numerous individual properties (inhabited properties excluded from site design)
- neighbors include a school just across the road
- close to an arterial road (Gratiot)
- within a mile of an access point to the Dequindre Cut: currently a graffiti showcase, and in the process of conversion to a public greenway trail
- within a mile of the Heidelberg Project art installations

Physical Characteristics:

- very low population density
- some large trees, but site is mostly covered with early successional vegetation
- pheasants spotted on site
- a few unoccupied structures with salvage potential, but otherwise not much salvageable material on site
- subsurface infrastructure likely
- concrete sidewalks and alleys present, many in highly deteriorated condition
- unknown levels of soil contamination, but likely not as high as elsewhere, due to previous residential land use
- a few desire line pathways and driveways near the southeast corner of the site, but little evidence of other current informal site use

Existing Conditions:



Existing Conditions (continued):

Looking ahead to the future...

Target Compatible Reuse: Large-Scale Commercial Urban Agriculture

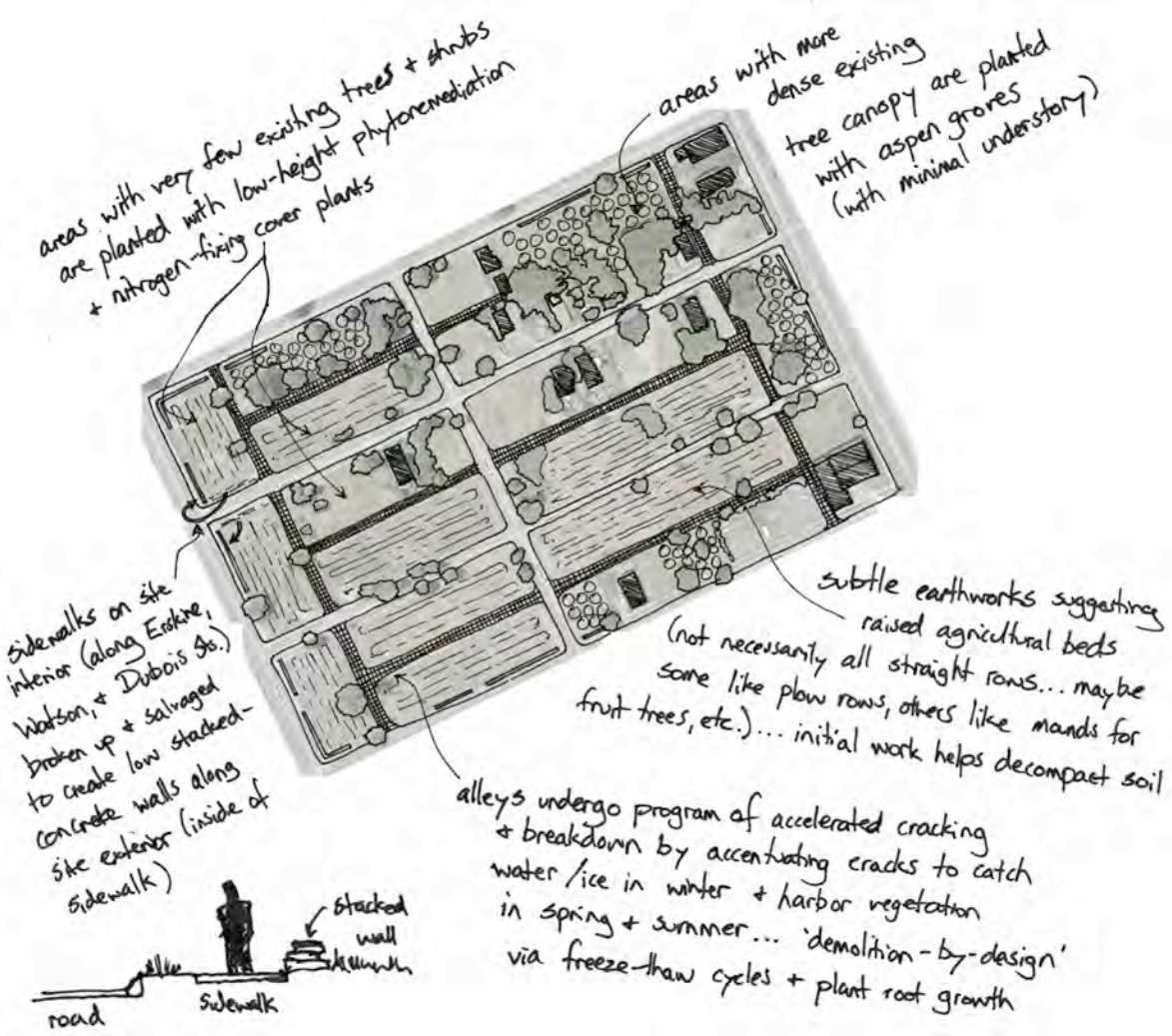
This complex of properties seemed ideal for large-scale urban agriculture, based on preferences uncovered in the interview process. It is a full 13.3 acres, with room for expansion to the north and northwest. The extremely small number of remaining residents could easily remain even if the area shifted to agricultural purposes. The residential land use history would be highly conducive to agriculture, since it lessens the risk of heavy soil contamination. There is some residual pavement that would have to be removed. However, the orthogonal street grid could remain and would actually be an asset for moving farm equipment and demarcating agricultural plots. The site's location close to a few schools would create opportunities for community outreach programs that could publicize and help support an agricultural operation even as they educate people about local food systems. Although the site is not situated right near a highway exit, it is located very close to Gratiot Ave., an arterial road that would offer similar access and shipping benefits. Overall, it appears that large-scale urban agriculture would be a highly compatible future use for a site with these characteristics.

Resulting Site-specific Design Goals:

- Use the site's large area to advantage: make broad design gestures by applying similar treatments to wide areas of the site, and shaping the topography.
- Use demolition-by design to partially remove residual hardscape that would impede agriculture.

- Actively remove some of the concrete sidewalks and alleys, and reuse the material in construction of the fallow state design.
- Incorporate plants that will remediate soil compaction and contamination.
- Create a mixture of field- and grove-like spaces.
- Maintain a landscape that will support urban wildlife.
- Reinforce site boundary enough to indicate the intentionality of the design.

Conceptual Master Plan:



Visualization:

create patterns of cracks in alley pavement that are eye-catching & clearly deliberate

width should be broader than typical control joints (again, to look deliberate)

cracks catch ice in winter, accelerating freeze-thaw weathering & accentuating patterns with reflectivity

initially plant each crack with a single species (knowing others will eventually infiltrate)

focus first on plants with strong root systems to break up pavement over time

focus second on species with high visual appeal (seasonal color, flowers, etc.)

nitrogen-fixing & phytoremediation cover 'crops' planted on earthworks designed to imply agricultural patterns

salvaged concrete slabs from block/site interior become low wall segments... suggest site boundary

SITE FOUR

Examining past and present…

Approximate Area: 57,600 square feet (1.3 acres)

Land Use History: zoned as Medium Density Residential and Vacant; site appears to have been either a parking lot for the adjacent high-rise building, or the foundation of a separate building

Location:

- southwest corner of Brush St. and Winder St. intersection
- within 0.25 miles of the downtown Central Business District

Physical Context:

- portion of one block, comprising two to four residential-size properties
- close to several medium and high density residential developments (condominiums and high-rise apartments)
- adjacent to one vacant building marked as a historic preservation project (which does not seem to be undergoing any work at present) and directly across the street from an apparently vacant former dry cleaner storefront
- other neighbors include a relatively new bed and breakfast across the street
- within a few blocks of a theater (Fox Theater) and two sports venues (Comerica Park and Ford Field)
- one block away from a highway (Fisher Freeway)

Physical Characteristics:

- sparsely vegetated with only a few small trees and shrubs
- soil appears very compacted
- one alley in fairly good condition bisects the site
- intact sidewalks along the north, east, and south sides of the site's perimeter
- one existing vacant brick two-story building, in the midst of structural collapse; could yield substantial amounts of salvageable material; may have historic significance
- presence of residual utilities infrastructure is likely
- possible site contamination from former dry cleaning operation across the street

Existing Conditions:

Existing Conditions (continued):

Looking ahead to the future...

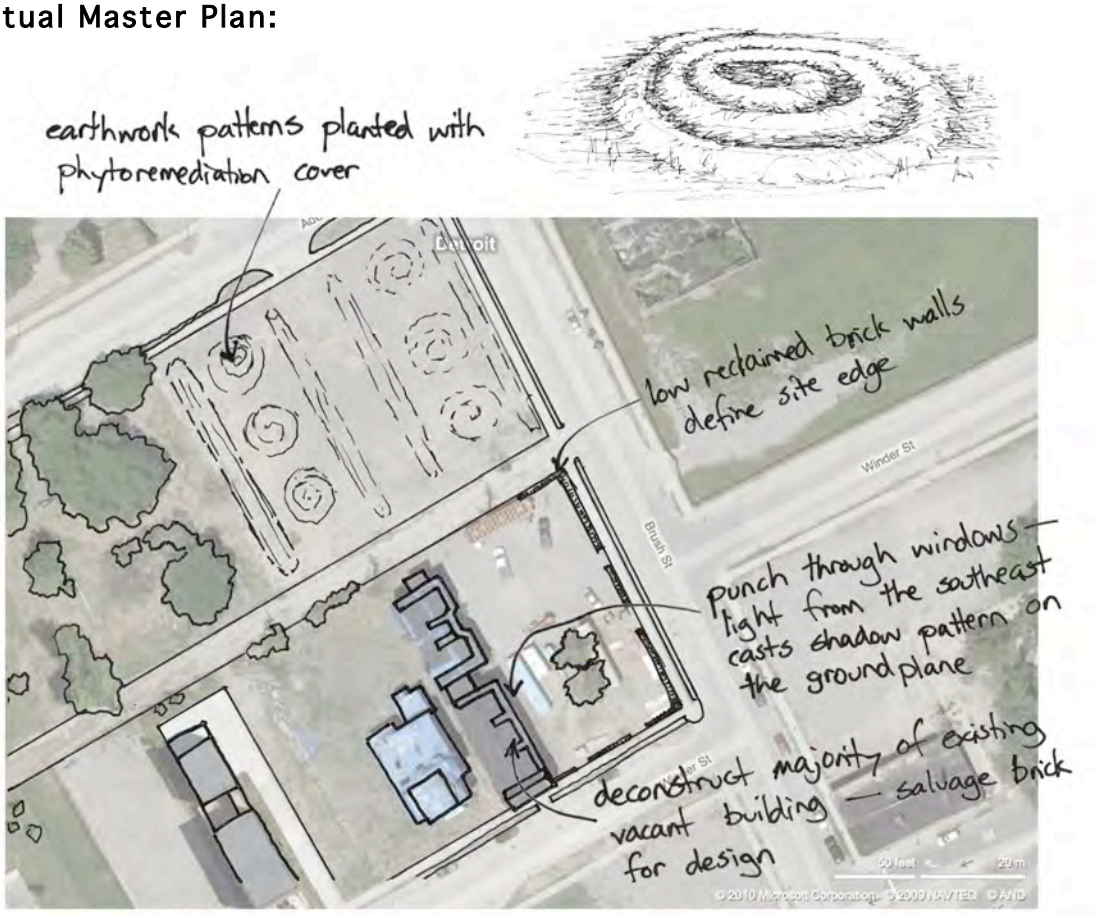
Target Compatible Reuse: Small-Scale Urban Agriculture

Although this site is not a perfect match for small-scale urban agriculture, it does have several characteristics that would make the two sufficiently compatible. Since the site is relatively small and does not have much room for expansion, due to the boundaries established by the highway and occupied residences, it would be inadequate for large-scale commercial urban agriculture but suitable for a smaller neighborhood operation. The location presents several potential advantages for such reuse. First, the lack of tall surrounding buildings leaves the site sunny for much of the day, beneficial for many types of crops. Second, the prominent corner location would make the site highly visible to the public, increasing awareness of any community garden established there, and also strengthening natural surveillance of the site. The residential developments within a few blocks of this site could become the user base and community support system for a garden. The active bed and breakfast down the street would also be a beneficial partner for an urban agriculture group, as a local purchaser of produce. The vacant building across the street has reuse potential compatible with urban agriculture in that it might be possible to convert it into a storefront for the garden. One of the main obstacles to an agricultural reuse of this site is that the soil would require a good deal of remediation prior to planting crops directly in the soil. Both decompaction and decontamination would likely be necessary, unless raised planting beds were used.

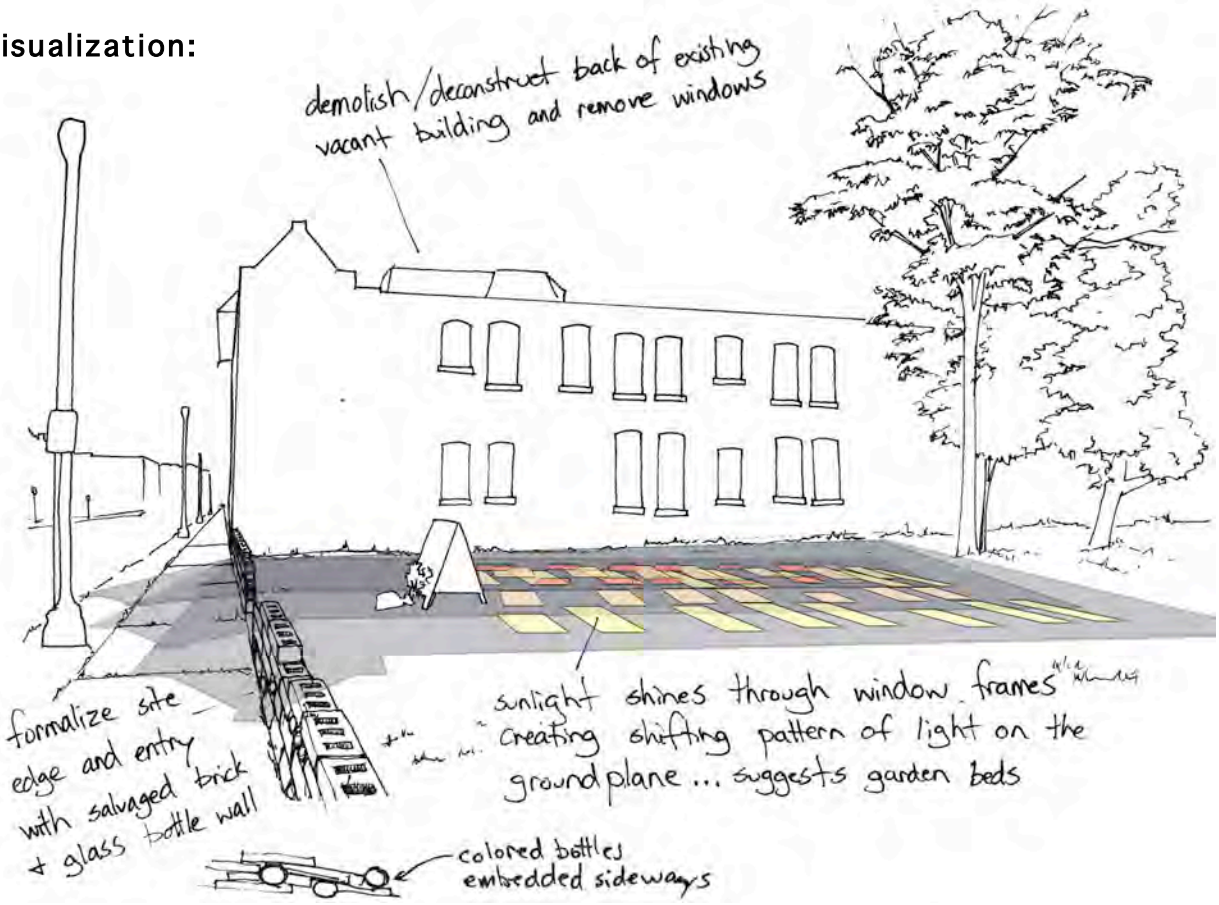
Resulting Site-specific Design Goals:

- Emphasize soil remediation to prepare the site for planting in-ground food crops.
- Formalize site edge to imply a semi-private but nevertheless visible space.
- Take advantage of the site's solar orientation and use light to draw attention to the fallow state design.
- Maintain at least some of the existing vacant structure, as a reference to the site's history (particularly since there is reason to believe that the building might have some historical significance); salvage and reuse brick from the irreparably damaged portion of the building.

Conceptual Master Plan:



Visualization:



SITE FIVE

Examining past and present…

Approximate Area: 77,000 square feet (1.77 acres)

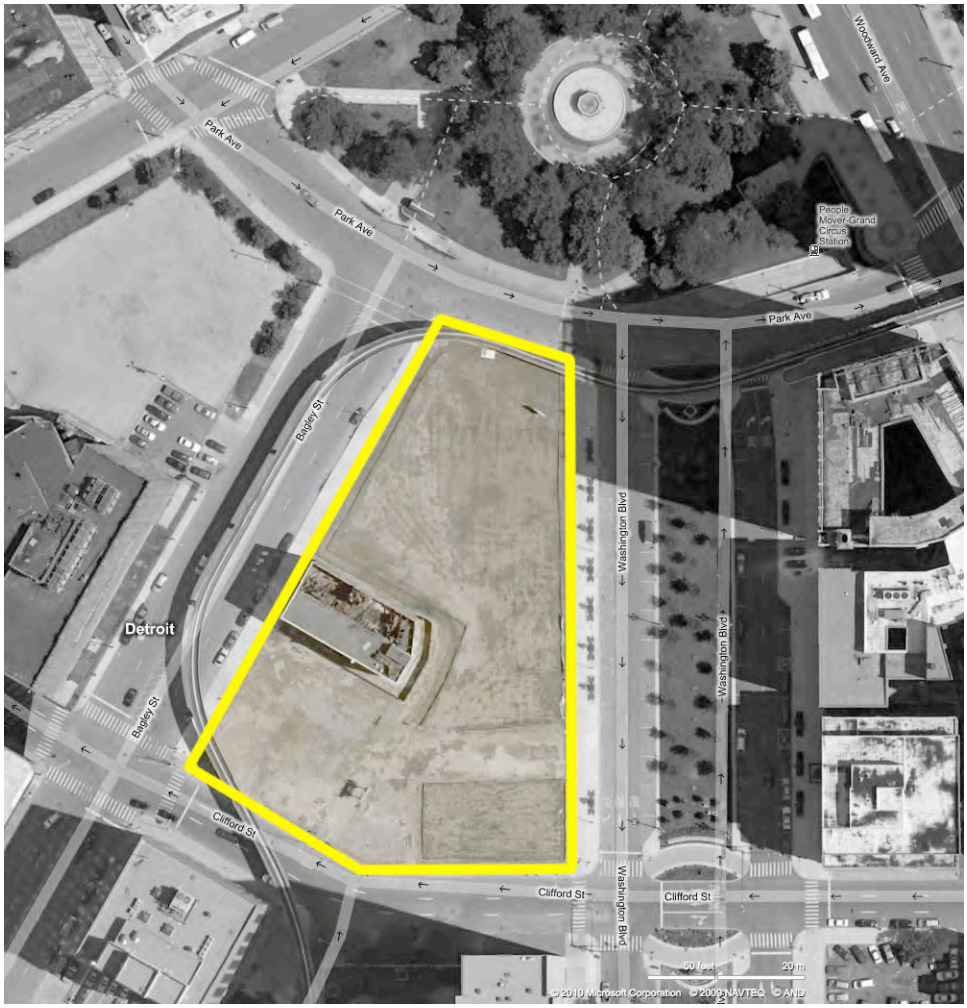
Land Use History: zoned as Special Residential-Commercial; unclear exactly what occupied the site previously; this was an upscale area of town around the time of the city's population peak

Location:

- bounded by Park Ave., Washington Blvd., Clifford St., and Bagley St.
- within the downtown Central Business District

Physical Context:

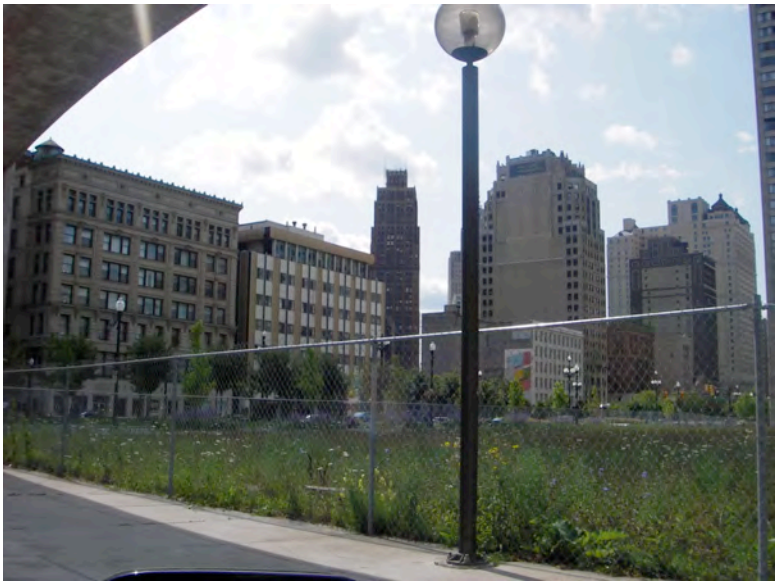
- just across the street from Grand Circus Park, and a planted boulevard median
- the People Mover elevated passenger rail runs above the north and west sides of the site; a station is located across the street in the park
- neighbors include the building housing the Wayne County Department of Public Works, and a few buildings with notable architecture
- some vacancy in the surrounding area, but also some active buildings

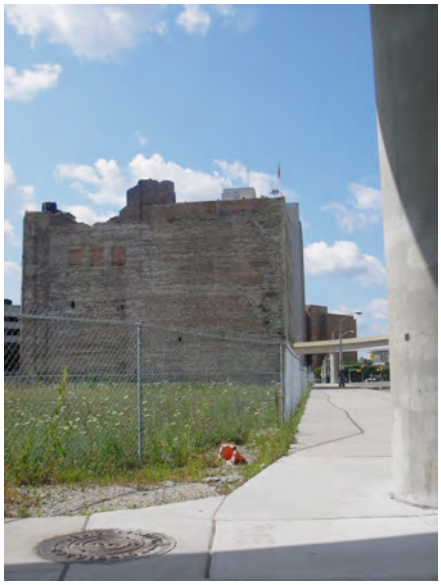


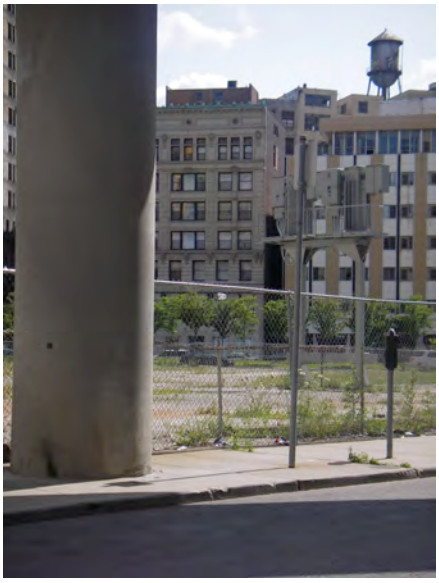
Physical Characteristics:

- site covers an entire downtown block, comprising multiple properties
- virtually barren with no existing trees and very little groundcover vegetation
- soil appears highly compacted and gravelly
- one vacant five- of six-story building, prior use unknown, with at least some of the roof collapsing
- intact sidewalk runs along the site perimeter; no alleys or other pavement remain
- chain-link fencing surrounds much of the perimeter, but little salvageable material on site
- site may have a private owner (i.e. vacant but not abandoned)
- presence of subsurface infrastructure is likely; no overhead utility lines present, but one large structure containing what looks like electrical boxes

Existing Conditions:







Looking ahead to the future...

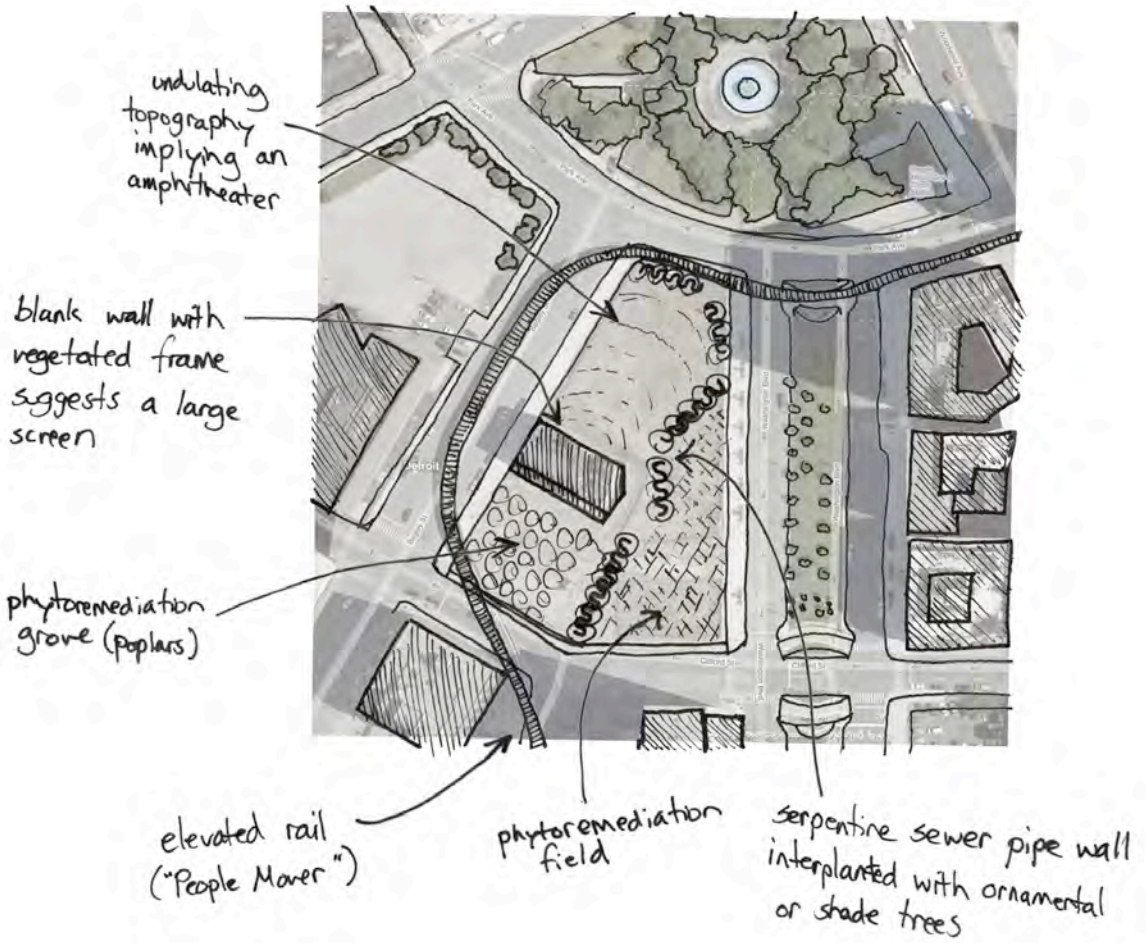
Target Compatible Reuse: Commercial Infill, or Public Park Extension

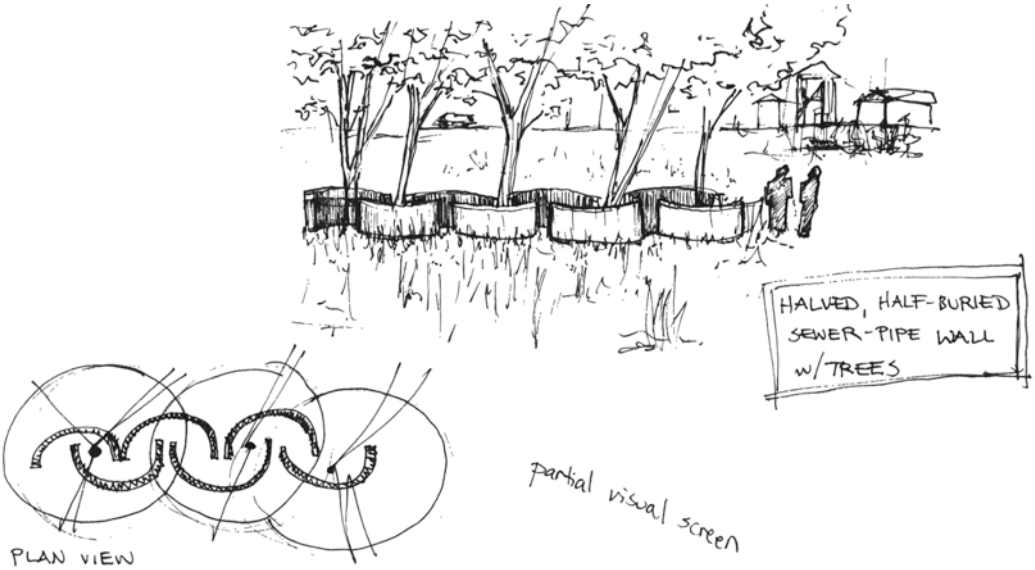
The downtown location of this site, in the midst of a commercial district, makes it a more conventionally valuable site. It is therefore unlikely to be converted to an unconventional land use if it redeveloped. The possibility that the property is still privately owned rather than owned by the city only reinforces this. It makes sense, then, to devise a fallow state design that prepares the site for a return to commercial use. Conversion to a public space would also be a compatible reuse of the site, given its closeness to an existing public park — it could easily become an extension of Grand Circus. This potential future would be more feasible and likely if the property is already city-owned. It may be possible to repair and reuse the one remaining building on the block, but if not, it would yield substantial material for a fallow state design.

Resulting Site-specific Design Goals:

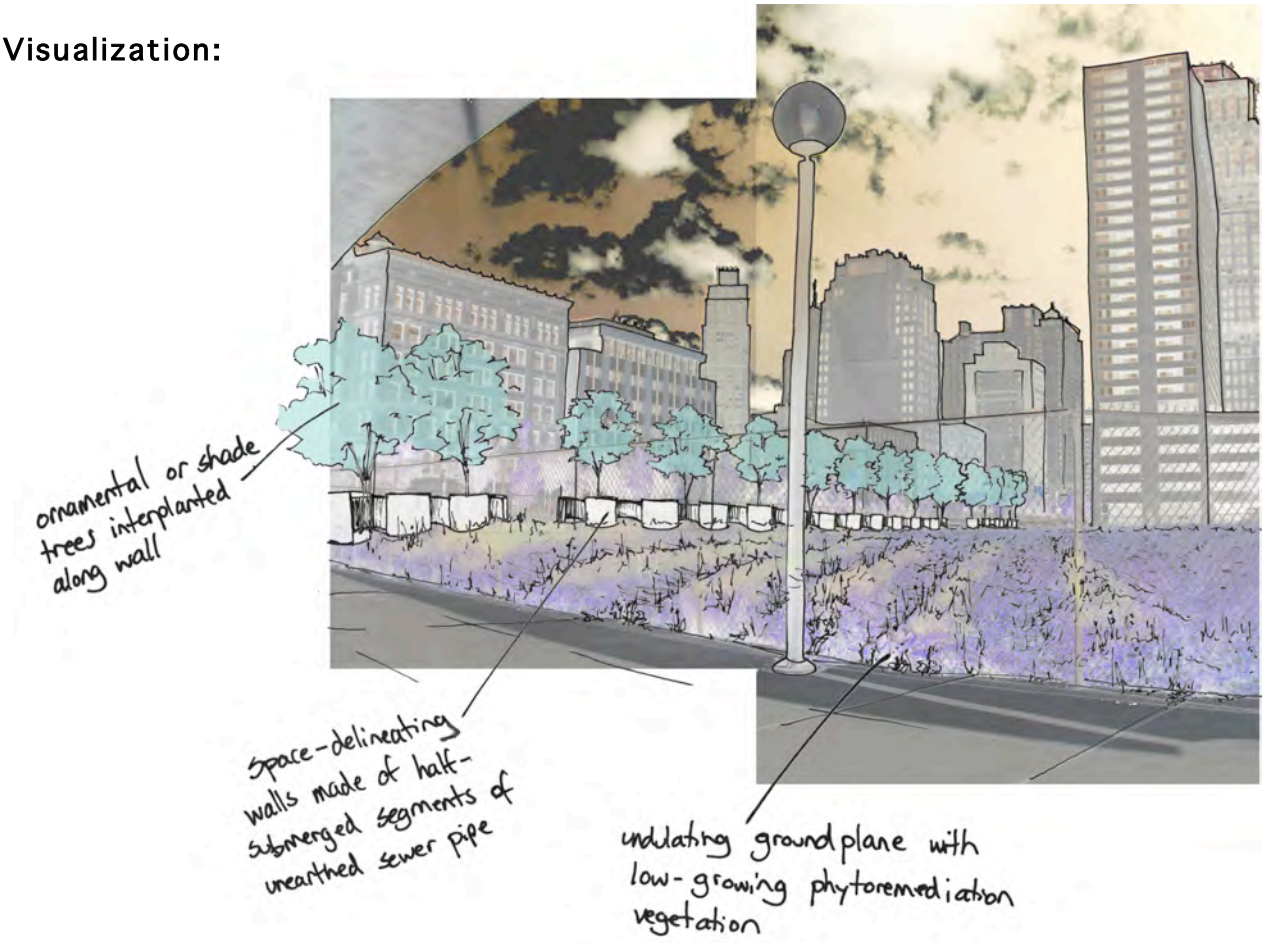
- Avoid creating major structural interventions on the site, since they would need to be removed prior to rebuilding the site.
- Pay some attention to soil remediation, in case the site is converted to a public greenspace rather than commercial infill.
- Use the remaining building as a prominent design component, obviating the need for immediate demolition or deconstruction.
- Incorporate some trees into the design to provide shade and make the site appear less harsh and barren.

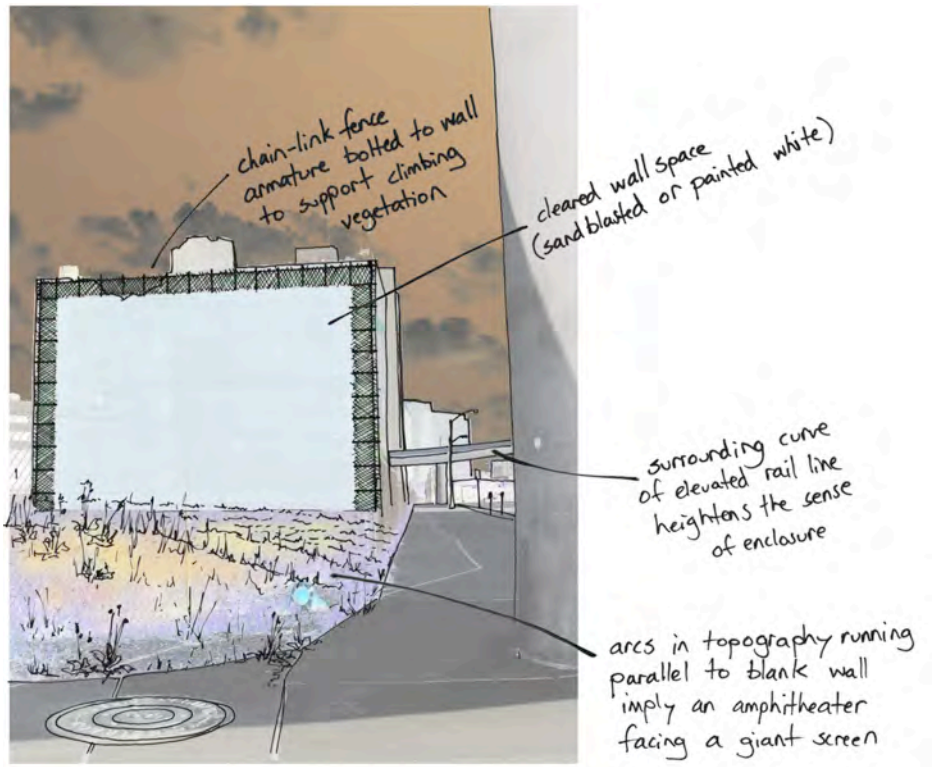
Conceptual Master Plan:





Visualization:





CHAPTER SIX: LOOKING BACK AND LOOKING FORWARD

Summary, Implications, and Suggestions for Future Work

As described at the outset of this thesis, the situation surrounding the ubiquitous vacancy and surreal condition of Detroit's landscape is a complex tangle of issues: history and the present, psychology and sociology, economics and politics, human nature and ecological processes. We cannot hope to untangle this knot with any single type of intervention. We can, however, implement a decisive cut within one portion of it, which may help loosen and unravel other threads that perpetuate land vacancy in the city. The fallow urban land design approach presented here represents one possibility for how this might be done — by presenting vacant land as a potential resource, and physically setting the stage for that potential to be realized.

Chapter Two clearly demonstrated the existence of people who are willing to creatively reuse vacant land as a resource, and the wealth of ways that they might do so. However, until the economic, social, political, and legal climates make it possible for such people to take action, the landscape will remain in a protracted transitional period. If this transitional state were designed with well-informed intentions, rather that surrendered to happenstance, it could accomplish something positive in the interim. Like a fallow field, it could help restore the city even as it rests — an active dormancy. As described earlier, this remediation would address both aesthetic and physical

conditions in order to reverse negative perceptions about vacant land and catalyze widespread change.

Overall, scholarly literature and real-world case studies both support the feasibility and effectiveness of the remediation tactics proposed for the fallow urban land approach. Phytoremediation does seem to be a viable remediation tactic, both financially and physically, for the types and levels of soil contamination in Detroit, particularly in formerly residential areas. It is not a panacea, but would be a substantial asset for the fallow state approach. Deconstruction of existing buildings for salvage likewise seems feasible both economically and in terms of finding capable labor. It does appear to be somewhat more expensive than conventional demolition, but the benefits of job creation, workforce education, material reuse, and psychological empowerment would do much to compensate for the additional monetary cost. The demolition-by-design remediation tactic has less support in the scholarly literature simply by virtue of the fact that it has not been a subject of study. Widespread examples of natural weathering, however, clearly demonstrate that demolition-by-design could accomplish the desired amount of structural breakdown, even if the specific rate of breakdown is as-yet unknown. The precedent set by the Ice House Detroit project, however, strongly supports the tactic's capacity to capture public attention in a positive way. In the realm of aesthetic remediation, there is also substantial scholarly evidence to support the efficacy of including indicators of landscape care and safety in fallow state design for the sake of improving perceptions of vacant land. Case studies of local artists and the author's personal observations of graffiti, impromptu art installations, and

innovative salvage in Detroit suggests that the approach's recycled aesthetic would be consistent with Detroit's atmosphere of grit, rebellion, and resiliency.

There is also reason to believe, as explained in Chapter Four, that the fallow urban land approach could strike the balance between direction and adaptability that Detroit's uncertain future requires. Time limitations and a shortage of willing interview participants prevented the full realization of the proposed design framework, which would be an essential component of the fallow urban land approach. Nevertheless, the preliminary interviews did indicate that vacant land reuse groups differ enough in their site preferences that it would be possible to generate such a framework, given a more representative sample of respondents. The process of preparing for and conducting these interviews also made it possible to elucidate how such a framework might be developed. A completed, Detroit-specific design framework would allow for more systematic treatment of vacant land. Instead of making haphazard aesthetic decisions and applying generalized remediation treatments, the fallow state designer could deliberately direct each site toward its most compatible forms of future reuse. However, the framework would be flexible enough to leave ample room for both the designer's creativity and ongoing site adaptation to local participation and a changing context. The design interventions themselves would likewise be adaptable and fairly easily removable, so as not to impede site reuse.

Even without a completed design framework, it is eminently possible to visualize the sort of artistically minded material reorganization and reapplication that would occur on fallowed urban land. This thesis provided a few examples of site-specific

fallow state design concepts, merely hinting at the dynamic landscapes that are possible. Although the emphasis of fallow urban land design would be on creating interesting visual forms with salvaged material and new vegetation, the other senses would not be neglected. Once drawn into the site by glimpses of a striking landscape element — bright color, unexpected topography, an unusual structure, clearly manmade organization, etc. — finer scale details could ignite the other senses to hold people's interest. All would be calculated to provoke thought, reveal the landscape's potential, and inspire novel ideas about vacant land in Detroit. All would be based on a premise of using what already exists on the land to shape its next incarnation.

FUTURE RESEARCH: DIGGING DEEP INTO THE URBAN WILDS

Countless avenues of additional research might extend from this thesis. If the subject of fallowing urban land were an actual vacant site, this document would have delved only as deeply as the uppermost layer of soil. It merely cracked open the concrete shell to expose a complex subsurface world, ready for closer inspection. The purpose was to uncover the relevant unknowns and *begin* examining them more than it was to undertake a thorough, full-blown exploration. Yet, the issue of vacant urban land is highly complex and therefore deserves that level of exploration before fallow urban land design could validly proceed.

The few weaknesses in the application portion of this thesis (Chapter Five) were unfortunate for the sake of this individual project, but suggest several possible lines of future investigation and experimentation. First and foremost, it would be absolutely

necessary to address the lack of hard preference data from vacant land reuse groups. Interviewing a more representative and statistically strong sample of such groups about the landscape characteristics that attract or repel them from vacant sites would yield the data necessary to actually craft the design framework described broadly in Chapter Four. This could not be completed in the course of research for this thesis, but could certainly be done with more time or a greater number of researchers.

In a similar vein, surveys should be conducted to assess public opinions about vacant land and aesthetic preferences. After all, if the fallow urban land design approach seeks to improve perception of vacant land through aesthetic means, it had better be based on the specific opinions of the people whose perception it is trying to change. What do people notice about vacant land, if they notice it at all? Do they perceive vacant land as urban blight, or as land brimming with potential? What landscape characteristics, in their minds, would indicate safety and landscape care? For that matter, do they perceive one or the other as a more important problem to address? What would they find particularly appealing in a landscape? Such a survey would help gauge public receptivity to the proposed recycled aesthetic before any design activity begins. It would also be a means of quantifying public willingness to participate in fallow state projects — one measure of feasibility. Chapter Three addressed the questions above as best it could from what information could be gleaned from scholarly works, periodicals, and a few internet blogs of metro-Detroiters. However, if the proposed fallow land approach is to be as place-specific as intended, obtaining preference data from the Detroit area is absolutely critical. The surveys

should include both residents and nonresidents of the city, as well as several different demographic groups. The groups might differ in their preferences, and the opinions of all would be important to nurturing positive perceptions of Detroit both within and outside of the city's borders.

On the technical side of things, a few of the physical remediation strategies proposed in this thesis could benefit from additional research, particularly empirical studies conducted on Detroit sites. For example, it would be helpful before using demolition-by-design to conduct in-depth studies of weathering rates for materials like concrete, asphalt, residual building foundations, and the like under conditions of ice, wind, and the growth of specific plant species. Quantifying these rates would clarify the timeframe required for demolition-by-design, allowing fallow state designers to have a slightly more calculated, deliberate effect on the physical remediation process. It would also serve as a trial run for potential techniques, helping to rule out ineffective or impractical ones before they were used in an actual project. Regarding phytoremediation, it would be useful to determine the most typical soil contaminants in the area, and to conduct experiments on the efficacy of treating those substances (again, specifically on Detroit soil).

This thesis barely touched on the economic issues relevant to fallow urban land design, and did not even begin to explore public policy and legal issues. These areas have significant implications for the feasibility of enacting a fallow urban land program, particularly if it were to be affiliated with the government or academic institutions. What current land use restrictions and bureaucratic processes would impede or outright

prevent fallow land projects? What could be done to eliminate or reduce these obstacles or, better yet, to directly facilitate implementation? Are there economic incentives that could bolster such projects? What effect might it have on the economy to take large numbers of properties off the market by rendering them fallow? Would it increase land values at all by bringing supply levels closer to existing demand? Additional research into such questions could uncover ways that fallow urban land treatment could be more achievable and sustainable within the current legal, political, and economic systems of Detroit.

As beneficial as additional research could be, it might also be worth simply diving headfirst into fallow urban land design: creating a handful of fallow site interventions and allowing them to persist for a few years in a grand, adaptive management experiment. Detroit has seen its fair share of unconventional, self-driven experiments, some lasting and some fading back into the tangle of overgrown weeds and fallen chain-link fence. Adding a few more would pose minimal threat to the city. Much useful information, however, could emerge from such experiments *if* someone actively studied the sites' physical changes over time and the public's response to them. It may be that the vacant land issue calls for some immediate, extemporaneous action to initiate change more than it needs a considered and cautious approach.

IMPLICATIONS FOR APPLICATION: SCATTERING THE SEEDS OF AN IDEA

Regardless of what research pertaining to fallow urban land design has or has not yet been done, the fact remains that even the strongest idea, based on the soundest

strategies, will languish if no one thinks to implement it. Initiating the fallow urban land approach would first require disseminating the idea to Detroit's city government, local residents, action groups, volunteer organizations, and even highly-motivated individuals. Only then could the idea have any hope of taking root. The spread and realization of the fallow urban land concept could follow one of at least two different models: a formalized, institutionally based program or an informal collection of individual grassroots projects.

In a more top-down approach, the idea could be presented to the city government itself as a potential public works initiative. Most likely, the project would occur in as an interdisciplinary partnership between the city and one or more local academic institutions, such as the University of Detroit Mercy, College for Creative Studies, the University of Michigan, or Michigan State University. There are numerous departments at these institutions that would be an asset to fallow urban land design, among them: planning, landscape architecture, architecture, graphic design, sculpture, agriculture, the various environmental sciences, and even the schools of business and law. This approach would have the benefit of both governmental support and a more solid grounding in empirically based knowledge. The link to government could facilitate acquiring, consolidating, and re-zoning vacant properties. The link to academic institutions could provide a host of student researchers to design and implement the project on a large scale.

However, the very complexity and intensity of this approach could make it unwieldly. The project could become mired bureaucratic red tape, disorganization, and

lack of consensus between the various partners involved, leading to stagnation and yet another failed attempt at revitalizing Detroit. The heavy institutional component might also tend to crowd out local participation. This would not *necessarily* be the case — there are plenty of examples of university-affiliated programs that engage the public, including Auburn University's Rural Studio — but it is another possible downside of the formal program approach. The negative psychological ramifications of these risks are a serious consideration. The city does *not* need any more examples of unsuccessful city programs to demoralize it and sap its motivation, nor another top-down program that excludes the very residents whose home landscape it would alter.

Alternatively, fallowing urban land could occur as a more grassroots, guerilla-style venture. This approach would have much looser organization and ad hoc implementation, with attendant benefits and drawbacks. With little to no governmental backing, legal and financial hurdles could prove to be a major obstacle. At best, the city might look the other way and allow fallow state modifications to remain even if they were created illegally. At worst, it might actively destroy the designs, as it did with the Heidelberg Project during the 1990s. As with other grassroots movements, the cell-like nature of implementation would make it more difficult for an oppositional government to wipe out the fallow state approach in one fell swoop, but it could still significantly hinder it. Quite possibly, it could even cultivate negative public perception of the approach — treating a movement as a problem encourages people to view it in a negative light. Lacking an academic connection could undermine the approach's efficacy in terms of more technical remediation tactics, like phytoremediation. If the

individuals who help create fallow sites happen to have the requisite scientific knowledge, the designs could still be effective in physically remediating the site. There would, however, be far less guarantee of success.

Nevertheless, the grassroots approach could have some distinct advantages to recommend it. First, by definition, it would involve the sort of local participation that helps ensure contextually relevant design and foster public support. Second, the smaller scale could make the endeavor much more manageable overall, leading to widespread application. The fallow urban land idea would spread little by little and group to group even as fallow land itself increased site by site, gaining strength with each new addition. Even if individual designs were less effective than they would be with a strong academic/scientific grounding, the combined positive effect of a large number of partially effective sites could be greater than that of just a few highly effective ones. Real evidence of success could generate motivational momentum, and eventually might lead to a formalized official program like that described above. The trick would simply be in spreading the word to the first few activist groups.

Finally, a warning regarding any sort of *systematic* creation of fallow urban land, (which is essentially what this thesis proposes): it would be vital to avoid any air of contrived creativity. The risk of this would inherently be somewhat higher with a formal program than a grassroots one. As with publicly-sponsored graffiti art or the mass-produced artsy-ness of commercial chain cafés, people would be able to sense inauthentic spontaneity in vacant land use. Some would not care, or might even prefer the predictability it implies. Others, however — and very likely the genuine innovators

whom the city needs most — would chafe at a sense of veiled conventionality and look for space elsewhere. Fallow urban land design should not be a mere illusion of creative, community-influenced, avant-garde land reuse, but the genuine article. Detroit does not need to assume the outward appearance of other 'great' cities in order to be one itself. Rather, it needs a positive new direction *within* the context of its own unique character. A reputation for irreverent rebelliousness is as much a part of Detroit's identity as the auto industry, Motown music, techno culture, Greektown, and Red Wings hockey. If vacant urban land design intentionally plays into this irreverence, it could reinforce pride in Detroit as a city like none other — in a good way, for once.

CONCLUSION

Is fallow urban land design just the crackpot scheme of a naïve graduate student? Some may think so. The approach certainly does not fit conventional models of land valuation and redevelopment, and it even pushes the boundaries of creative vacant land reuse. Yet, as this thesis has demonstrated, there is substantial theoretical and empirical backing to support the possibility that fallow urban land design just might be a viable treatment for vacant properties in Detroit. From the compacted dirt and crumbling concrete, the twisted steel bones of industry and the charred remains of onetime homes, a rejuvenated Detroit could begin to coalesce. It will require time. It will require innovation. It will require great care, and the determined effort of many hands and minds... but it could be done. *Speramus meliora*. *Resurget cineribus*.

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APPENDIX A: QUESTIONNAIRE ON THE IMPORTANCE OF VACANT SITE CHARACTERISTICS

When some people look at a vacant urban site, they see only blight, disorder, or wasted space. Others, however, see great potential. This questionnaire is directed toward members of the latter group, and seeks to learn about which site characteristics they consider when selecting vacant sites for use or redevelopment. The questionnaire will ask you about how important various general landscape characteristics are to you as incentives or deterrents to using a given site. You may leave blank any question that you don't feel comfortable answering.

PERSONAL BACKGROUND

Name: _____ Age: _____

Have you ever been a Detroit resident? Yes ☐ No ☐

If yes, when and for how long did you live there? _____

Your organization or profession: _____

Contact information: _____

On the lines below, briefly describe the nature of your interest in developing, or otherwise using, vacant urban land (i.e. type of use, duration of use, your overarching goals, etc.). Use the back of this sheet if you need additional space in which to write.

_____

_____

_____

_____

_____

_____

WHAT CHARACTERISTICS DO YOU LOOK FOR IN A VACANT SITE?

When you consider using or redeveloping a particular vacant site, how important are the following existing site characteristics? Which are important because they are desirable, and which are important because they are something to avoid? First, rate the importance by circling the appropriate number, using the following scale:

0 = not important at all
1 = minimally important
2 = somewhat important
3 = important
4 = very important
5 = necessary

For any write-in responses, also indicate whether the characteristic is an incentive to use the site (+) or a deterrent (–).

Site Characteristic	Importance
Vacancy zone (percentage of vacant land in the surrounding area/neighborhood)	0 1 2 3 4 5
Distance from a community hub (e.g. school, university, religious center, outreach center)	0 1 2 3 4 5
Distance from downtown	0 1 2 3 4 5
Distance from the riverfront	0 1 2 3 4 5
Location along public transit route	0 1 2 3 4 5
Location adjacent to an interstate or state highway	0 1 2 3 4 5
Frontage on a particular street	0 1 2 3 4 5
Location adjacent to an active railway	0 1 2 3 4 5
Surrounding land use (e.g. residential, commercial, industrial)	0 1 2 3 4 5
Previous land use of the site itself	0 1 2 3 4 5

Site Characteristic	Importance					
Current use of site (e.g. people using it informally, loitering, passing through, parking vehicles, etc.)	0	1	2	3	4	5
Cultural, historical, or social significance	0	1	2	3	4	5
Crime rates or perception of crime rates in the vicinity	0	1	2	3	4	5
Extent of existing vegetative cover (percentage of site covered by plants)	0	1	2	3	4	5
Type of existing vegetation (e.g. trees, shrubs, grasses, plants with food value, etc.)	0	1	2	3	4	5
Presence/absence of wildlife	0	1	2	3	4	5
Extent of existing pavement	0	1	2	3	4	5
Existing pavement material (e.g. concrete, asphalt, gravel, compacted earth, brick or concrete pavers, etc.)	0	1	2	3	4	5
Presence/absence of sidewalks	0	1	2	3	4	5
Presence/absence of alleys	0	1	2	3	4	5
Presence/absence of usable buildings/structures	0	1	2	3	4	5
Presence/absence of building/structures requiring demolition	0	1	2	3	4	5
Presence/absence of utility infrastructure (e.g. electric, sewer, gas, water)	0	1	2	3	4	5
Level of soil contamination	0	1	2	3	4	5
Ability to purchase the site	0	1	2	3	4	5
Monetary incentives to redevelop the site (e.g. tax breaks, available grants, etc.)	0	1	2	3	4	5

Describe and rate any characteristics not listed previously that affect your decision to use a particular site.

Site Characteristic	Importance	Incentive or Deterrent
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –
	0 1 2 3 4 5	+ –

APPENDIX B: INTERVIEW TOPICS AND QUESTIONS

TOPIC OUTLINE

A. Motivation
B. Relative Location of Prospective Sites
C. Historic and Current Use of Prospective Sites
D. Existing Conditions of Prospective Sites: Ecological
E. Existing Conditions of Prospective Sites: Built Environment
F. Feasibility

MOTIVATION

This section addresses the subjects' overarching motivations for using or developing vacant sites.

1. How do you, personally, define a vacant site?
2. What initially sparked your interest in using or developing vacant land? What is your underlying motivation for doing so?
3. What are your overarching goals and objectives? How have these changed over time?
4. What are your major strategies for using or developing vacant land? How have these changed over time?
5. What major challenges you have faced in your efforts to use vacant sites?

RELATIVE LOCATION OF PROSPECTIVE SITES

This section asks about preferences concerning potential redevelopment sites' relative location, focusing on aspects of: surrounding land use; proximity to cultural, physical, or economic landmarks; and proximity to transportation infrastructure.

Surrounding land use

1. How would surrounding land use (i.e. current uses of surrounding land, roughly equivalent to zoning categories like residential, industrial, commercial, etc.) affect your selection and use of a site?
    a. What land uses would be ideal to have surrounding the site?
    b. What types of land use would be acceptable?
    c. What types of land use would be unacceptable?

Surrounding vacancy

1. How would surrounding vacancy (i.e. percent of land in the vicinity of a site that is vacant) affect your selection and use of a site?
    a. What would be an ideal percentage range of surrounding land vacancy?
    b. What would be an acceptable percentage range?
    c. What would be an unacceptable percentage range (i.e. would prevent you from using the site)?

Location relative to public transit routes

1. How would being located along, or not along, a public transit route affect your selection and use of a site?
2. Would it be preferable for the site to have an actual transit *stop* located on it? Why?

Relative distance to landmarks

1. What types of community hubs (i.e. organized places of community activity, such as schools, religious centers, continuing education programs, local markets, recreation centers, outreach programs, etc.) would be helpful to have nearby?
    a. What would be an ideal distance from your prospective site to such hubs?
    b. What distance would be acceptable?
    c. What distance would discourage or prevent you from using the prospective site?
2. What types of community hubs would be undesirable to have nearby?
    a. What would be an ideal distance from these?
    b. What distance would be acceptable?
    c. What distance would discourage or prevent you from using the prospective site?
3. Would the distance between a prospective site and downtown affect your selection and use of a site? If so, how?
    a. What would be an ideal distance between the site and downtown?
    b. What would be an acceptable distance?
    c. What would be an unacceptable distance?
4. Would the distance between a prospective site and the riverfront affect your selection and use of a site? If so, how?
    a. What would be an ideal distance between the site and the riverfront?
    b. What would be an acceptable distance?
    c. What would be an unacceptable distance?
5. Are there other landmarks—cultural, physical, economic, or otherwise—whose proximity would impact your selection and use of a site? If so, what are they?
    a. How would their proximity affect your use of a site?
    b. What would be an ideal distance from them?
    c. What would be an acceptable distance?
    d. What would be an unacceptable distance?

Location relative to interstate and state highways

1. If location near a highway would be beneficial, describe how.
    a. Which roads are preferable, if any?
2. If location near a highway would be detrimental, describe how.
    a. Which roads would you particularly want to avoid, if any?

Frontage on a particular street

1. If location on a particular street is beneficial, describe how.
    a. Which streets are preferable, if any?
2. If location on a particular street would be detrimental, describe how.
    a. Which streets are particularly undesirable?

Location relative to an active railway

1. If location near an active railway would be beneficial, describe how.
2. If location near an active railway would be detrimental, describe how.

Crime and perception of crime

1. What types and approximate rates of crime are tolerable to have occurring in the vicinity of a prospective site? If specific rates are unknown, estimate "lower," "same," or "higher," relative the national average.
2. What types and approximate rates of crime are absolutely unacceptable to have occurring in the vicinity of a prospective site?
3. How would it affect your selection and use of a site if local residents *perceive* a high rate of crime in the area, even if crime statistics contradict that perception?
4. How would it affect your selection and use of a site if local residents *perceive* a low rate of crime in the area, even if crime statistics contradict that perception?

HISTORIC AND CURRENT USE OF PROSPECTIVE SITES

This section asks about preferences for sites that have had specific uses in the past or are currently being used in certain ways.

Cultural, historical, and social significance

1. How would the cultural, historical, and social significance of a site affect your selection and use of it?
    a. Which types of significance would encourage you to use a site? Why?
    b. Which types would be *compatible* with your use of a site, even if they might not *encourage* you to use it?
    c. Which types of significance would discourage you from using a site? Why?

Previous land use

1. How would a site's prior land use (e.g. residential, industrial, commercial, etc.) affect your selection and use of it?
    a. Which prior land uses would be ideal or preferred?
    b. Which prior land uses would be acceptable?
    c. Which prior land uses would be unacceptable?

Current human use of site

1. How would it affect your selection and use of a site if people currently use it informally in some way (e.g. loitering, passing through, parking vehicles, engaging in illegal activity, etc.)?
    a. Which activities would encourage you to use the site? Why?
    b. Which activities would discourage you from using the site? Why?

EXISTING CONDITIONS ON PROSPECTIVE SITES: ECOLOGICAL

This section asks about preferences regarding ecological characteristics of vacant sites, including such factors as vegetation, wildlife, and soil conditions.

Existing vegetation

1. How would the extent of vegetative cover (i.e. percentage of site that is covered by plants) affect your selection and use of a site?
    a. What would be an ideal percentage of vegetative cover?
    b. What would be an acceptable range of vegetative cover?
    c. What would be an unacceptable range of vegetative cover?
2. How would the type of existing vegetation (i.e. shade trees, street trees, shrubs, turf, wild grasses, edible plants, etc.) affect your selection and use of a site?
    a. What types of vegetation are preferable to have on a prospective site?
    b. What types of vegetation are tolerable?
    c. What types of vegetation are unacceptable?
    d. Are there any particular species of interest? What are they, and why are they important?

Wildlife

1. How would the presence of wildlife affect your selection and use of a site?
    a. What types of wildlife would be desirable to have present?
    b. What types of wildlife would be tolerable?
    c. What types of wildlife would be undesirable?
    d. Are there any particular species of interest? Which ones, and why are they important?

Soil Contamination

1. How would the presence of soil contamination affect your selection and use of a site?
    a. What types and concentrations of soil contamination are acceptable, if any? You may estimate "none," "low," "moderate," or "high" concentration, and general contaminant categories if you cannot be specific.
    b. What types and concentrations of soil contamination are completely unacceptable? Again, you may estimate "low," "moderate," or "high" concentration and general contaminant categories if you cannot be specific.
2. How would public *perception* of contamination (regardless of actual severity of contamination) affect your selection and use of a site?

Other Ecological Issues

1. Are there any other ecological issues (e.g. hydrology, light pollution, air pollution) relevant to your selection and use of a prospective site?
    a. What are they?
    b. In what ways are they important?

EXISTING CONDITIONS ON PROSPECTIVE SITES: BUILT ENVIRONMENT

This section asks about preferences regarding vacant site features that were constructed by humans, including pavement, buildings, and other structures.

Pavement

1. How would the extent of existing pavement (i.e. percentage of site covered by pavement) affect your selection and use of a site?
    a. What would be an ideal percent of pavement coverage?
    b. What would be an acceptable percent of pavement coverage?
    c. What would be an unacceptable percent of coverage?
2. How would the material of existing pavements (e.g. concrete, asphalt, gravel, compacted earth, brick or concrete pavers, etc.) affect your selection and use of a site?
    a. Which types of paving materials would you prefer to have already present?
    b. In what condition would you prefer these pavements to be?
    c. Which types of paving materials would be unacceptable to have already existing on the site?
3. Would it be preferable to have existing sidewalks present or absent on a site?
    a. If you answered "present" above, how good must their condition be?
    b. If you answered "absent" above, what is the maximum amount of sidewalk (estimated as linear feet per feet of street frontage) that could be present and still allow you to use the site?
4. Would it be preferable to have alleys present or absent on a site?
    a. If you answered "present" above, how good must their condition be?
    b. If you answered "absent" above, what is the maximum amount of alleys (estimated as square footage, *or* number of alleys per block) that could be present and still allow you to use the site?

Structures

1. Is it preferable to have usable structures present or absent on a prospective site? "Useable," in this case, means the structure could be functional, although it may need repair.
    a. If you answered "present" above, how good must their condition be?
    b. What types of structures are particularly desirable or undesirable?
    c. If you answered "absent" above, what is the maximum number and/or type of useable structures that could be present and still allow you to use the site?
2. Is it preferable to have structures requiring demolition present or absent on a prospective site?
    a. If you answered "present" above, why?
    b. What types of structures, or remaining structural materials, are particularly desirable, or undesirable?
    c. If you answered "absent" above, what is the maximum number and/or type of demolition-ready buildings that could be present and still allow you to use the site?

Utilities Infrastructure

1. How would the presence of utilities infrastructure (i.e. water and sewer pipes, electricity lines, gas lines, telephone wires, etc.) affect your selection and use of a site?
    a. What types of utilities would facilitate your use of a site?
    b. How good would their condition have to be?
    c. What types of infrastructure would hinder your use of the site?

FEASIBILITY

This section asks about factors that affect how possible it would be for an individual or organization to use a vacant site.

Ability to Purchase

1. Is it necessary, preferable, or unnecessary that you be able to purchase the site in order to use it for your intended purpose?
2. Do you prefer that the site is city owned or privately owned, if either?

Monetary Incentives

1. How would legal monetary incentives (e.g. tax breaks, grants, etc.) to use a site affect your decision or ability to do so?
    a. Would such incentives be necessary, preferred, or unnecessary?
    b. What types of incentives would be of particular interest to you?
    c. What types of incentives would be problematic, in your opinion? Why?

Public Reaction

1. What types of public reactions have you received in response to your use or proposed use of vacant land?
    a. How did you respond to them?
    b. Did the public reaction change at all over time? In what ways, and after how long?

UNADDRESSED ISSUES

Discuss any factors omitted from the outline above that would influence your selection and use of vacant sites.

APPENDIX C: ADDITIONAL SITE PREFERENCES MENTIONED

DURING INTERVIEWS

Preference Symbol Key:
+ positive/attractant
= more or less neutral
- negative/deterrent

Surrounding Land Use

Large-scale, commercial urban agriculture	Small-scale, community-based urban agriculture	Community Arts Venue
- sewage treatment near produce = sewage treatment near tree farm, forested area, etc. - school near greenhouses (b/c of vandalism risk) = school near field crops		+ residential, especially if familiar with neighbors + non-residential area, if downtown

Surrounding Land Vacancy

Large-scale, commercial urban agriculture	Small-scale, community-based urban agriculture	Community Arts Venue
+ density of 0-9 people per acre to start (during transitional period) + some room for expansion (i.e. not overly constrained by roads, solid neighborhoods, etc.) + ability to consolidate and aggregate multiple properties into large areas... more programming options open w/ large area	+ moderate vacancy - very high vacancy (lack of opportunities for collaboration and pooling resources) - very low vacancy (not enough room for land cultivation)	+ moderate vacancy - very low vacancy (large crowds can be a nuisance if people live too close by)

Property Ownership

Large-scale, commercial urban agriculture	Small-scale, community-based urban agriculture	Community Arts Venue
+ tax-foreclosed properties + city-owned properties (easier to acquire and aggregate properties, through governmental channels) - multiple private property owners (difficult to acquire and aggregate properties) + able to purchase property	= able to purchase property + ability to use lot without necessarily owning it	= able to purchase property + ability to use lot without necessarily owning it

Crime and Perception of Crime

Large-scale, commercial urban agriculture	Small-scale, community-based urban agriculture	Community Arts Venue
+ low risk of vandalism and theft = crime perception not a major issue... most visitors will be there during the day for large events	+ presence of supportive neighbors (helps deter crime) + low risk of theft	

Previous Land Use

Large-scale, commercial urban agriculture	Small-scale, community-based urban agriculture	Community Arts Venue
+ no historic structures... would have to attend to preservation = historic areas/districts... wouldn't be concerned with them?	+ residential land (easier to remediate)	+ historical/cultural/social significance (would make site more interesting)

Soil Contamination

Large-scale, commercial urban agriculture + lead concentration lower than 500ppm safe for typical site use + lead concentration lower than 300ppm safe for growing edible leafy greens = higher contamination levels okay for uses like lumber, tree farms, forested or natural upland areas for soil remediation	Small-scale, community-based urban agriculture + uncontaminated soil = levels of soil contamination treatable with phytoremediation	Community Arts Venue

Built Environment

Large-scale, commercial urban agriculture = streets and curbs - anything above 18" deep in soil = old foundations and infrastructure below 18" deep - sidewalks and alleys (i.e. block interiors) = lone hold-out property owners (could work around them) + structures that could be rehabilitated cost-effectively (would be used for farm employees)	Small-scale, community-based urban agriculture - old building foundations and subsurface objects - lead paint in remaining buildings - improper previous building demolition (material simply pushed into basement and covered) + former commercial buildings and homes in repairable condition (can become community space) - structures requiring demolition + sidewalks mostly gone + salvageable wood and unbroken windows	Community Arts Venue + sidewalks and residual concrete mostly gone

Utilities

Large-scale, commercial urban agriculture	Small-scale, community-based urban agriculture + electrical connection + water/sewer connection	Community Arts Venue + electrical connection + water/sewer connection (for restrooms, especially)

Existing Vegetation

Large-scale, commercial urban agriculture = not much of an issue	Small-scale, community-based urban agriculture + areas planted in alfalfa for several years (partially remediates soil)	Community Arts Venue + open field with a few large trees

Wildlife

Large-scale, commercial urban agriculture + presence of wildlife (visitor interest; improved local ecology)	Small-scale, community-based urban agriculture + healthy bee population	Community Arts Venue - presence of wildlife (no explanation given)

Other Factors:

Large-scale, commercial urban agriculture + new zoning allowing agriculture within city limits + adjusting land bank statutes to allow quicker land aggregation through legal means + organized demolition by outside entity (would be a major help)	Small-scale, community-based urban agriculture + low or no taxes + easy to purchase property + grants available + certain degree of 'anarchy' in the area (can undertake projects without governmental interference) + some established community presence (resources and help)	Community Arts Venue + ability to combine at least two residential-size lots + in a well-known place + close to Downtown + strong small business network