URBAN LEFTOVERS

A DARCH PROJECT SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAI‘I AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF ARCHITECTURE

MAY 2015

By

Dorothy Baga

DArch Committee:

Kazi Ashraf, Chairperson
Peter Flachsbart
Vance Arakaki

Keywords: Residual, Temporary, Urban
TABLE OF CONTENTS

ABSTRACT .................................................................................................................................................. 4

1. INTRODUCTION .................................................................................................................................... 5

2. DISCOVERY OF URBAN LEFTOVERS .................................................................................................... 8
   PERCEPTION OF LEFTOVER SPACE
   DEFINING URBAN LEFTOVERS
   TEMPORARY + LEFTOVER SPACE
     CHALLENGES OF TEMPORARY
     BENEFITS OF TEMPORARY
     THE ROLE OF TEMPORARY IN THE CITY
   TEMPORARY URBANISM
   LEFTOVER SPACE AS PUBLIC SPACE

3. RECENT INITIATIVES ............................................................................................................................... 25
   NOT-SO-SPONTANEOUS TEMPORARY INTERVENTIONS
     PROXY
     BOXPARK
     POPUPHOOD
   SPONTANEOUS TEMPORARY INTERVENTIONS
     REDBALL PROJECT
     RED SWING PROJECT
     DISPATCHWORK
     PARKLETS
     OMBRA SOPRA PROJECT

4. PRELIMINARY EXPLORATIONS IN HONOLULU ................................................................................... 45
   INVENTORY OF LEFTOVERS
   TYPOLOGY OF EDGE CONDITIONS
   PUBLIC LIFE STUDY
   VIDEO CAPTURE

5. DESIGN INVESTIGATIONS ...................................................................................................................... 70
   ISOLATED LEFTOVER | UNIVERSITY + H1 FREEWAY
   SANDWICHED LEFTOVER | SOUTH BERETANIA
   ADJACENT LEFTOVER | WINAM + KAPAHULU
ABSTRACT

Urban leftovers are dissociated fragments of the urban network, left behind from changes in the transformation of the city and its infrastructural networks; they are the awkward spaces created as a consequence of urbanization and the constant shifting of urban conditions. This thesis is an investigation of urban leftovers within the context of Honolulu’s metropolitan area.

In recent years, there has been increasing interest from architects, urban planners, local governments, and citizens of the community to transform and reintroduce leftover spaces as viable resources for instigating positive change. Innovative initiatives such as the Boxpark, PopupHood, and Proxy SF, prove the potential of urban leftovers as assets for economic development and neighborhood revitalization.

A physical survey of five neighborhoods in Honolulu’s Primary Urban Core led to the development of a cataloging system, resulting in an inventory of urban leftovers. Through typological analyses the documented sites were classified into four major categories of urban leftovers found in Honolulu: isolated, sandwiched, adjacent, and enclosed. In order to determine appropriate strategies for further investigation of urban leftovers, direct observation techniques borrowed from Jan Gehl and William Whyte were explored.

To further exemplify the potential value of urban leftovers, urban analysis was carried out for four different sites in Honolulu. The resulting “design proposals” should not be seen as the solution for the site, rather as one response to a particular site specific condition. Each design investigation proposes one alternative vision for use of the site, while making an effort to enhance the existing urban infrastructure and address neighborhood specific issues.

The research concludes that similar interventions could benefit places like Hawaii where there is limited land availability, allowing the city to expand within the existing infrastructure – enhancing, reconnecting, filling in the existing urban footprint.
chapter one | INTRODUCTION

“Cities should take a closer look at what they already have. Most of them are sitting on a huge reservoir of space yet untapped by the imagination” -William H. Whyte
Urban leftovers are a common occurrence produced in all cities, yet they are disregarded and survive unnoticed. They materialize for a number of complex reasons, and are most commonly found near infrastructure, major roadways, or public institutions. Leftover space is one culprit of disrupting the urban fabric, littering the city with “meaningless” awkward spaces that reject traditional programming and use. Understanding that the existence of these spaces is not the problem, led to inquiry about how they can be better appreciated.

A growing number of architects, urban planners, local governments, and community members are intervening. Unexpected, often unconventional temporary strategies are being utilized to activate leftover spaces, prompting economic development and neighborhood revitalization. This movement is catching fire.

Several questions prompted the beginnings of this research:

- What are urban leftovers?
- What is the desire to intervene?
- How are people getting involved? What strategies or tactics are being used?
- Who does intervention benefit?
- In the context of Honolulu, where do these spaces exist?
- How can leftover spaces be observed and analyzed? What kind of information can be gathered about them?
- How can similar projects be implemented in Honolulu?

Using Honolulu as the premise for investigation, the thesis became a series of explorations on how to study urban leftovers. This thesis allows urban leftovers to be explored through thoughtful interventions turning leftover spaces into hosts for miniature urban conditions. The research proposes that a dead space can be turned into a vibrant place for urban residents. More specifically, this thesis will investigate how temporary use of urban leftovers can enhance the existing urban infrastructure and address community specific social, economic, and environmental issues.

Many of Hawaii’s urban communities are in need of rejuvenation. Reusing leftover spaces can generate economic, cultural, and social benefits, suggesting that overall livability can be improved, while still retaining a community’s distinctive character and history. Revitalizing urban leftovers the local community in Hawaii can improve the quality of life for many local residents. In places like Hawaii where there is limited land availability, temporary infill strategies allow the city to expand within the existing infrastructure, filling in the gaps within Honolulu’s existing urban fabric.
The primary goal of this thesis is to trigger curiosity in those unaware of the issue, to persuade those who are doubtful, and to encourage more members of the community to take action. Leftover spaces take up a significant amount of space within the city and attract undesirable activity. There is argument for leaving these spaces alone, as they are an anomaly in themselves, leaving these spaces in their natural forgotten state. However, ignoring what is already present creates a missed opportunity for reinvestment in the community. It is through planned or spontaneous intervention that we see there are benefits and usefulness in taking advantage of leftover spaces through site specific intervention.

The thesis is separated into four major parts. First, key urban theories are presented for two reasons: 1) how to conceptualize and approach leftover spaces, and 2) to provide a definition of urban leftovers. Second, recent projects are documented and analyzed as case studies to determine successful strategies and tactics that are already being used. Third, the process of observation in Honolulu is presented as preliminary explorations, in an attempt to capture ideas and appropriate methods for identifying, documenting, and analyzing urban leftovers. And finally, after completing a series of urban analysis for four urban leftover sites in Honolulu, a reimagined use is presented for each site.
chapter two | DISCOVERY OF URBAN LEFTOVERS

“Generally speaking, lost spaces are the undesirable urban areas that are in need of redesign—anti spaces, making no positive contribution to the surrounding or users. They are ill-defined, without measurable boundaries, and fail to connect elements in a coherent way.” -Roger Trancik
PERCEPTION OF LEFTOVER SPACE

Urban thinkers such as: Kevin Lynch, Jane Jacobs, Rem Koolhass, William Whyte, and Lewis Mumford, have studied human behavior in the context of the built environment, residual spaces, and provided analysis of the city culture. To better understand residual space in a conceptual way, we will look closer at these urbanists and relate significant theories to the notion of leftover space and how to approach them.

But first we need to a brief understanding of how leftover spaces are produced, because although unintentional or unplanned, they are created as a result of urbanization and changing urban conditions. They materialize for a number of complex reasons, and are most commonly found near infrastructure, major roadways, or public institutions. Leftover space is one culprit of disrupting the urban fabric, littering the city with “meaningless” awkward spaces that reject traditional programming and use.

They are produced by a number of reasons that are often tied to preceding and present-day patterns of uneven development and investment. Physical changes as well as regulatory policies, like zoning codes, changing morphological conditions like topography, and soil quality all play a role in the creation of these oddly shaped, indeterminate parcels of land.¹

It is necessary to note that these spaces are unintentional, unplanned, and hide in the subconscious minds of traditional city-makers - developers, planners, and architects. In The Death and Life of Great American Cities, Jane Jacobs writes, "many of them are most important to cities. A big city needs universities and large medical centers. A city needs railroads and expressways. The point is hardly to disdain such facilities or to minimize their value. Rather, the point is to recognize that they are mixed blessings. If we can counter their destructive effects, these facilities will themselves be better served."² So we must not view the spaces themselves as a problem, we must accept their being and move forward with how to counter the negative perceptions surrounding these spaces.

KEVIN LYNCH | THE IMAGE OF THE CITY

In The Image of the City, Kevin Lynch investigates the way people orient themselves through mental mapping, and how people derive their personal image of the city through the physical urban environment. Lynch’s main concept in his book, The Image of the City, is the idea of “legibility,” or how the city is “read.” Lynch identifies the three components of environmental image: identity,

¹ Németh and Langhorst, “Rethinking Urban Transformation,” 2.
The concept of environmental image is an important notion because an individual’s environmental image of the city relates to how they perceive the value the city. He suggests that moving through the city is a process of way finding, in which people must be able to identify and organize elements of the city into some sort of logical pattern.

He identifies five distinct elements of the city as: 1) paths: transportation or movement corridors, 2) edges: interruption between areas; boundaries, borders, barriers, 3) districts: portions of the city that share common characteristics, 4) nodes: strategic focus points or a meeting of paths, and 5) landmarks: external reference point marked by a physical object. These five elements are essentially the “make up” of the city, or what make up our “image of the city.” This idea is significant because our urban image is the foundation of a livable, attractive urban environment.

Figure 1. Lynch’s five elements

His theory contributes to the study of leftover space for two reasons. In regards to this thesis one of the most significant takeaways from The Image of the City is the discussion on the influence of edge conditions. Most edge conditions are shaped by transportation infrastructure and waterways; these elements correlate directly to the study of leftover space because it is along these “edges” that leftover spaces commonly occur. One way to combat the negative implications typical of residual space is to intervene; by implementing a design intervention to catalyst the city’s boundaries or edges, these spaces can be reintroduced to the functioning city.

The idea of “meaning” is vital to a person’s experience of the city. Urban residents have already begun reclaiming these lost spaces by turning empty lots into productive spaces that benefit the entire community; for example, the rise of community gardens in the city. The concept of placemaking is one strategy that can be implemented to combat placelessness, create identity, and

---

3 Kevin Lynch, The Image of the City, 8-9.
4 Kevin Lynch, The Image of the City, 2-3.
5 Kevin Lynch, The Image of the City, 43-82.
encourage the idea of space ownership in the city. Urban leftovers offer great potential to host such a placemaking effort.

JANE JACOBS | THE DEATH AND LIFE OF GREAT AMERICAN CITIES

In *The Death and Life of Great American Cities*, Jacob’s observes the city by foot, noting down her observations. What Lynch calls “edge conditions” Jacob’s introduces as “border vacuums,” which she defines as “a border as the perimeter of a large single-use territory or corridor.” For example, common transportation barriers include: railroads, highways, and roadways; while territorial borders can include: university and hospital campuses, housing projects, and other institutional facilities. In order to remedy the detrimental effects of vacuum borders (dividing the city into pieces, fragments), she proposes, “turning border vacuums into seams between a single use site and the city streets.”

![Figure 2. The High Line, New York](http://worldlandscapearchitect.com/high-line-stage-2-opens/#.VR1ONkRBPzl)

---


7 Ibid.
Jacobs argues that characteristics of vacuum borders can spread to nearby areas, thus deadening streets and in extreme cases even blocks within the vicinity.\(^8\) This idea carries over into the realm of leftover space because normally where there is one residual space there are many (think of an abandoned storefront, usually there is a whole row of spaces left unoccupied).

In regards to dead space, Jacobs was quoted saying, “Wherever a significant ‘dead place’ appears on a downtown street, it causes a drop in the intensity of foot circulation there, and in the use of the city at that point. Sometimes the drop is so serious economically that business declines to one side or the other of the dead place. The role of the dead place as a geographic obstacle has overcome its role as a contributor of users to the general land.”\(^9\) This is a true characteristic of leftover spaces, their presence is consuming, and sometimes so much so that surrounding functions and activities are either discontinued or never existed to begin with.

Jane Jacobs took an interesting approach to her study; she went out and walked, experiencing the city, observing its inhabitants. This method of study is vital in the understanding of leftover spaces because it enables the researcher to explore how the site is seen through the users eyes. This direct observational method will be used to assess urban leftovers in the context of Honolulu. With good design intervention, what Jacobs calls out as vacuum borders, can be designed to be desirable places that people want to inhabit.

REM Koolhaas | THE CONTEMPORARY CITY

In the Rem Koolhaas Postscript: Introduction For New Research “The Contemporary City,” he states, “The mixture of formal and informal elements and the mixture of order and disorder which this single image represents are the essential conditions of the city.”\(^10\) Like Jacobs, Koolhaas supports the idea of mixed-use buildings and neighborhoods, as well encourages a variety of uses of a single space in order to create a dynamic urban environment. Vibrancy is based on a mixture of uses or options and is part of what makes a place exciting. Leftover spaces can help to tie together a variety of uses, or allow opportunity for contrasting uses to work together.

At the end of The Contemporary City, Koolhaas goes on to say, “More and more our major interest is not to make architecture but to manipulate urban planes to create maximum programmatic

---

\(^8\) Jacobs, The Death and Life of Great American Cities, 258.

\(^9\) Jacobs, The Death and Life of Great American Cities, 263.

This notion suggests that a completely physical architecture is not necessary to transform a residual space; for example, the intervention could simply be the design of programmatic functions to be held on the site. The notion of using a program to activate a site is important to keep in mind when thinking about what kinds of design interventions could happen within a leftover space. The event or activity proposed at the site can influence human behavior and interaction, thus ultimately influencing the success of intervention even if no substantial design changes were to the site.

**Figure 3. KIUI Project: open bricolage**

Source: http://www.designboom.com/readers/kiui-project-open-bricolage/

Human behavior and the study of day-to-day interactions is an important factor in this thesis, because the setting of the study is the city. Understanding that people make the place, can help determine an appropriate use for leftover spaces.

WILLIAM WHYTE | *THE SOCIAL LIFE OF SMALL URBAN SPACES*

William Whyte a pioneer in the study of human behavior in urban settings began the Street Life Project, focusing on the dynamics of urban spaces. His primary focus was to observe and analyze how people use existing urban spaces and how people move through them. His primary method of

---

research was direct observation through video capture. The study included an analysis of urban plazas, streets, parks, and other various open spaces in New York. The aim of the study was to find out what makes urban spaces successful, or alternatively unsuccessful.\textsuperscript{12} The study concluded that the built environment plays a critical role in how people perceive and use a space.

Like Jane Jacobs, William Whyte took his research to the street, observing every detail of human interaction possible. His method of video capture will be explored as a way to better understand and observe a leftover site. His ideas can also transfer to the design portion of this research. A design intervention can only be successful if people choose to occupy the site; Whyte’s work focuses on how to encourage site engagement. Whyte says, “The best way to handle the problem of undesirables is to make a place attractive to everyone else. … The way people use a place

mirrors expectations.”

Therefore, in order to deter unfavorable activities normally associated with a residual site, it must be designed to attract the opposite behavior. Maybe the first step in intervention of a leftover space is making the site look approachable or inviting.

LEWIS MUMFORD | WHAT IS A CITY?

Mumford, like Jane Jacobs and William Whyte, puts people first. In What Is a City? Mumford emphasizes seeing the city beyond “purely physical fact” and suggests instead that we see the city as a “social institution.” He views the city as a stage, and believes the character of the city stems from its “social drama.” Mumford asserts, “The city in its complete sense, then is a geographic plexus, an economic organization, an institutional process, a theater of social action, and an aesthetic symbol of collective unity.”

He is an urbanist dedicated to the human aspect of cities, and argues that, “most of our housing and city planning has been handicapped because those who have undertaken the work have had no clear notion of the social functions of the city.” Basically, our city-makers are designing spaces they themselves have not experienced. This encourages the idea that the key method of this study should be observational, in that the site being studied should be experienced first hand.

In this sense Mumford sees the city in a similar way to Jacobs, in that he is a fan of smaller community clusters; size should be expressed according to the social relationships being fulfilled – a “polynucleated city,” with multiple focal points. He states, “The city is a related collection of primary groups and purposive associations: the first, like family and neighborhood, are common to all communities, while the second are especially characteristic of city life.” Leftover spaces could become these focal points providing social functions that support the surrounding community.

---

13 Whyte, The Social Life of Small Urban Spaces, 60.
14 Lewis Mumford, “What is a City,” 93.
15 Ibid.
16 Lewis Mumford, “What is a City,” 94.
17 Lewis Mumford, “What is a City,” 185.
18 Lewis Mumford, “What is a City,” 93.
19 Lewis Mumford, What is a City?, 95.
20 Ibid.
21 Lewis Mumford, “What is a City,” 93.
The research acquired by these urbanists has helped to identify key factors in the design and planning of a leftover space. Inspired by these direct approaches to research, observational methods were explored and will be discussed later in this thesis.
DEFINING URBAN LEFTOVERS

As previous urban theories have stated, leftover spaces are the unarticulated side effects of modernization, unintentionally produced. There but not there, they remain detached from our image of the city, and although physically present, exist only at a subconscious level. Although they vary in scale and form they share the same adverse characteristics, isolating and disrupting the continuity of the urban network including the funny looking buffer spaces next to the freeway, traffic islands created by converging street patterns, the space between buildings, and the volume of space below the underpass.

This thesis will define urban leftovers as: dissociated fragments of the urban network, left behind from changes in the transformation of the city and its infrastructural networks; they are the awkward spaces created as a consequence of urbanization and the shifting of urban conditions.

This thesis does not focus on the reasons why or how leftover spaces are produced. It instead emphasizes the significance of urban leftovers as catalytic sites capable of enabling positive urban transformation for the common good of the city and its inhabitants. So, how can they be made useful? The next portion of the research discusses temporary use as a strategy for intervention of these spaces.
TEMPORARY + LEFTOVER SPACE

Architecture has long been associated with permanence – intended not to change, indefinitely. In the planning and design of cities, temporal activities are usually an indicator that the city cannot keep up with its own development, causing unplanned responses to pop-up among the planned. In *The Temporary City*, Bishop and Williams discuss the idea of impermanence in a different light, associating transience with growth and regeneration.

The concept of temporary should be clarified since time is relative, and any length of time could be argued as temporary. In this case, this thesis will borrow the definition of “temporary” from Bishop and Williams in their book, *In The Temporary City*, who argue that temporary use is based on the intention of the user, developer, or planner. If the intent of a project is temporary, it will be viewed as temporary.

In the book *Temporary Urban Spaces*, Florian Haydn writes, “Actions, space for action and programme stand in the direct sequence in which the thematic temporary spaces actively intervene and propose concepts for the use of the city.” Architecture therefore is a response to the events, not a facilitator. Haydn also suggests, “temporary spaces create social knowledge and offer opportunities for active participation, rather than temporary space for an event-based leisure society.” Therefore, space (in this case leftover space) becomes an incubator for an experience.

Temporary in form or function can still be meaningful and serve a purpose; temporary architecture can make a significant impact on the community, and often times can have an even greater impact on the community than more “permanent architecture” which is sometimes more difficult to adapt to current needs or trends.

CHALLENGES OF TEMPORARY

There are a number of challenges associated with temporary use strategies because there is a gap between what is considered temporary (typically less than 90 days), and more permanent (not permanent, but longer than 90 days). This causes problems with getting use permits, and conforming to proper building codes. Maintenance and liability also becomes an issue, especially

---

22 Bishop and Williams, *The Temporary City*, 19.
23 Ibid.
24 Bishop and Williams, *The Temporary City*, 5.
26 Ibid.
when projects are not contracted through design professionals, or after a project has exceeded its temporary lease. This issue of accountability is what concerns most people. However, overall positive outcomes resulting from these projects have offset these challenges and there are no indicators that this movement is slowing.

**BENEFITS OF TEMPORARY**

Temporary uses of vacant underutilized spaces are appealing for a multitude of reasons. They are often times low-cost high impact solutions, provide an immediate response to a problem, act as an experimental space for the testing of new concepts or programs, are minimally invasive to the actual site, and benefit both the property owner and the community at large.

Temporary interventions can increase the social value of a community by providing residents with a place for gathering, interaction, and socialization. Temporary strategies allow members of the community to respond to what they perceive as problems, making the design interventions meaningful to those who live in the area. They also provide immediate tangible outcomes that may not be as easily achieved through more formal methods. For example, they are more likely to be implemented because their shorter timeframe eliminates the need to conform to many traditional rules and regulations. More and more case studies are proving that temporary pop-ups or events provide financial benefits to the community as well, often by supporting local small business. Environmental impact is usually minimized by materiality choice or type of construction. In some cases environmental issues are addressed through the specific design intervention, for example mitigating heat island effect through increased vegetation.

**THE ROLE OF TEMPORARY IN THE CITY**

There are numerous opportunities for temporary interventions within the city, being employed as a way to reconnect the urban fabric, and enable the development of a more vibrant, livable place. In recent years, a number of design solutions have been implemented across the globe, each responding to specific conditions and needs of the surrounding community. Urban leftovers can become incubators for generating creative social nodes for the community, providing urban dwellers with more options for meeting, socializing, and networking.

In the book *Life Between Buildings: Using Public Space*, Jan Gehl simplifies outdoor activities into three categories: necessary, optional, and social activities. Temporary can be used as a method to
implement more “optional” or “social” activities. Gehl describes optional activities being mostly recreational and are joined if there is interest and if time and place are accessible – talking a walk to get fresh air, sunbathing and so forth, and social activities as more impulsive interactions dependent on others being present at a place – children playing, engaging in conversation, people watching. Temporary use strategies offer chance encounters and opportunities for social exchange, thus creating a more spontaneous, vibrant city.

In *Urban Pioneers* nine types of temporary use are identified: Stand-in, Free flow, Impulse, Consolidation, Parasite, Pioneer, Subversion, and Displacement. Of the nine temporary use types, Stand-in, Free flow, Impulse, Consolidation, and Pioneer, are probably most relevant to the study of leftover spaces and are defined below as seen in *Urban Pioneers*:

**Stand-in:** *The stand-in has no lasting effect on the place. It merely uses the gap between the last use and the next. Such a low-impact approach makes realization easier at the cost of transitoriness.*

**Free flow:** *The use continues indefinitely by moving to new locations as the opportunity arises. This approach skillfully combines the pragmatism of the stand-in with long-term development, as it also uses the change of location to update its own activity.*

**Impulse:** *In-between use can generate decisive impulses for the programmatic profiling of its location: it establishes a new activity profile that is carried on in a new form even after it ends.*

**Consolidation:** *Former temporary use becomes established and turns into long-term use. Informal arrangements are replaces by long-term leases and regular permits.*

**Pioneer:** *Hitherto unused territory is at first temporarily appropriated by the simplest means and used in a transient manner. With the success of the temporary use, the activities continue indefinitely and take on increasingly permanent forms.*

Of course, when planning for intervention each site should take into consideration the conditions unique to that site, but identifying types of uses may help in deciding what strategy is appropriate. It also offers one way to compare various projects of this nature. Temporary urbanism is one method of enabling temporary use on a site, which will be discussed in the next section.

---

29 Ibid.
TEMPORARY URBANISM
Rising interest in “temporary urbanism” has greatly influenced the public’s perception of architecture; it has cleared up the misconception that architecture is just about buildings, and recognizes that architecture is also spaces, events, and architectural installations. Temporary urbanism is one term associated with these mini urban movements. Terms like “pop-up urbanism” and “tactical urbanism,” are frequently used to describe recent city initiatives all over the world. Regardless of the term, the ideology remains the same; the projects challenge an existing space with temporary intervention, thereby offering a different perspective of the public realm, envisioning an alternative use of space.

Figure 6. The Swing Park, 2013 PARK(ing) Day Dallas
Source: http://kaboom.org/blog/anatomy_swing_park

In Tactical Urbanism: Short-term Action for Long-term Change, Mike Lydon defines tactical urbanism as, “an approach to neighborhood building and activation used short-term, low-cost, and scalable interventions and policies.”30 Leftover spaces are constantly seen as a failed space, however through these types of initiatives these misfortunes can be turned into opportunities to liven

30 Lyndon and Garcia, Tactical Urbanism, 2.
the city and its culture. There is growing evidence that communities benefit most from projects they take part in, especially those they initiate and implement themselves. Temporary urbanism encourages active participation and engagement from the city’s people. This approach allows the members of the community to identify and solve problems they feel are significant. The growing success of these forward thinking movements has resulted in vibrant city spaces.

LEFTOVER SPACE AS PUBLIC SPACE
As we learned from Lynch, public space is one of key factors that influence a person’s image of the city. Amanda Burden is the former New York City Planning Commissioner, and is another strong advocate of the power of public spaces. She treasures the immeasurable value that these spaces bring to people. In her TED talk, *How Public Spaces Make Cities Work*, she begins with, “cities are fundamentally about people, and where people go and where people meet are at the core of what makes a city work. So even more important than buildings in a city are the public spaces in between them. And today, some of the most transformative changes in cities are happening in these public spaces.”31 More and more people are beginning to understand this paradigm, accepting the idea that quality of our built environment can shape and encourage the behavior of its citizens.

So, what is “public space?” What are we referring to when we say “public space?” We refer to *The Sociology of Urban Public Spaces* to answer these questions. Typically “open spaces” like streets, parks, recreation areas, plazas and other publicly owned and managed outdoor spaces are probably the first things that come to mind.32 This suggests that public space is perceived by ownership. Confusion arises when the line between public and private is blurred by the notion of semi-public spaces, which are either owned or managed by a private-public or completely private partnerships.33 So instead of defining public space based on ownership of the space, we simplify the term based on accessibility. If a space is accessible to the public, it is a public space.

This thesis proposes that through some level of intervention urban leftovers can become viable public spaces. Normally, public spaces are designed, programmed, and managed for a specific use during certain times of the day. But, because urban leftovers are less regulated they offer more freedom to intervene, allowing for more progressive courses of intervention that go beyond the usual

---

33 Ibid.
design of public space. Urban leftovers are often located at significant areas of transition or transitory zones – at intersections, edges, and borders scattered throughout the city – making these spaces the perfect venue for some form of public interaction.

But what makes a great public space? Through numerous studies, the Project for Public Spaces found that successful public spaces share four common characteristics: “they are accessible; people are engaged in activities there; the space is comfortable and has a good image; and finally, it is a sociable place: one where people meet each other and take people when they come to visit.”

Below is The Place Diagram, developed by Project for Public Spaces, visualizing the above four qualities.

Figure 7. The Place Diagram
Source: http://www.pps.org/reference/grplacefeat/

The following descriptions reference the Project for Public Spaces website:

Access and linkages: Accessibility to nearby surroundings, both visual and physical is important to a successful public space. Getting to and from the space should be easy. There should be high

visibility from a distance. Edges of spaces are occupied, and offer the public a constant opportunity for interaction. The space should be accessible through various modes of personal and public transportation.

Comfort and image: Project for public spaces considers whether a space is comfortable or not based on safety, cleanliness, and functionality (places to sit).

Uses and activities: Usability is probably the most crucial to a successful space. Providing a function or some sort of program will most likely keep people coming back. If there is nothing to do, a space will most likely remain vacant.

Sociability: Sociability is the result of a well designed space. There is a high level of engagement. People choose to meet friends, interact with strangers, and there is a strong sense of belonging to the space. People are proud where they are and associate the space with their community.35

Although these are the characteristics that make a great place, who is responsible for creating them? One of the key findings noted in The Sociology of Urban Public Spaces is that, "the success of a particular public space is not solely in the hands of the architect, urban designer or town planner; it relies also on people adopting, using and managing the space – people make places, more than places make people."36 The next chapter will take a look at what kinds of places people are making, to gain an understanding of various strategies and how they were initiated.

chapter 3 | RECENT INITIATIVES
NOT-SO-SPONTANEOUS TEMPORARY INTERVENTIONS

These are the result of large collaborative efforts between multiple parties, are very much economically driven. The location for each project is some form of an urban leftover – vacant lot, wasted space adjacent to transportation infrastructure, abandoned storefronts. All projects are intended as temporary, however the duration of the project varies. A summary of analysis is provided at the end of each project.
In an interview posted on the proxy website, Douglas Burnham, founder and principal of Envelope A+D said, “We think that a thoughtful insertion of compelling temporary uses can be an effective strategy to bring vibrancy to languishing parts of the city. There’s nothing trendy or faddish about this.”

Proxy is a mixed-use temporary facility that stretches across two blocks in San Francisco’s Hayes Valley. It is not intended to be long-term; the life-span of the project is for two to three years as there is a permanent building scheduled to take its place, making the project a placeholder for future development. The intent of the project was to re-connect the urban fabric by means of a temporary architecture venue.

---

The damage caused by an earthquake in 1989 left the Hayes Valley urban fabric fragmented. Economic downturn halted development creating widespread vacancy. The Mayor’s Office of Economic and Workforce Development reached out to the community for “placeholders” until the vacant lots could be developed. Envelope A+D took on the challenge. They worked with the city government, local neighborhood, and potential stakeholders to develop what is now ProxySF.

Figure 9. Proxy SF
Source: https://wearerthecityheroes2013.wordpress.com/2013/12/22/phase-3a-proxy-project/

Retail, restaurant, art gallery space, garden, and community-based spaces are thoughtfully positioned throughout the site. Much of the space is flexible and can cater to a variety of uses. The venue has gained a lot of positive attention. Although it is only on phase two of four, it is already considered a successful intervention.

In an interview, Douglas Burnham commented on the success of the project saying that, “incremental, place-based change can encourage entrepreneurial activity and community

---

participation—despite economic obstacles—by establishing a framework to promote local micro-enterprises.”

ProxySF is a successful project in that it re-established a lost connection to the city’s inhabitants. The project offers an amenity that was lacking in the current urban infrastructure—a place to gather. The government’s role in this project was very influential in project’s successful the outcome.

Summary of analysis:

Medium-scale project implementation.
Interim use until future development is planned and organized.
Easily constructed and disassembled due to material nature of shipping containers.
Provides opportunity for local business owners to participate in revitalization efforts.
Enhances street life through means of temporary venue.
Offers social spaces encouraging people to gather and interact.
Easily accessible by neighborhood community.
Maintains character of local neighborhood by integrating within the existing creative hub.

Government initiated intervention to address economic downturn.

Figure 10. Proxy SF

Located in London, between the neighborhoods of Shoreditch and Spatialfields, the area is an up-and-coming district with a large presence of tech and creative industries. The site is located on the corner of a 500,000 sq. ft. lot adjacent to the Shoreditch High Street Overground Station. For over 40 years this former railway goods yard had remained largely unused. The land is intended for a more permanent development, but is not scheduled to begin for another few years.  

Boxpark is an interim solution until the new development breaks ground. The concept behind Boxpark evolved from a collaborative effort between entrepreneur Roger Wade and developers Hammersons and Ballymore. The goal of the project was to activate the economic and social potential of the site by offering retailers low cost, low-risk rental opportunities. This allowed smaller

---

start-ups and brands to enter the market without the larger financial investments often associated with opening a brick and mortar. Wade is responsible for the handpicked selection of tenants, and strives to find “a mix of fashion and lifestyle brands, galleries, cafes, and restaurants.” Rental agreements range from one year, three year, and five year terms, giving retailers flexibility to experiment with new concepts or to test acceptance in a new location.

Boxpark was quickly implemented, taking only four months to complete because of its low-impact design. It is composed of sixty-one retrofitted shipping containers, forming 345 feet of storefront. As with other container projects, Boxpark will leave no remnants behind when the time comes to vacate the space. The upper level consists mainly of eateries and sitting areas (turned performance area on some occasions), while the lower level is dedicated to retail. Although overwhelmingly popular, the project has received some criticisms like its lack of restroom facilities and weather dependency. However, the positive outcomes outweigh the negative. A second container mall is

---

44 Bishop and Williams, The Temporary City, 60-61.
being planned for Amsterdam.\textsuperscript{46} Although this project should not be viewed as an end all solution, the interest in duplicating this project elsewhere may be seen as one indicator of success.

Boxpark is a good example of how private developers and the local community can work together to bring activity to a neglected area slated for future development. The intent of the project is also commendable (although maybe not fully executed), in that local businesses (especially small businesses) are given an opportunity to run their business out of a brick and mortar; an opportunity they may not have been offered if not for this temporary use project. The location of the project is definitely key to its success, as it is adjacent to a metro station and therefore highly assessable to pedestrian traffic. It provides a rest area for both shoppers and commuters in the area.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{boxpark.jpg}
\caption{Boxpark, temporary mall}
\label{fig:boxpark}
\end{figure}

\textbf{Source:} http://www.boxpark.co.uk/about/

\textbf{Summary of analysis:}

- Large-scale project intervention.
- Easily constructed and disassembled due to material nature of shipping containers.
- Provides opportunity for business owners to experiment with new business concepts.
- Enhances street life by bringing commercial activity to the street.
- Offers social spaces and respite from travel by providing public seating areas.
- Easily accessible by foot or nearby mass transit.
- High volume of existing pedestrian count due to nearby transit.
- Maintains character of local neighborhood by fitting in with future vision of community.

POPUPHOOD

Program: Retail
Location: Oakland, California
Established: 2011 - Present
Creators: Sarah Filley and Alfonso Dominguez

![Figure 14. Row of vacant storefronts (before Popuhood)](http://popupcity.net/featured/oaklands-pop-up-neighborhood/)

“There are plenty of old historic buildings that are being abandoned while new buildings are being built. We’re working to add value to those buildings by reinvesting in them as assets - to help preserve the character of the place and the buildings.”47 - Sarah Filley, co-founder of Popuhood

According to founders Alfonso Dominguez, architect and local Oakland entrepreneur, and Sarah Filley, urban planner and local artist, Popuhood is a non-profit “small business incubator” dedicated to revitalizing neighborhoods by transforming vacant storefronts into vibrant city spaces, block by block.48 While the goal is long-term economic development, the spaces are treated as temporary pop-up shops. What really differentiates Popuhood with the more common pop-up storefronts that have been emerging in recent years is the idea of popping up a “newborn retail community.”49

---

“The concept of simultaneously curated retailers that open all at once removes several of the barriers to entry right away,” explains Filley. “One is being the lone pioneer in a transitional neighborhood. Another is the initial capital of buildout, rent, and staffing. The third barrier is, doing it on your own, you don’t necessarily have a retail community. You can’t control who comes in next to you. In this case the retailers have [neighbors] that they know will complement their business.” Retailers are given a six month, rent-free, space to do business and at the end of the six months are offered a chance at a long-term lease.

Old Oakland, a historic neighborhood with unique charm, conveniently located near public transit, was frequented for its restaurant and bar scene but lacked a vibrant street life. Dominguez who owns both a restaurant and bar in the area, was discontent with the vacancy that had lined the street for over a year. In his opinion, the one thing missing from the neighborhood was something to get people to walk around - independent retail. New businesses were intimidated to invest because of the bad economy. This prompted the beginnings of Popuhood.52

50 Ibid.
51 Ibid.
Dominguez and Filley presented their proposal to the city’s redevelopment agency as well as to Peter Sullivan Associates, the owners of the building they wanted to occupy. The response was overwhelmingly positive. The Oakland Redevelopment Agency’s Tenant Improvement Program supported the venture with a $30,000 grant which went towards marketing and facade improvements.\(^5^3\)

After gaining the initial permissions and support they needed they recruited six local East Bay retailers to participate. Of the six, the businesses ranged from a bicycle shop to a design-and-build furniture store, of which three have signed long term leases.\(^5^4\) Since the introduction of Popuhood there has been a noticeable increase in foot traffic, greater sense of safety, and a more prosperous economic environment.\(^5^5\)

Popuhood was chosen as a case study because its design solution clearly identified and addressed the neighborhood’s need for retail business. Their approach was also unique in that it facilitated economic opportunity for more than one business owner at the same time. No new structures needed to be constructed; this temporary use was implemented in the existing buildings. The street life is more engaged with the rest of the neighborhood and both the business owners and building owner benefit. The community becomes more walkable and becomes a destination for a new type of consumer. It seems in this case everybody wins.


Summary of analysis:

Medium-scale project intervention.
Adaptive re-use of vacant storefronts with interior modifications.
Community-initiated to enhance existing commercial activity.
Provides opportunity for local business owners to experience a brick and mortar.
Enhances street life during daytime and evening hours, increasing foot traffic.
Easily accessible by various modes of transportation.
Maintains character of local neighborhood through selective process of applicants.
Local government supported initiative.
SUMMARY OF NOT-SO-SPONTANEOUS INTERVENTIONS

The case studies chosen prove that temporary use of urban leftovers can be beneficial to most parties involved. They are low-risk, and offer highly flexible solutions to each city’s diverse needs. Government involvement can aid in the development of the project, and actually reveals problems in current land use laws/regulations. These types of projects are proven to be economic, social, and cultural, assets to the community. Although the motivation behind each project differs from one another, the final outcome is relatively the same. The neighborhood is more vibrant, more public amenities are offered to local residents, small businesses are given opportunities, land owners benefit from the occupation of the space, and there is little risk involved.

Not-so-spontaneous temporary interventions are difficult to realize if the concept is not supported by various players involved – the government, building owners, land owners, etc. adding to the time it takes for a project to manifest. This thesis will also explore other forms of intervention that can quickly be assembled, are less economically driven, and require minimal consent.
SPONTANEOUS TEMPORARY INTERVENTIONS

These are the result of a small team or individual and thrive off of how people engage them – they are reactionary and provoke thought, discussion, or interest. They challenge existing notions of people, space, and our environment, sometimes implemented without prior permission. All encompass some spontaneity and playfulness. These projects could be viewed as a form of urban installation.
“Through the RedBall Project I utilize my opportunity as an artist to be a catalyst for new encounters within the everyday.”

– Kurt Perschke

The RedBall Project is a successful urban installation created by artist Kurt Perschke. Because of its absurd size and vibrant red color the installation screams for attention. The placement of the Red Ball coerces the passerby to give an often familiar space a second look, inviting them to engage – to reach out and touch the forcefully inserted object.

The project’s success is in creating a temporary moment of public participation – a brief pause within the everyday, encouraging people to imagine the infinite possibilities of where or what it could be squeezed into next. It’s not about the ball – about the moment the ball facilitates.

"We pay particular attention to public response to this familiar object set in an unfamiliar place."57 – The Red Swing Project

A group of Austin’s architecture students came up with a simple concept – hang red swings in undervalued public spaces. Although the concept is simple, it has created meaningful impact around the world. The team behind the project left everything open source, allowing anyone with interest access to instructions and support via the Red Swing Project website. The low cost materials and easy constructability make the project easy to duplicate, furthering the project’s mission. Since the inception of the Red Swing Project nearly 200 red swings have been reported around the globe, continuing to change the way we approach leftover spaces.

---

“Within all that rigidity and stiffness there are plenty of chances for your own creativity.”

– Dispatchwork manifesto

In an attempt to improve the appearance of public places, Jan Vormann’s Dispatchwork project temporarily “repairs” broken or fallen parts of buildings and structures using plastic construction pieces like Legos. The plastic construction pieces are meticulously crafted into holes or edges that need re-definition. No wall or façade is spared – cultural and historic walls have also been targets of infiltration. The material choice is ironically playful, contrasting temporary and permanent, playfulness and seriousness. The insertions are sometimes discrete and can be passed by unnoticed. However, if the casual observer is to get a glimpse of the colorful patchwork, there becomes a moment of delight and curiosity. This project encourages people to dream of creative ways to remake the city.

Figure 20. The original PARK(ing) Day parklet by Rebar
Source: http://my.parkingday.org/photo/rebarparkingday01-1?context=album&amp;albumId=2757420%3AAlbum%3A23955

The average person views a parking stall for what it is, a parking stall. With some ingenuity and a couple dollars the concept of a parklet was born, first credited in San Francisco. Parking stalls and areas of wasted sidewalk space are transformed into people friendly zones, with seating, greenery, sometimes artwork. The possibilities are almost endless. These spaces can greatly enhance or completely revitalize parts of the street and neighborhood.

Many businesses embrace the concept as it encourages people to get back out on the streets, increasing pedestrian traffic, therefore bringing in more business. Parklets are designed as temporary, many only lasting until the meter runs out, however some are reclaimed permanently with proper support.

Parklets are a feasible solution giving pedestrians the option to sit, relax, and gather – the space acting as an extension of the sidewalk. Citizens and organizations around the world have replicated the idea, and are quickly redefining our city spaces.
Ombra Sopra is more than a project, but a mission to revitalize a public plaza in the city of Jesolo (The City Beach). Instead of allowing the urban environment to shape the way we live, the project alternatively encourages people to adapt a site to our needs and lifestyle. Instead of changing the Jesolanian lifestyle, the project magnifies it, using discarded beach umbrella canopies as the primary material for the project. The umbrella canopies are stuffed and sewn together and function as flexible lounge seating, triggering the essence of the beach year round. Neighborhood identity is celebrated throughout the project through a simple material choice.59

Figure 21. Ombra Sopra Project
Source: http://www.lizontijus.com/ombrasopra/te9w77ntfexdbzy160ewnlek5zy

SUMMARY OF SPONTANEOUS TEMPORARY INTERVENTIONS

Although each of the projects presented attempt to address different issues, the underlying concepts of each project are simple and highly impactful. They offer clever solutions to alter the existing urban environment, introducing moments of fun and spontaneity within the everyday. Even in their simplicity the projects infuse awareness, stimulate change, and create engagement. The projects are successful in grabbing people’s attention while inviting them to take a break out of their everyday.

The site is equally important to the project, as the project is to the site. Application of any intervention requires site analysis within both physical and social domains.
Many people identify themselves with their neighborhoods, where they come from, especially here in Hawaii, thus it is important to retain the character and identity within each of Hawaii’s unique communities. Before development, redevelopment, or infill development occurs, it is important to understand existing conditions.

Because there were no existing methods to study the unique site conditions of urban leftovers, a makeshift process was undertaken. The research in this section of the thesis serves as an exploration of techniques used to study leftover spaces in Hawaii. A variety of methods were researched and attempted to capture ideas and appropriate methods for identifying, documenting, and analyzing urban leftovers. Direct observational methods were borrowed from public life experts and were applied to the condition of urban leftovers.

Observational fieldwork was conducted throughout one semester in order to understand relationships between people and existing leftover spaces. Research methods were based on capturing the essence of the contextual environment surrounding or adjacent to the site. Traditional methods for site analysis alone, fail to fully capture the experience of a neighborhood or space. It was important to participate within the environment in order to analyze and understand said environment. Through a series of experimentation in observational methods and focused site analysis, the acquisition of qualitative and quantitative data provide an optimal platform toward the understanding of an environment. As the experience of a city, neighborhood, building, or space is a process; fieldwork was conducted in a similar approach.

Fieldwork led to:
- Inventory of space
- Typology of edge conditions
- Public life study
- Video capture
Collected an inventory of urban leftovers in five neighborhoods within Honolulu’s Primary Urban Center. Drove and walked through each neighborhood without a predetermined route, finding and collecting any leftover spaces that were found along the trip. Catalogued spaces were not limited in size, shape, location, etc. A combination of notes and photographs helped document the survey of spaces.

A number of urban leftovers were discovered – different shapes, different sizes, and different textures. Some were grassy, some were paved, some were open, some were secluded, some were in use, many (at the time of visit) were not. Most importantly what was noticed is that these spaces do exist in Hawaii, in our backyard, and that many of them have untapped potential. The purpose of establishing an inventory was to locate leftover spaces within urban areas.
How can these newly inventoried spaces be analyzed? In order to make some sort of generalizations or comparisons between the spaces, they were organized according to neighborhood board boundaries as defined by the City and County of Honolulu.

No conclusions could be drawn from neighborhood boundaries alone. In an effort to further understand these spaces, and what they insinuate, qualities of the physical and contextual spaces needed to be examined, which lead to the following typological analysis.
TYPOLOGY OF EDGE CONDITIONS

Since each leftover space had unique conditions, some generalizations were made in analyzing site boundaries and adjacencies.

For example, programs adjacent to the site were limited to four types – Residential, Commercial, Non-Residential (schools, fire stations, libraries etc.), and Leftover (a space similar to itself). Boundaries between the site and the area next to the site were characterized as either a soft boundary or hard boundary – soft boundaries being more blurred, or less defined. For example, a chain-link fence was considered a soft boundary where as a freeway or major roadway was typed as a hard boundary.

Each diagram is one of three sizes – small, medium, or large, based on acreage. Small is less than half an acre, medium is half an acre to 1 acre, and large is anything greater than 1 acre. The typology study also denotes whether or not site had any existing temporary or permanent structures. A legend is provided on the last page of typology diagrams.

The expected result of this study was to:

1. Define edge conditions in relation to
   a. Access
   b. Visibility
   c. Malleability | flexibility of site
2. Determine size in relation to
   a. Scope of project
   b. Type of project
3. Analyze site context
Figure 24. McCully/Moiliili typology of leftovers
Source: Graphic by Author
Figure 25. East Kaimuki typology of leftovers
Source: Graphic by Author
Figure 26. Diamond Head + Kapahulu typology of leftovers
Source: Graphic by Author
**Makiki St + Dead end @ H1**
Leftover space between edge of Makiki District Park and H1 Freeway. Two edges confined by roadway; one hard edge - dead end to freeway; one soft edge flowing into Makiki District Park. Near to residences.

**Makiki St + S. Beretania St**
Paved lot with temporary structures on site (recycling center). Two edges confined by roadway; one soft edge between adjacent church parking lot; one soft edge between adjacent car dealership. Adjacent to commercial activity, culinary school, and church.

**Keeauumoku St + Young St**
Large green space. Three edges confined by roadway; one soft edge between Board of Water Supply building. Commercial activity surrounding site.

**Pensacola St + Under H1**
Leftover space from freeway infrastructure currently used as parking lot. Three edges confined by roadway; one hard edge - freeway structure. Near to residences and post office.

*Figure 27. Makiki typology of leftovers*
Source: Graphic by Author
Figure 28. Makiki typology of leftovers
Source: Graphic by Author
SUMMARY OF TYPOLOGICAL ANALYSIS

Edge conditions, size, and site context were the primary focuses of this typological analysis. Leftover spaces were found to vary typologically, and although correlation between these variables and leftover spaces could not be determined, it was helpful to identify the restrictive physical parameters and space constraints. This method of analysis helped to develop a method of organization in an attempt to make sense of the data collected, providing a basis for a generalized comparison between leftover spaces.

In an effort to conduct more focused research with the anticipation of further understanding an environment, it was necessary to narrow down the inventory of leftover spaces. Three sites were chosen to continue to test various direct observational methods.

Figure 29. Selected sites for further exploration
Source: Graphic by Author
The sites were chosen due to several factors including:

1. Lot capacity - The three sites chosen were of different size categories.
2. Relative proximity to one another – all in adjacent neighborhoods
3. Varied context – mixed use areas
4. Pedestrian flow – some level of existing foot traffic
5. Relationship to major avenues – major points of access to the site

The three sites are:

1. Kapahulu Ave + Winam Ave
2. Campbell Ave + Monsarrat Ave
3. Makapuu Ave + Maunalei Ave
PUBLIC LIFE STUDY

To proceed, the Kapahulu Ave. and Winam Ave. site was chosen to explore assorted methods of public life study. Methods were primarily borrowed from Jan Gehl, a prominent individual who studies the relationship between public life and public space and between design and use. Gehl brings design and observation to the human scale, measuring the success of the urban environment through quantifiable observation. He observes pedestrian flows, length of stationary activity, and social behavior. The intent of this study was to learn:

1. How the existing leftover space is being used (or not used)
2. Observe surrounding activity (if any)
3. Understand movement along/through selected zone

Figure 30. Location and current condition of site on Winam Ave. + Kapahulu Ave.
Source: Graphic by Author
Figure 31. Site photos of current condition
Source: Graphic by Author

Figure 32. Existing functions surrounding site
Source: Graphic by Author
Figure 33. Observational boundary for study
Source: Graphic by Author

Figure 34. Movement and stationary patterns observed within boundary
Source: Graphic by Author
Observations were taken during a weekday lunch hour and at the time of testing weather conditions were optimal. Within an hour 106 people were counted. Of the 106 people, 4 were between 1-17 years of age, 26 were 18-30 years of age, 44 were 31-50 years of age, and 27 were 51 or older. Multiple modes of transportation were observed – people travelled by car, bus, trolley, skateboard, bicycle, and by walking/jogging. It seemed that most people frequenting this area were drawn to nearby eateries. People were also observed exercising, or going for a stroll (with or without a walking a pet). As Kapahulu is the backdoor to Waikiki, a decent number of tourists were observed (15% of observed people).

To further capture the essence of the area it felt necessary to zoom out to a larger scale – the Kapahulu corridor. Basic mapping of three key elements were documented:

1. Location of eateries
2. Areas of public recreation
3. Areas with little to no street engagement
Figure 35. Location of eateries on Kapahulu Ave.
Source: Graphic by Author
Figure 36. Areas of public recreation on Kapahulu Ave.
Source: Graphic by Author
Figure 37. Areas lacking street engagement on Kapahulu Ave.
Source: Graphic by Author
KEY OBSERVATIONS | KAPAHULU CORRIDOR

There is a steady flow of pedestrian traffic; a combination of both tourists and residents alike. Kapahulu Ave. is a destination for food – people are constantly stopping to buy food and leaving. Most people eat somewhere other than where their food was originally purchased. A large amount of wasted opportunity exists along Kapahulu Ave. – there are many areas of the street where nothing engages the pedestrian, however this does not deter the majority of people from coming.

Figure 38. Activity captured on Kapahulu Ave.
Source: Photos taken by author
SUMMARY OF PUBLIC LIFE STUDY

While a general understanding of the area was extracted through these various public life studies, is this enough? Much of the data collected was subjective, relying on the observer to make split second decisions – how old does that person look? Is that a tourist? The margin of error is also relative to the observer’s best attempt at collecting data. The observation was also conducted during a peak hour of the day, which could have had an adverse affect on the sample collected – time of day could be attributed to why so many people were witnessed buying food.

A more active approach is taken by the observer in this method. In order to record data, the observer is constantly watching, counting, tracking; unfortunately leaving no opportunity for the observer to fully immerse into that place – the true experience was lost in this study.

However within the realm of observational fieldwork, not all research will be relevant. It is important to understand that successful research is not entirely reliant on the outcome, but it is also based on the process.

When talking about the experience of a city or architecture, it is ultimately a journey of movement through time and space. Previous fieldwork was conducted from the point of perspective of the observer. In order to observe how others experience space, perhaps a more passive approach could be a useful strategy – video capture is the next strategy explored and allows the observer to step back from the moment of observation, letting the scene carry out.
VIDEO CAPTURE

Similar to William Whyte’s studies, this method utilizes video recording as a primary method of observation. This method allows the observer to witness and experience a setting without distraction, leaving analysis to be completed at a later time. This allows the researcher to submerge themselves into a setting in order to discover behavioral patterns or relationships between certain activities and the surrounding environment.

Video was taken at all three chosen sites. The placement of the camera was primarily determined by areas of heavy activity – a busy intersection or main roadway. No predetermined behaviors were being looked for prior to the start of the observation.

Figure 39. Video at Diamond Head Rd. + Makapuu Ave.
Source: Video by Author
Figure 40. Video at Monsarrat Ave. + Campbell Ave.
Source: Video by Author
Figure 41. Video at Kapahulu Ave. + Mooheau Ave.
Source: Video by Author
SUMMARY OF VIDEO CAPTURE

One of the main benefits of this effort was the ability to slow down what was witnessed during video in order to do further analysis. This is a very unobtrusive method of analysis, allowing the researcher to be detached from the observed setting. Twenty minutes of film was captured at each site.

From the video various traffic patterns were observed – foot traffic, motor vehicle traffic. Although no quantitative data was drawn from the observation, we were able to see generally where people were going to, or coming from. We were also able to see how pedestrians engage their surroundings. – for the decision to stop and sit. It was also noticed that one side of the street was sometimes busier than the other side. This usually happened if there was a bus stop on one side and not the other, which side of the street stores were present. Although these things were observed no overarching patterns or correlations were concluded from post-analysis of the video.

While the usefulness of this method is successful in analysis of an already used and engaged public space, it may not be so for a leftover space. No movement or activity was captured within the boundary of the site. But, perhaps that is what we takeaway from the study – these spaces are unused, do not draw attention, and are not given a second look when passed by.
“Designing a dream city is easy; rebuilding a living one takes imagination.”

–Jane Jacobs, *Downtown is for People*
As previously defined, urban leftovers are dissociated fragments of the urban network, left behind from changes in the transformation of the city and its infrastructural networks; they are the awkward spaces created as a consequence of urbanization and the shifting of urban conditions.

Although the survey of urban leftovers began in five particular neighborhoods (McCully/Moliiili, Kapahulu, E. Kaimuki, Diamond Head) within Honolulu’s PUC, they are also prevalent beyond these boundaries, suggesting such spaces are not restricted to any particular area in Honolulu.

As previously stated, urban leftovers are an inevitable phenomenon present in all cities. However, the varieties of urban leftovers will differ city to city because the each city’s evolution is a unique condition, specific to that city. The four major types of urban leftovers found in Honolulu were – isolated, sandwiched, adjacent, and enclosed. An example from each category will be used as a site for investigation.

A few assumptions must be noted going forth. Urban analysis was completed within a 400m radius from the site, as this is the typical walkable distance for the average pedestrian. External factors that typically influence a project, such as land ownership, zoning or other government regulations were disregarded. We will assume that a collective agreement would have be made between landowner, local government, and the community allowing the intervention to be conceptualized.

The end result of each investigation will not come to a specific intervention as the solution rather suggests one possibility of what could be at each particular site. Each proposal aims to reassociate the leftover space into its surrounding urban culture, events, and communities.
Figure 42. Common types of urban leftovers in Honolulu
Source: Graphic by Author
ISOLATED LEFTOVER | UNIVERSITY + H1 FREEWAY

The construction of the H-1 freeway created several pockets of residual space, each bordered by the on and off ramps, freeway structure, and/or roadway. The leftover space is surrounded by hard edges on all sides, essentially creating a very isolated condition. As a result of the freeway system, the site teeters on the border of the McCully/Moiliili and Manoa neighborhoods, clearly separating one from the other. The massive freeway structures as well as the leftover spaces that were unintentionally created, disrupt the urban flow of activity running along the University Avenue corridor.

University Avenue is a heavily used transportation corridor. It provides direct access to UH Manoa, residential areas, as well as a variety of businesses. The area is constantly busy both during the day and at night, especially because students from the University of Hawaii frequently travel back and forth to and from school during sporadic hours. Many students and residents are within walkable distance to nearby grocery stores, eateries, and bars making walking and bicycling a popular

**Figure 43. Current condition of isolated leftover**
Source: Graphic by Author
method of transportation. The following diagram illustrates various “access points” via major roadways – vehicular access, bus route, bus stops, bicycle lanes, and pedestrian crosswalks.

![Figure 44. Location and access points at isolated leftover](image)

Source: Google map modified by Author

The site is easily accessible from a variety of transportation methods. However, because of inadequate signage and limited visibility the area is plagued with a number of traffic accidents. As Figure 30 shows, most major intersections have room for improvement, including the area where the H-1 freeway and University Ave. meet.
The leftover space is in a unique condition in that it is surrounded by heavy traffic on all sides. This prompted an investigation on how number of traffic incidents in the area. According to the Hawaii State Department of Health, Mapbook of EMS-attended motor vehicle crashes on Oahu, we can see that there are a number of incidents at every major intersection in the area.60

---

Street lighting is an important visual element within the streetscape, contributing to the character and feel of a neighborhood. It is clearly a critical feature at night, providing a sense of safety and security for pedestrians as well as motorists. The next diagram illustrates placement of streetlights along University Ave. Although not necessarily a correlation, it was noticed that there is also a moderate level of crime in the nearby area with incidents occurring in the early morning or evening hours.\footnote{Statistics, HPD Information, Accessed January 2, 2015, http://honolulu pd.org/information/index.php?page=crimemapping.}
Because the site sits along a major transportation artery, and because it is on the boundary or edge of two neighborhoods, it is an ideal location for intervention. Through intervention this site has potential to increase connection between neighborhoods, address the lack of visibility at night, and provide an increased sense of safety for pedestrians as well as motorists.

During the day a pavilion provides refuge for pedestrians and bicyclists looking for shade or a place to rest. The meandering pathway tempts pedestrians to wander in, and encourages this curiosity. The bamboo forest softens the look of the freeway bringing nature back into the urban core. Flexible seating arrangements invite people in to the space, allowing them to make the space their own. At night the bamboo forest illuminates the area, addressing the need for more lighting. Perhaps the lights change color according to speed of pedestrian movement, providing awareness to oncoming drivers.

This design investigation was a study of how to investigate various programs at a site; how to create something new while experimenting with contrasting functions of activities. In this case the contrast
was between the surrounding infrastructure (especially the freeway), and creating a meditative pause space. Can we find self-reflection in such a loud obnoxious space? This proposal suggests that maybe there could be a balance of some kind between the two. In this sense it allows the “designer” the chance to go beyond what is considered “normal” and to push contrasting ideas, even if they may seem counterintuitive at first thought.
Figure 48. Transformation of isolated leftover
Source: Graphic by Author
SANDWICHED LEFTOVER | SOUTH BERETANIA

The spaces between buildings often go unnoticed, once such space is the alleyway between Hawaii Pacific University (Downtown Honolulu) and Safe Haven, a housing facility for adults with mental illness. The space is squeezed between the adjacent buildings, creating a somewhat narrow, horizontally confined space. It currently holds no function and is not a major throughway. A bar is located at the immediate end, opposite of South Beretania.

Figure 49. Current condition of sandwiched leftover
Source: Graphic by Author
The site is highly accessible by foot, bike, or automobile, and lies within Honolulu’s Central Business District. Although there are a number of parking options, walking, catching the bus, or bicycling is the best modes of transportation because parking cost in downtown Honolulu ranks third highest in the U.S. Many students turn to these alternative modes of transportation in order to avoid paying such high parking expenses. The map below shows the location of various parking garages or parking lots, as well as the cost to park per two hours.

---

Figure 50. Location and site access at sandwiched leftover
Source: Google map modified by Author
In integrate the existing bicycle culture of downtown into the project, the proposed intervention is a vertical bicycle storage facility coupled with pop-up bike repair shop. Commuters can conveniently drop off their bicycle for repair and pick it up at a later time, say after work, without worry. Although there are numerous bicycle racks in the area many are not designed to handle a large capacity of bicycles; only two or three bicycles can fit comfortably on the provided parking racks. There are some racks that can accommodate a larger amount of bicycles, however these spaces are also shared with moped and motorcyclists. Utilizing this space as bicycle parking will free up space elsewhere, allowing for a better-utilized space.
Figure 52. Location and cost of parking in Downtown Honolulu
Source: Google map modified by Author

The chosen parking method takes advantage of the given wall space, allowing for something more to happen. As this site is not a major throughway, it may be useful for some for or recreational activity allowing people to linger. In this instance we look at coupling playfulness with function; one idea is to integrate a bicycle or skate park.
Figure 53. Transformation of sandwiched leftover
Source: Graphic by Author
This particular adjacent parcel is wedged between two colliding street patterns. It is located at the intersection of Kapahulu Ave. and Winam Ave. This is categorized as an adjacent parcel because it lies along Kapahulu Ave., a major roadway. The Kapahulu neighborhood is a tightly woven, compact morphological condition. The absence of structure on this site disrupts the existing texture of the urban fabric. On the street level, the presence of emptiness also hinders a positive pedestrian experience. As illustrated in the following diagrams, the parcel holds great potential as an urban corner. The Kapahulu Ave. artery is constantly busy because it serves as a backdoor entry to and from Waikiki.

Figure 54. Current condition of adjacent leftover
Source: Graphic by Author
The site is easy to get to by all methods of transportation. Bus and bicycle routes run along Kapahulu Ave., and the nearest bus stop is only one block away. There is also a lot of potential for people to come to the site by foot if coming from nearby residential areas. Kapahulu Ave. was designed as more of a throughway to Waikiki, than a destination corridor. The business corridor is sandwiched between various housing types – apartment and single family homes, as seen below.
The Kapahulu corridor is more accessible to cars than people, although the area is easily accessible by foot. The nearest public park, Crane Park is just beyond the typical 400m walking distance. Kapiolani Park, South of the site is very utilized, however is also out of the typical walking distance.

By implementing small-scale design interventions people may be compelled to walk a longer distance to these public recreation areas. However, as it is now, there is not enough shading and there are too many large distances that have minimal street engagement – not a good experience for the pedestrian. We can see this is evident in an existing tree canopy coverage map. The entire corridor has between a scarce 0%-20% of natural shading.\textsuperscript{63}

The Kapahulu area is most known for its restaurants and eateries. There are multiple eateries scattered throughout the corridor. During preliminary exploration of this site it was noticed that most people pick up food and take it to another destination to eat. The businesses that do provide patrons with seating areas are the busiest, however they are few in number.
The proposed use is an outdoor sitting park. The site is almost at the midway point along Kapahulu corridor making it ideal for shade and seating, two elements that are currently lacking in the area. Food plays a big role in the character of the Kapahulu neighborhood. Restaurants come and go, and some have stayed for decades. This suggested use integrates with the existing functions, filling in the missing piece of the fabric, temporarily. The program and site could be adaptive to the community’s needs. A stage could be the platform for community events and workshops, outdoor concerts, or a variety of other programs. It could serve as an informal learning center.

The space encourages people to sit, stay, and socialize; one could say it functions as an informal dining room. This leftover site was the perfect opportunity to fill a programmatic void, potentially helping to regain some neighborhood identity.
Figure 59. Transformation of adjacent leftover
Source: Graphic by Author
ENCLOSED LEFTOVER | NIMITZ + AIRPORT VIADUCT

There are a number of leftover spaces underneath the Airport Viaduct, many of which can be accessed by Nimitz Highway. These spaces are examples of urban leftovers because they are the byproduct of our society building such mega infrastructures. For the purpose of this design investigation we will focus on one particular piece of leftover space as a model for other potential sites.

Figure 60. Current condition at enclosed leftover
Source: Graphic by Author
Leftover space is immediately next to the Honolulu Airport’s Ewa Cell Phone Waiting Area, located on Service Road A, adjacent to the U.S. Post Office. It can be accessed from the Nimitz Hwy. and Aolele St. intersection. Access to the site is limited compared to the previous leftover sites. While mostly accessible to cars, there is a bicycle lane and bus stops nearby. The zoning is also unique to this site (mostly industrial) because of its proximity to the airport.
The following diagram indicates the primary areas where motorists are "allowed" to wait. The Ewa cell phone waiting lot and the Diamond Head cell phone waiting lot are the only areas specifically designated as waiting zones. Keehi Lagoon Beach Park is another free alternative but is not the farthest away. The other locations indicated on the map are commercial businesses/restaurants that generally only allow paying customers to linger. Restrooms are also illustrated on the map, showing that there is a lack of facilities for people waiting to pick up their party from the airport.
Figure 63. Zoning at enclosed leftover
Source: Google map modified by Author

Figure 64. Waiting areas and location of public restrooms
Source: Google map modified by Author
One method of activating urban leftovers is by tying in existing activity. During observation it was noticed that there were a lot of people exercising along Nimitz Hwy. The flat topography of the site makes this stretch of roadway prime for walkers, joggers, and bicyclists. Zooming out to a larger scale, we can see Keehi Lagoon Park isolated by itself on the Ewa side of the freeway. This intervention envisions turning leftover spaces into points of connection in the grand scheme of things.

Through a looped pathway and series of anchor points we try to pull Keehi Lagoon back into the existing urban fabric. The proposed exercise route starts at Keehi Lagoon, follows Lagoon Drive, heads West on Nimitz Hwy., terminating just beyond our site of investigation. The route continues East on Nimitz Hwy., and continues back to Keehi Lagoon Park. There are four anchor points envisioned along this pathway. Each site could enhance the experience of the proposed exercise route in various ways. For example, one anchor point could be outfitted with outdoor gym equipment, and another site could be designed as more of a resting point.
Figure 66. Transformation of enclosed leftover
Source: Graphic by Author
CONCLUSION
Urban leftovers are an inevitable byproduct of planned development. Because we view these spaces as a natural occurrence in the making of the city, our perception of them is altered: we choose to see their existence as an opportunity instead of a problem. Recent projects, presented as case studies prove there is a desire to act and successfully engage these sites. However, although the bulk of this research focuses on intervention, it does not argue that all sites should be engaged; some leftover spaces should and must remain as a residual. No project should be implemented if it is not in some way or form, meaningful.

Temporary strategies were researched, and were proven to be valuable in the activation of leftover spaces. Although the research focuses on temporary strategies, through design investigations it was realized that some sites might lend to more permanent or semi-permanent solutions. However, one could argue that using a temporary approach is helpful to inform if something more long-term is viable.

The survey of leftover spaces in Honolulu revealed that four major categories of urban leftovers exist throughout Honolulu’s urban core, many withholding unrealized potential. Preliminary exploration concluded that it is necessary to engage and experience the site first hand in order to develop some method for analysis and to determine if there is a need, desire, or plan for further action.

If architects, urban planners, local governments, and citizens of the community work together, urban leftovers can be transformed into usable areas for public interaction. Such interventions can evoke a more vibrant streetscape, fill in identity gaps in an attempt to make a community more whole, provide more social offerings, and stimulate change and innovation, establishing value out of the undesirable. In places like Hawaii where land is scarce, alternative development strategies should be encouraged and welcomed by all.

The end result of the design investigations did not point to one specific intervention as the only solution, its purpose was to suggest that a variety of transformations could occur. The investigations are intended to remain open ended so that the reader may use their own imagination to visualize other possibilities. What can you see?
RESOURCES


