

# Field Guide to Life in Urban Plazas

A Study in New York City

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51 Astor Place in New York, NY. Project design is attributed to SWA principal Thomas Balsley while with Thomas Balsley Associates. Photo © Wade Zimmerman



## Foreword

**Thomas Balsley, FASLA**  
**Principal, SWA/Balsley**

Nearly 40 years ago, I encountered William “Holly” Whyte’s manual, *The Social Life of Small Urban Spaces*, the timing of which coincided with the opening of my studio, whose focus was on the application of contemporary landscape architecture to the deteriorating physical and social urban environment.

At the time, few design schools, let alone professionals, touched upon the sociological or psychological factors that should influence our planning and design approach to public open space.

Then along came Holly’s book, chock-full of keen observations, a scientist’s approach, and a ton of common sense. More than anything, this simple no-nonsense “manual” was an embarrassing wakeup call that reminded the design community of the public’s trust in its open spaces work and offered to help us discover for ourselves why some spaces worked and others didn’t.

Finally someone had put into words the explanations for human behavior of ordinary people in social spaces, what most of us were seeing and experiencing as we went about our planning and design but weren’t translating into built works. The manual traveled with me as I camped out on city spaces, large and small, stoops and ledges.

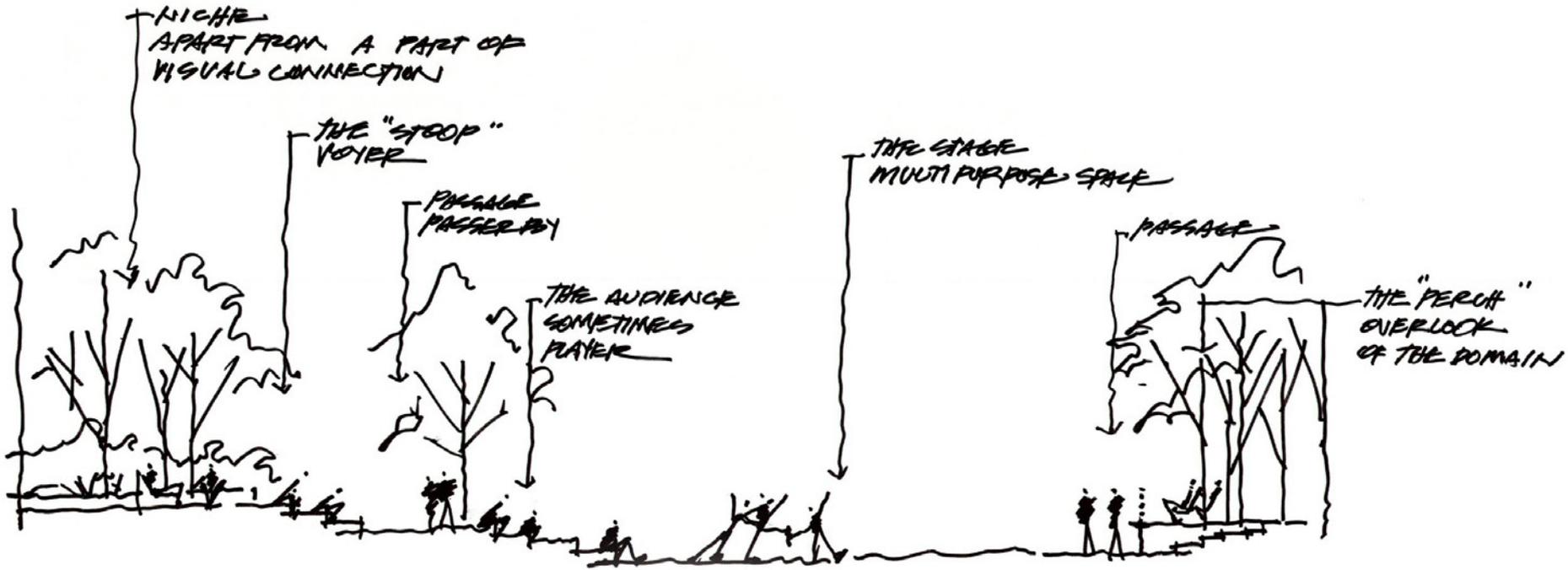
*The Social Life of Small Urban Spaces* was immediately embraced by most landscape architecture, architecture, urban-centric design professionals, and academic programs for its clarity and accessibility and, from it, a generation of acolytes emerged, myself included. In fact, Holly described most of the manual’s research as being “fundamental without any especial applicability.”

During the years of designing public spaces throughout NYC and the U.S. and redesigning those that had failed to heed his most basic principles, I have often wondered how Holly’s observations, recommendations, and scientific methods would adapt themselves to the current city’s revitalization movement and our 21st-century culture of social recreation.

Using SWA’s research and innovation lab, XL, as their platform, landscape designers and XL co-leads Emily Schlickman and Anya Domlesky have begun to inspect these questions through a designer’s lens. Their effort is not only for academic or scientific purposes but for those open space advocates, landscape architects, architects, urban designers, and others in need of real applicable design guidelines that will ultimately lead us all towards the creation of more vibrant public spaces and sustainable communities.

Employing innovative methods and a designer’s passion, their study gives us a peek into how those adaptations might synthesize current social science and technology with enlightened design principles; a formula that will produce more of those extraordinary small social spaces that have the potential to touch our daily lives in the future and build sustainable communities.

I have often wondered how Holly's observations, recommendations, and his scientific methods would adapt themselves. -Tom Balsley



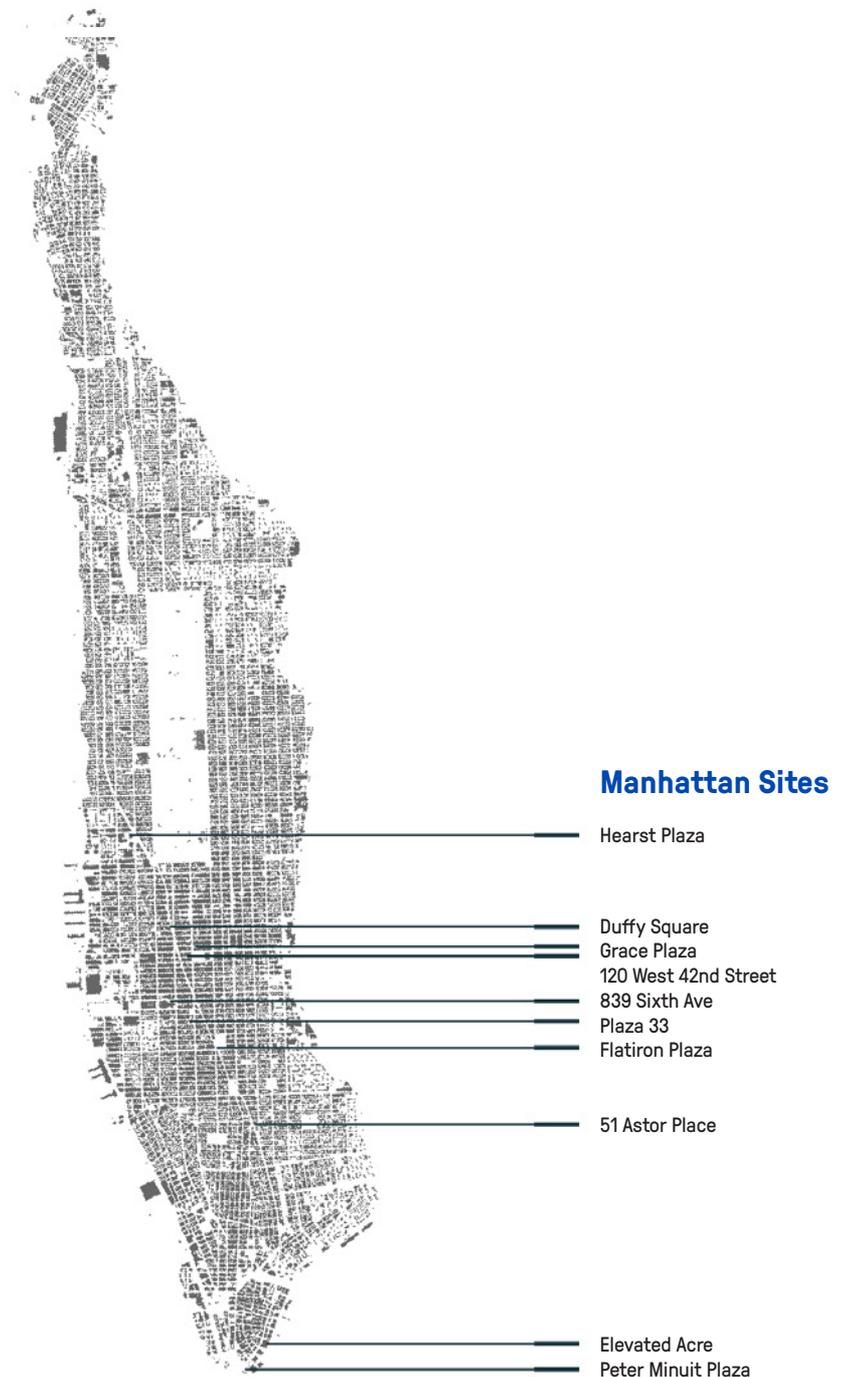
Observational plaza sketch  
drawn by Thomas Balsley.

# Introduction

by Emily Schlickman, XL research and innovation lab

In the late 1960s, writer William H. Whyte set off with a small group of research assistants to better understand how people respond to different urban conditions. Carrying clipboards, cameras and tripods, the research crew climbed onto rooftops, strolled through plazas, and sat along streets. Their goal was to make urban life visible. The study, called *Street Life Project*, sought to answer fundamental questions about the intersection of human behavior and small city spaces – namely, what works, what doesn't work, and why?

Some observations from the study included: people not wanting to escape other people when occupying open space, the desire for people to sit in the sun, and the need for people to move a chair, ever so slightly, before sitting down. The findings from this seminal study were packaged into a book and companion video, both written and narrated by the witty, folksy voice of Whyte himself. Through these publications, Whyte praised small urban spaces, claiming: “The multiplier effect is tremendous...for a city, such places are priceless...and they are right in front of our noses, if we will look.”



Since Whyte released his work on small city spaces, there have been significant shifts in how urban public space is designed, occupied, and even observed. In light of these changes, we wondered if there might be a need for a new study, one more relevant to today's 21st-century city.

Loosely structured off of Whyte's original project but with some key updates, this study is not intended to define what "success" looks like when designing for urban public space, a topic which is too complicated for the scope of this project. Nor is it about simply refuting or upholding Whyte's original findings. Rather, the study is intended to identify new patterns of social life in cities by providing glimpses into how public space is used today. What are the new rhythms and rituals that are in plain sight but are not always recognizable, even to the most seasoned urbanists? And how can we, as urbanists, learn from these overlooked social patterns to create more vibrant public space in our cities?

Using New York City as a laboratory, the study focuses on 10 recently constructed publicly and privately owned sites located across Manhattan. In keeping with Whyte's original project, the selected cross-section of small urban spaces have strong pedestrian flows, are located close to public transportation, and have significant street frontage. Furthermore, the sites represent a range of designers and a range of open space typologies – corners, alleys, rooftops, interior plazas, transit hubs, and infrastructural remnants.

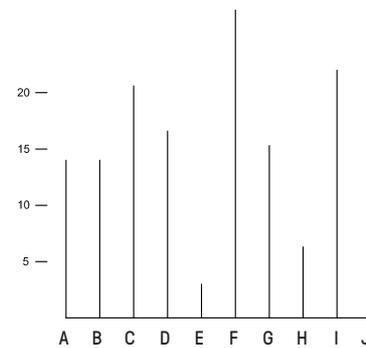
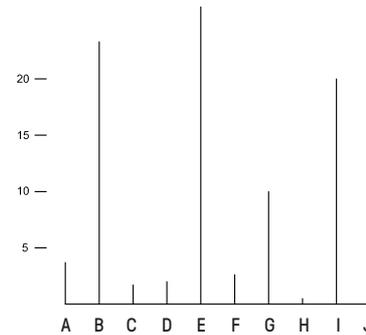
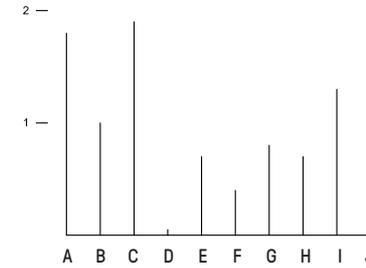
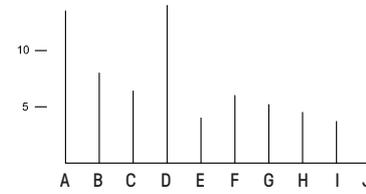
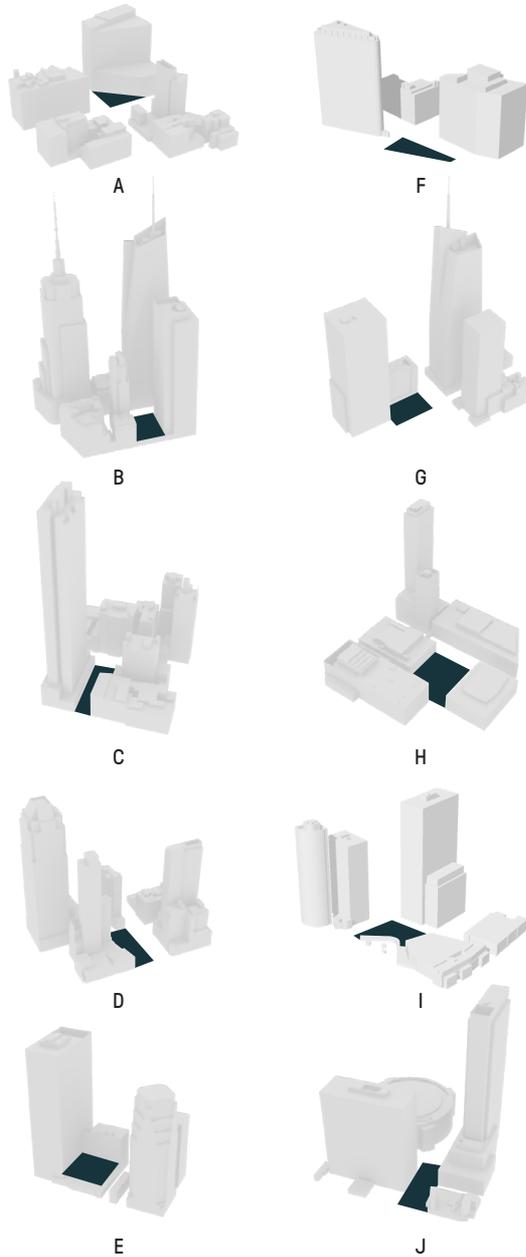
Premised on the notion that people vote with their feet, the research methodology for the study focuses on recording urban life. The project started with a list of behavioral hypotheses which were then tested across 10 selected sites. To do this, the research team used many of Whyte's original data collection tools – photography, video, interviews, and direct observation through hand tabulation and mapping – while also experimenting with novel data collection technologies such as object detection and tracking through machine learning.

Upon analyzing the data, a series of behavioral patterns began emerging across multiple sites. The most widely observed patterns were distilled into 25 key takeaways, generally organized by size – from XL to XS – and observational type – from extents, edges, events, environments, and elements. Similar to Whyte's original study, some of the observations seemed counterintuitive to our understanding of how people occupy public space while others were seemingly straightforward.

We packaged our findings into this field guide with the goal of creating an accessible, easy-to-use reference for urbanists with the hope that you throw it in your backpack when you're exploring your own city. We encourage you to use it to record your own observations, compare notes, and challenge assumptions. Our goal is that the field guide helps to start a conversation about the future of life in small urban spaces and our role, as urbanists, in facilitating their success.

## Sites

- A - 51 Astor Place
- B - 120 West Ave 42nd St
- C - 839 Sixth Ave
- D - Duffy Square
- E - Elevated Acre
- F - Flatiron Plaza
- G - Grace Plaza
- H - Hearst Plaza
- I - Peter Minuit Plaza
- J - Plaza 33



## Data

Number of stationary people in study area per 1000 square feet of study area.

Number of trees in study area per 1000 square feet of study area. Counts gathered onsite and verified through Google Earth aerial imagery.

Percentage of study area that is planted. Measurements roughly gathered onsite and through Google Earth aerial imagery.

Number of moving people through study area per 1000 square feet.

View of Manhattan from Hunter's Point South  
Waterfront Park. © SWA Bill Tatham



## Essay

### **In Light of Whyte: Regarding Forty Years of Change in Public Space and Social Life** by Anya Domlesky, XL research and innovation lab

William Hollingsworth Whyte, or “Holly” to colleagues and friends, spent years in the study of New York City’s common spaces beginning after the Midtown construction boom in the late ‘50s and early ‘60s. In his *New York Times* obituary, he would be called an urbanologist, a neologism used by the author in preference to the labels *writer*, *observer*, or *editor*, which did not seem to fit.<sup>1</sup> He was neither a designer nor planner but a U.S. Marine who went to work at *Fortune* magazine writing about corporations and corporate culture. It was not such an unnatural fit then that he later began looking closely at corporate spaces, specifically exterior spaces built by companies such as EXXON, Seagram, Time-Life, General Motors, JC Penny, CBS, and Pan Am. But instead of continuing to document corporate culture, he started looking at the city with a suspicion that the citizenry were being hoodwinked by large companies and their developers. The public was not getting quality ground-level spaces in exchange for the additional rentable space provided for by inventive zoning. By following his nose, Whyte ended up giving the New York City Department of Planning—and designers everywhere—specifics about the built environment that encouraged usage, longer use, comfort, delight, and, by extension, public life. His insights, set down in *The Social Life of Small Urban Spaces*,<sup>2</sup> the companion

film of the same name,<sup>3</sup> and *City: Rediscovering the Center*,<sup>4</sup> ranged from locating where people express affection to micro-climates to anti-sitting measures, and more. His insights into urban behavior and environments are touchingly human, funny, and idiosyncratic, making a case for why we should look closer at the users of our designed spaces.

Whyte celebrated “razzmatazz, good honkey-tonk, and anything that invested the sidewalks with hustle and bustle”<sup>5</sup>—the non-conformists and individualists that ruled and knit together the street. In doing so he was continuing his watch against conformity and anti-individualism begun in his book *The Organization Man*. He became part of a small group of contemporaries celebrating the city center, its messiness, and its underlying logic. Beginning in the wake of modernist architectural principles, as suburbanization was beginning to accelerate in the U.S., writers and architects such as Jane Jacobs, Richard Sennett, and Jan Gehl also championed the virtues of public life and the life of downtowns. Whyte edited *The Exploding Metropolis*, a book that included Jacobs’ essay “Downtown is for People,” that went on to become *The Death and Life of Great American Cities* in 1961. Whyte admired the Danish architect Jan Gehl, whose 1971 book *Livet Mellem Husene*, celebrating public life, was translated into English in 1987 as *Life Between Buildings: Using Public Space*. Richard Sennett’s early books in the ‘70s, *The Uses of Disorder* and *The Fall of Public Man*, provided a sociological and historical view on what Whyte was observing in New York. Working separately but in sympathy, this pro-urban group of writers supported progress in transforming the physical world. Notably, Whyte’s efforts were

instrumental in the revision of New York's 1975 Zoning Resolution requiring corporate entities to design their publicly accessible spaces to a higher standard and to put aside maintenance funds for their upkeep.<sup>6</sup> Later, his 1975 recommendations were adopted in the reinvention of Bryant Park in 1992.<sup>7</sup>

**“The physical makeup of Manhattan has changed dramatically in the last 40 years. The types of space created, land values, privatization, and new development and funding mechanisms have altered the face of public and publically accessible spaces.”**

Whyte's urban studies, starting with *The Street Life Project* in 1970, whose conclusions are collected in *The Social Life of Small Urban Spaces*, were influential beyond New York's plazas and parks. For 40 years his film and book have been immensely influential to architects, urban designers, landscape architects, and planners.<sup>8</sup> Perhaps because of the rarity of similar later studies aimed at design outcomes—Mozingo in San Francisco,<sup>9</sup> Esheshtawy in Dubai,<sup>10</sup> and Gehl in various cities—or perhaps because the format of those studies as journal articles or proprietary client reports restricts use, Whyte's tenets have endured and continue to be taught: more food concessions are good, more movable seating is good, people like to be around other people, etc. As a remedy to form-over-function modernism, this is a positive impulse. However, the popularity of Whyte's study among designers and planners has had the unfortunate

effect of converting Whyte's subjects—the historically specific, Midtown Manhattan, largely white, American, white collar workers of the '70s—into universalized urban public space inhabitants. Whyte himself did not universalize his subjects; he consistently referred to the specific habits and predilections of New Yorkers. Whyte noted New York pedestrians “are an aggressive lot, incorrigible jaywalkers, and where a hesitant driver gives them a chance they will bully cars to a dead stop. With fellow pedestrians, however, they are quite cooperative...”<sup>11</sup> Whyte also wrote that an increase in the amount of usable space “wouldn't be paradise—New Yorkers would be miserable in such a place. But there'd be more of what gives the city its edge—more schmoozing, more picnicking, more kooks and screwballs and pretty girls to look at.”<sup>12</sup> Whyte's New York observations and insights were relevant, but not neatly applicable to other contexts such as Tokyo, where he was invited in 1976 by the Japan Society and the International House Tokyo, to study street life. During his two visits there, he found similarities: “New York and Tokyo people like the street life,” “they are highly skilled pedestrians,” and the streets they like best show an amiable disorder. Whyte, however, also observed differences in Tokyo pedestrians: large numbers of people were out later in the day in the center city, a larger proportion of people were in groups, groups were larger in size, and overall pedestrian speeds were faster. Additionally, Whyte conceded “there are enormous cultural and physical differences between the two cities.”<sup>13</sup> Today, when looking beyond the zoning code standards in New York (three linear feet per 36 square feet of plaza area), one can see the context-specific observations that steered those recommendations. Whyte notes seeing

“girl watchers,” dope-dealers, hippies, and other undesirables. At this finer grain, it becomes clearer how contingent Whyte’s observations are on historically specific social relations related to gender, class, race, nationality, and status, as well as crime, density, and power.

Similar to the specificity of social relations that Whyte was observing in the early ‘70s, the physical form of Manhattan in that era was also fleeting. When Whyte started his observations in 1970, corporate bonus plazas were popping up in response to the 1961 Zoning Resolution that allowed a floor height bonus or additional bulk (extra rentable square footage) by right, in exchange for a publically accessible space. The incentive zoning of 1961 was introduced after the plazas of Mies van der Rohe’s Seagram Building and SOM’s Lever House were deemed successful precedents. These plazas were owned solely by the owner, often the corporation who built the building. At that time there were little or no scheduled activities, or programming as we would call it today, in public spaces. Whyte describes a few ad hoc street performers, a few concessionaires with carts who were hassled by cops due to the city’s policy discouraging informal vending, and a lack of ground floor retail. There was little security beyond private guards for buildings. Whyte focused his study on Midtown Manhattan, with only one of his 18 sites outside it, in the Financial District. The actual sites Whyte focused on were rather uniform; they tended to be narrow rectangles with the long side facing the street—usually a wide, high-occupancy avenue like Park or 6<sup>th</sup>. Because of this commonality, Whyte often referred to them as having a clear front (facing the street) and a back

(backing up against the building). The sites were often raised from the street on a short plinth. The design elements were fairly uniform among them: stone, water, sculpture, and/or scant, low vegetation. This was the Midtown of Whyte—new, modernist, spare, hard, and retail-sparse, with lots of circulation. The public spaces of Manhattan have changed significantly since then.

## **The Transformation of Urban Life: 40 Years Later**

The physical makeup of Manhattan has changed dramatically in the last 40 years. The types of space created, land values, privatization, and new development and funding mechanisms have altered the face of public and publically accessible spaces. We’ve also changed; the ways people act and interact in public spaces has transformed. In 2017, XL Lab, the research and innovation group at SWA, embarked on a study to revisit the research of William Whyte’s Street Life Project some 40 years after he published his book and companion film in an effort to understand, through looking at New York, how types of new public spaces have changed, what has changed in how people use public realm spaces, and what makes for successful, well-loved spaces now. The project, called Plaza Life Revisited, looked at 10 plazas in Manhattan constructed or renovated in the last 15 years that range from the type of bonus plazas Whyte was observing, to infrastructural leftovers, alleys, transit plazas, private campus spaces, and tactical urbanist interventions. The team used new analytical tools such as a machine learning algorithm to develop heat maps describing dwell time and pedestrian counts from video footage. The team also used some of the same techniques

Whyte did—behavioral observations, site measurements, and hand tabulation to understand context, physical elements, programming, and activity. Study methods, the top 25 most common behaviors observed, and takeaways for designers to consider when making small urban spaces today are published in this booklet, *A Field Guide to Life in Urban Plazas*.

There are those that say public space, both as a political arena that supports democracy and as a physical space for public life, has effectively ended in the contemporary neoliberal city. <sup>14 15</sup>

At the conclusion of this study, one does not find that public space and life have been eliminated, but that they have been significantly and dramatically transformed. By taking the two data sets—observations on space and behavior from Whyte’s 19 sites and from XL Lab’s 10 sites plus 6 others—one can discern more clearly the changes in public space over the last 40 years. Looking at contemporary Manhattan in light of Whyte, allows a more granular, site-level observation of these shifts. The following two sections will briefly cover the four major changes in public spaces and social life over 40 years illuminated by the study: the types of places being built, programming, operations and maintenance, and individual and group user behavior. Why should we look at these shifts in New York? As Whyte observed, “New York is a place that exaggerates things, no mistake. But it is not any less informative for that. There one sees in bolder relief patterns of behavior more muted in other places.” <sup>16</sup>

## Public Space

If one were to film the Seagram Building plaza today and compare it with footage from William Whyte’s *The Social Life of Small Urban Spaces* in the 1970s, the sole difference one might note would be the divergence in fashions. Other than men wearing bellbottom suits, the plaza has remained remarkably unchanged. Seagram’s owners sold the building in 1979, but corporate lessors remain, mostly in law and finance. The plaza is still well used and attracts plenty of people over the lunch hour. The fountains still run in the front and shaded areas still attract a few to the back. The recognition by the Landmarks Preservation Commission of the building and plaza in 1989 may have contributed to its apparent preservation in amber. Publically accessible spaces in the rest of Manhattan, however, have changed a great deal in 40 years. Three major shifts have occurred in places serving as public space: the types of spaces being built in the last 10-15 years, including their context, design, and funding; the programming of these spaces, including activities, concessions, and other retail; and operations and maintenance, including policing, surveillance, and maintenance.

### Types of Places

- Infrastructural carve outs of vehicular space including beneath highways, at tunnel entrances, and in the roadbed itself
- Provisional space such as semi-permanent installations or seasonal tactical urbanist interventions to gain public support incrementally

- Complex access, adjacencies, and frontages as newer sites have amorphous or polygonal shapes
- Densified context as land values have increased in response to population increases
- New spaces are mostly being created outside of Midtown, in new areas of development such as the West Side (High Line, Hudson Yards) and the waterfront (adjacent to the East River)
- Design investment in materials is much more varied, from temporary lawn chairs to intensely tended softscape and granite hardscape
- The creation of contemporary plazas when public money is used has either been funded through the city DOT, state MTA, or federal government. The city's Parks department has been a partner for maintenance
- Funding with private money has seen a flowering of creative conduits: business improvement districts (BIDs), conservancies, consortiums of philanthropists—all non-profit entities—as well as one donation from the government of Holland

### Programming

- Peak concessions: outdoor food markets, food trucks, kiosks, neighboring businesses vending via shipping container pop-ups, mini-restaurant takeaway, in addition to the ubiquitous New York street food carts
- Retail spaces both permanent and semi-permanent have increasingly been allowed to annex plaza space through pop-ups, pavilions, bazaars, and glass cube entrances
- Scheduled programming, often supported by BIDS, has increased

in the form of scheduled performances and entertainment rather than by informal street performers

- Spaces are more explicitly experiential and graphic, using temporary settings and backdrops that can include elements like sculpture, swapped out on a rotating basis
- Some unscripted or undesignated activity continues, such as skateboarding in some plazas

### Operations & Maintenance

- Public and private policing of publically accessible spaces has increased: from Mayor Giuliani's cry of "reclaiming the public spaces of New York" in 1994 to the imprecise status of the right to protest within Privately Owned Public Spaces (POPS), and has been called "publicity without democracy"<sup>17</sup>
- Exclusion or reduction of public access with non-permanent tactics involving barricades, signs, and occupation by private business establishments such as restaurants
- Surveillance increased with technological advances and post 9/11 security fears. Cameras, WiFi, and sensors now track suspicious behavior but also individual spending habits and visitation
- Maintenance and upkeep varied, but aside from sites with corporate owners, most used a combination of public entities such as the Parks or Sanitation supplemented with private money from BIDs or conservancies

## Social Life

Social life, public life, group, and individual behavior has been influenced by four key shifts: ubiquitous computing, gender relations, homelessness and deinstitutionalization, and surface temperature increase.

### Ubiquitous Computing

- Mobile computing: personal, portable technology now allows work from anywhere, including these outdoor spaces
- Hotspots: Free public WiFi supplemented by free site WiFi
- Selfies and the visual economy of social media
- Cell phones: more solitary people using cell phones in public, loitering longer in the space versus in Whyte's footage<sup>18</sup>

### Gender Relations

- There are now more women in public places.<sup>19</sup> Gender balance in the workplace has increased and fewer women work exclusively in the home. Forty years ago Whyte found only 40 percent of people in public spaces were female
- Increased legal protections for women against sexually predatory behaviors. Objectifying behavior in public places is less socially accepted
- Fewer taboos against public displays of affection

### Homelessness and Deinstitutionalization

- The closing of long-stay psychiatric hospitals, or deinstitutionalization, was helped along by federal cost cutting after 1965 and court victories for patients' rights from 1973-1978. These conditions have contributed to the current high number of people experiencing homelessness across the U.S.. Whyte barely mentioned people experiencing homelessness in these public spaces except in reference to "harmless winos."

### Surface Temperature

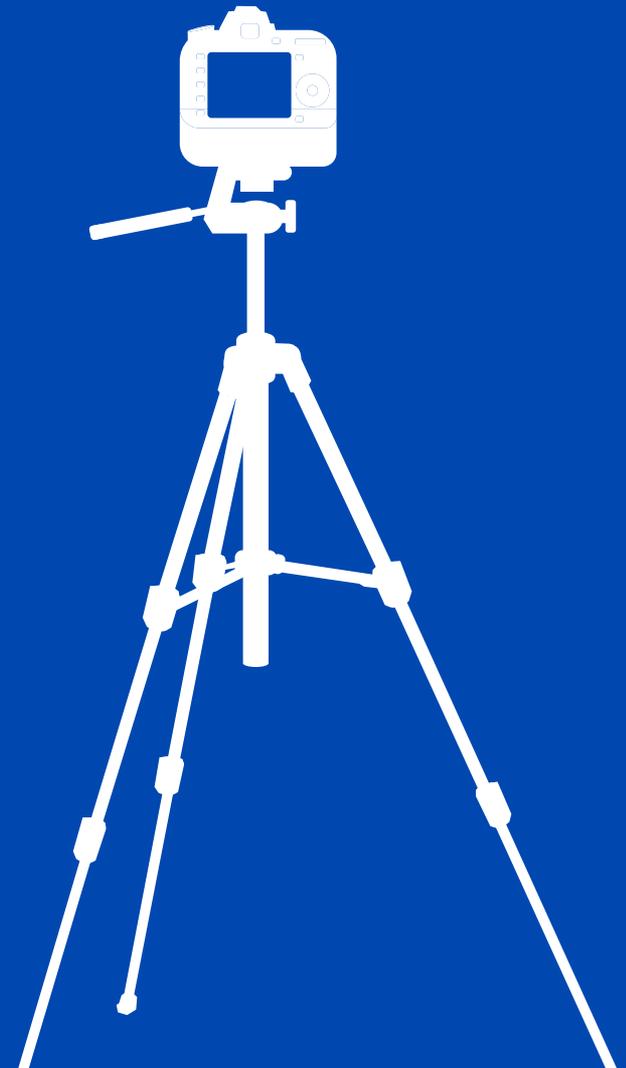
- The observed average annual temperature in Central Park has increased 1 degree F (from the average high 1970-1980 to the average high 2000-2010).<sup>20</sup> Whether prompted by climate change or urban heat island effect, this would affect user behavior and preferences.

It is no surprise that New York City has not stayed the same since 1979. So why should we be content to apply conclusions from a study based upon it? It is no surprise that the social animals we are today differ significantly from those of our grandparents' and parents' generations. So why are we still designing as if they are the users? Designers, or design-attuned social scientists, need to be observing contemporary urban people and these shifting environmental settings and public space types with regularity.

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# Findings



# 1

## Donut Effect

People tended to occupy the edges of a plaza before filling in the middle areas.

This was observed in a range of plazas, including plazas with seating and planting distributed fairly evenly throughout the space. Generally, the capacity of the spaces along the edge reached between 50-75% before people began migrating into the interior.

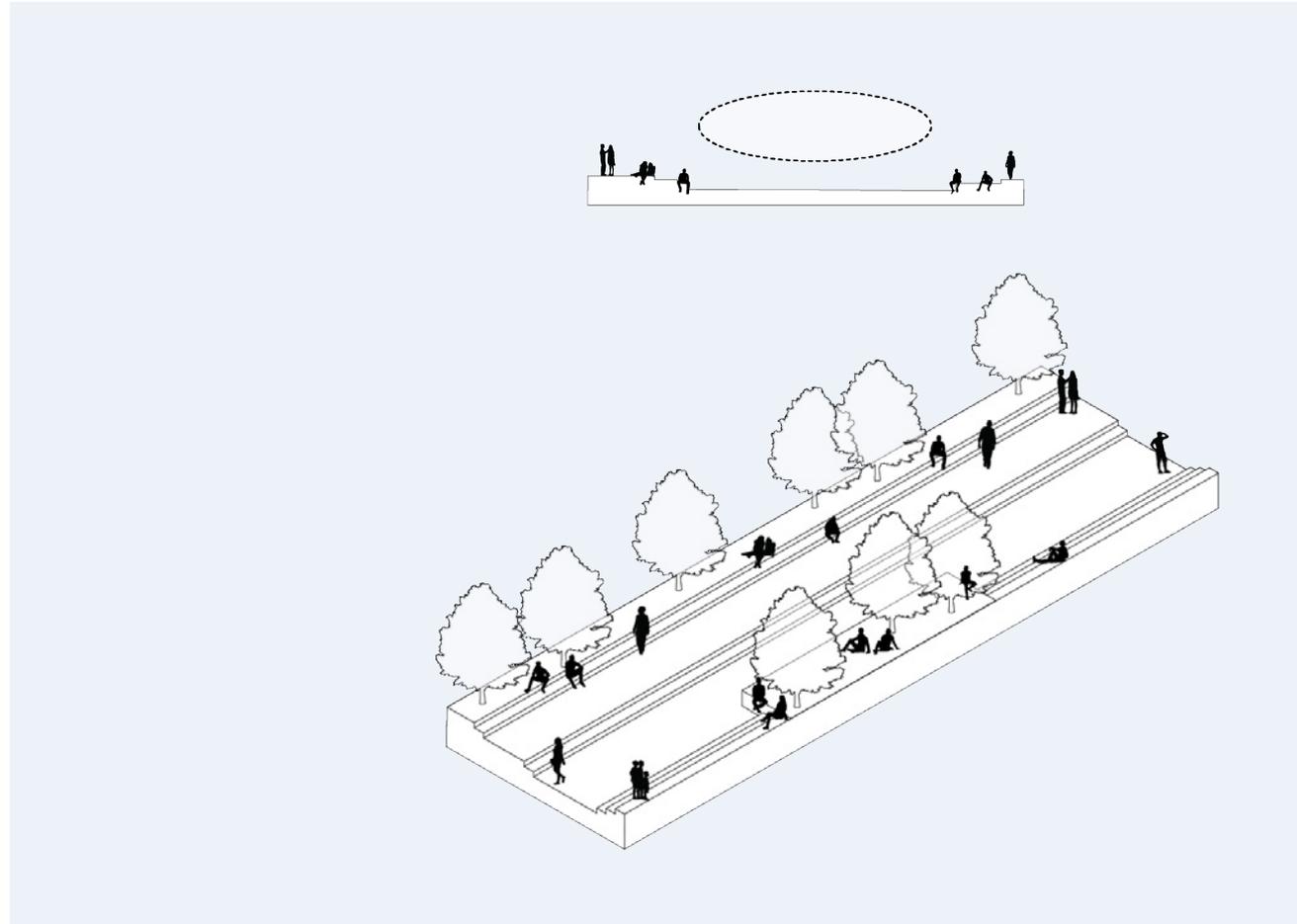
### POTENTIAL DESIGN TACTICS

#### Design for the Edge

- Embrace the donut effect
- Provide places for people to rest
- Create congregation areas at edges

#### Activate the Void

- Enliven the central space
- Program a food vendor
- Make an interactive art piece



The central space of the plazas tended to be occupied last.

# 2

## View-Philia

Iconic views of the city attracted people, even if comfort was compromised or the site was not easily accessible.

People were drawn to views in both highly trafficked tourist areas and areas with less traffic. In both types of spaces, people tended to go straight towards the best view first. Many lingered long enough to take a photo. If seating was available nearby, this often extended their time spent in the space by 10 to 15 minutes. Some people even perched on the backs of benches to get a better view.

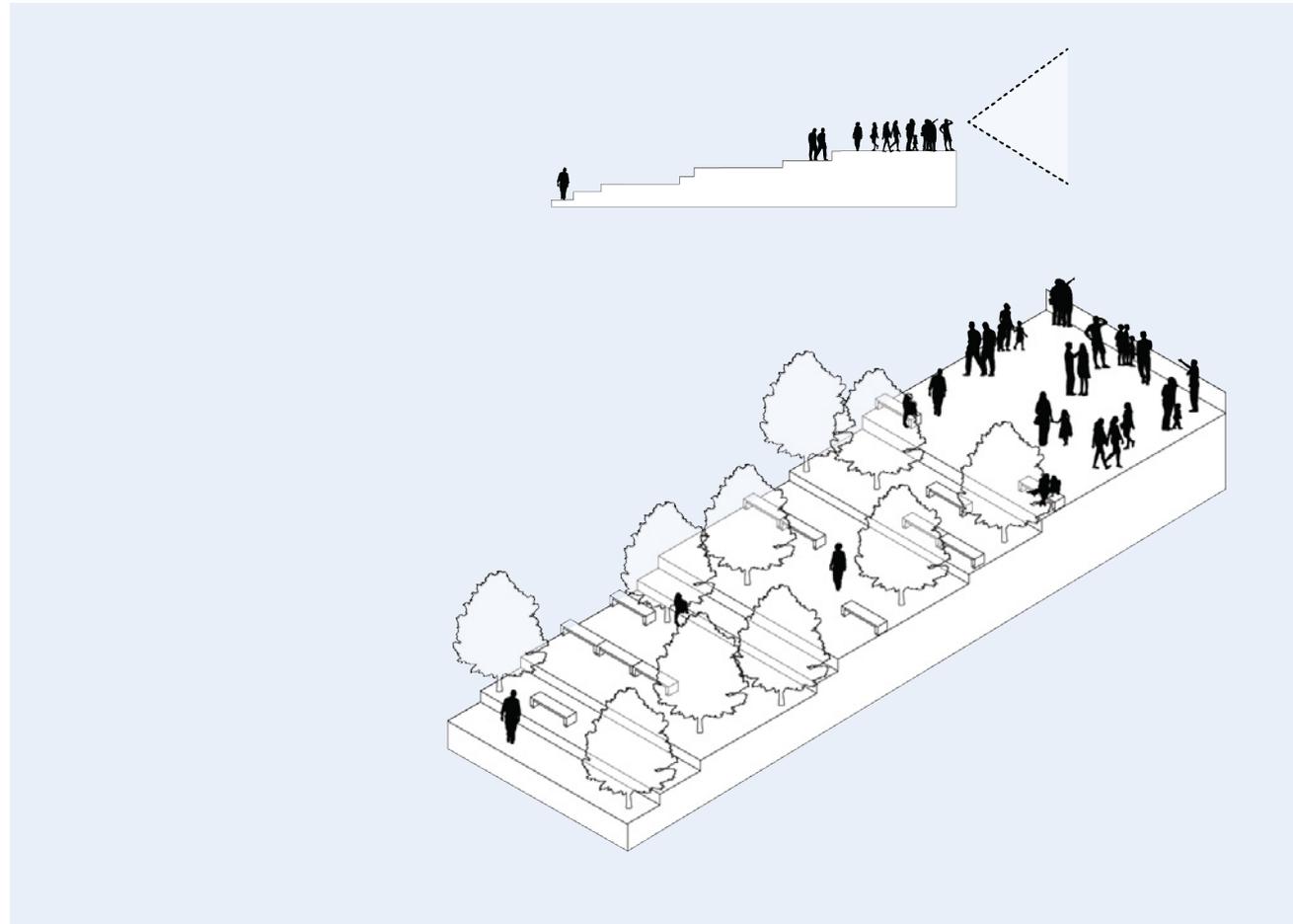
### POTENTIAL DESIGN TACTICS:

#### Capitalize on Views

- Build up
- Create portals for people to see out

#### Design for Views and Comfort

- Make perches enjoyable to inhabit
- Provide comfortable seating
- Minimize noise
- Create wind protection



People often sought out views of the city.

# 3

## Channelization

Pathways with minimal edge variation sped up pedestrian traffic and lowered dwell times in the plazas.

People tended to walk faster and stop less frequently in straight pathways through plazas. These pathways were often undifferentiated from their surroundings in terms of hardscape and planting material and had few or no openings to the plaza, limiting porosity.

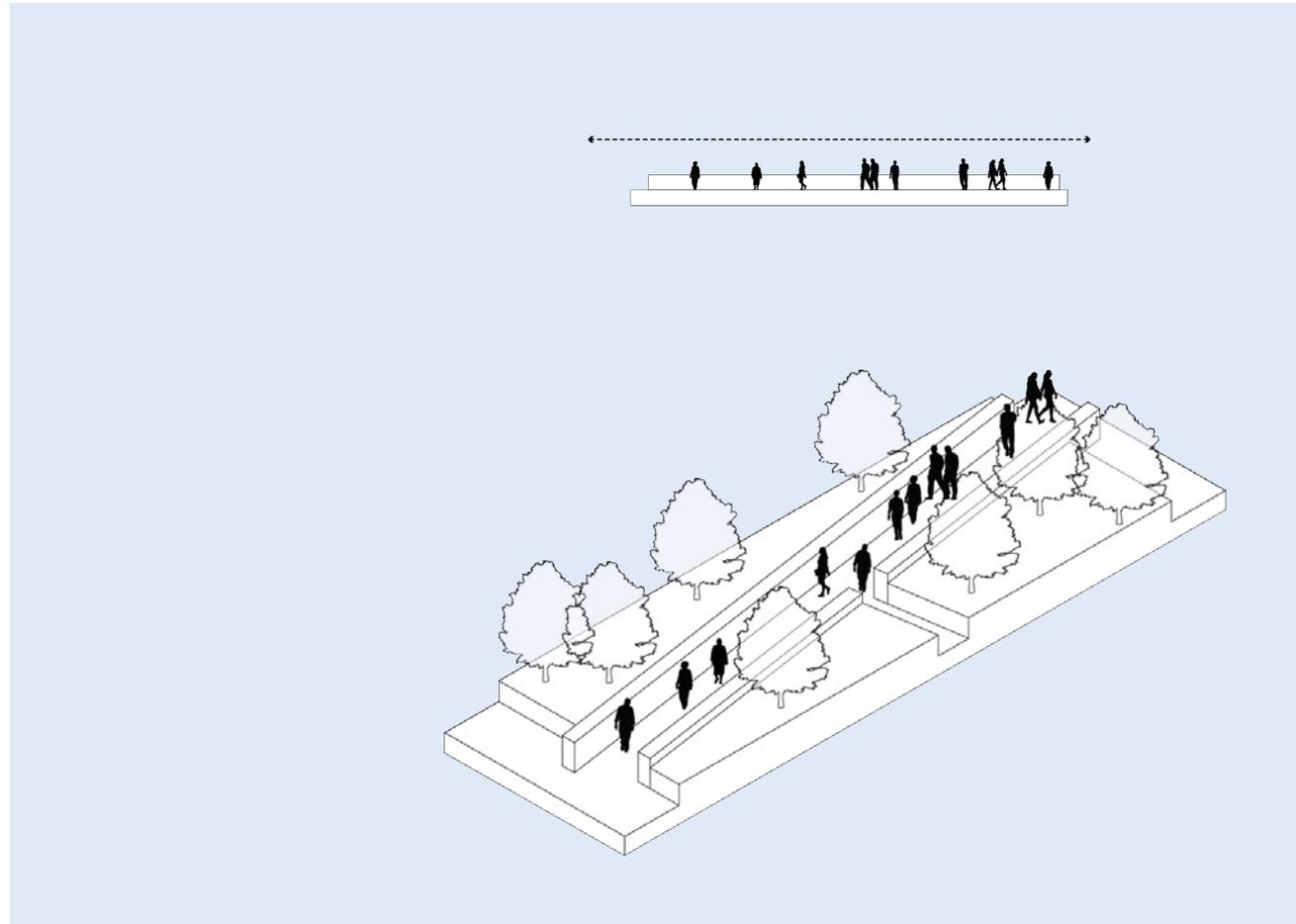
### POTENTIAL DESIGN TACTICS:

#### Vary the Edge

- Modify the form of the pathway
- Change the pathway material
- Create a more diverse experience
- Slow traffic

#### Create Eddies

- Offer off-ramping
- Break up continuous walls
- Create entries to linger in the plaza



People walked faster in straight undifferentiated pathways.

# 4

## Schooling

People didn't dissipate evenly throughout the spaces.

Schooling was observed in most of the plazas. People were not deterred by crowding or groups of people; rather, people seemed to be attracted to spaces with a medium-to-high density of people over spaces with a lower density.

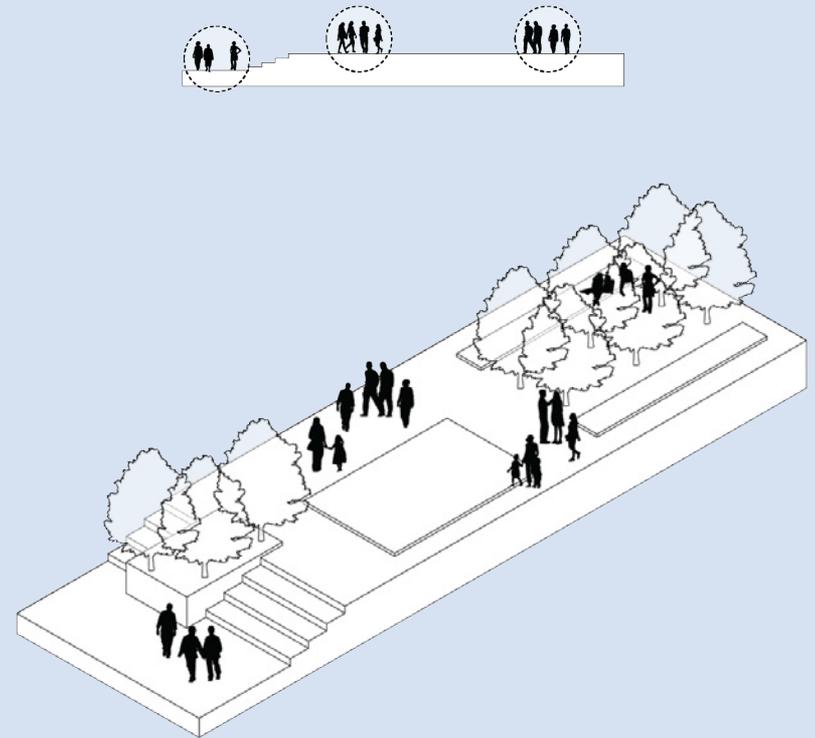
### POTENTIAL DESIGN TACTICS:

#### Design for Clustering

Create a range of social spaces  
Allow people to group naturally

#### Create Heterogeneity

Deploy seating areas unevenly  
Offer moments of intensity  
Offer opportunities for relief



Plazas had an uneven distribution of people throughout the space.

# 5

## Roosting

Slightly perched and protected areas were popular.

Stationary people tended to go to elevated areas that overlooked the plaza space. The youngest gravitated towards higher perches (3'+), and the middle aged were drawn to slightly raised spaces (<3'). Protected perches with canopies and a sense of backing were most popular.

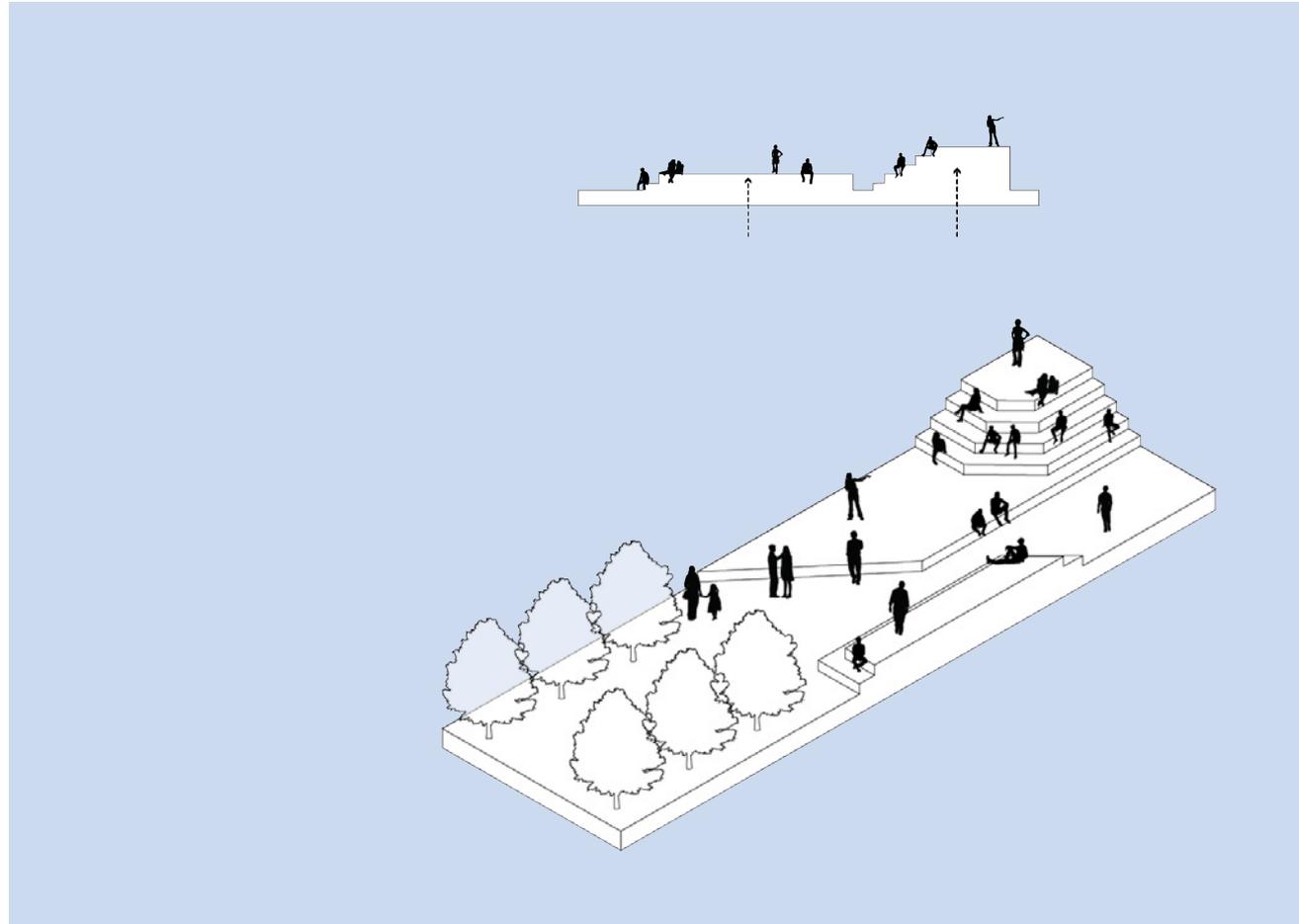
### POTENTIAL DESIGN TACTICS:

#### **Build Terraces**

Develop a series of platforms  
Provide roosting opportunities  
Offer a range of heights

#### **Provide Audience Seating**

Design elevated areas adjacent to flat areas  
Make areas for "roosters" to observe activity



People tended to perch in plazas to better observe activity.

# 6

## Lizarding

Soft material in the sun attracted people to recline.

Young plaza-goers tended to bask in the sun if offered a soft surface, such as wood or turf. This was observed in a range of spaces, both at-grade and elevated. Most often, plaza-goers basked in small groups of 2-4 people

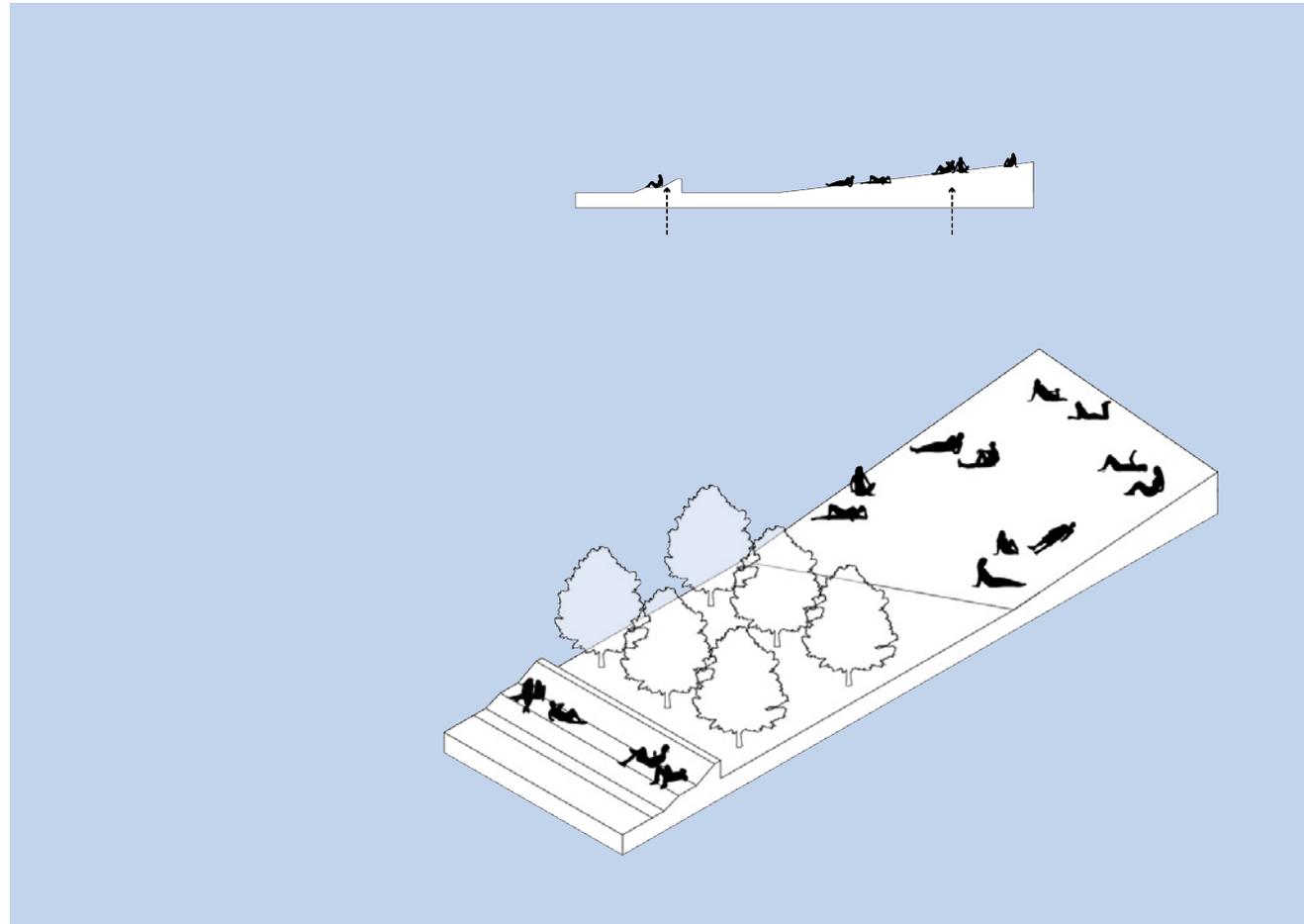
### POTENTIAL DESIGN TACTICS:

#### Embrace the Sun

Provide areas for full-sun exposure  
Ensure exposure in all seasons

#### Experiment with Lounging

Offer a range of lizarding opportunities  
Create variety, from turf areas to furniture



People reclined when there was sun exposure and a soft surface.

# 7

## Cul-De-Sac Colonization

People seeking privacy chose spurs with good visibility.

This was observed in plazas with a varied series of outdoor rooms. Individuals eating alone, on a phone call, or reading the news often found seating outside of the main plaza space and off of the main circulation routes. Favored locations tended to have strong backing (with walls, furniture, or planting) and clear views out into the plaza.

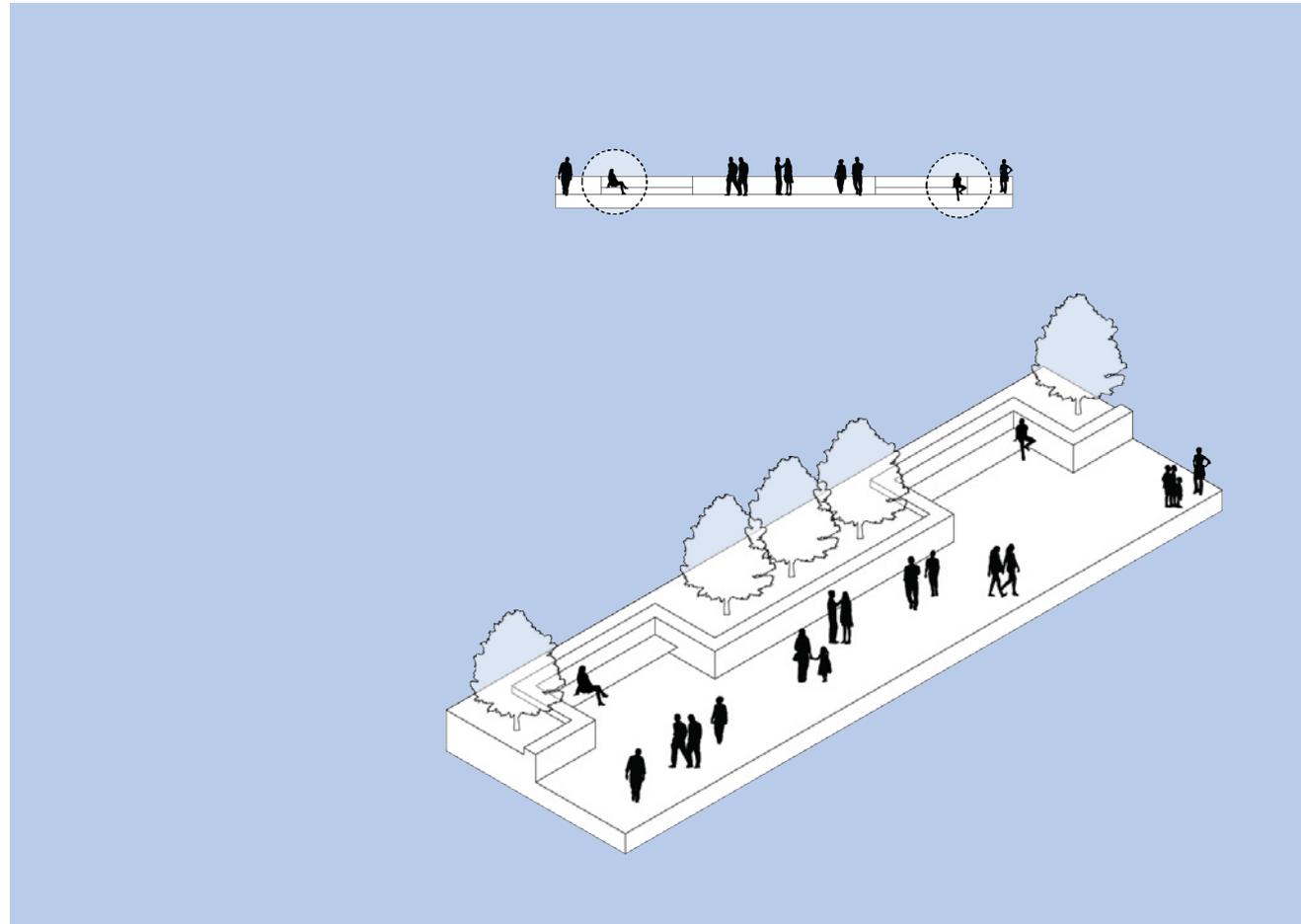
### POTENTIAL DESIGN TACTICS:

#### Design for Individuals

Create smaller spaces for privacy  
Maintain visual access to active plaza areas

#### Sprinkle Seating

Deploy individual seating opportunities  
Accommodate those wanting privacy



Plazas with small outdoor rooms attracted people wanting privacy.

# 8

## Entertrainer

Younger groups of people tended to occupy bi-directional areas where they could be part-audience, part-performer.

Teenagers occupying the plazas wanted to both see what was going on around them, and to be seen. During their time in the space, they toggled back and forth between these roles. Adjacent circulation increased the popularity of these spaces.

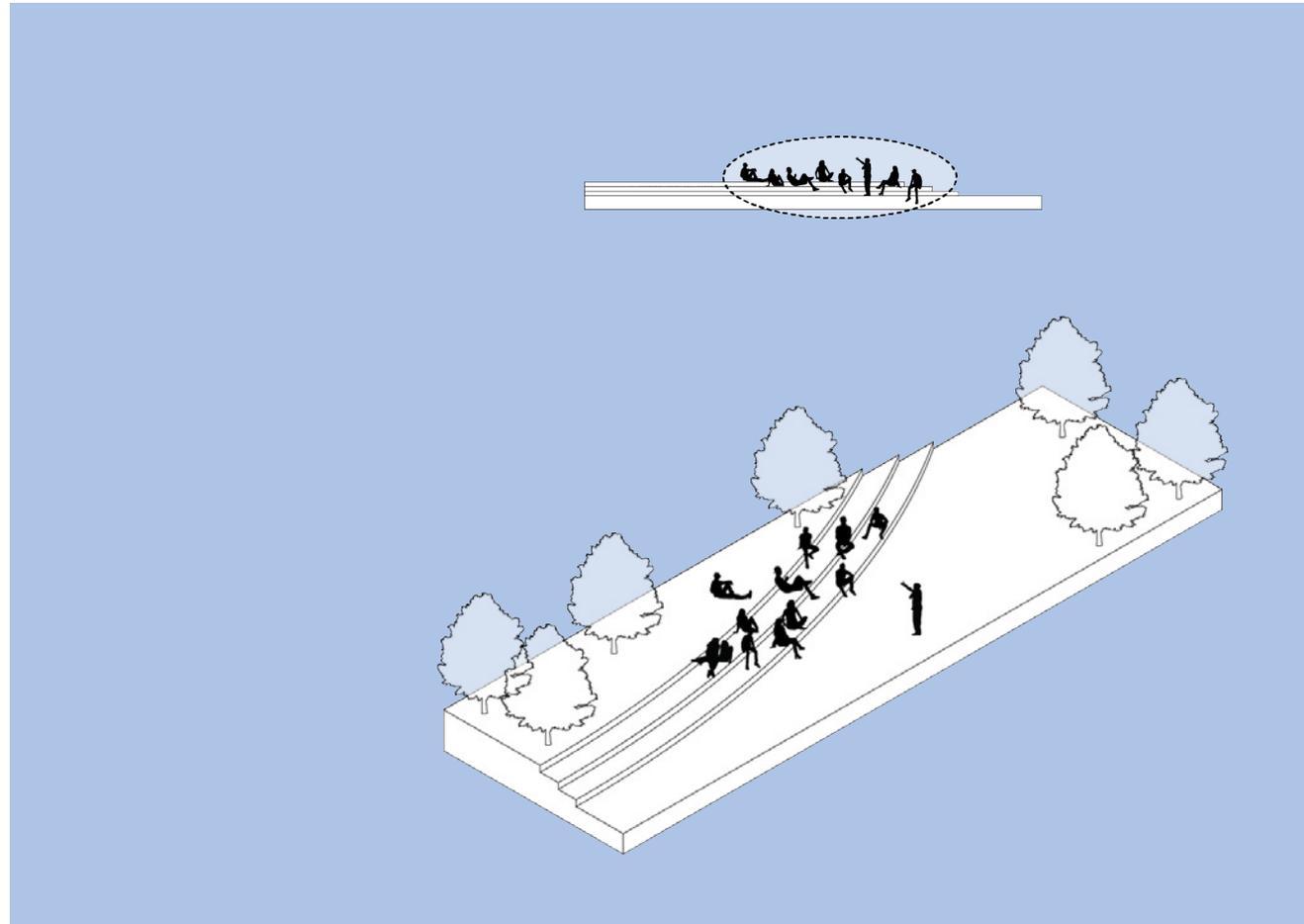
### POTENTIAL DESIGN TACTICS:

#### Prioritize Bi-Directionality

Design spaces flexibly  
Ensure users can face a number of directions

#### Design for Performance

Create informal platforms  
Allow for spontaneous activity



Plazas with bi-directional platforms encouraged informal performances.

# 9

## Liminal Linger

People tended to occupy protected, in-between spaces.

When given the option, many plaza-goers gravitated towards liminal plaza zones –seating areas that felt sheltered but were directly adjacent to a more open and exposed area. These types of spaces were very crowded and had long dwell times, often more than 30 minutes per group.

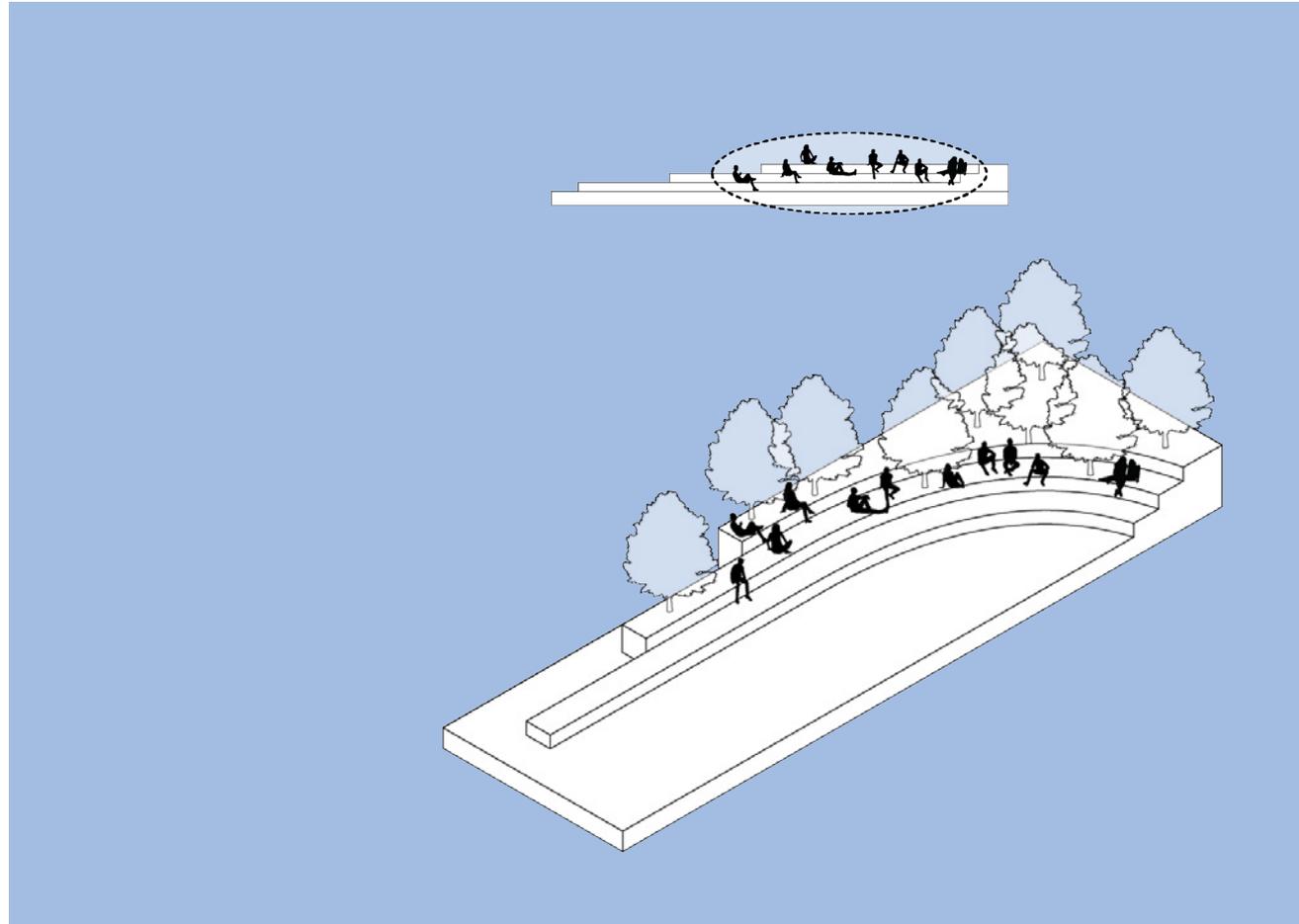
### POTENTIAL DESIGN TACTICS:

#### Embrace the Edge

Maximize threshold areas  
Create many edges or transitions

#### Cluster Threshold Seating

Make more seating in in-between areas



Plazas with more transitional areas attracted people to sit.

# 10

## Backmosphere

Spaces with a sense of backing, where there was less activity behind them, attracted people.

This phenomenon was observed in most of the plazas with people wanting protective seating. The backing took many forms—from higher plant material to walls, to construction fences and jersey barriers. People tended to occupy these sitting areas over more exposed sitting areas.

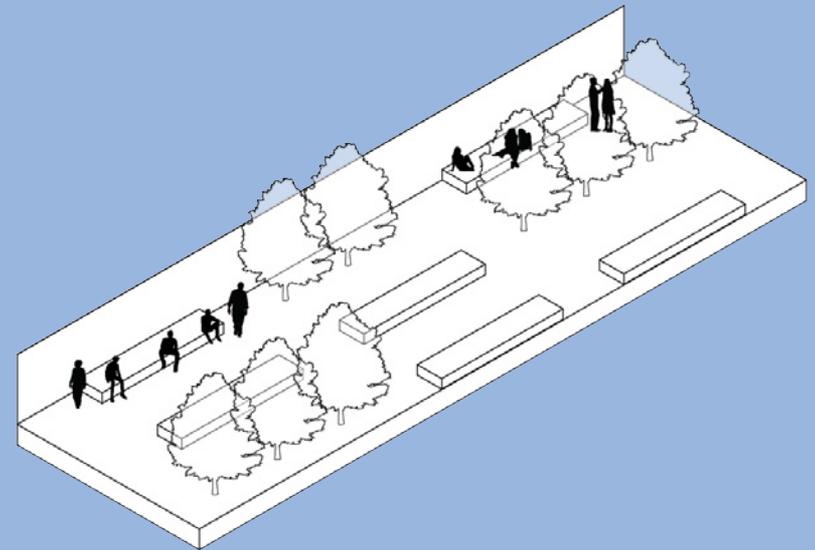
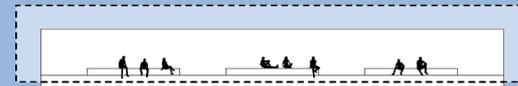
### POTENTIAL DESIGN TACTICS:

#### **Design Backing**

Create physical barriers behind people

#### **Reduce Back Activity**

Minimize high-traffic areas behind seating



People sat in areas with a strong sense of backing.

# 11

## Phototropic Behavior

People often moved to face the sun.

Many young people were observed doing this in the plazas and would seek sunny areas to linger in. In tracking the rays, they often shifted their positions on stationary furniture or even moved to other areas of the plaza in order to stay in the sun.

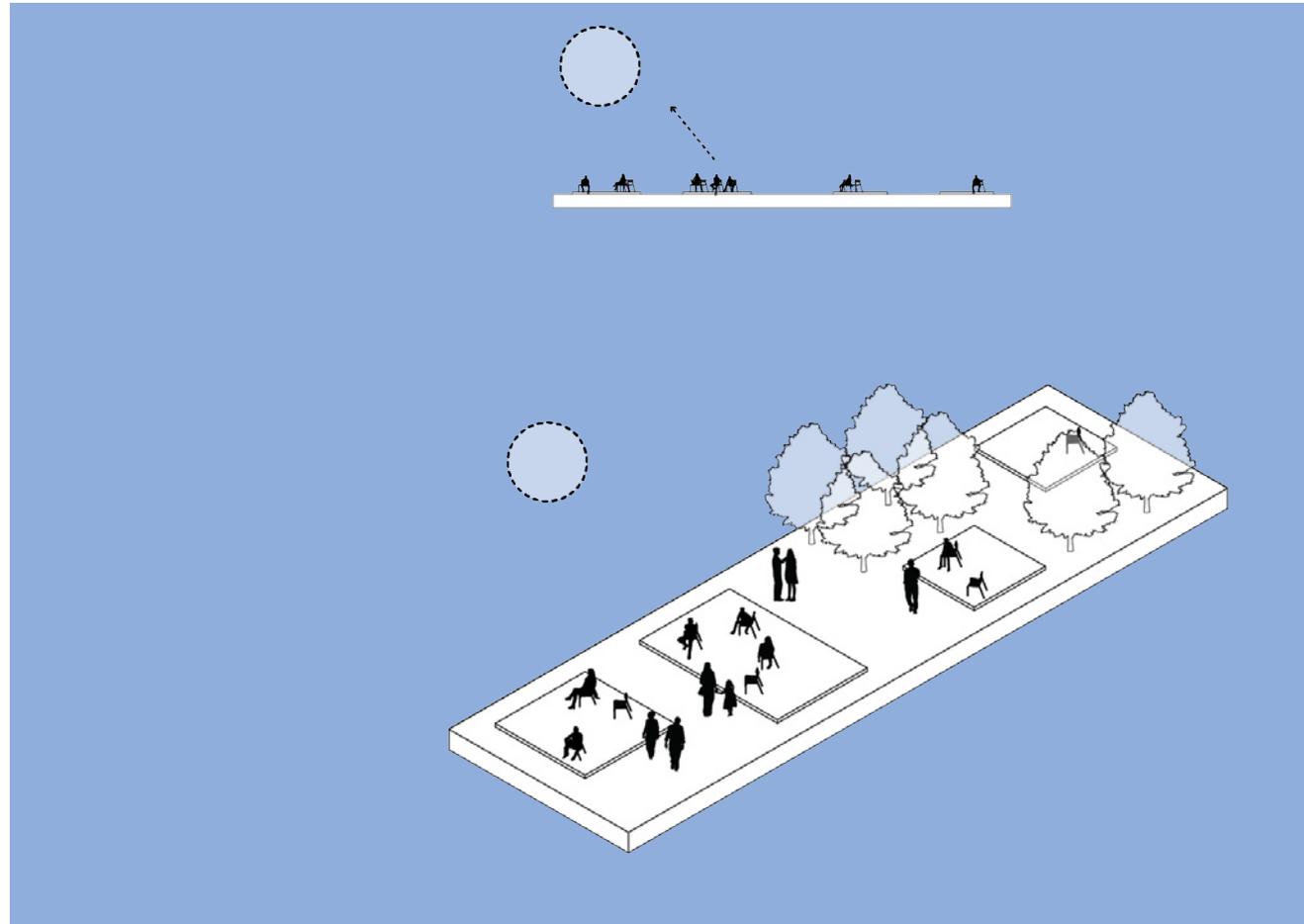
### POTENTIAL DESIGN TACTICS:

#### Provide Moveable Seating

Allow people to shift their position  
Offer moveable seating

#### Design for Solar Tracking

Create spaces with full exposure to sun  
Ensure areas can be inhabited over time



People tended to shift their positions in the plaza to face the sun.

# 12

## Self-Corralling

A low element at the edge of an outdoor room attracted people.

One well-used subdivision of plazas was an area surrounded by a low element, generally under 4'. This took the form of planters, jersey barriers, a glass rail, or a mesh rail. Clear sightlines into and out of the space seemed to be important for those using the corral. These subdivisions created refuge islands, allowing people to get away from busy areas but still have views to pedestrians.

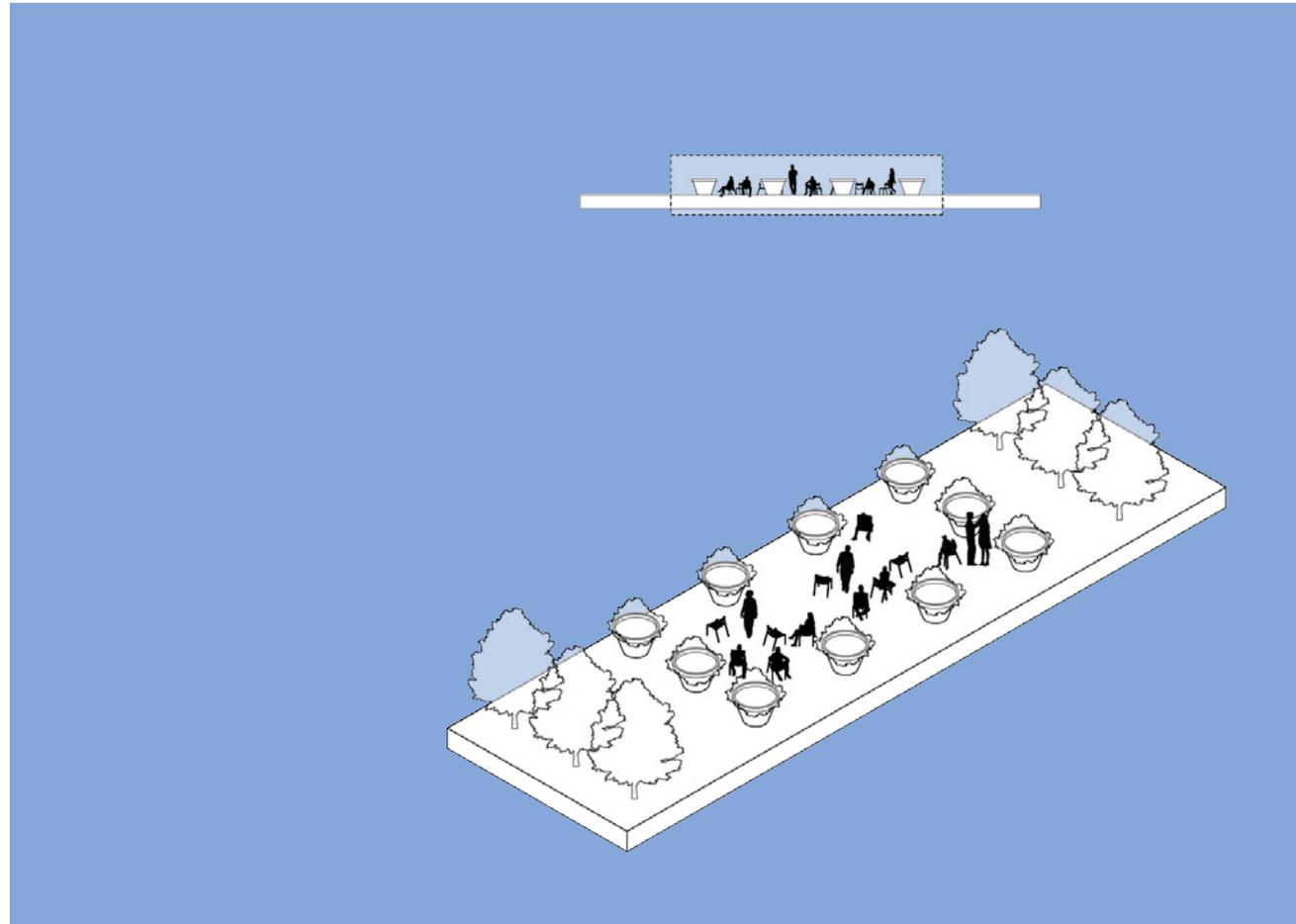
### POTENTIAL DESIGN TACTICS:

#### Subdivide Spaces

Create physical boundaries between rooms

#### Design for Double Duty

Make low elements multi-functional



Plazas with areas surrounded by low elements were popular.

# 13

## Niche Selection

Fixed areas that offered a choice in seating type, height, material, or personal position had high dwell times.

In general, people preferred variation in seating—they tended to occupy spaces that had a range of furniture to choose from. For example, if seating was designed with multiple heights and depths, people used it for sitting on, standing by, lying on, and leaning on.

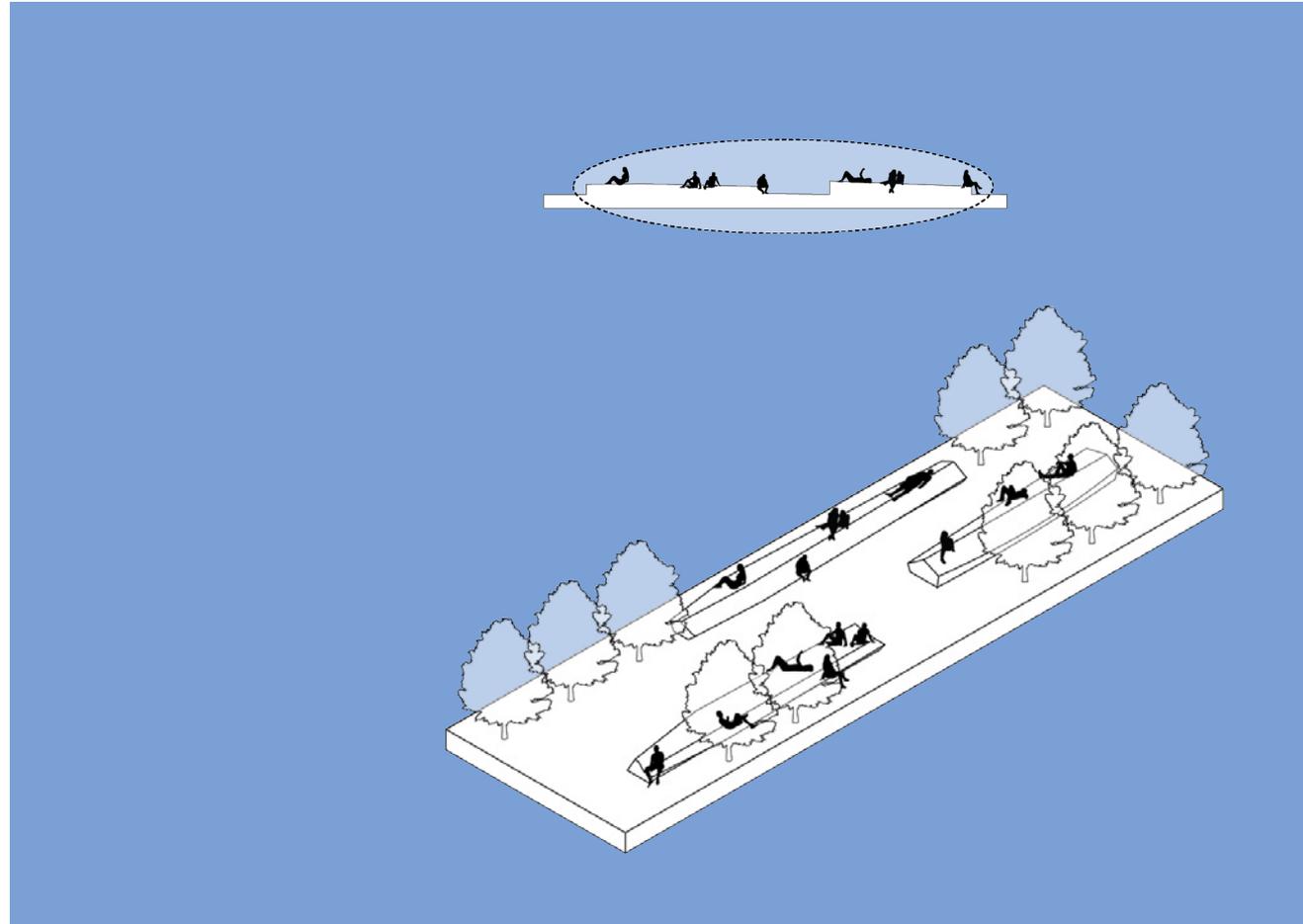
### POTENTIAL DESIGN TACTICS:

#### Vary Seating Types

Create variation in seating options  
Ensure changes in materiality, form and height

#### Maximize Seating Arrangements

Deploy furniture in a range of ways



Plazas with a wide range in seating type attracted people.

# 14

## Pitstopping

Plazas that incorporated crosswalks or sidewalks resulted in pedestrians slowing down or stopping on their way.

Extending adjacent pathways through a plaza resulted in increased dwell time and increased overall usage of the space. People who used pathway extensions that cut through the central part of the plaza space often lingered more when compared to people who used pathways on the plaza edge.

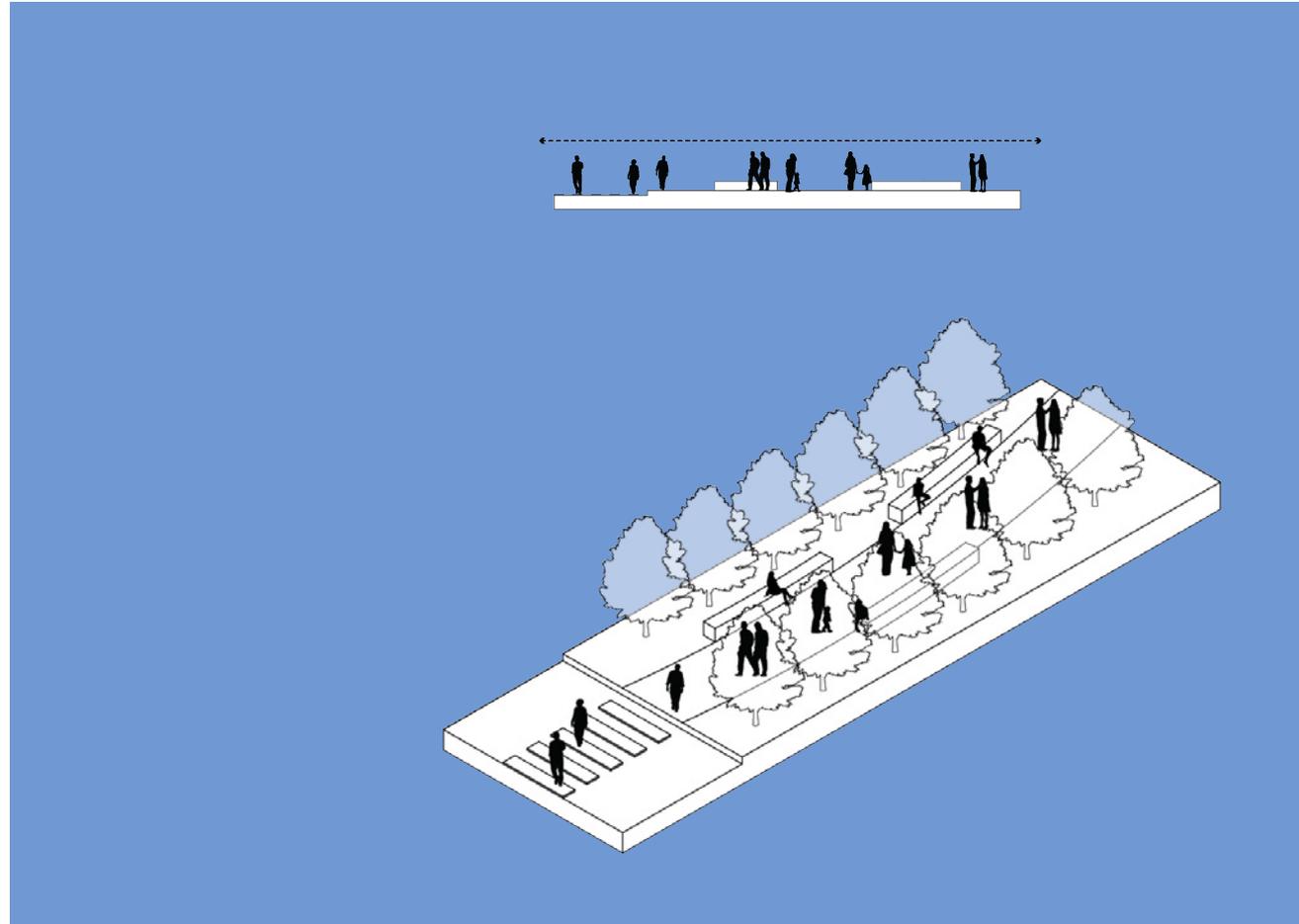
### POTENTIAL DESIGN TACTICS:

#### Prioritize Existing Adjacent Pathways

Extend well-used pathways into plaza

#### Design Through Over Around

Prioritize pathways through the central area



People took short breaks in plazas with existing pathway extensions.

# 15

## Ephemera-philia

Temporary plaza interventions drew people into the space.

Interventions that had a limited lifespan, from one day to an entire season, tended to increase usage of the plaza. These interventions seemed to work better in spaces populated by locals rather than in spaces sought out by visitors.

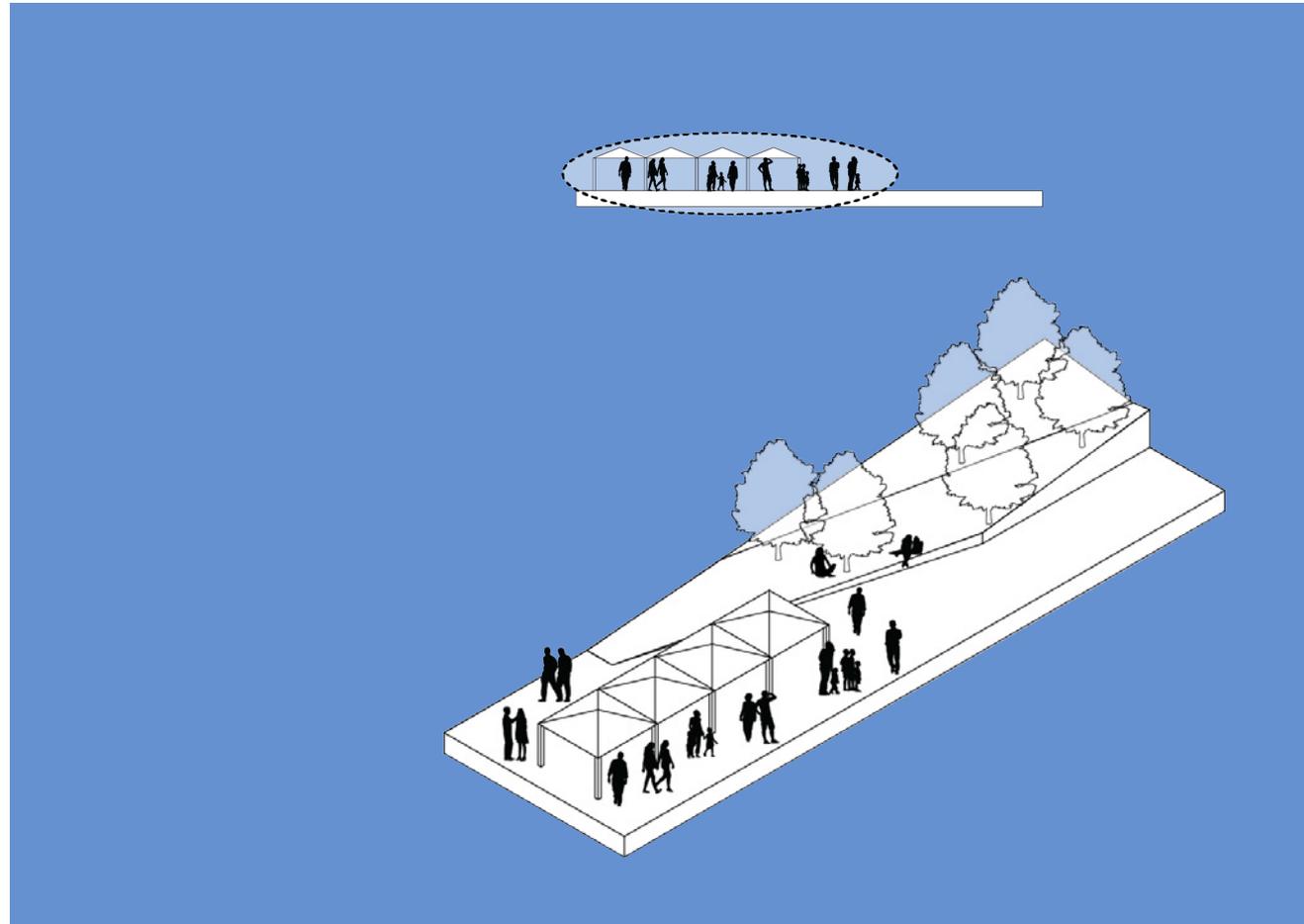
### POTENTIAL DESIGN TACTICS:

#### Allow Breathing Room

Consider a range of future interventions  
Create flexible spaces

#### Provide a Pop-Up Menu

Experiment with a range of potential activities  
Ensure diversity in length, program and users



Locals were attracted to plazas with temporary activities.

# 16

## Downstream Drift

Plazas with wide and open entrances at cross streets or transverse paths facilitated higher flows of people.

More people tended to pass into plazas from adjacent public spaces if the edge of the plaza was unobstructed by planting, furniture or walls. The wider the entrance, the greater the flow.

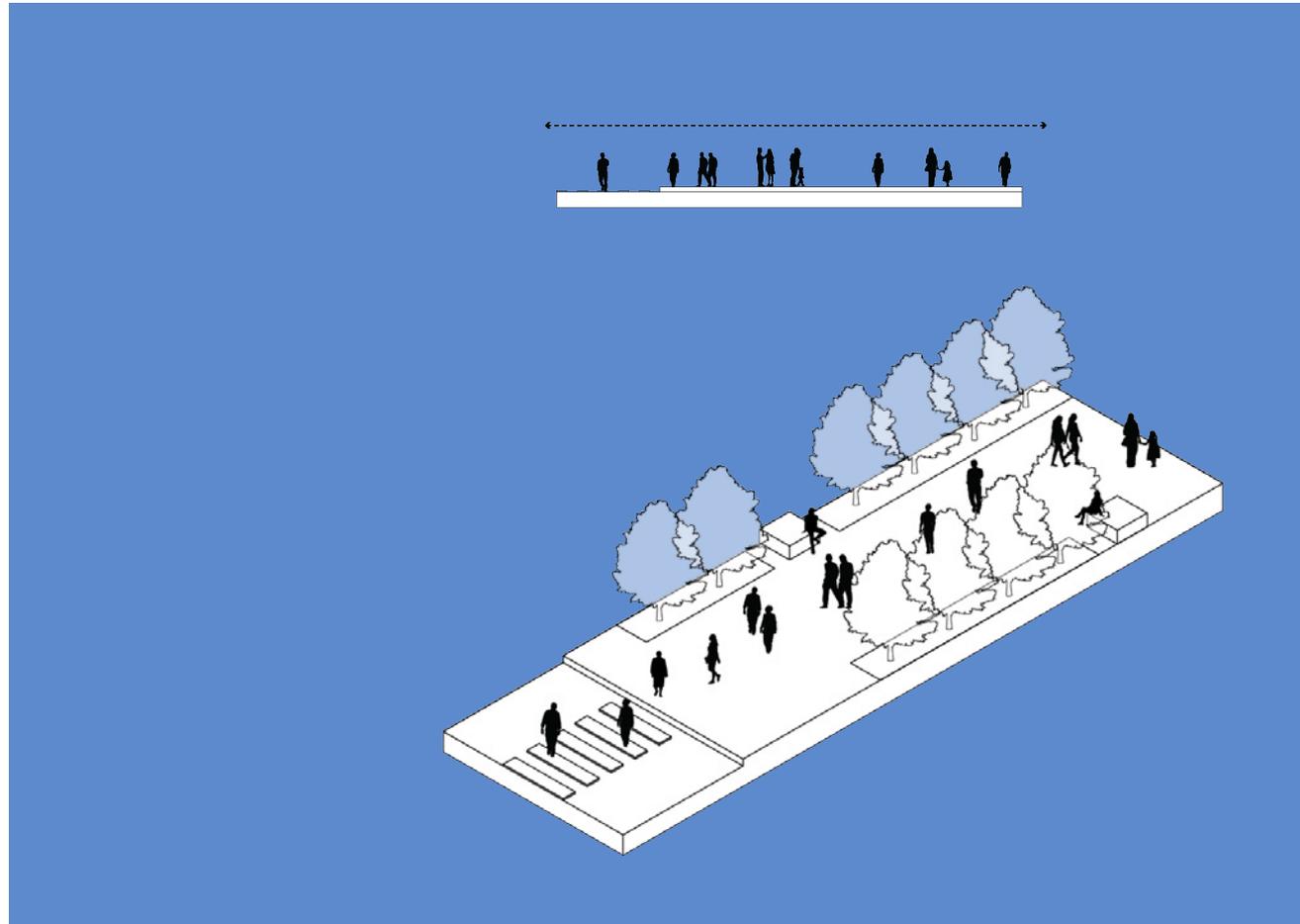
### POTENTIAL DESIGN TACTICS:

#### Create a Wide Mouth

- Make plazas inviting
- Design wide entrances
- Minimize pinch points

#### Maintain Views

- Ensure people can see into plaza
- Ensure people can see out of plaza



People drifted into plazas with wider entrances.

# 17

## Stoopage

People used accessible elements at the edges of plazas to take short breaks.

This was observed in many plazas with high flows of pedestrian traffic. Those walking on the edge of plazas took short breaks and lingered if there were elements such as walls or planters to lean on or set their belongings upon. People often did this while waiting—for a bus, for the light to change, or to meet up with a friend/colleague.

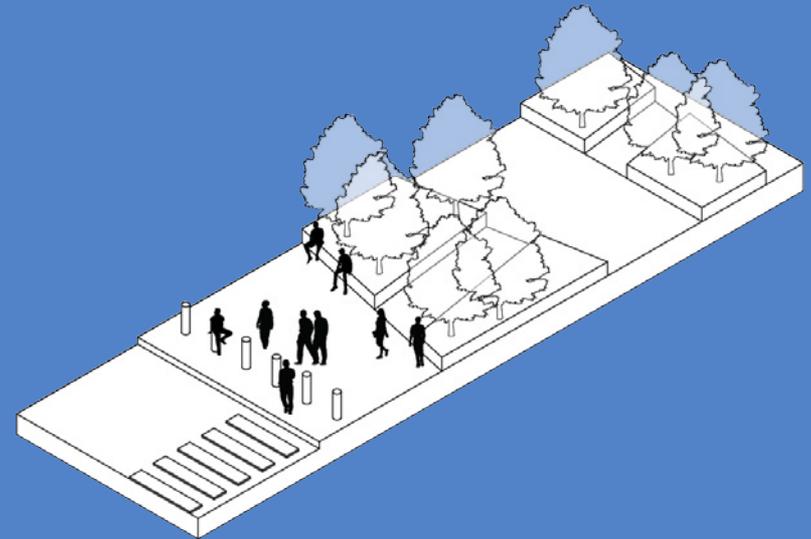
### POTENTIAL DESIGN TACTICS:

#### Activate Waiting Areas

Identify edges where people gather and wait  
Design for comfortable waiting

#### Design for Short Breaks

Incorporate taller walls or planters  
Ensure people can lean or rest



People used taller elements at the edges of plazas while waiting.

## Noise Enjoys

People sat facing the street but were not often watching traffic.

Streets seemed to provide ambient background noise for those in the plazas. People voluntarily sat close to the flow of traffic even if other seating choices were available. Many of these people were sitting by themselves, often reading or on their mobile devices.

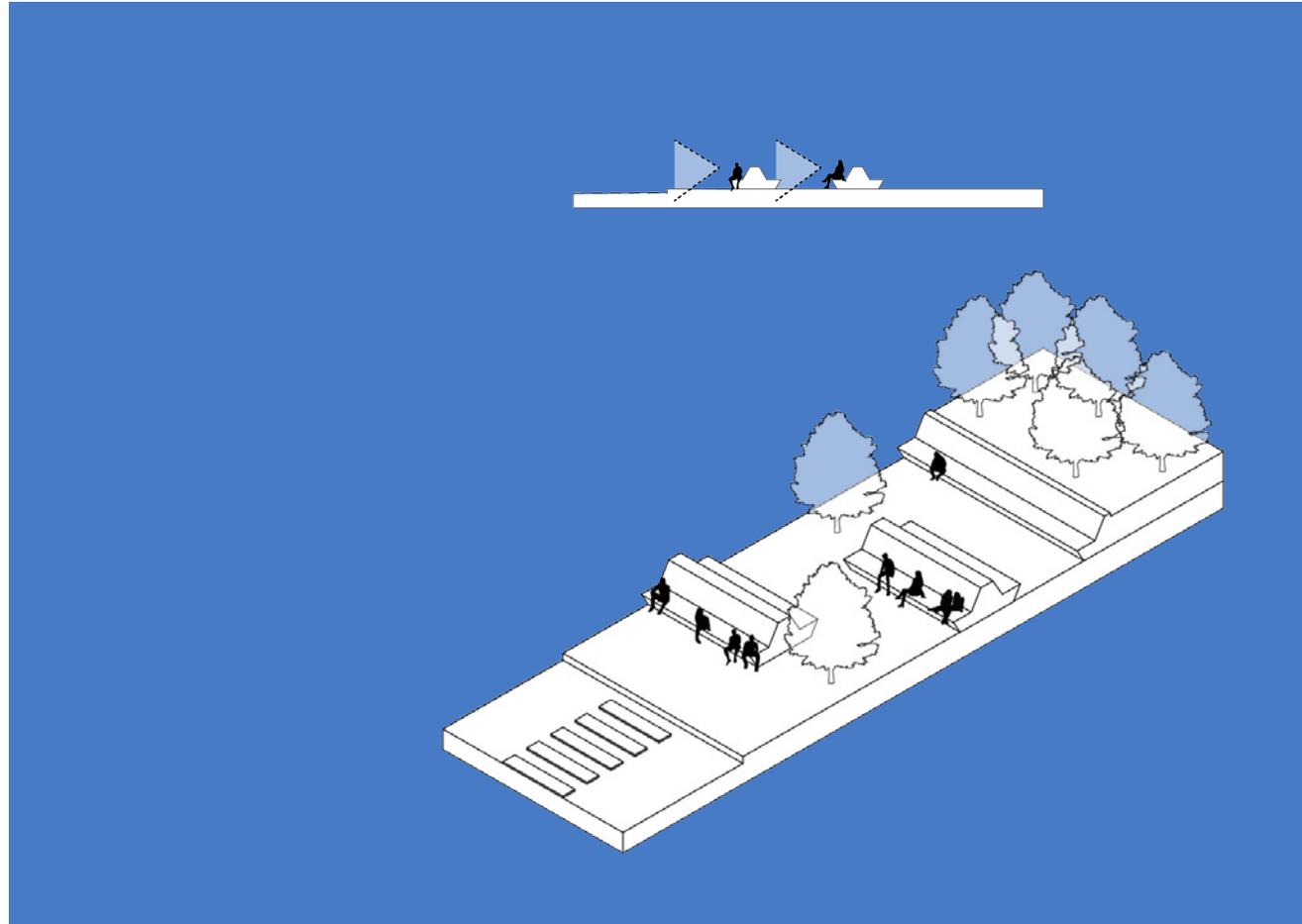
### POTENTIAL DESIGN TACTICS:

#### Acknowledge the Street

Don't only provide seating away from traffic  
Situating seating where plaza meets the street

#### Focus on Individuals

Provide private seating near plaza edge



People often sat facing the street traffic.

# 19

## Cockroaching

People liked to move along building edges.

Pathways sandwiched between plazas and adjacent buildings were well-used, especially as “cut-throughs”. These corridors were successful even if they were very narrow (5-7' wide) and even if the building edges were not well activated.

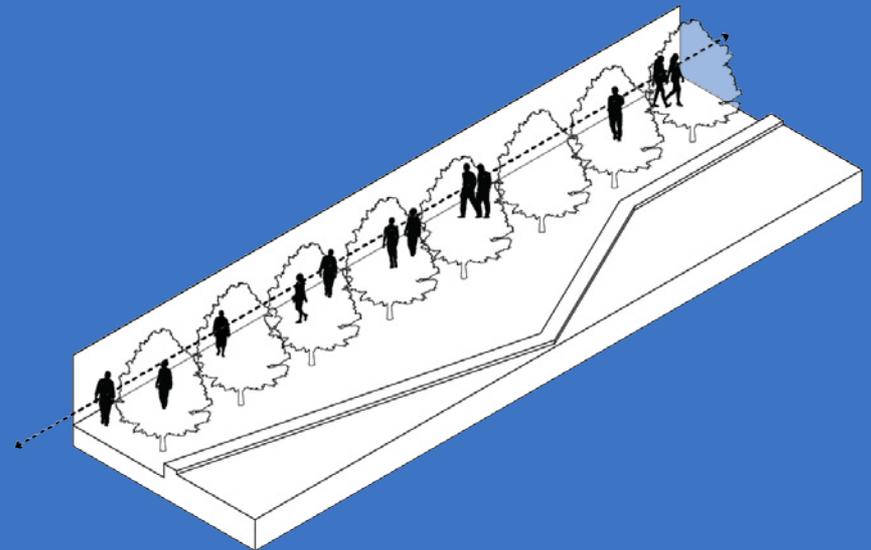
### POTENTIAL DESIGN TACTICS:

#### Maintain Building Buffer

Maintain a consistent building buffer  
Can be narrow in small plazas

#### Prioritize Safety

Make pathway feel safe if building is inactive  
Maintain sightlines  
Incorporate lighting



People moved along building edges,  
even if pathway was narrow.

## Stream Supreme

People sat facing an area with a constant flow of pedestrian traffic, even if there were other choices present.

Stationary people tended to want to watch others, especially in active areas with high pedestrian turn-over. These plaza users even sat facing a blank wall as long as between the seating and the wall, there was significant movement. Two well-used streams, especially if perpendicular to one another, created additional visual interest for those watching.

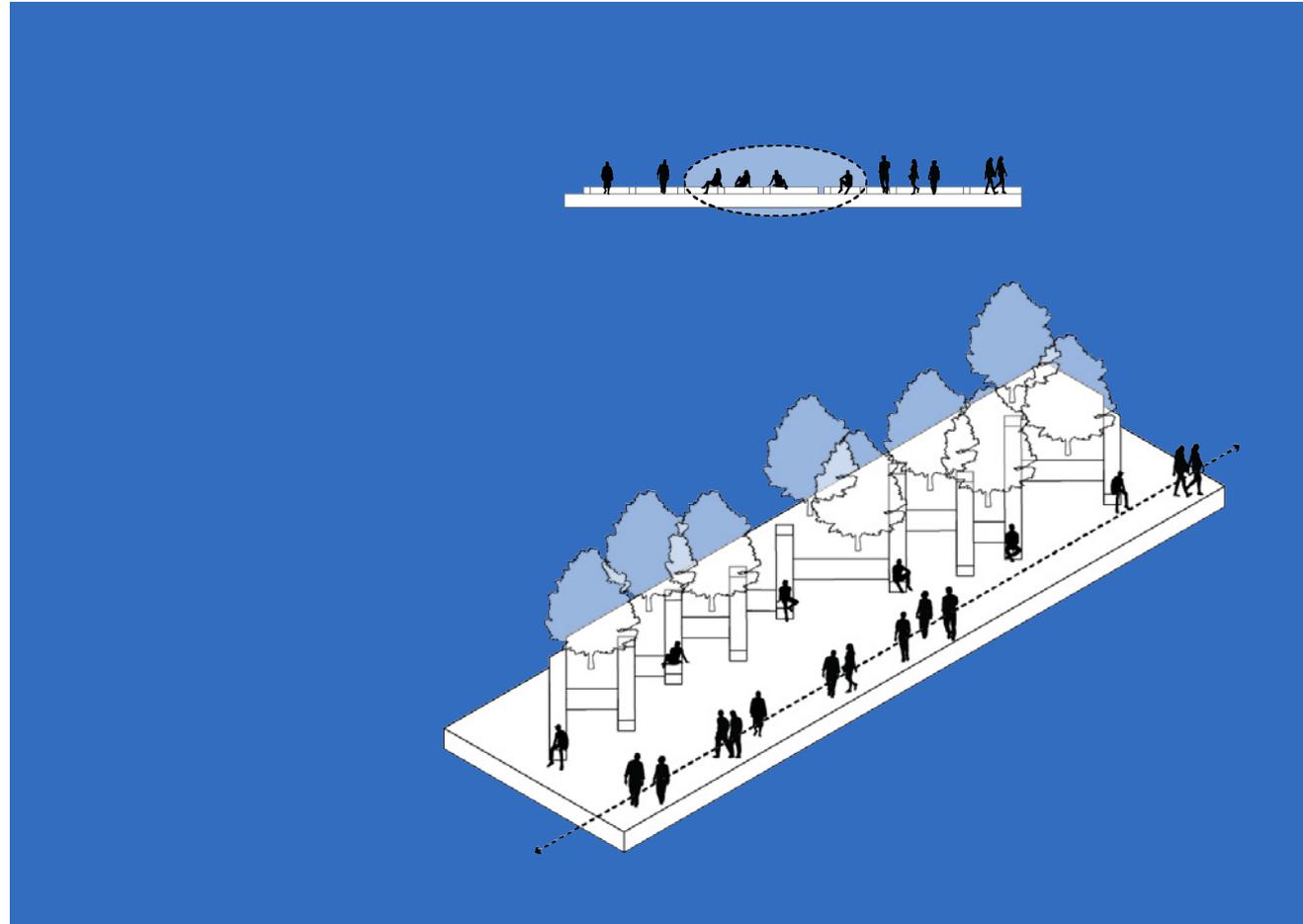
### POTENTIAL DESIGN TACTICS:

#### Create Stream Seating

Face seating areas towards active plaza spaces

#### Capitalize on Stream Intersections

Prioritize seating at pathway intersections



People liked to sit facing active pathways.

# 21

## Keen on Sheen

Reflective surfaces were major plaza attractors.

Mirrored sculptures were destinations for those visiting plazas. People approached a piece and lingered around it for a few minutes, often taking photos of their reflection with the cityscape behind. Size and location of the piece didn't seem to matter.

### POTENTIAL DESIGN TACTICS:

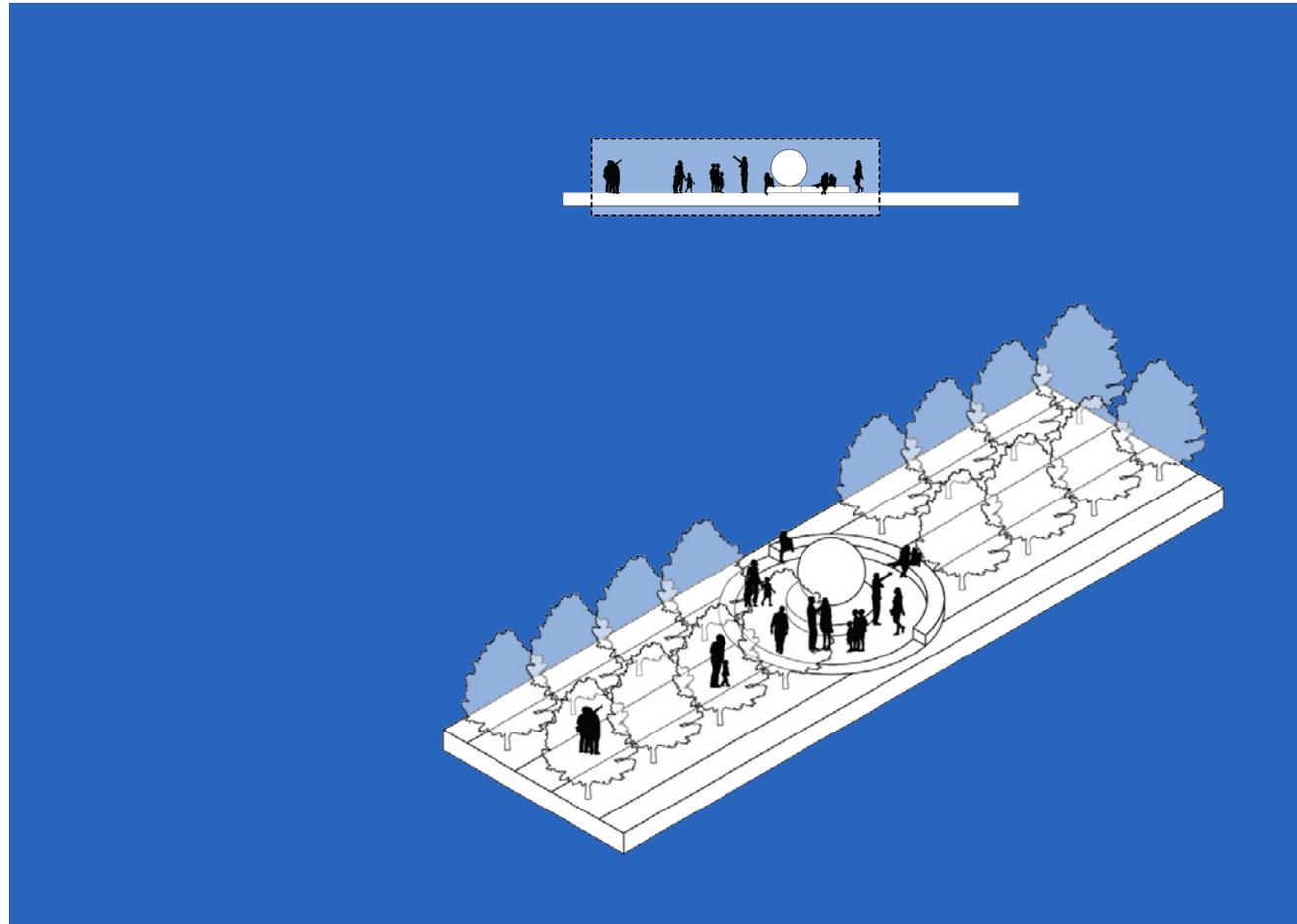
#### Make Artwork Accessible

Allow people to interact and walk around art

#### Experiment with Reflectivity

Use reflective surfaces

Think beyond typical art applications



Reflective artwork was popular in plazas.

# 22

## Chitchat Mooring

Groups of people tended to congregate around objects, even if they were not using them.

This phenomenon was observed in most plazas. When three or more people stood or sat together in a group, they often did so around a piece of furniture, low planter, flat topped bollard, or even a garbage can. The groups represented a range of plaza users, from office workers to tourists.

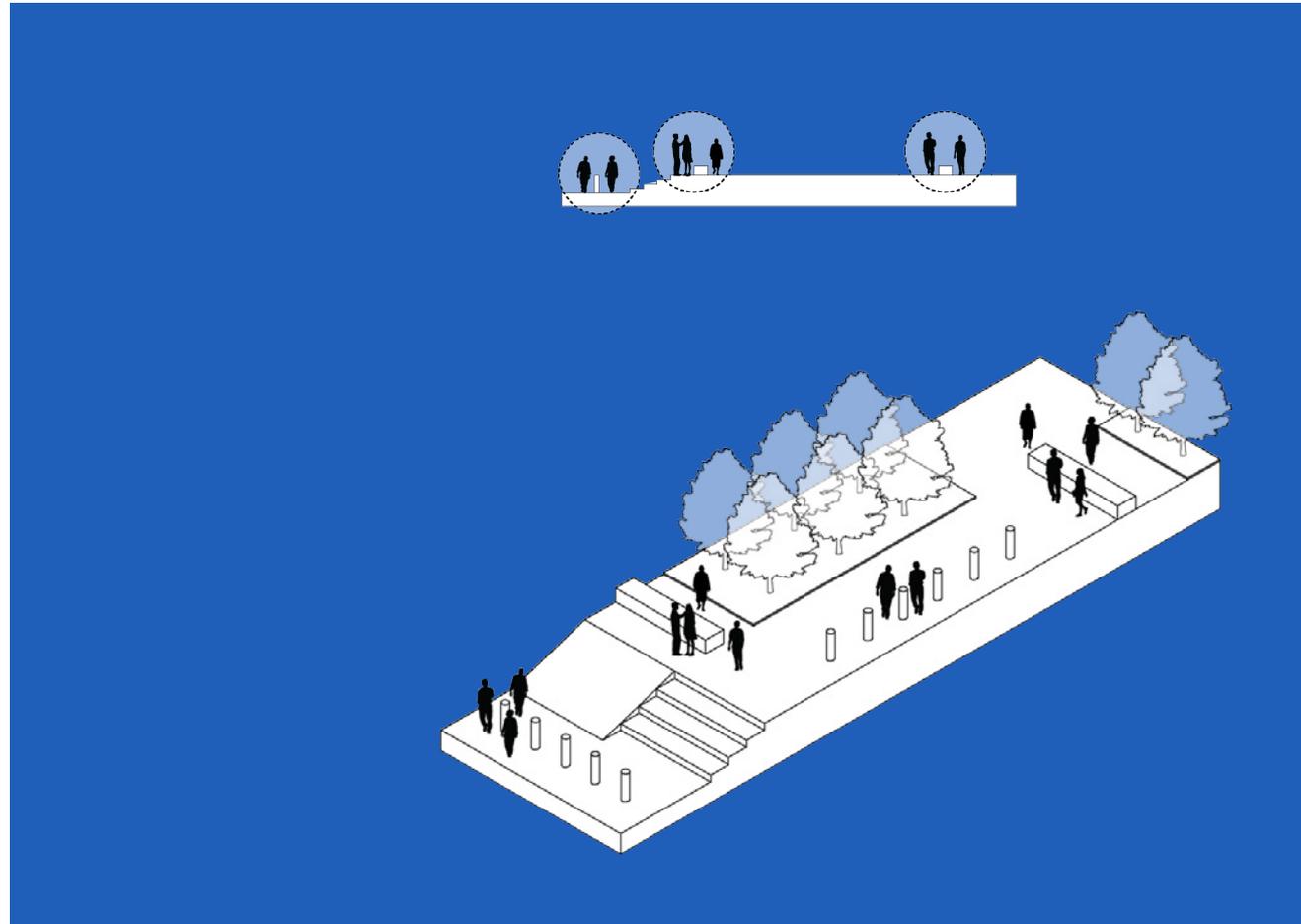
### POTENTIAL DESIGN TACTICS:

#### Create Social Focal Points

Focus on physical focal points in social seating

#### Think Beyond the Table

Experiment with different objects



People tended to gather around an object when conversing.

# 23

## Flex Allure

Large groups of people gravitated towards moveable furniture.

In situations where four or more people wanted to sit together in a plaza, they often bypassed fully fixed seating, preferring to use moveable or partially moveable seating instead. This type of furniture included fixed seats with moveable pieces that swiveled and transformed. After settling on an area of the plaza to use, the groups typically rearranged the furniture to best fit their needs.

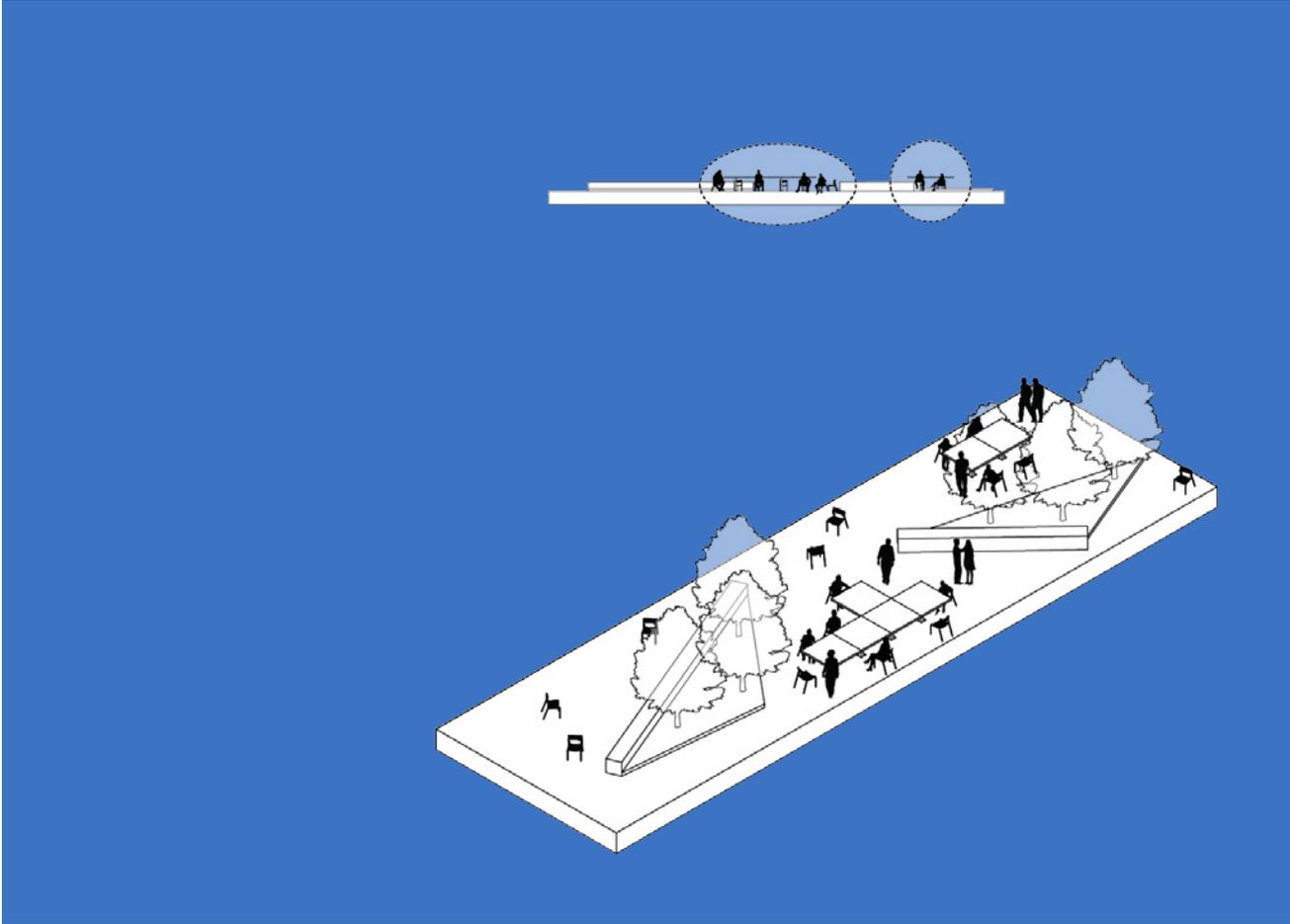
### POTENTIAL DESIGN TACTICS:

#### Provide a Furniture Smorgasboard

Offer a range of moveable furniture  
Prioritize modularity

#### Use Square Over Round

Offer furniture that can cluster together easily



Groups of people preferred flexible seating.

# 24

## DIY Occupation

People made furniture out of anything.

In most plazas, especially those that were saturated, people got creative when it came to seating and tables. Plaza users sat on many objects not intended for furniture such as peaked curbs, security bollards with flat tops, jersey barriers, and electrical boxes. They also used many types of objects to eat meals off.

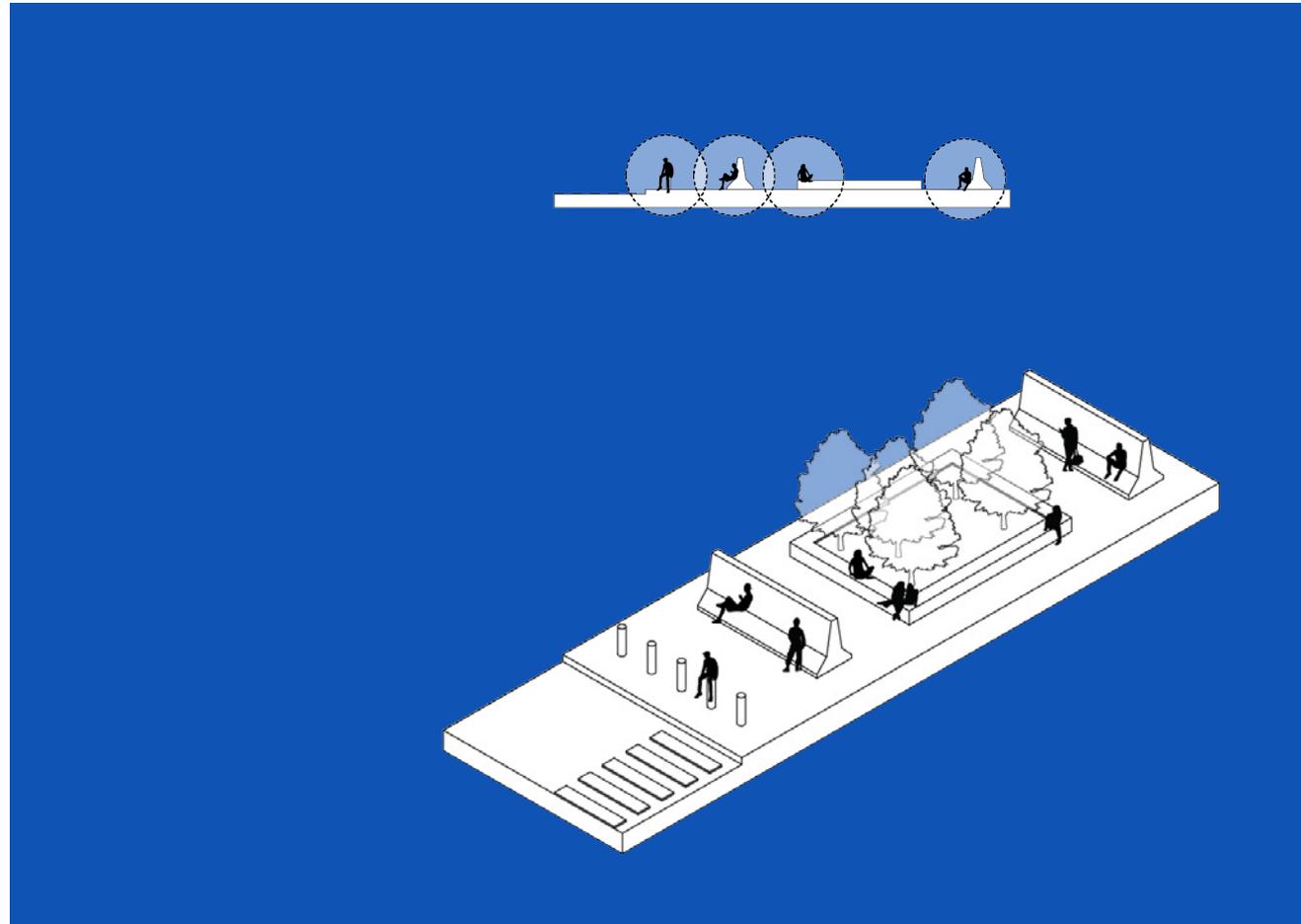
### POTENTIAL DESIGN TACTICS:

#### Design Everything as Furniture

Design site at full capacity  
Identify where people might go to rest  
Design elements for seating

#### Create Multi-Functional Elements

Make every element work double- or triple-time



Groups used many plaza elements as furniture.

# 25

## La-Z-Joy

People looked to prop their feet up.

Plaza users sitting by themselves often found a way to recline and put their feet up. With fixed benches, this typically meant that they took up more space by rotating their body parallel to the bench. With moveable chairs, people dragged chairs close to a fixed element, such as a low planter wall, that could be used as a foot prop. With moveable chairs, people often occupied two chairs – one to sit in and one for the feet.

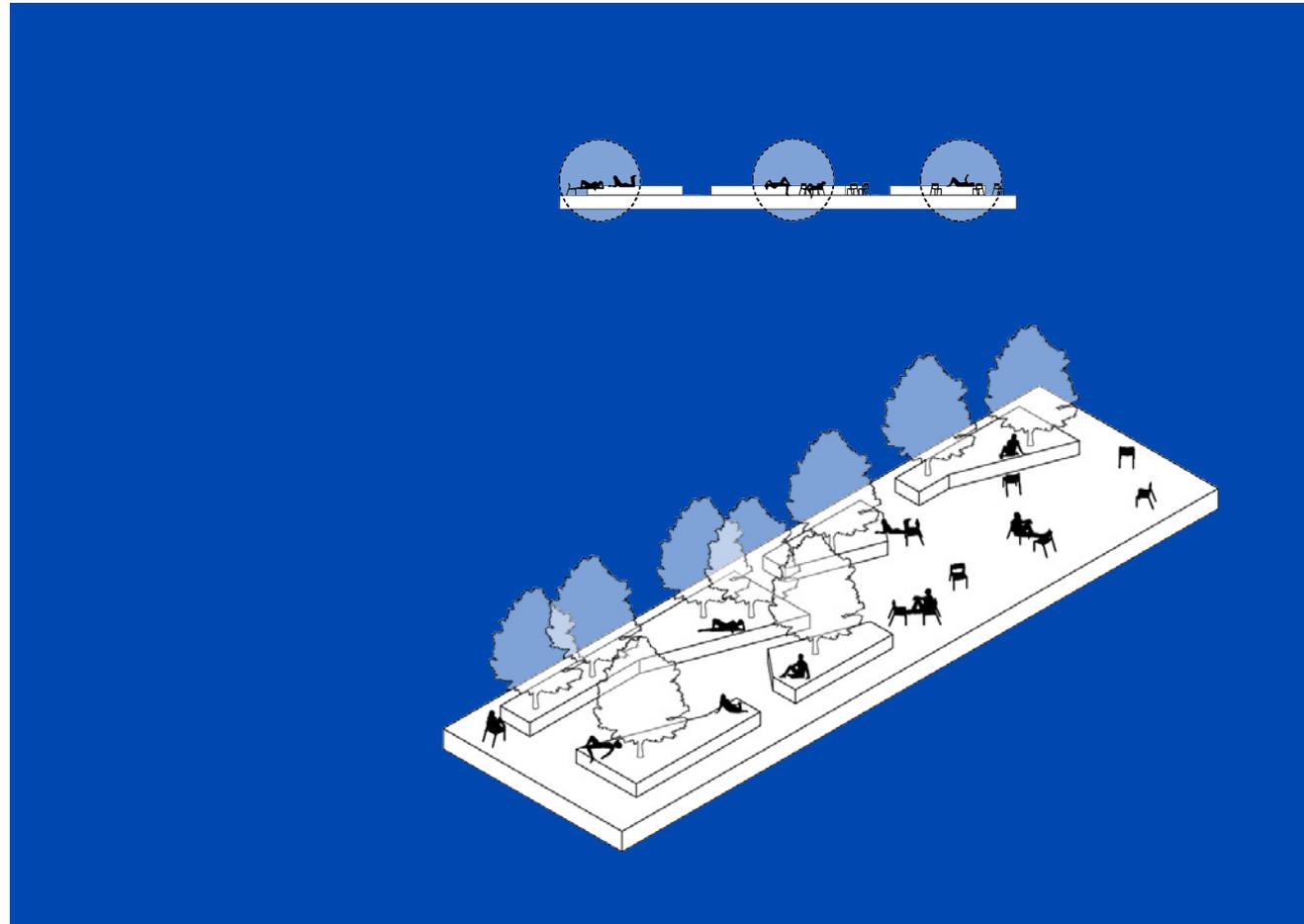
### POTENTIAL DESIGN TACTICS:

#### Offer Moveable Footrests

Create furniture for kicking feet up  
This could include coffee tables

#### Rethink the 90 Degree Bench

Experiment with lounging ergonomics



People took any opportunity to kick their feet up.



# Appendix

## Fieldwork Equipment



10-foot tripod  
GoPro camera  
Measuring tape  
DSLR camera  
Clipboard

## Methodology

Each site in this study was observed over the course of one week in June of 2018, mid-day, from 10am until 4pm. During this period, the researchers conducted five data collection exercises: an edge analysis, an element analysis, a pedestrian activity mapping, a moving pedestrian count, and a video recording.

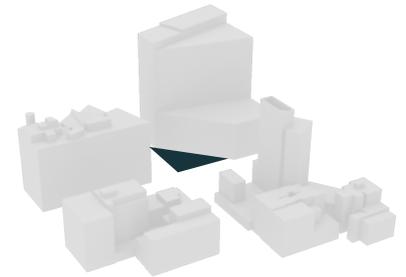
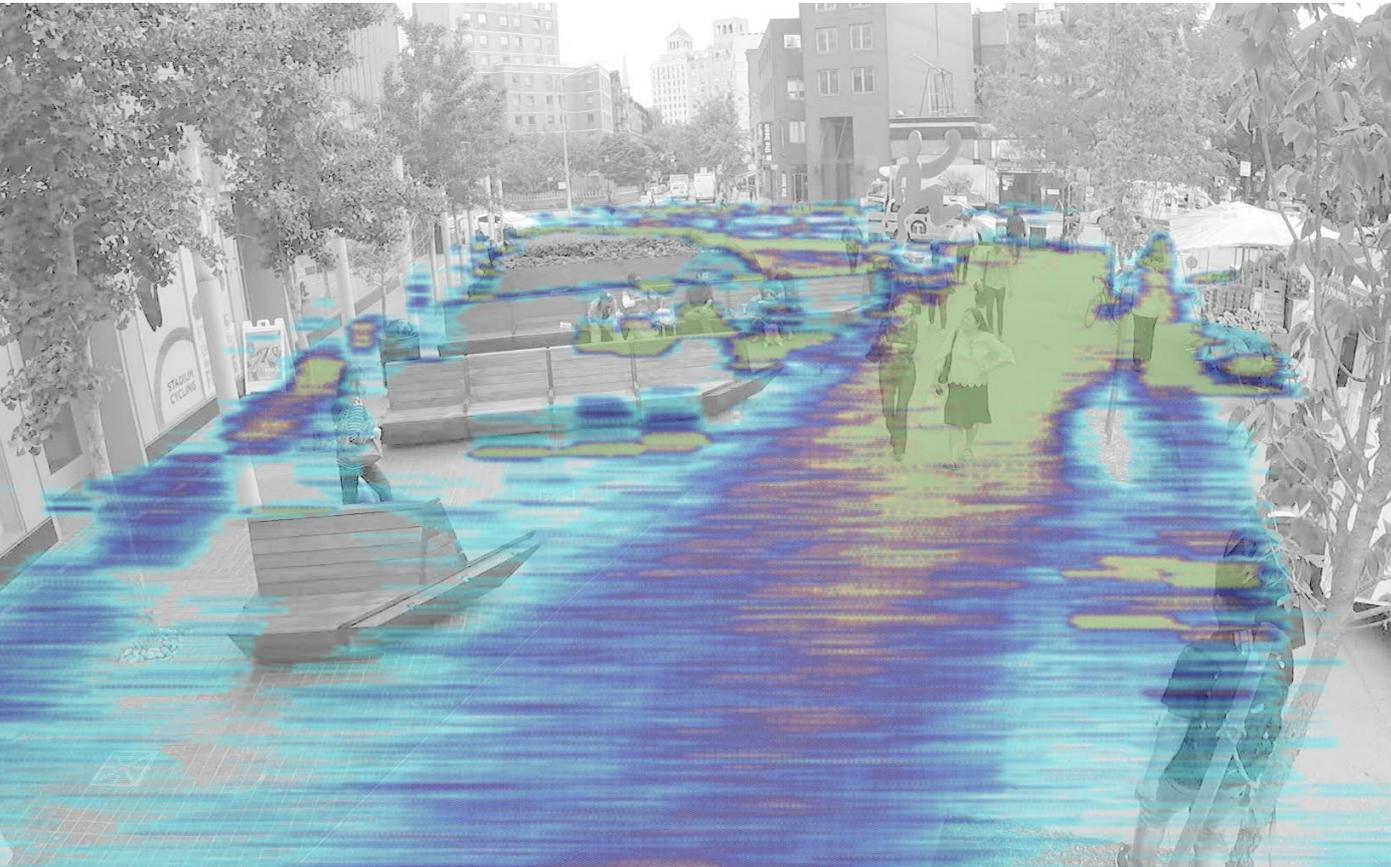
For the edge analysis, researchers explored the adjacencies of the site and took note of activation. All edges were photographed and paced out for length.

For the element analysis, all of the site objects were inventoried in terms of dimensions, material, and form. Elements were photographed and marked on the plan.

For the activity mapping, researchers recorded and mapped people's activities in the space using pre-defined categories and symbols: standing, commercial sitting, other sitting, and lying down.

For the moving pedestrian count, a predetermined line was established and everyone who passed across the line was tabulated.

For the video recording, a GoPro was fixed atop a 10-foot tripod to capture plaza footage. A machine learning algorithm focused on object detection and tracking was then overlaid onto the footage to indicate dwell time.



## 51 ASTOR PLACE

**Central plaza features:** banquet seating, raised planters, light wands, articulated paving, a row of trees adjacent to the facade, and a Keith Haring sculpture anchoring the corner.

**Designer:** Project design is attributed to SWA principal Thomas Balsley while with Thomas Balsley Associates.

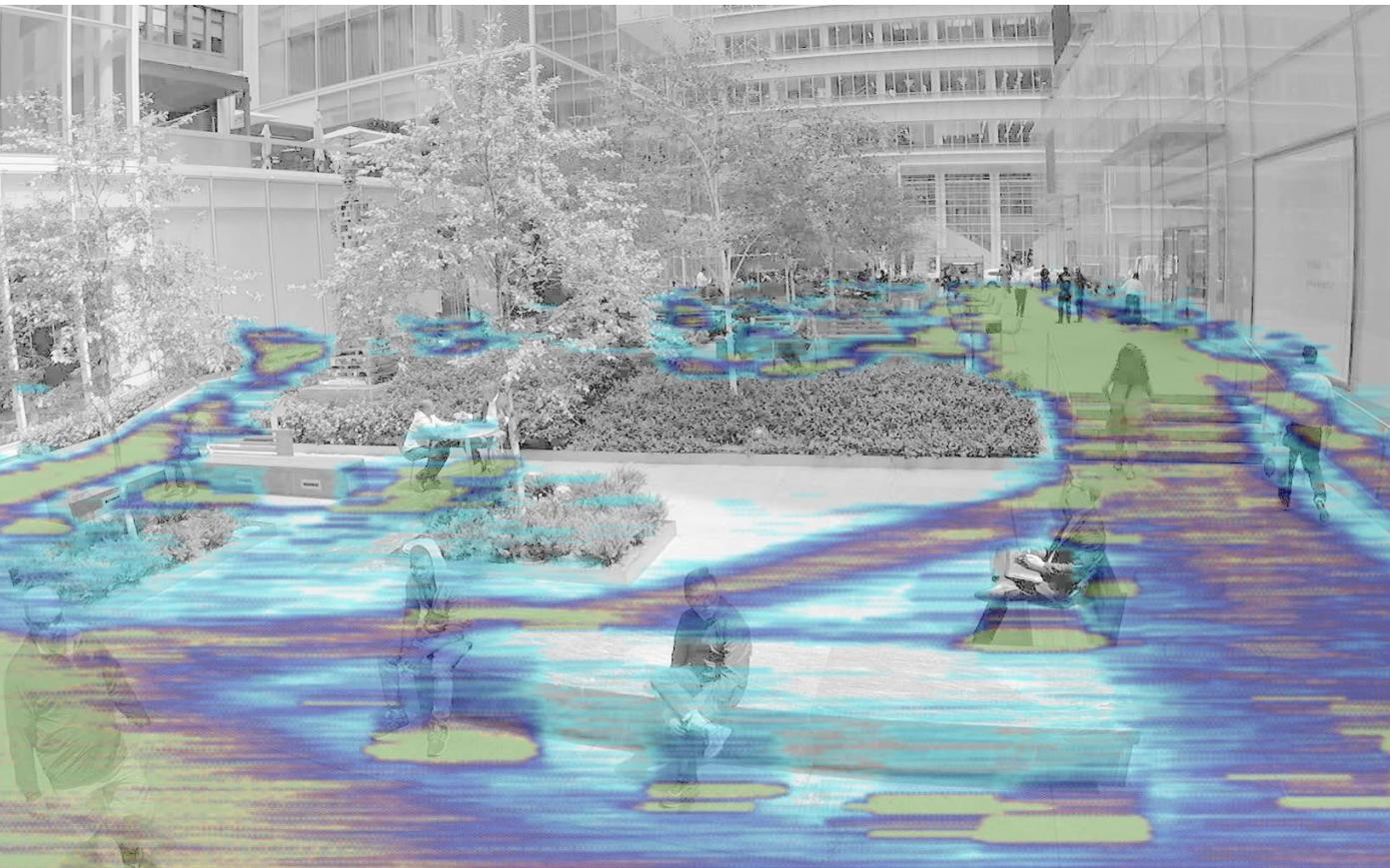
**Year Completed:** 2013

**Neighborhood(s):**

East Village / Greenwich Village

**Plaza Type:** Corner

**Study Area:** ~5,700 SF

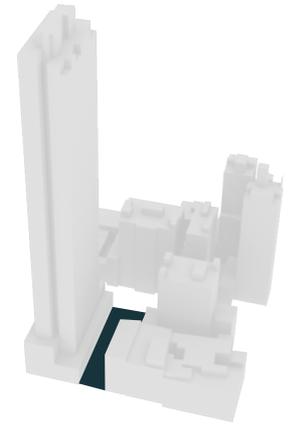
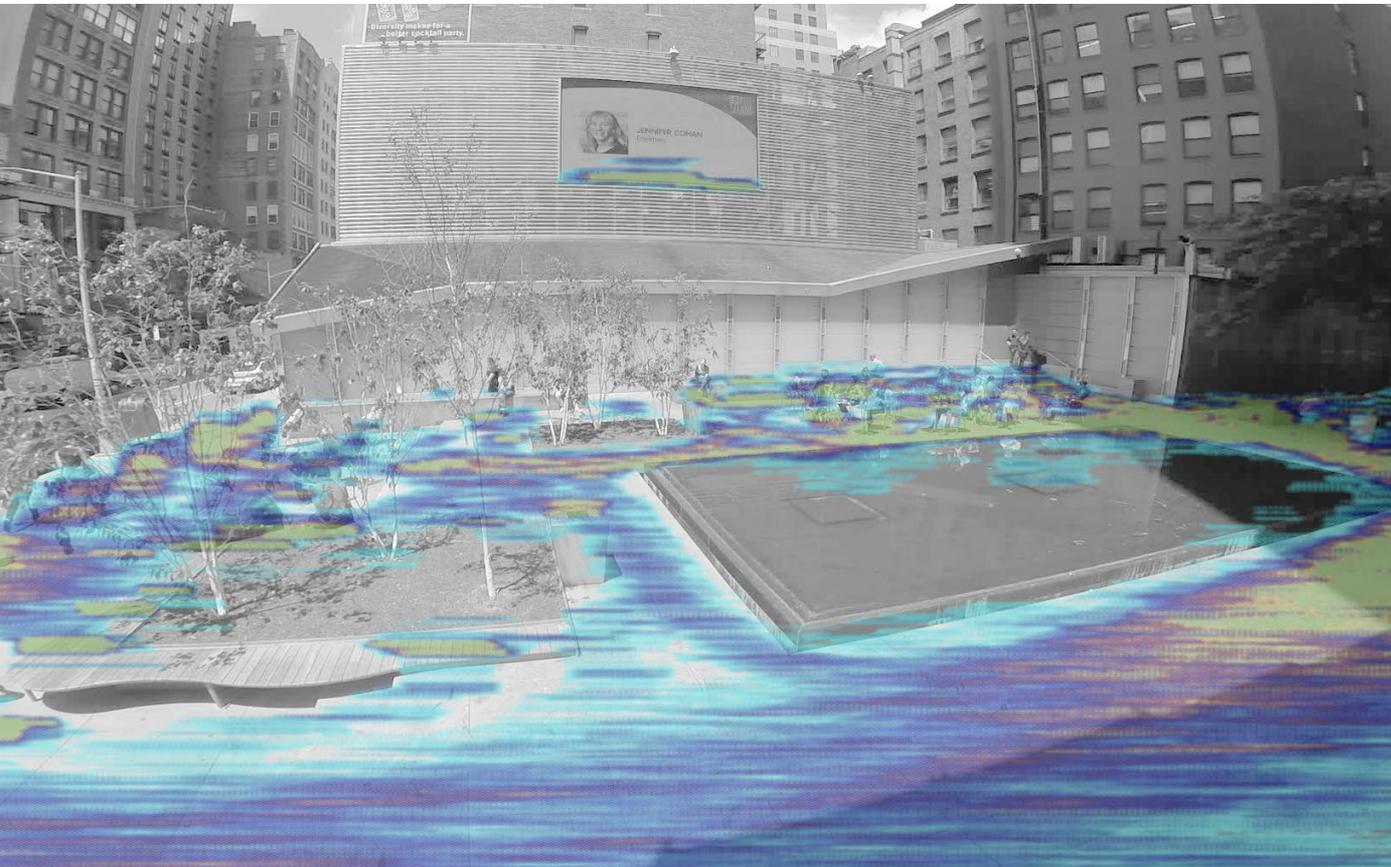


## 120 WEST 42ND ST

**Central plaza features: steps at both entries, a series of low planters with integrated benches, some moveable seating and cafe tables, two primary corridors, and two sculptures.**

Designer: MdeAS  
 Year Completed: 2013  
 Neighborhood(s): Midtown  
 Plaza Type: Alley  
 Study Area: ~14,600 SF



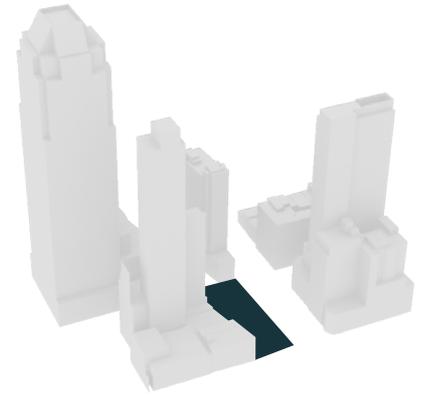
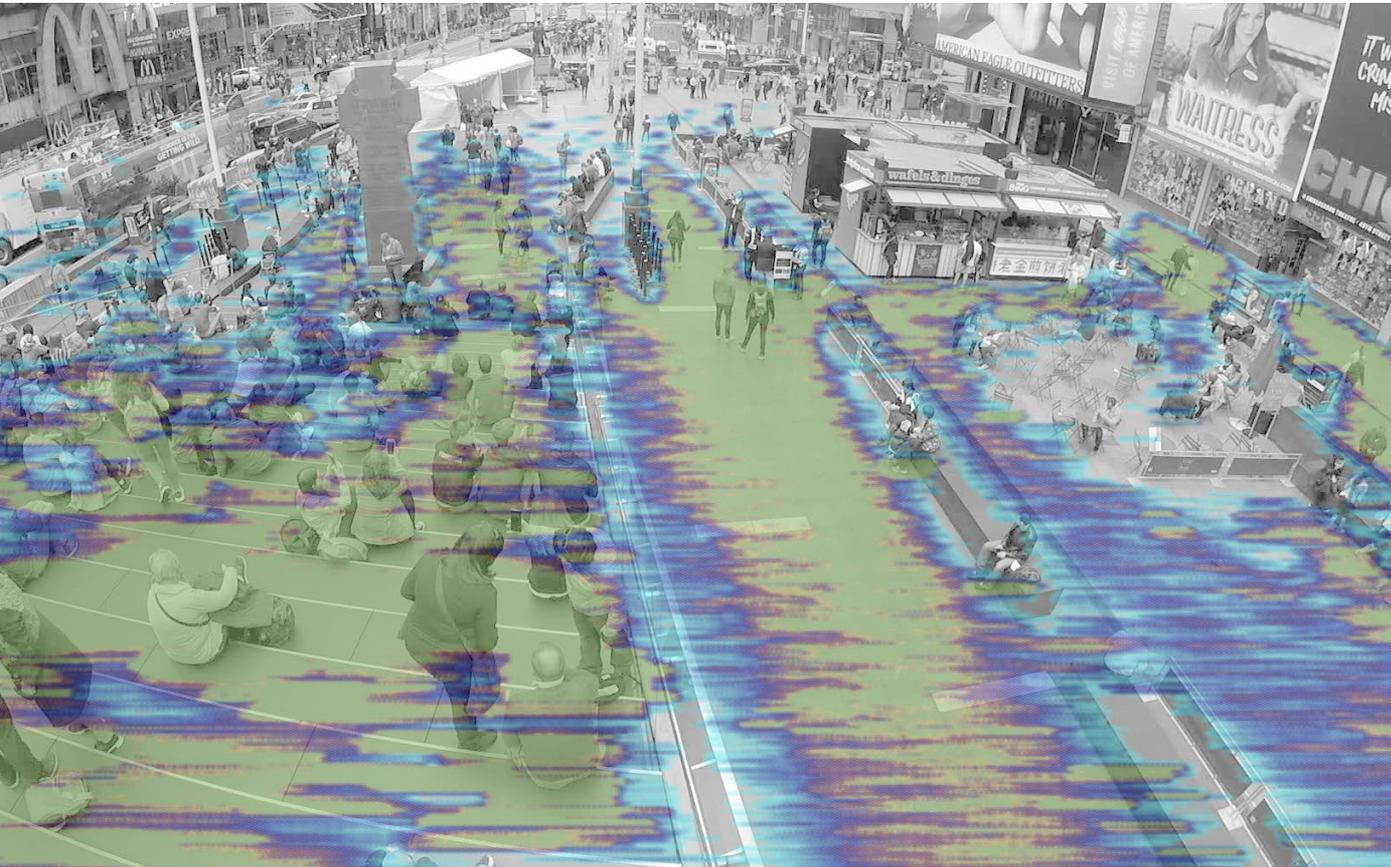


## 839 SIXTH AVE

**Central plaza features:** steps at the street edge, a large plane of water, an interactive screen, a grove of trees with plinth seating, and a zone of moveable cafe seating.

Designer: Lee Weintraub,  
Perkins Eastman  
Year Completed: 2010  
Neighborhood(s): Koreatown  
Plaza Type: Alley  
Study Area: ~10,800 SF



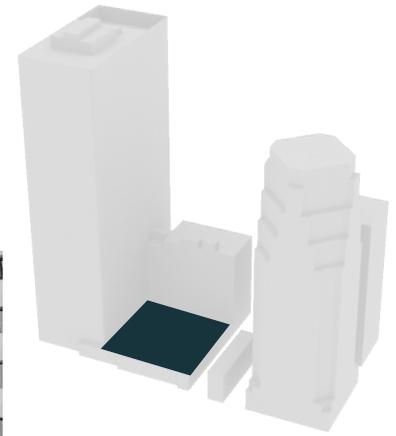
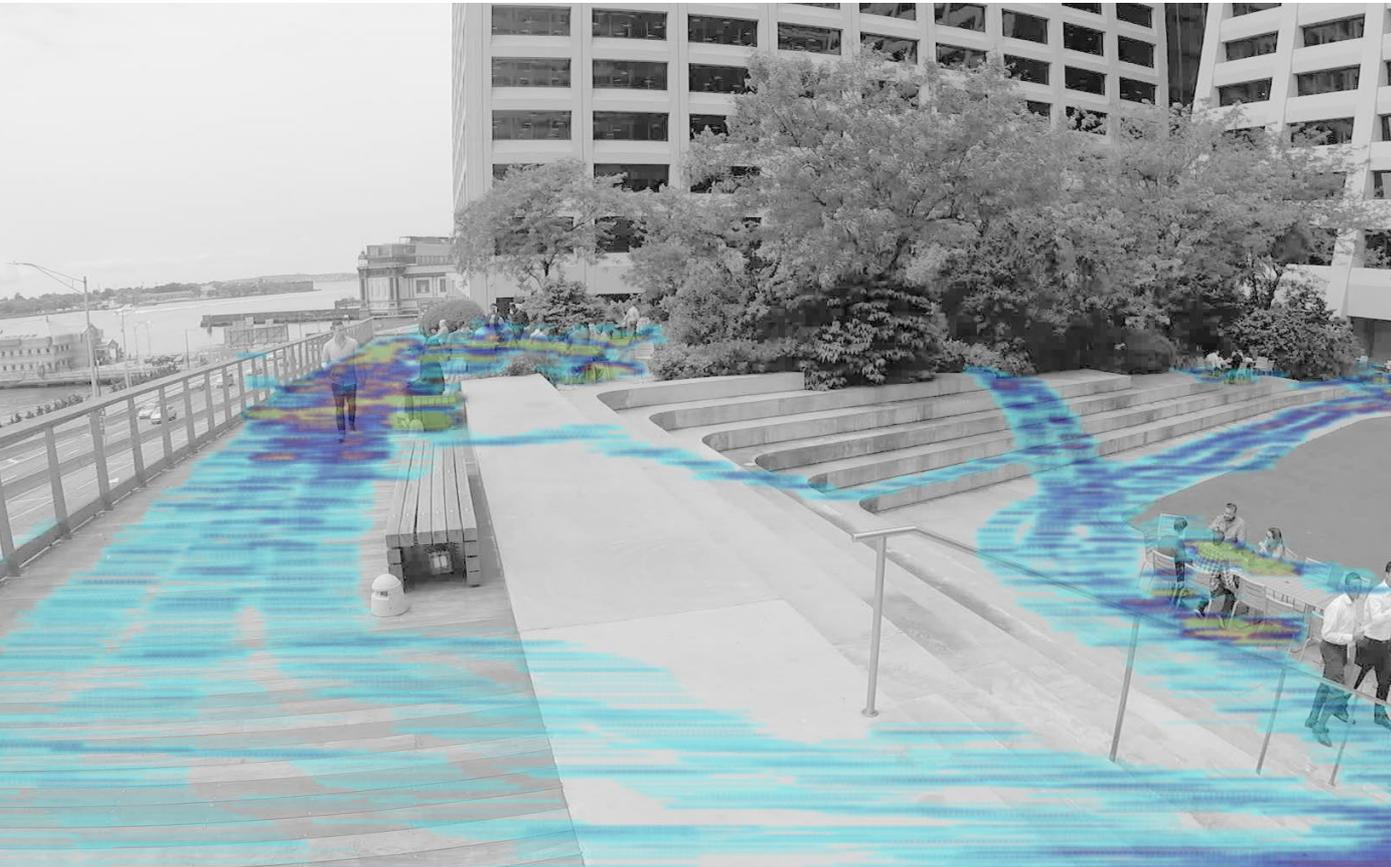


## DUFFY SQUARE

**Central plaza features: a large raised amphitheater with views across Times Square, food kiosks, cafe tables, and custom wooden benches.**

Designer: MNLA, Snohetta  
 Year Completed: 2017 (2009)  
 Neighborhood(s): Times Square  
 Plaza Type: Infrastructure  
 Study Area: ~29,000 SF



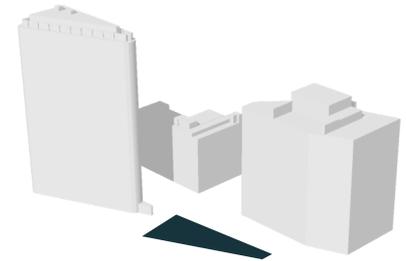
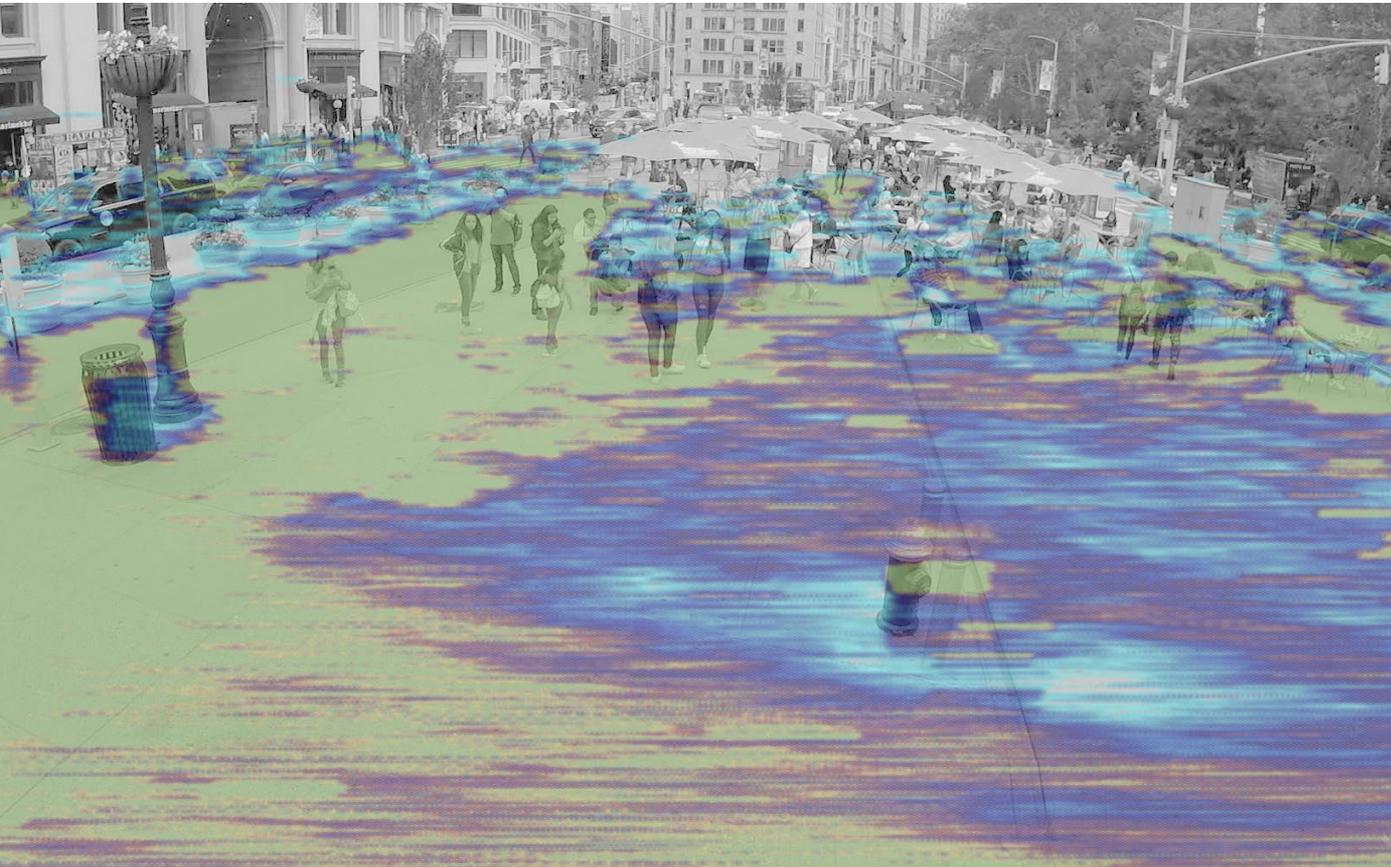


## ELEVATED ACRE

**Central plaza features:** a large garden space with intimate seating, an East River overlook with integrated benches, a concrete amphitheater, moveable seating, and a large flat turf area.

Designer: Ken Smith, Rogers Marvel  
 Year Completed: 2005 (1972)  
 Neighborhood(s): Financial District  
 Plaza Type: Rooftop  
 Study Area: ~35,000 SF



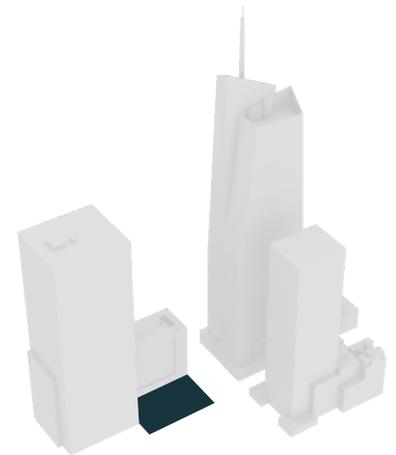
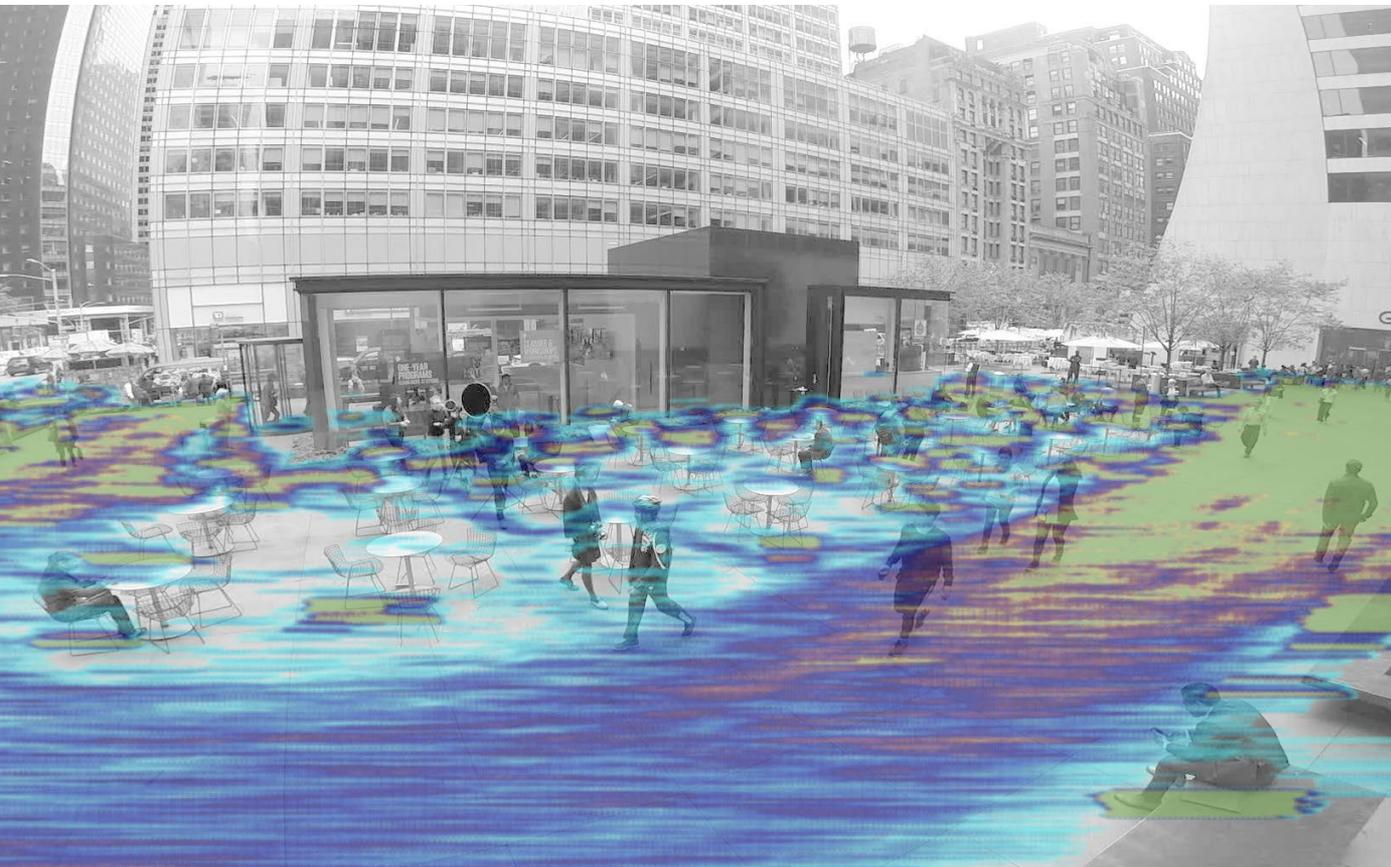


## FLATIRON PLAZA

**Central plaza features: planted pots at the periphery, cafe tables and umbrellas, central food/coffee kiosk.**

Designer: DOT  
Year Completed: 2017 (1971)  
Neighborhood(s): Gramercy  
Plaza Type: Infrastructure  
Study Area: ~14,000 SF



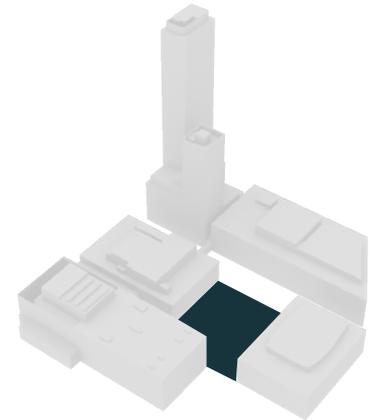
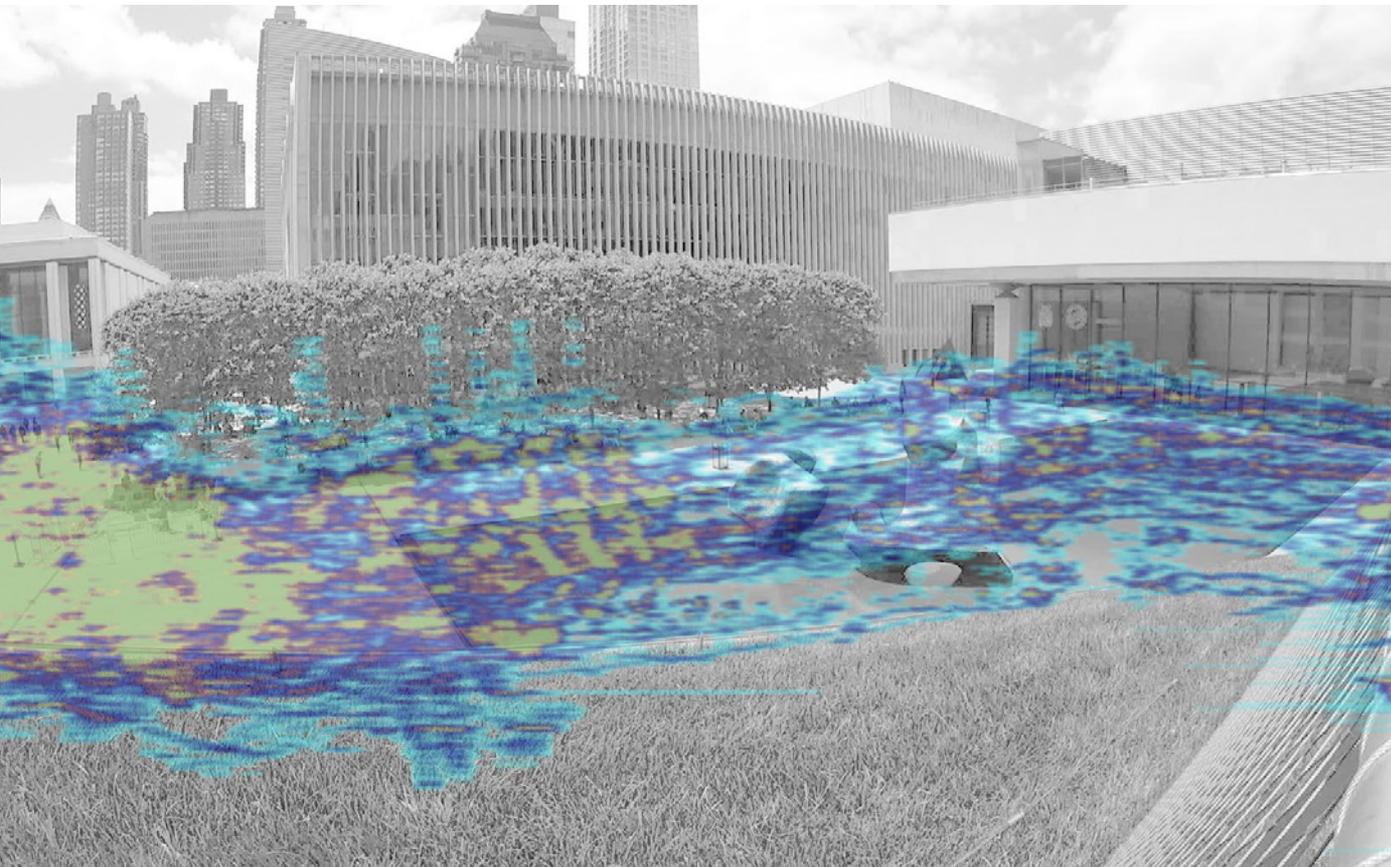


## GRACE PLAZA

**Central plaza features: slightly elevated, restaurant kiosk, grove of trees with moveable /cafe seating, niches with raised planters and integrated benches.**

Designer: MdeAS, SOM  
 Year Completed: 2011 (1971)  
 Neighborhood(s): Midtown  
 Plaza Type: Corner  
 Study Area: ~19,600 SF

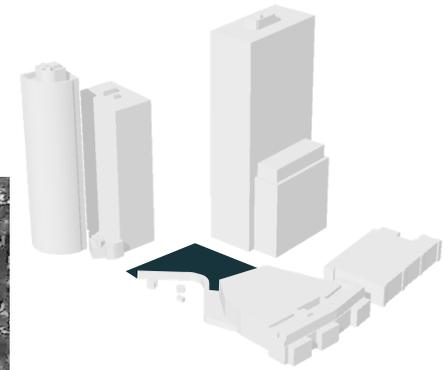
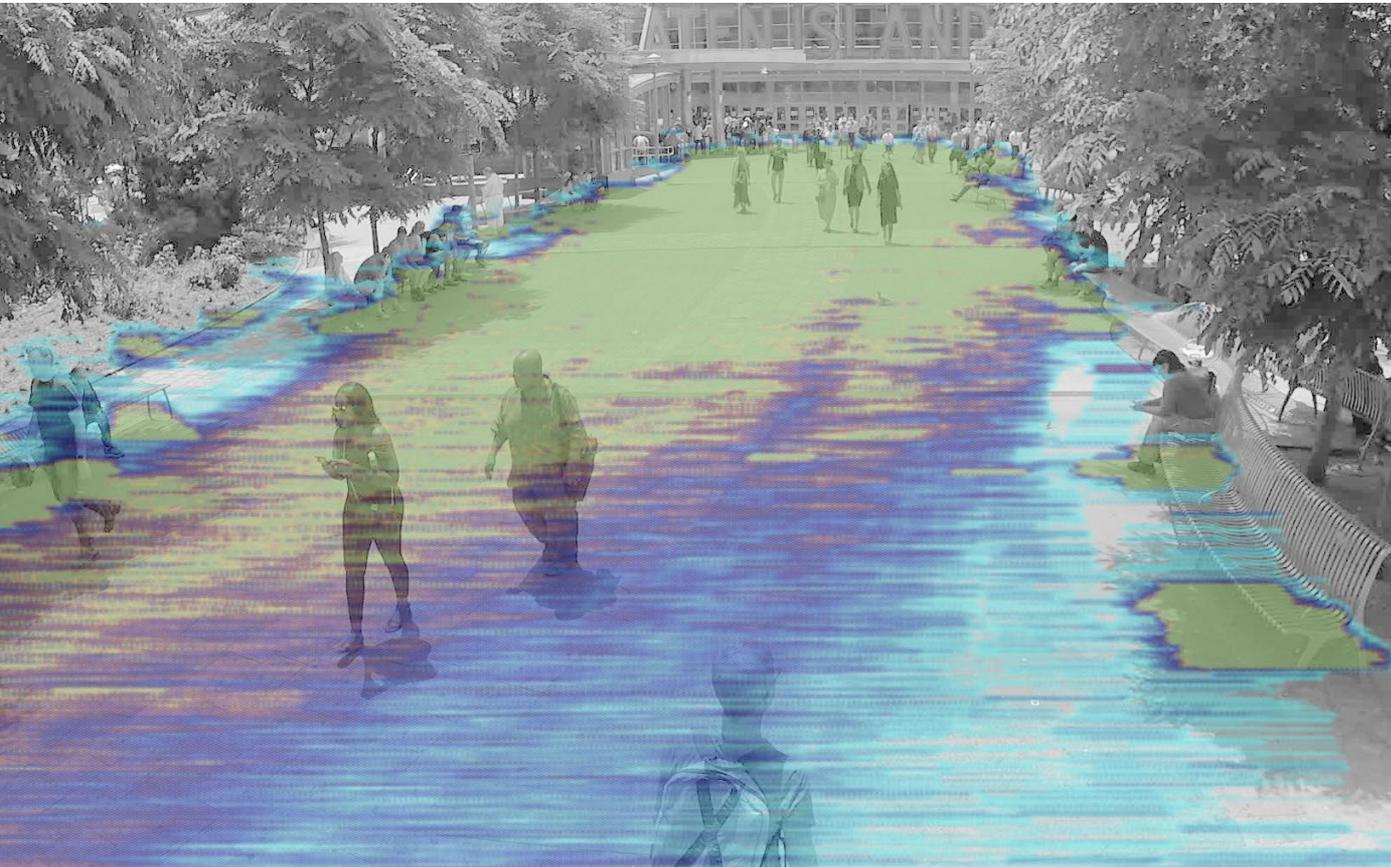




## HEARST PLAZA

**Central plaza features: tilted plane rooftop turf area, plane of water, elevated terrace with grove of trees and moveable /cafe seating below.**

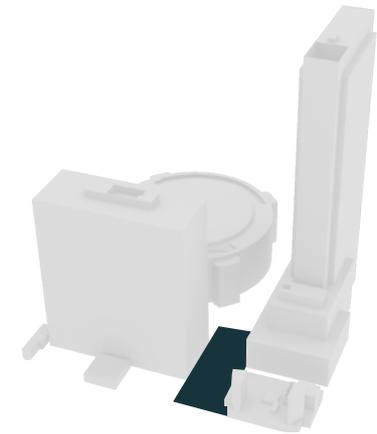
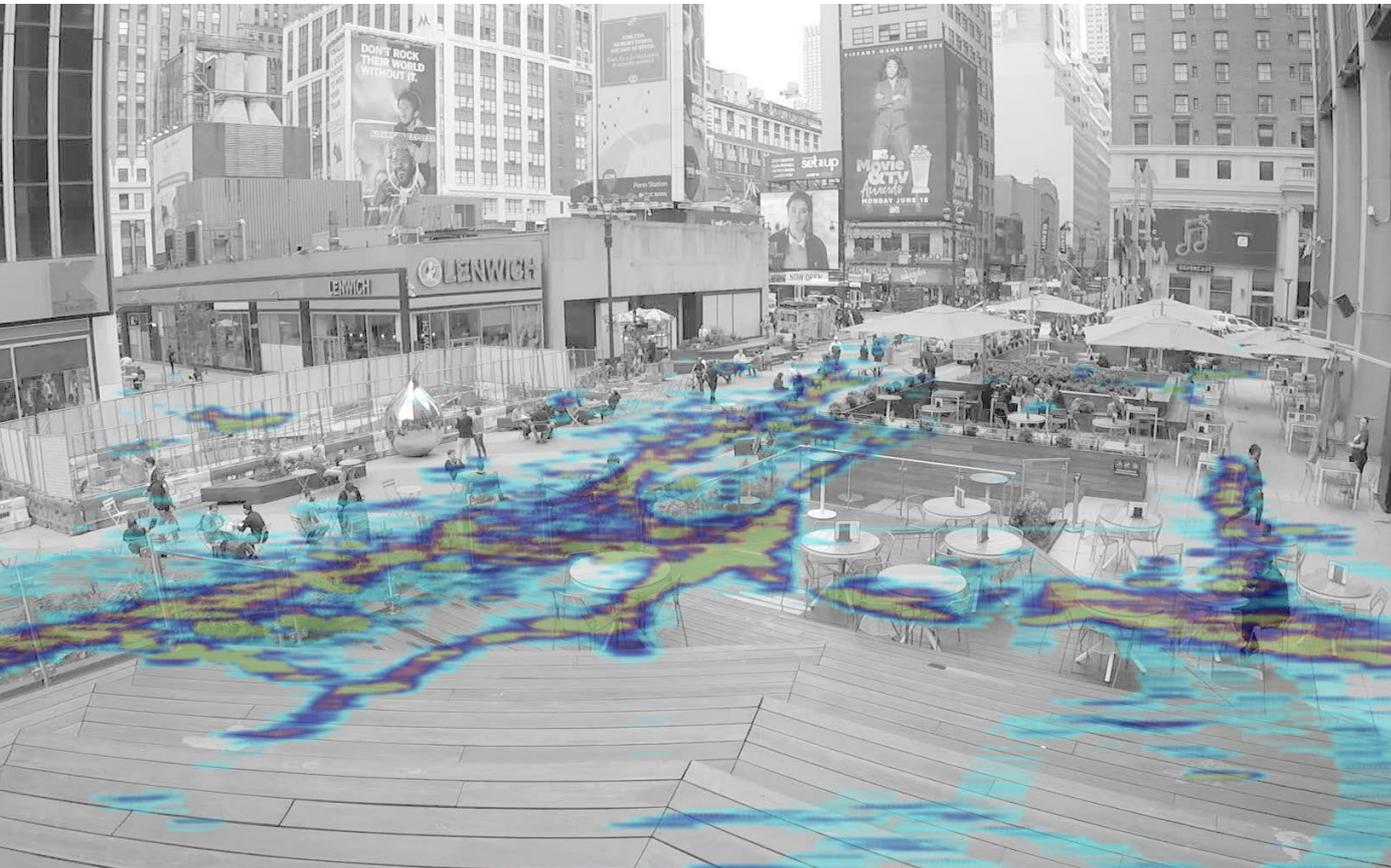
Designer: MNLA, DSR  
 Year Completed: 2010  
 Neighborhood(s): Upper West Side  
 Plaza Type: Inner  
 Study Area: ~42,600 SF



## PETER MINUIT PLAZA

**Central plaza features: heavily planted, central pathway with flanking benches and trees, central kiosk as anchor.**

Designer: WXY, UNSTUDIO  
 Year Completed: 2011  
 Neighborhood(s): Financial District  
 Plaza Type: Transit  
 Study Area: ~24,000 SF



## PLAZA 33

**Central plaza features:** temporarily closed-off street, wooden planters/ seating elements, amphitheater, moveable / cafe tables, ping pong tables, central sculpture.

Designer: W Architecture  
 Year Completed: 2015  
 Neighborhood(s): Midtown  
 Plaza Type: Infrastructure  
 Study Area: ~16,000 SF



# Field Notes







