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SEEING THE SIDEWALK:

GIVING NEW TERMS TO AN EVERYDAY URBAN SPACE

A Thesis in

Architecture

by

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ABSTRACT

Often overlooked, the urban sidewalk is a complex site serving multiple – and sometimes competing – purposes for many stakeholders.

Regulations have been the primary means by which design changes to the sidewalk environment have been implemented. This historical reliance on top-down planning approaches has given way more recently to new human-scaled approaches to studying public space, thanks to pioneers like Kevin Lynch, Jane Jacobs, William Whyte, and Jan Gehl. However, these approaches have not been widely applied to the sidewalk.

Existing representations of the sidewalk have been incomplete in illuminating that this everyday piece of infrastructure creates a unique urban experience. Photography has, for the most part, been absent amongst the tools planners and architects use to represent and design sidewalks. In this thesis, I analyze and critique the ways sidewalks have been represented, and propose a fine-grained, focused observational approach using photomontage as a technique to create a Photographic Sidewalk Narrative. The result is a photographic tool that represents the urban sidewalk experience and reveals insights about its design potential.

I photographed a 250-foot stretch of sidewalk on St. Mark's Place in Manhattan with two cameras using time-lapse and still frame techniques. The still photographs were then compiled to create the Photographic Sidewalk Narrative, which tells a story of this sidewalk segment. Single photographs show specific aspects of the space, while comparing photographs taken at different times of the day, during different weather conditions, from slightly different angles, or zoomed in or out, helps the designer become aware of subtle needs being expressed in the space, which can lead to new insights and design ideas. This thesis adds this new photographic tool to the existing toolkit of ways to observe and understand a sidewalk, which can be used by designers to understand sidewalks as they currently exist, and to inform their future design.

TABLE OF CONTENTS

LIST OF FIGURES

All pictures and graphics are property of Cara Rangaswamy unless otherwise noted.

Introduction

Chapter 1

Chapter 2

Image Sources:

"Active Design: Shaping the Sidewalk Experience." City of New York. 2013. Retrieved from: http://www1.nyc.gov/site/planning/plans/active-design-sidewalk/active-design-sidewalk.page

"Active Design: Shaping the Sidewalk Experience: Tools and Resources." City of New York. 2013. Retrieved from: http://www1.nyc.gov/site/planning/plans/active-design-sidewalk/active-design-sidewalk.page

Biagi & Zoboli (Italian publisher, act. 1907-1914). Bologna - Porticato S. Bartolomeo [Bologna - arcade of San Bartolomeo]; verso: 23. Biagi & Zoboli - Bologna [divided back, no message], overall, recto. ca.1907-1914 (publication date), Image: 2017. Trinity College, Watkinson Library (Hartford, Connecticut, USA). http://library.artstor.org.ezaccess.libraries.psu.edu/asset/SS35428_35428_39755445. Web. 11 Feb 2018.

Cullen, Gordon. *Townscape*. Reinhold Pub. Corp, New York, 1961.

Duneier, Mitchell, and Ovie Carter. *Sidewalk.* Farrar, Straus and Giroux, New York, 1999.

Gehl, Jan, and Birgitte Svarre. *How to Study Public Life.* Island Press, Washington, 2013.

General Research Division, The New York Public Library. "East Houston Street looking west (March 1893 & June 1895), Northeast corner of Fouth Street and Avenue D (March 1893 & May 1895) [top] ; Ridge Street, looking north from Rivington Street (March 1893 & June 1895), In front of 299 East Third Street (March 1893 & May 1895) [bottom]" *The New York Public Library Digital Collections*. 1895-06-22. http://digitalcollections.nypl.org/items/827b6d36-db22-f8f3-e040-e00a180671dc

Hockney, David. Pearblossom Highway #2. 1986. http://library.artstor.org.ezaccess.libraries.psu.edu/asset/ARTSTOR_103_41822000085918. Web. 31 Mar 2018.

Image Capture, "Map data ©2017 Google." November 2017.

NACTO (National Association of City Transportation Officials). *Urban Street Design Guide.* Island Press, Washington, 2013.

Paris: Montmartre: Ext.: Le Boulevard Montmartre. c.1900. http://library.artstor.org.ezaccess.libraries.psu.edu/asset/ARTSTOR_103_41822000017226. Web. 8 Feb 2018.

Pompeii street drain. https://commons.wikimedia.org/wiki/File:Pompeii_street_drain.jpg. Web. 8 Feb 2018.

Ruscha, Edward. *Every Building on the Sunset Strip:* det.: accordion fold binding E. Ruscha: Los Angeles. 1966. http://library.artstor.org.ezaccess.libraries.psu.edu/asset/ARTSTOR_103_41822001632387. Web. 31 Mar 2018.

Ruscha, Edward. *Twentysix Gasoline Stations*: det.: two images: book cover and det.. 1963. http://library.artstor.org.ezaccess.libraries.psu.edu/asset/ARTSTOR_103_41822001632353. Web. 31 Mar 2018.

Venturi, Robert, Denise Scott Brown, and Steven Izenour. *Learning from Las Vegas: Revised Edition.* MIT Press, Cambridge, Mass, 1977.

Via Consolare. Paved with polygonal basalt blocks ca. mid-2nd century BC;, 29/11/2010. http://library.artstor.org.ezaccess.libraries.psu.edu/asset/ASITESPHOTOIG_10313414827. Web. 8 Feb 2018.

Whyte, William H. *The Social Life of Small Urban Spaces.* Conservation Foundation, Washington, D.C., 1980.

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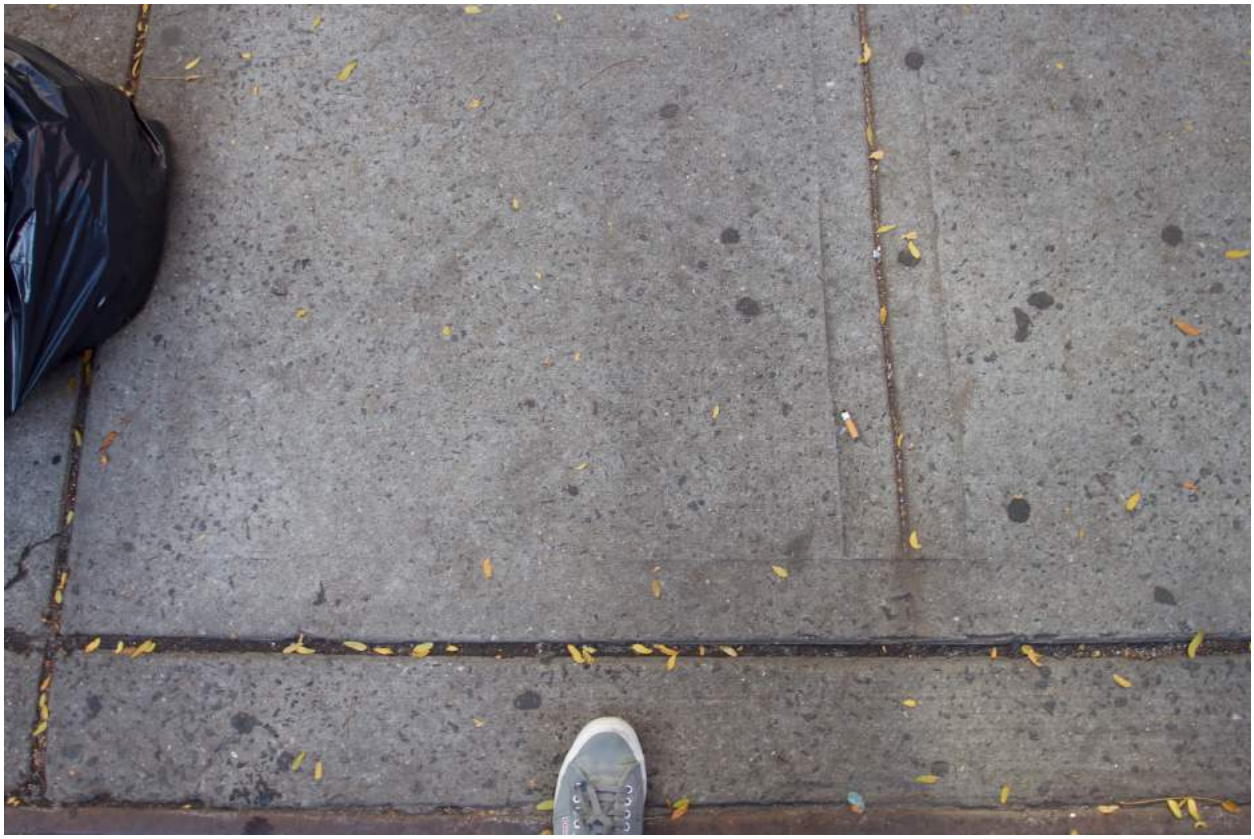


SEEING THE SIDEWALK:

Giving New Terms to an Everyday Urban Space

INTRODUCTION: Historical Background

"The relative lack of scholarly work on sidewalks might be explained by their status as an undifferentiated part of the street. Streets and sidewalks compose the public right of way in cities. Like streets, sidewalks are ubiquitous and difficult to avoid." (Loukaitou-Sideris and Ehrenfeucht 6)

History and Evolution of the Sidewalk

The sidewalk is a space used by urban dwellers every day. It is a space where the most fundamental form of human locomotion takes place: walking. Although not the only activity that takes place on the sidewalk, walking is the most common, and most widely accepted. The term "sidewalk," after all, implies a space on the side of a road intended for the purpose of walking.

Because sidewalks are so ubiquitous, it is easy to forget that streets have not always been lined with sidewalks. While the first planned streets are thought to date from the 6th millennium B.C. and were found in Khirokitia, Cyprus, the earliest discovered sidewalks date to between 2000 and 1900 B.C., and were found in Kültepe, Turkey (Kostof 190-191). Here, a type of stone paving was found lining both sides of one of the main streets in the *karem* (trade post) (Kostof 191). Corinth, a city in ancient Greece, is also believed to have had sidewalks that were in use through the year 400 B.C. (Catling 15).

One might postulate based on their location adjacent to busy city streets that the concept of the sidewalk arose from a need for a hierarchy of circulation distinguishing pedestrians from carts and the filth of the street center (Kostof 190-191). Early streets and sidewalks were not barren, but littered with fixtures as they are today. For instance, the streets at Mohenjo Daro in

the Indus Valley (dating to 2500 B.C.), while unpaved, had brick manholes and drains (Kostof 190).

During the Roman period sidewalks were significantly developed. As early as the 3rd century B.C., Roman references to the sidewalk, or *semita*, have been discovered (Kostof 209). As is shown in Fig. 0.1, Roman sidewalks were elevated above street level, could typically be found on both sides of the street, and could occupy up to half the width of the street (Southworth and Ben-Joseph 10-11). These sidewalks served people, but also offered protection for street trees from soil compaction and other damage (Kostof 209). In addition to providing safe pedestrian circulation, Roman sidewalks served economic, political, and social functions. For example, the emperor Vespasian had containers placed at some street corners to be used as toilets, charged for their use, and sold the collected urine to cloth fullers (Elliott 216). This had a clear economic purpose, was enacted by a political power, and certainly must have had social implications as well.

Julius Caesar codified traditional practices into law, stipulating that roads be paved with basalt stone, and sidewalks with peperino, a volcanic stone (Ben-Joseph, *ReThinking a Lot* 59). While peperino was as durable as basalt, its lighter color helped to give the sidewalk visual distinction from the roadbed (Southworth and Ben-Joseph 10-11). The Romans added the street curb to the sidewalk, examples of which have been discovered by archaeologists at Herculaneum, Pompeii, and Roman military encampments (Fig. 0.2). Capturing surface drainage from the road was the primary reason for the invention of the curb (Ben-Joseph, *ReThinking a Lot* 61).

Another Roman innovation was the street arcade, sometimes referred to as a portico or loggia (Kostof 216). A street arcade is a covered passageway, typically connected to and owned

by an adjacent building. Thus, street arcades can be considered one early example of private encroachment into the public sidewalk space. They covered the sidewalk, providing shelter for pedestrians and storefronts. Arcades have been found at Ostia Antica, and grew especially popular in Rome's colonial settlements like Palmyra, Timgad, and Ephesus. By the end of the 1st century A.D., street arcades could be found throughout the Roman Empire (Kostof 216). Arcades later became popular throughout Europe, and continued to evolve (Fig. 0.3).

A nineteenth century definition of "arcade" is "a glass-covered passageway which connects two busy streets and is lined on both sides with shops" (Geist 4). Arcades today are typically more like sheltered, pedestrian-only shopping streets, than protective coverings for sidewalks. However, urban sidewalks are often covered in scaffolding today. Scaffolding acts essentially in the same way as an arcade – it is built to repair the facades of private buildings, but also shelters (partially and incidentally) pedestrians on the public sidewalk.

After the fall of Rome, sidewalks disappeared (Kostof 209). In the Middle Ages, the sidewalk-less urban street became known as an unsanitary place. Previous inventions such as the curb and curbside drainage nearly disappeared completely during this period, giving way to drainage channels in the middle of the street for conducting water through cities (Ben-Joseph, *ReThinking a Lot* 61). Water was not the only liquid that could be found on the streets in the post-Roman period. While the Romans kept chamber pots in their homes that they typically emptied into the street, they had a flowing supply of water and a well-engineered drainage system, which allowed waste to be efficiently drained throughout the empire (Elliott 216).

In the Middle Ages, "…traditions had made city streets almost as much sewers as thoroughfares" (Elliott 216). The lack of sidewalk and curb meant that the shallow channel in the middle of the street was full of sewage, which eventually made its way from cities into rivers

and streams. In some cities, such as Edinburgh, one could often hear people shouting "Gardy-loo" as a warning from second story windows, indicating that those below should hurriedly take cover to avoid the sewage about to be thrown directly into the street (Elliott 216).

Because all kinds of waste were thrown into the street, street levels often rose to be much higher than originally intended. Steps had to be built inside adjacent buildings to accommodate rising street levels (Kostof 211). Loukaitou-Sideris and Ehrenfeucht describe how, besides raw sewage, people also shared the street with wagons, carts, and horses, making the street a chaotic, unsanitary place (15). The lack of sidewalks, and thus lack of separation between pedestrians and the center of the street, contributed to these poor conditions in the Middle Ages.

The sidewalk did not re-emerge until after the great fire of London in 1666, when streets were reconstructed with adjacent sidewalks (Loukaitou-Sideris and Ehrenfeucht 15). However, it was only much later, in the mid-eighteenth century, that the modern sidewalk became a ubiquitous urban feature (Blomley 57).

London's Westminster Street improvement program introduced one of the first "modern" street sections in 1765, featuring sidewalks on both sides of the street that were raised, paved, and separated from the street by curbstones. The curbstones even featured drainage channels (Ben-Joseph, *ReThinking a Lot* 59). Thus, the curb, and curbside drainage, reappeared for the first time since Ancient Roman times. It was also common for sidewalks in London to be separated from the road by posts and chains or stone bollards to ensure pedestrian protection from carts and other vehicles (Blomley 57).

Another significant period of evolution for the sidewalk took place in the 1800s in Paris. This period saw the emergence of the boulevard: "broad, tree-lined streets that segregated vehicles from pedestrians" (Loukaitou-Sideris and Ehrenfeucht 15). Most of the boulevards in

Paris were constructed in the 1850s under Baron Georges Eugène Haussmann, the prefect of the Seine under Napoleon III, as part of his larger urban renewal agenda. It was during this time that streets and sidewalks really became places to see and to be seen. Narrow, crowded, and unsanitary medieval streets made way for massive, open, sidewalk-lined boulevards (Fig. 0.4). Restaurants began occupying newly constructed sidewalk space with sidewalk cafés, and flower shops and boutiques began extending onto the sidewalk as well (Loukaitou-Sideris and Ehrenfeucht 255).

These new urban conditions gave rise to the concept of "flânerie," a term first used by the French poet Charles Baudelaire in the 1850s (Loukaitou-Sideris and Ehrenfeucht 40). Rebecca Solnit, in her book *Wanderlust: A History of Walking,* discusses the ambiguous definition of the term "flâneur": "What exactly a flâneur is has never been satisfactorily defined, but among all the versions of the flâneur as everything from a primeval slacker to a silent poet, one thing remains constant: the image of an observant and solitary man strolling about Paris" (198). A flâneur is an urban wanderer, strolling leisurely along the boulevards, window shopping, socializing, and enjoying street and sidewalk life as a form of theatrical entertainment.

The introduction of the concept of "flânerie" gave rise to the idea that the act of walking was more than a functional necessity of urban life. Walking in the city created a unique urban experience. This idea was further explored by Walter Benjamin in *The Arcades Project*, written from 1927 until his death in 1940 and published posthumously over fifty years later in 1999. Benjamin describes the experiential nature of flânerie: "That anamnestic intoxication in which the flâneur goes about the city not only feeds on the sensory data taking shape before his eyes but often possesses itself of abstract knowledge – indeed, of dead facts – as something experienced and lived through" (417). The flâneur experienced the city, both past and present, by walking.

Many elements of Haussmann's changes to Paris spread throughout Europe and the United States, and sidewalks became widespread. In the United States in the late nineteenth and early twentieth century, however, sidewalks were once again covered in garbage and animal manure (Loukaitou-Sideris and Ehrenfeucht 190). In the early 1900s, concrete quickly became the most common sidewalk paving material, in part because it made the street much easier for municipal authorities to clean. Made of limestone mixed with clay or shale, it was chosen for its strength and versatility, as well as the ease with which it could be made into a smooth surface (Houghton 13).

In New York City, the advent of portland cement-based concrete coincided with sanitary reforms, and streets and sidewalks became much cleaner (Fig. 0.5). As its price decreased, it became common to use portland cement to build concrete curbs featuring built-in gutters (Ben-Joseph, *ReThinking a Lot* 61), and it largely replaced the previously common sidewalk materials of wood or gravel (Blomley 58). Neighborhoods with remaining wooden and gravel sidewalks started demanding that authorities replace them with cement sidewalks (Blomley 58). The concrete sidewalk thus became a symbol of advancement and technological progress, and concrete remains the most common sidewalk paving material today.

Other innovations of the time such as electricity and the telephone changed the sidewalk as well, leading to the installation of utility poles and electric cables. Loukaitou-Sideris and Ehrenfeucht describe how these changes affected trees planted on sidewalks, in particular: "Cables were sometimes strung from trees, and utility poles competed with trees for sidewalk space. Electric wires also burned trees, and falling branches damaged wires, leading to tree pruning or removal" (191).

The invention of the automobile further heightened the importance of the sidewalk as a safe space for pedestrians. The term "jaywalking" was invented to describe pedestrians who attempted to cross the street at undesignated points in between crosswalks (Sadik-Khan and Solomonow 65). Parking meters were invented in 1935 and are an example of a function that caters to the vehicular use of the street, yet encroaches into the sidewalk space (Borroz). More recently, in Georgetown, D.C., autonomous food delivery robots are being tested on city sidewalks (Lonsdorf). This will challenge pedestrians to share the sidewalk surface with an inanimate object that is not stationary, but mobile.

Janette Sadik-Khan, former commissioner of the New York City Department of Transportation, and Seth Solomonow, former chief media strategist of the New York City Department of Transportation, highlight some other ways sidewalks are changing in their book *Streetfight: Handbook for an Urban Revolution.* Since 2017, New York City's streetlights are all LEDs. The type of light emitted from LEDs is brighter than the previous sodium lights, so experiments are being done with filters to dim the light in certain places, such as residential areas, where it is too bright (Sadik-Khan and Solomonow 272). Cellphone apps like Google Maps have changed the way pedestrians navigate the city, and soon self-driving cars will demand larger unobstructed curb areas to pick up and drop off passengers (Sadik-Khan and Solomonow 284, 287). These are just a few examples of the evolving complexity we can expect to see on the sidewalk of the future. The sidewalk has evolved since its inception, and continues to do so. There will undoubtedly be many more changes that cannot be fully anticipated now.

Sidewalks and Regulation

Since its inception, the sidewalk has been a highly-contested space caught between the interests of many different stakeholders. Throughout history, sidewalk regulation has been governed by three primary goals: unobstructed circulation, safety, and sanitation. Economic and social concerns have often been controlled through regulation in order to achieve these three primary goals. Because of this, the sidewalk's design has, to a large extent, been a derivative of the regulations imposed upon it. Sidewalks today are subject to multiple regulations governing their construction, maintenance and use. Indeed, it is often difficult to determine where regulation ends and design begins, as they are practically synonymous in the case of the sidewalk.

The first recorded law regulating the street environment can be traced to 100 B.C. in Rome, where streets were required to be at least 15 feet wide (Southworth and Ben-Joseph 9). In 15 B.C., Augustus passed a law that set the maximum allowed building height at 66 feet because buildings taller than that were shading already narrow, poorly lit streets (Southworth and Ben-Joseph 9). Another example of Roman street regulation is Caesar's forbidding transportation during the day of anything other than supplies for festivals, games, or public buildings. This was enacted in 47 B.C. because circulation during the day became impossible due to street congestion (Southworth and Ben-Joseph 11).

Eventually, regulations were developed specifically for the sidewalk, rather than just for the overall street. In order to regulate sidewalks, enforcement was deemed necessary. As far back as the 13th century in Rome, the office of the Maestri delle Strada was responsible for the maintenance of streets and sidewalks, including paving, cleaning and repair. The authority of the Maestri later expanded to include the "authority to demolish obstructions of any sort" (Kostof

213). In the United States, the first Street Department was created in 1798 in New York City. It grew quickly, and included multiple bureaus with staff, as well as a position titled "Inspector of Sidewalks" (Moehring 52-53).

Police powers began to grow in the United States in response to social turbulence after the Civil War in the late 1800s. "Congestion, overcrowding, and worsening sanitary conditions were believed to cause social and moral degeneration" (Ben-Joseph, *The Code of the City* 45). The police became the primary enforcers of sidewalk regulations. At this time, the widespread rationale for street policing was that the public wanted their streets and sidewalks to be safe. Regulation was seen as a way to ensure pedestrian safety (Loukaitou-Sideris and Ehrenfeucht 227).

Another pro-regulation argument that arose during the 1800s was that facilitating pedestrian circulation through sidewalk regulations served the public good (Blomley 59). This notion was contentious because which members of an urban society were considered members of the "public" was (and still is) debatable: "…it was far from unambiguously obvious why, for example, 'the freedom of the respectable gentleman to walk without needing to make his way around a costermonger's barrow was more valuable to the welfare of the city than the freedom of the street-seller to carry on his occupation?'" (Blomley 71, citing Winter 11). The notion of both being perhaps equally valuable was evidently not under consideration. The person with the clear circulatory need was privileged over the one with an economic need. Yet, it could likewise have been argued that the street-seller was offering a service to benefit the public.

Before the 1800s, how and where sidewalks were built, and how they were taken care of, were determined by property owners (Loukaitou-Sideris and Ehrenfeucht 21). Adjacent property owners were required to build and maintain the sidewalks outside their properties. However,

municipal governments began to recognize the sidewalk as a distinct urban space with the public as its primary user. It was therefore seen as better for the public good for sidewalks to be built, maintained, and regulated by governments rather than by property owners with private interests. The focus of urban governments was to intervene to not only build new, or rebuild old, unsatisfactory sidewalks, but also to regulate their use, with "unimpeded circulation and flow" as the main goal (Blomley 58-59). Regulations were to aid pedestrians and this put public interest, not private interest, at the forefront of sidewalk planning. Regulations worked to restrict any other activity which could impede the circulatory right-of-way of the pedestrian, or the pedestrian's safety and well-being.

Small shop owners, who often used the sidewalk for extra selling space or free-standing signage, were now more restricted by city ordinances which curtailed this use of the sidewalk space. Larger department stores were in favor of the orderly, efficient flow of pedestrian traffic advocated by city-wide regulations, which helped people to locate, see, and enter their businesses (Loukaitou-Sideris and Ehrenfeucht 21). Thus, circulation became the main regulatory bias as "…city officials and municipal bureaucrats sought order and defined pedestrian circulation as the purpose for sidewalks" (Loukaitou-Sideris and Ehrenfeucht 21).

In his book, *Rights of Passage: Sidewalks and the regulation of public flow*, Blomley concurs that the main consideration behind sidewalk regulation has historically been, and continues to be, unobstructed pedestrian flow and circulation. He defines this bias towards unobstructed pedestrian circulation as "pedestrianism." He writes: "Once produced and identified as a space, the sidewalk became an object of urban governance. While the sidewalk could have been governed in pursuit of narrowly defined commercial ends, democratic processes or human enjoyment, pedestrianism quickly emerged as the central logic" (58-59).

Because of this desire for unobstructed sidewalk circulation, and spurred on by the establishment of extensive police powers after the Civil War, by the early 1900s, "municipal governments created extensive and powerful civic bureaucracies to control policing, public health, utilities, parks and recreation and social welfare" (Blomley 60). This included municipal-run bodies of engineers. Standards were developed and were the primary means by which engineers regulated the sidewalk. Ben-Joseph writes that even today, "standards are extensively used to determine the minimal requirements in which the physical environment must be built and must perform" (Ben-Joseph, *The Code of the City* xv).

Starting in the 1930s, sidewalk standards and specifications became commonplace in the United States (Blomley 58). The *Manual on Uniform Traffic Control Devices* (MUTCD) was originally published in 1935, and offers minimum requirements for "streets, markings, and signs" (Sadik-Khan and Solomonow 30). It was heavily concerned with creating standards to regulate traffic patterns and circulatory flow.

During this time, Blomley observes that sidewalk engineers were primarily occupied with keeping the sidewalk clear of obstructions: "…they came to characterize the sidewalk as a discrete space, fully in public (municipal) control, appropriately regulated by codes and by-laws, the primary function of which was to ensure individual mobility" (62). Thus, for engineers, classifying the sidewalk as public property also became a rationale for regulating it extensively.

Design sometimes relies on defensive techniques as a form of regulation to control people and objects that might interfere with circulation in the public space of the sidewalk. Smith and Walters write: "Public space is increasingly managed by defensive architecture, surveillance and other subtle filtering mechanisms to make it more palatable and attendant to the needs of capital. This reinforces social boundaries, making space inhospitable to those people

whose presence is not welcome…" (1). For example, the use of the sidewalk by the homeless, while it may be allowed, is subtly discouraged through defensive architecture. An example of this can be seen in defensive bench design: "…new 'defensive' or 'disciplining' benches come in all shapes and sizes. Most common are benches divided by arm rests to make lying down impossible" (Smith and Walters 5). The inclusion of benches within sidewalk space, therefore, indicates a desire for people to socialize and linger, as long as the homeless are not the ones lingering.

This evident social hierarchy imposed through architecture and regulation again raises the question of which members of society are really considered members of the "public." Defining "public space" itself is a dilemma. One simple definition is: "…we define public space as those spaces accessible by all without the need to consume or in any other way justify one's presence" (Smith and Walters 4). Nevertheless, certain members of society, such as the homeless, are not always welcome in spaces normally considered public, like parks, plazas, and sidewalks. Thus, contestations between public and private domains have long been a driving force behind sidewalk regulations.

The visual appearance of the streetscape is another aspect of the sidewalk experience that has historically been regulated. For example, in the mid 13th century in Viterbo, Italy, municipal authorities forbade external stairs on the street, feeling that they negatively affected the aesthetic of the streetscape (Kostof 213). Other examples of attempts to control the visual appearance of the streetscape include regulations on how far signage and awnings can extend into the sidewalk space, as well as requirements for the color and/or material of adjacent storefront facades. Regulation of sidewalk landscaping, including the species, number and location of trees, is another example of efforts to control the appearance of the sidewalk space.

Today, the sidewalk environment is controlled by various methods, which include development incentives, land regulations, local ordinances, and design practices (Loukaitou-Sideris and Ehrenfeucht 246). In her master's thesis, titled "Planning Sidewalks: Implications of Regulating Sidewalk Space in the East Village," completed at Columbia University in 2013, Leslie Deacon compiled a table of sidewalk regulations in New York City (see Appendix A). This table is not an exhaustive list of sidewalk regulations. For example, some sidewalk elements that are omitted, yet are also subject to regulations, include utility poles and parking meters. Deacon also does not distinguish between different types of pedestrians (loiterers, those waiting in line, the disabled, the elderly, the young), but rather groups them all together.

Nevertheless, Deacon's table demonstrates the extent and complexity of sidewalk regulation. There is physical regulation of sidewalk width and materiality, and regulation of sidewalk "objects" – trees, scaffolding, trash cans, trash bags, bikes, bike racks, news racks, benches, newsstands, bus shelters, sidewalk signs, payphones, commercial displays, and goods for sale. There is also regulation of sidewalk activity – vending, panhandling, and sidewalk cafés. Finally, Deacon concludes with regulation of behavior, which includes the issuing of fines or tickets to people behaving in ways determined to be undesirable or inappropriate in public space. Behaviors commonly seen by municipal authorities as undesirable include such activities as littering, painting graffiti, and sleeping on the sidewalk.

Regulation is an example of a top-down planning method. Top-down regulatory approaches have been widely critiqued by scholars like Michel de Certeau. In *The Practice of Everyday Life*, he writes: "Is the immense texturology spread out before one's eyes anything more than a representation, an optical artifact? It is the analogue of the facsimile produced, through a projection that is a way of keeping aloof, by the space planner urbanist, city planner or

cartographer" (92-93). De Certeau is suggesting that top-down approaches fail to account for the way urban spaces like the sidewalk are actually used. Top-down approaches are typically broad, representational, and focus on the sidewalk's role as part of the larger urban fabric. However, the sidewalk at the human scale cannot be understood when looking at it so broadly. The irony is that municipal authorities look at the sidewalk broadly in terms of its function in the overall city landscape, yet also zoom in to the point of regulating each individual sidewalk actor separately. In New York, for example, newsstands are regulated by the Department of Consumer Affairs, while trash cans are regulated by the Department of Sanitation (Deacon 22). With each component regulated separately, by different authorities, confusion arises as to how to shape and understand the sidewalk space.

Despite a long history of city governments working to regulate sidewalk use to promote an outcome of efficient, smooth pedestrian circulation, an enormously wide range of activities still takes place on the sidewalk (Loukaitou-Sideris and Ehrenfeucht 266). I have compiled partial lists of activities and artifacts I witnessed on New York sidewalks while conducting this study (see Appendix B). Some of these activities are predictable (like people eating at sidewalk cafés), while others are more surprising (people picking recyclables out of the trash). The vast range of activities that take place on the sidewalk make regulating and designing it far from straightforward. Although the primary focus of sidewalk regulation has been, and perhaps needs to be, unobstructed pedestrian circulation, this should not prevent planners and architects from understanding the sidewalk as the ultimate multipurpose space. The sidewalk fulfills a larger diversity of functions than perhaps any other space, public or private. It is the unique and diverse combinations of activities happening on a sidewalk segment at any given time that make that segment unlike any other.

Advocates of Human-Scaled Urban Observation

Today, there is a general agreement amongst planners that urban space needs to be observed at, and designed for, the human scale. This level of agreement is in large part due to the work of urban theorists and activists Kevin Lynch, Jane Jacobs, William Whyte, and Jan Gehl, who have advocated for human-scaled understanding and design of cities.

Kevin Lynch's book *The Image of the City*, published in 1960, describes the "mental image" observers have of a city. Lynch describes five urban elements that structure this image, or mental map: paths, edges, landmarks, nodes, and regions (95). Lynch does not differentiate sidewalks from streets – both fall under the category of "path." Lynch writes:

> The five elements – path, edge, district, node, and landmark – must be considered simply as convenient empirical categories, within and around which it has been possible to group a mass of information. To the extent that they are useful, they will act as building blocks for the designer. Having mastered their characteristics, he will have the task of organizing a whole which will be sensed sequentially, whose parts will be perceived only in context. (109)

Lynch describes each element as composed of different parts, including "path." However, he does not give clear suggestions as to how to understand the idea of "path" as a whole made up of multiple components, such as sidewalk and street. Perhaps there is a type of image created by walking down the sidewalk that is actually different from that created by driving down the street, and maybe a segment of sidewalk provides a different type of image than the one created by looking at the sidewalk as one long, continuous path. While Lynch's work is exemplary in its exploration of how the city is perceived and understood by its inhabitants, it remains focused on how these perceptions of distinct elements tie back to the image of the city as a whole.

In 1961, one year after the publication of *The Image of the City,* Jane Jacobs also advocated for the observation of urban life at the scale of the inhabitant in *The Death and Life of Great American Cities*. Jacobs described the sidewalk in particular in a completely new way, emphasizing the importance of sidewalks and arguing that "streets and their sidewalks, the main public places of a city, are its most vital organs" (29). She characterized the sidewalk as a powerful public place: "Lowly, unpurposeful and random as they may appear, sidewalk contacts are the small change from which a city's wealth of public life may grow" (72). The sidewalk, according to Jacobs, is powerful in part because it is a place where strangers must interact. The more strangers are using a sidewalk, the more successful and safe the sidewalk is because it has more people, or "eyes" watching it (Jacobs 35).

Jacobs attacked the top-down, regulatory urban planning processes of the time. She advocated instead for detailed observation of life on the street. To design the sidewalk, she argued, one must first understand and experience the sidewalk. Jacobs likened the daily experience of the sidewalk to an ever-changing ballet: "The ballet of the good city sidewalk never repeats itself from place to place, and in any one place is always replete with new improvisations" (50). She shares some of her daily observation of "the ballet of Hudson Street":

> When I get home after work, the ballet is reaching its crescendo. This is the time of roller skates and stilts and tricycles, and games in the lee of the stoop with bottletops and plastic cowboys; this is the time of bundles and packages, zigzagging from the drug store to the fruit stand and back over to the butcher's; this is the time when teen-agers, all dressed up, are pausing to ask if their slips show or their collars look right… (52)

Her idea that all sidewalks were unique from one another, and that each sidewalk was also constantly changing, was novel. Jacobs encouraged her readers to observe their own cities,

including the sidewalks. She wrote, on a page titled "Illustrations" before the Introduction, that: "The scenes that illustrate this book are all about us. For illustrations, please look closely at real cities. While you are looking, you might as well also listen, linger and think about what you see." Jacobs successfully highlighted the necessity of human-scaled urban observation, but stopped short of creating specific tools or artifacts to guide this observation beyond her descriptions of her own observations.

In the 1980s, William Whyte expanded on Jacobs' notion that urban public spaces require understanding via observation through the use of photography, sketches, and notes. His film, "The Social Life of Small Urban Spaces" and the accompanying book of the same name, record public spaces, primarily in New York City, through time-lapse film. The application of film techniques to the study of urban space reveals much insight about human behavior. After studying several plazas, Whyte is able to conclude, for example, that:

> A good plaza starts at the street corner. If it's a busy corner, it has a brisk social life of its own. People will not just be waiting there for the light to change. Some will be fixed in conversation; others, in some phase of a prolonged goodbye. If there's a vendor at the corner, people will cluster around him, and there will be considerable two-way traffic back and forth between plaza and corner. (*The Social Life of Small Urban Spaces* 54)

Whyte does not document sidewalks specifically. His film focuses more on street corners and sidewalks that abut other public spaces like parks and plazas. One area of sidewalk is never studied as its own space and presented in that manner to the viewer, or audience, in his work. This is problematic in terms of observing the sidewalk because plazas and parks differ from the sidewalk in that they are not primary circulatory spaces. One chooses whether to enter them or not, whereas for an urban dweller, using the sidewalk is obligatory. Even the chauffeur or taxi-

driven elite must cross the sidewalk at two points – once to enter their private car and once to enter their destination, for example. Thus, the association of the sidewalk with other public spaces in the city is misleading. The sidewalk is a critical piece of infrastructure, which differentiates it from most other public spaces, and necessitates that it be studied individually.

The Project for Public Spaces, a group founded by Fred Kent, Whyte's former research assistant, grounds its work on the observational research conducted by Whyte. It has published a "Streets as Places Toolkit" on its website, which features four sections: "Principles," "Actions for Individuals," "Actions for Communities," and "Actions for Government." The "Principles" section describes the qualities of a successful street and sidewalk (the two are grouped together), with examples of streets around the world. These examples typically include one large picture and a short description. The photographs are mostly from outside sources, not taken directly by Project for Public Spaces employees. "Actions for Individuals" highlights ways in which people can activate their street, by hosting neighborhood parties, for example. "Actions for Communities" likewise proposes ways communities can activate their streets, and "Actions for Government" does the same for governments. The "Streets as Places Toolkit" shows concisely many different ways in which the street environment could be better designed, but the observations that must have led to these conclusions are not included in the publication.

Urbanist Jan Gehl is also known for his studies on urban public spaces that focus on the inhabitants' perspective – the human scale. He emphasizes the importance of walkability in the city, writing: "Walking is the beginning, the starting point. Man was created to walk, and all of life's events large and small develop when we walk among other people. Life in all its diversity unfolds before us when we are on foot" (Gehl 19). Janette Sadik-Khan, as commissioner of the New York City Department of Transportation, hired Gehl to study the way New Yorkers use

public space (Sadik-Khan and Solomonow 78). Gehl assembled a team of "trained public life surveyors" that "…fanned out across the city to look closely at how people on foot use city spaces. How many people were stopping? How long did they linger? How long were streets so crowded that they impeded business and transportation? How many building fronts were closed, dilapidated, or uninviting?" (Sadik-Khan and Solomonov 78). Gehl's study is akin to the work of Whyte; it involves close observation of public spaces, often using photography as one method of observation. This method tells a lot about how people use public space, including the sidewalk. However, the observed information is often quantified into data – graphs and charts showing how many people were in specific locations at a given time. This kind of data is useful for planners, and tells one kind of story about the sidewalk's use. Different tools might capture the sidewalk experience in different ways.

Although Whyte and Gehl have used photography in their observations, they have not dedicated significant study to the sidewalk, but have focused instead on public spaces more broadly. The former was interested in observing sidewalks in so far as they intersected other public spaces, and the latter was interested in collecting data on street and sidewalk use.

FIGURES: INTRODUCTION

Fig. 0.1: Via Consolare in Pompeii with Adjacent Sidewalks (Via Consolare)

Fig. 0.2: Sidewalk in Pompeii with Street Drain (Pompeii Street Drain)

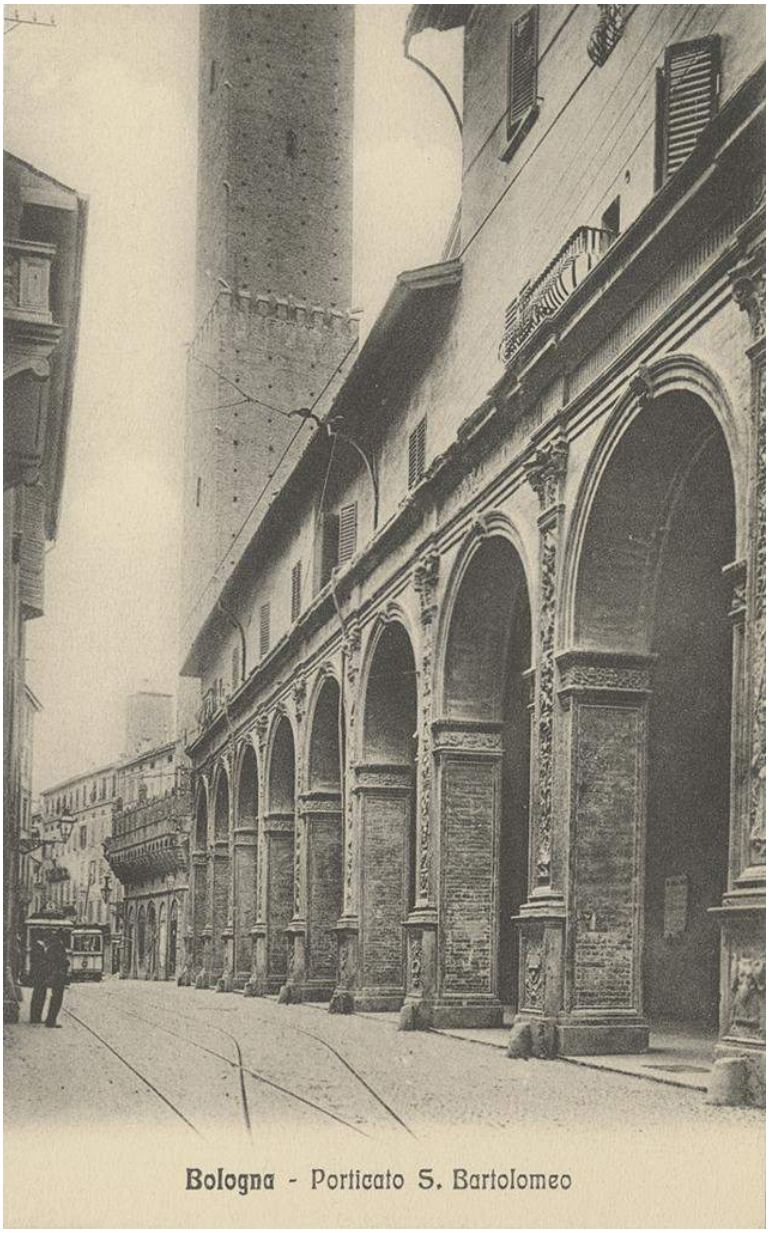


Fig. 0.3: Arcade Street in Bologna Built in the 1500s (Biagi & Zoboli)

Fig. 0.4: Le Boulevard de Montmartre (Paris: Montmartre: Ext.: Le Boulevard Montmartre. c.1900.)

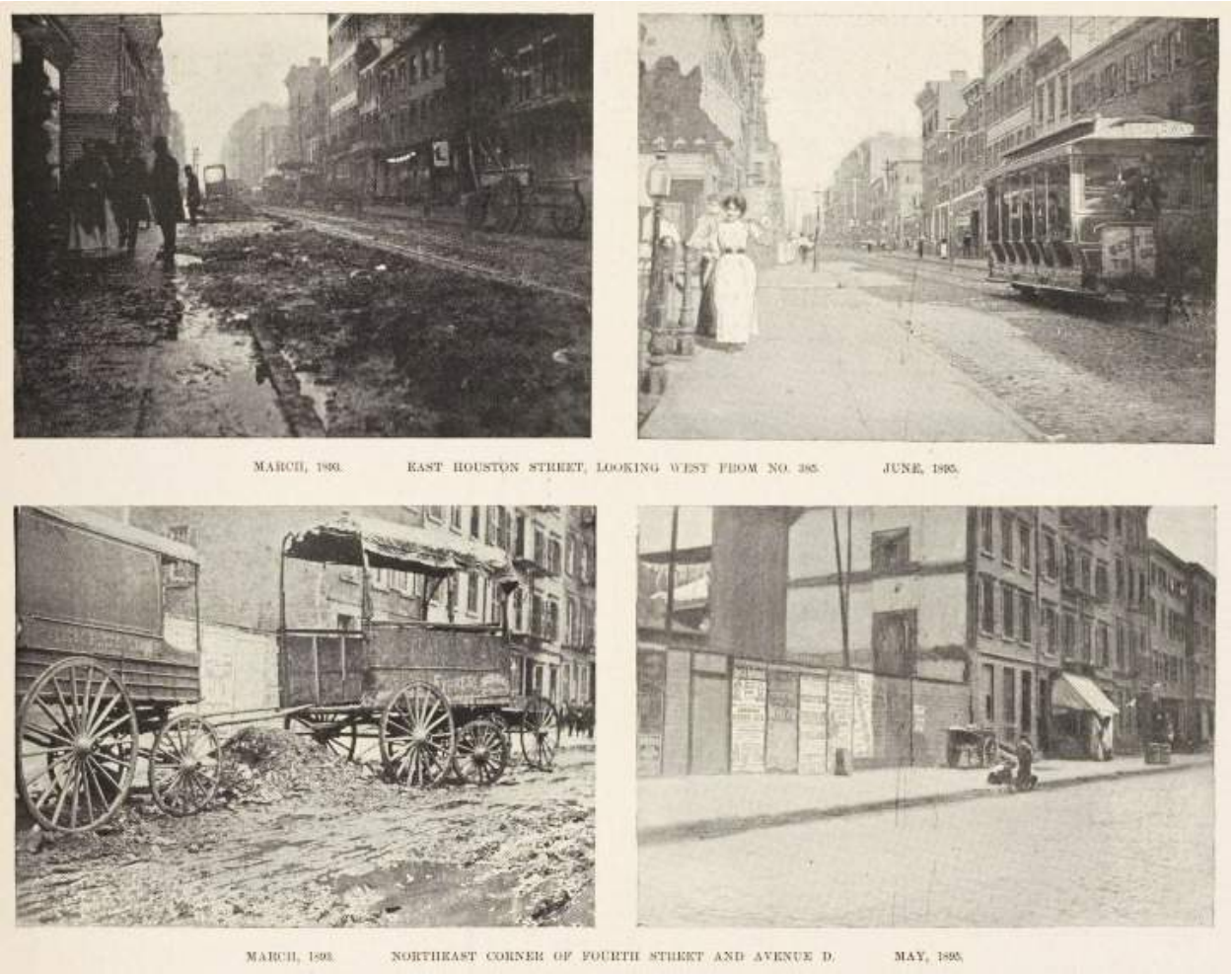


Fig. 0.5: New York City Before (1893) and After (1895) Sanitary Reform (General Research Division, The New York Public Library)

CHAPTER 1: Analysis and Critique of Existing Sidewalk Representations

"…observation – careful, critical, and sustained – is the touchstone of the urban design process… I am confident that there are solutions to be found in the spaces we already have and in the character of the people and ecology that animate them, if only we observe carefully enough, with new eyes to see familiar places." (Washburn 64)

Introduction

Very few published observational studies of just the sidewalk exist. How we represent a space is an indicator of our attitude about that space, and the lack of published sidewalk studies suggests that the importance of the sidewalk is not widely appreciated. However, when looking at the few studies that feature significant sections on the sidewalk, a gap emerges in the representational tools used to depict the sidewalk experience.

This chapter examines the strengths and weaknesses of existing representations of the sidewalk space. Some of these representations use an observational model. It should be noted that each of the works critiqued here had different goals than I do, and succeed at fulfilling their goals. However, the goals of this thesis are different. Nevertheless, this is the body of existing work that studies and represents the sidewalk, for whatever end purpose, and therefore serves as a starting point for determining the representational method best suited to my study. Overall, while these representations provide certain information about sidewalks, they fail to help those who have a hand in designing the sidewalk space, whether they be architects or planners, see a sidewalk for its incredible complexity, uniqueness, and changeability. In many cases, these representations may be useful for design, but they fail to fully illustrate the fact that the sidewalk is much more than a piece of infrastructure; it is a place where life happens. The overall lack of

representation of the many ways the sidewalk is experienced is, again, perhaps an indicator that we do not recognize its immense complexity and multi-functionality.

Overview of Publications

The New York Department of City Planning published the following two companion works in 2013 as part of a set of "Active Design" publications created by the Center for Active Design:

- "Active Design: Shaping the Sidewalk Experience"
- "Active Design: Shaping the Sidewalk Experience: Tools and Resources"

These resources are written with the purpose of encouraging urban physical activity, advocating techniques that can, in the words of David Burney, commissioner of the New York City Department of Design and Construction, "…assist designers and governments create beautiful, enjoyable sidewalks that make our cities more walkable and our citizens healthier" ("Active Design: Shaping the Sidewalk Experience" 5). This is a filtered observation, as there was an end goal or outcome in mind before any observation took place: encouraging walkability on sidewalks. Therefore, researchers chose to represent the sidewalk from the pedestrian's point of view.

Nonetheless, these publications offer one of the few examples of observational research focused solely on the sidewalk. The scope of most publications' work is the street as a whole, with perhaps a section featuring the sidewalk.

In this study, researchers observed sidewalks in six different American cities – New York, New York, Birmingham, Alabama, Nashville, Tennessee, Louisville, Kentucky, Seattle, Washington, and Portland, Oregon. A team spent 2-3 hours observing and documenting 330-

foot long sidewalk areas in each city through drawings, photography, and video. Unfortunately, few of the team's photographs made it into the actual publication.

The National Association of City Transportation Officials (NACTO) published the *Urban Street Design Guide* in 2013, which features a section on "Street Design Elements." Sidewalks, sidewalk zones, and sidewalk design are examined in an eight-page long subsection. Janette Sadik-Khan is the former President and current chair of the NACTO, as well as the former Commissioner of the New York City Department of Transportation. In the forward to the *Urban Street Design Guide*, she explains its purpose: "The Urban Street Design Guide gives an overview of the principles that cities are using to make their streets safe and inviting for people walking, shopping, parking, and driving in an urban context" (viii). This is not an observational study, but a set of design guidelines. While this publication features a section on sidewalks, streets are the primary focus, again indicating a tendency to study the sidewalk as a subset of the street. This publication relies primarily on diagrams as a representational technique.

Descriptions of experiences on the sidewalk are also examined and critiqued here. As previously discussed, Jane Jacobs described her own observations of sidewalk life in Greenwich Village. Jacobs' work inspired others such as Mitchell Duneier and Michael Sorkin to represent the sidewalk experience in descriptive terms in their books *Sidewalk* and *Twenty Minutes in Manhattan*, respectively.

Work by both Whyte and Gehl is also included in this analysis and critique, although neither has released a study focused specifically on the sidewalk. Yet, Whyte's work in *The Social Life of Small Urban Spaces* in particular serves as a model that might provide insight as to how to create a tool, a communicative artifact, that depicts rapidly passing sidewalk life in a way that could augment the work of the sidewalk designer.

Graphic Representation

Drawings are the primary means by which architects and planners understand and represent space. In many ways, the great strength and weakness of a drawing is that it is a representation graphically re-interpreted or encoded by the architect or planner in order to highlight the most important elements of the space. In the case of the sidewalk, a great wealth of information is lost in this process. The gum, the cracks, the cigarette butts, the graffiti, the kid skateboarding, the homeless man sleeping – these are just a few examples of artifacts and activities that shape the sidewalk and yet are missing from representational drawings and diagrams of the sidewalk. Judgements are made as to what to include and what to omit, and this dramatically separates the representation from reality.

Furthermore, the sidewalk is a rapidly changing environment where no two moments in time are identical. While drawing can, in general, be a useful tool for understanding a space, it is a slow process. The sidewalk changes at such a fast rate that its nature and spirit cannot be truly depicted in drawings. Every fleeting moment tells us something, and no moment will ever happen exactly the same way again. One knows when looking at a sidewalk drawing that many, many moments came and went during the time it took to physically draw that one moment. Thus, a drawing is not necessarily a captured moment in time, but a synthesis of many passing moments. Representations of the sidewalk through drawing tell one kind of story, but this story loses, in some sense, a connection with the real experience of the space.

"Active Design: Shaping the Sidewalk Experience: Tools and Resources" features a case study of a sidewalk segment on Atlantic Avenue in New York (Figs. 1.1-1.7). This case study shows the sidewalk diagrammed as a room in order to analyze each plane of the room separately. "The Sidewalk Room" diagram, as a tool, attempts to observe, document, and understand the

sidewalk from the point-of-view of a pedestrian walking down it (Fig. 1.8). Representational drawings of the sidewalk as a room distill the sidewalk in a way that can be studied and documented by planners. However, in this process, much critical information is either abandoned or diluted. The sidewalk experience is not just about the physicality of the sidewalk space. It is about the people who are using it and the traces they have left behind, which become part of the history of that place. Drawings devoid of people do not establish what the real uses of the sidewalk are or were. Space is only truly understood when its uses are understood.

Alexandros Washburn, the former chief urban designer at the New York City Department of City Planning, was involved in the creation of the "Active Design" publications. He writes:

> We begin with how people experience the sidewalk. We have gone beyond the rather dry analytic tools of plans and sections typical in urban design studies to think of the sidewalk as a *room*, experienced through motion within four planes defining its edges. We then catalogue the physical elements that make up each of the planes, much like an architect might draw the floor plans, ceiling plans, and walls of a room to specify the elements that make them up… (115)

Washburn and the rest of the team involved in this research recognized the inability of traditional plans and sections to represent the sidewalk experience. They saw the need for a new representational method, and therefore created "The Sidewalk Room." This method succeeds in depicting the pedestrian view of the sidewalk in a graphically simple way. Each plane can be studied and analyzed separately, or together as a room. An issue with "The Sidewalk Room" approach, however, is that, while it may represent pedestrians' perspective of the sidewalk, it does not account for activities other than straight forward walking, such as people sitting at a sidewalk café, or standing and chatting, or weaving through a crowd. Most sidewalk benches are situated on the edge of the sidewalk near the street, facing building facades on the opposite side

of the sidewalk. Someone sitting on a bench is not seeing the "sidewalk room" from the same perspective as a pedestrian walking down the sidewalk. An observational method that could capture the sidewalk from many different viewpoints would have more potential to capture the sidewalk's incredible complexity. There are an infinite number of ways the sidewalk scene can be approached, experienced, traversed, and left behind.

Washburn also describes the strengths of drawing as an observational tool: "…the act of drawing forces you to filter and prioritize what is important about a place. Though critical faculty may operate subconsciously in a swirl of ink, the bottom line is that taking the time to draw forces you to look, and by looking, you learn. That is what I mean by observation" (66). A drawing encapsulates one moment with as much detail as the artist wishes to include, but it does not relate that moment to any other moment before or after it, so it is frozen, lifeless. The act of drawing forces one to look carefully and critically. It is a useful learning tool. The immense number of activities that take place on the sidewalk simultaneously, however, cannot be fully represented by drawing.

NACTO's *Urban Street Design Guide* uses computer-drawn diagrams as the primary means of representing the sidewalk (Figs. 1.9, 1.10). The sidewalk here is stripped of its textures, colors, and character. These diagrams are effective for quickly showing the division of the sidewalk area as zones, but lack the vitality of a lively sidewalk scene. Silhouette people are shown participating in various activities (sitting on a bench, walking a dog, sitting at a sidewalk café, window shopping), which helps enliven the diagram. However, other signs and traces of activity, like cracks on the sidewalk surface, or graffiti on buildings or fire hydrants, are missing. This makes the sidewalk in the diagram appear much more sterile than it really is.

Textual Representation

Descriptions of the sidewalk experience have certain strengths and weaknesses. When a sidewalk narrative is composed as prose, it is removed from the actual artifact, the physical space. However, narrative descriptions can be powerful in taking the reader into the writer's inner, highly personal experience, akin to a flâneur experiencing the sidewalks of Paris.

As previously discussed, Jane Jacobs described the sidewalk as an experiential narrative. In the decades since the publication of *The Death and Life of Great American Cities,* others have attempted to capture the sidewalk experience as a narrative as well. *Sidewalk*, published in 1999 by sociologist Mitchell Duneier, provides an ethnographic look at people who try to make a living on the sidewalks of Greenwich Village – vendors and panhandlers. Prose, accompanied by photographs by Ovie Carter, help tell this story. The photographs, however, are primarily portraits of specific people, and tell more about these people than the wider sidewalk experience (Fig. 1.11). The descriptions of the sidewalk experience also center around the lives of these vendors, and even feature interview material. The following passage describes one vendor's reasons for sleeping on the sidewalk:

> "If you see the spot that Ishmael got, he want to be there all the time, twenty-four hours," Ron told me. "He don't want to leave the spot and have it be taken by somebody else when they get there in the morning. So he figure he just stay there." Ishmael confirmed that he stays there because doing so maintains another resource, a space on the sidewalk from which to sell magazines. (Duneier and Carter 162)

This description provides certain valuable information about life on the sidewalk and the difficulties of making a living as a street vendor. However, it is not comprehensive, and instead focuses on depicting the lives of a specific population of sidewalk users.

Michael Sorkin has also described the sidewalk experience in prose. In his book *Twenty Minutes in Manhattan*, he describes a twenty-minute walk from his apartment in Greenwich Village to his office in Tribeca. Sorkin describes his favorite café, and "shops, parks, corners, buildings where friends live" that are all personal to him. He is describing his personal path through the city. He writes:

> A left turn opens a more varied and interesting set of choices, a more porous street frontage, and – despite the orthogonality of a grid in the 1811 alignment – more opportunities for bobbing and weaving. It also allows a stop in what has been, for decades, a favorite café that attracts a cadre of regulars of which I have been a minor member. The routes that open up with a left turn bring me past many places – shops, parks, corners, buildings where friends live – that mark the culture of local citizenship, allow the calibration of change, and offer opportunities to describe and refine the network of human relationships that anchor me in place. (87)

Narratives told in prose tend to be very personal – an account of the writer's sidewalk experience. This personal aspect of prose can make it difficult to capture larger truths and commonalities about the sidewalk experience. Even Jacobs' descriptive observations of the "sidewalk ballet" on her street are highly personal. Writing is a highly-filtered form of expression, as the writer chooses how they want to express their own thoughts and perceptions about the subject. A reader can imagine a writer's description of a chaotic, lively sidewalk environment, but they cannot see it visually.

Descriptions, in general, are less spatial than images or drawings. A descriptive narrative, however poetic and detailed, also risks being too filtered or curated by the narrator to allow readers or listeners to create their own interpretation and meaning from the sidewalk experience. In this way, descriptions add information to the store of observational data about the

sidewalk space, but the experience itself is not fully captured in a way that leaves ample room for interpretation by an audience.

"Active Design: Shaping the Sidewalk Experience: Tools and Resources" also uses some description of the sidewalk. The Atlantic Avenue case study begins with a "Neighborhood Context Form" (Fig 1.2), which asks the observer to indicate several qualities of the larger urban context in which the sidewalk is situated. The next page is titled "Sidewalk Survey: Summary" (Fig. 1.3). This form asks for physical qualities of the sidewalk space, and asks the observer to grade the sidewalk experience based on connectivity, accessibility, safety, continuous variety, human scale/complexity, sustainability, and the success of each "plane" of the sidewalk room. The observer is also asked to provide additional written observations, which in this case include, for example, "Some trash in tree pits" and "Relatively active sidewalk with steady pedestrian flow" ("Active Design: Shaping the Sidewalk Experience: Tools and Resources" 31). These descriptions are vague and do not necessarily correspond with the realities of that sidewalk – how much trash is "some trash?" This is the observer's opinion, and leaves the reader guessing as to what it might be like to experience that sidewalk ("some trash" could mean a gum wrapper and a cigarette butt, or it could mean a newspaper, several sandwich wrappers, and a soda can).

Photographic Representation

Although many observational studies use photography as a tool, these photographs seldom make it into any published form. The few photographs that have been published show promise as a medium for creating a representational tool or artifact.

The Atlantic Avenue Case Study in "Active Design: Shaping the Sidewalk Experience: Tools and Resources," features a photographic collage (Fig. 1.1). This technique may be

promising as a representational tool because it shows a wide sidewalk area as well as abutting building facades, giving a good overview of the sidewalk being studied. However, the collage is not prominent, but located at the bottom of a page as an afterthought. Photographs were one important observational tool used in this study, and yet have little to no presence as representational tools in the final publication.

The work of William Whyte is exemplary in its use of photography, but still lacks focus on the sidewalk as its own public space. As previously mentioned, "The Street" is covered in Whyte's *The Social Life of Small Urban Spaces*, but the sidewalk is not the primary focus. The sidewalk is described in relation to parks and plazas: "the sidewalk in front [of Paley Park] is an integral part of the park. An arborlike foliage of trees extends over the sidewalk" (Whyte, *The Social Life of Small Urban Spaces* 57). Whyte describes street corners similarly, in relation to nearby plazas and parks: "A good plaza starts at the street corner" (*The Social Life of Small Urban Spaces* 54). Whyte's film and photographs of the street corner give a lot more information about the street corner and the people standing there, than about the sidewalk space (Fig. 1.12). What Whyte has done in illuminating the complex life of plazas and parks must now be done for the sidewalk.

Jan Gehl, who also often uses photography in his observation of public spaces, also has yet to publish an extensive study on the sidewalk, which, as previously discussed, has its own set of needs which are not the same as those of other public spaces like parks and plazas. Jan Gehl and Birgitte Svarre describe the purpose of photography in studying public life:

> Photographs often illustrate and enliven data. In the field of public life studies, photographs of public life scenes are not subjected to the usual aesthetic principles so dear to the hearts of

> architects generally. Here the emphasis is not on design but rather on situations that occur in the interaction between public life and public space. (Gehl and Svarre 31)

This is one of the strengths of photography as an observational tool – it takes the focus away from design momentarily and instead highlights the use of space. Gehl and Svarre describe photography as a supplement to data. Could photography actually become a set of data rather than just a supplement?

Whyte and Gehl organize multiple photographs in sequence, so that they read almost as a storyboard or photo essay (Figs. 1.12, 1.13). The frame of each photograph remains the same, while the people in the photographs are changing position. This allows for small changes in the behavior of the people in the photos to be readily perceived. However, a drawback to these photo sequences is that they are focused perhaps so much on the people that the context disappears – the sidewalk and street corner in the case of Whyte, and the bench in the case of Gehl. Gehl adds his own narration describing what he observes in each photograph, a humorous but perhaps unnecessary projection of his personal interpretations onto the photographic set of data (Fig. 1.13). Photography might yet be able to capture behavior in a way that also makes the spatiality of the urban context prominent enough that it does not disappear perceptually.

Conclusion

Some of the studies covered in this chapter come from publications intended to help planners design better sidewalks. They primarily show drawings and diagrams of the sidewalk. In some cases, extensive photographic studies were conducted and then information from them was distilled down to other kinds of representational artifacts. However, the assertion here, based on the successful work of Whyte and Gehl, is that there is potential value in photographing

the sidewalk and then sharing this photographic documentation with planners and architects as an educational artifact to inform their work. Like all urban inhabitants, planners and architects use the sidewalk. It is a space they understand at an intuitive level: "People intuitively know how to read the sidewalk, and there are unspoken, unmarked lanes that people intuitively understand" (Sadik-Khan and Solomonow 75). What if this subconscious understanding could somehow be made conscious? Could photographs trigger viewers to tap into their own store of experience and bring to the surface new perceptions, new insights that have thus far been intuitive and unspoken?

The representations that have been produced from sidewalk observation so far are disconnected from the actual sidewalk experience. Photography, however, appears to show promise as an observational tool capable of representing a sidewalk experience that is both real and universal, but also open to interpretation by different viewers. It could help designers better see how this space is used in all its complexity, and how people interact with others in this public realm. A new kind of photographic work – a tool focused solely on the sidewalk – may be capable of adding to the sum of useful information a sidewalk designer has at their disposal.

A still photograph does not have a drawing's difficulty in capturing a fleeting moment. A series of still photographs challenges the viewer to take note of changes which occurred almost immediately, as demonstrated by the work of Whyte and Gehl. The viewer is drawn in at the chance to view a moment in time. Consecutive moments can be photographed from different perspectives by zooming in or out or changing position. In reality, we do not have the chance to truly *see* passing moments – they are there and then gone too fast.

Still photography may allow viewers to study individual moments without losing sight of the ongoing passage of time. A photographic series or montage may allow an appreciation of the

moment itself without losing touch with the fact that, in reality, space is experienced as a series of fast appearing and disappearing moments. It would be impossible to capture or represent everything going on at every moment on a sidewalk. Even if only a handful of moments are captured, this type of photographic study could let the viewer join in to experience the sidewalk in subtle ways they have not before, or have, but only subconsciously. Whyte and Gehl recognized this, but did not apply this knowledge directly to the sidewalk.

FIGURES: CHAPTER 1

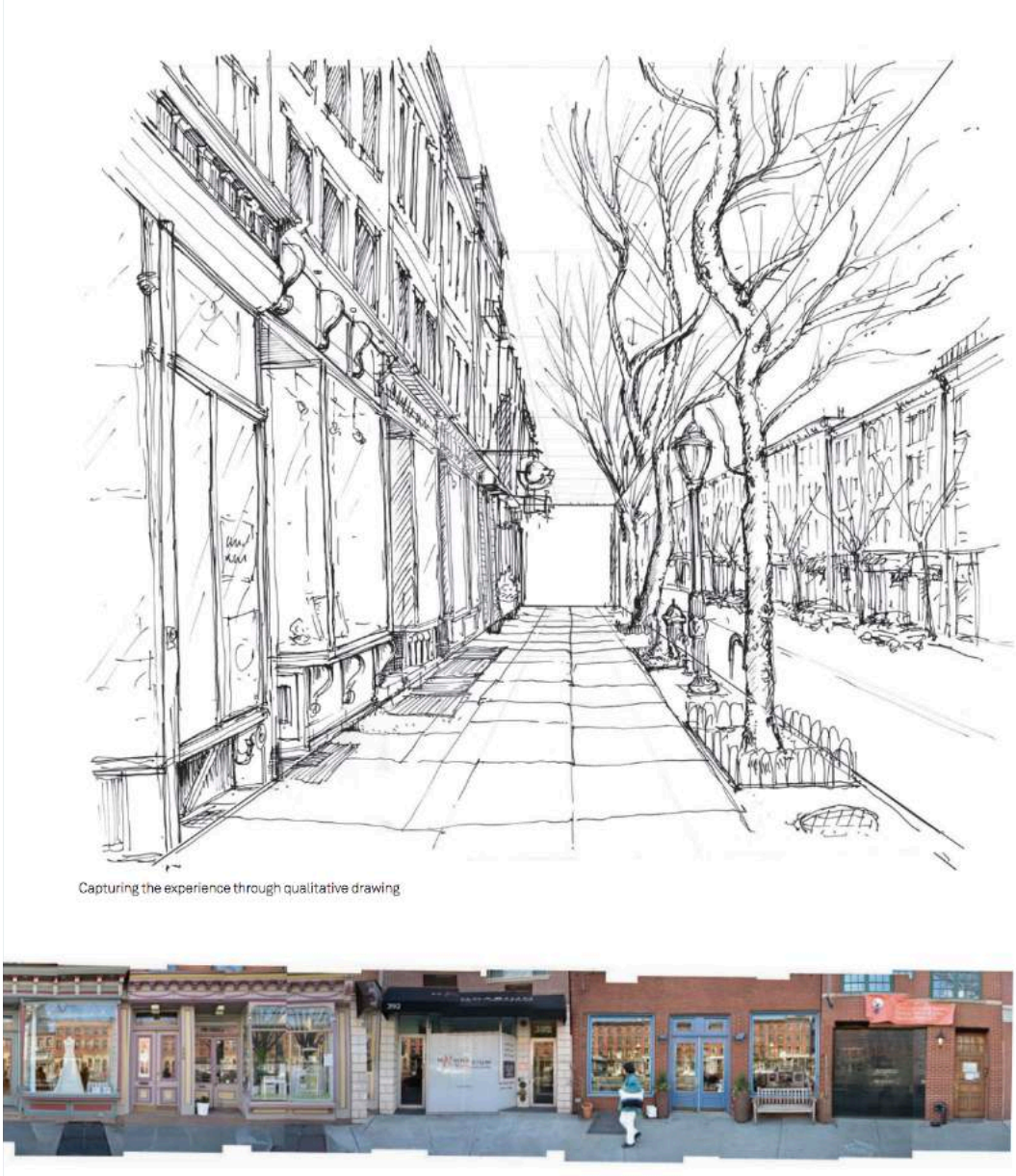


Fig. 1.1: Atlantic Avenue Case Study – Page One ("Shaping the Sidewalk Experience Tools and Resources")

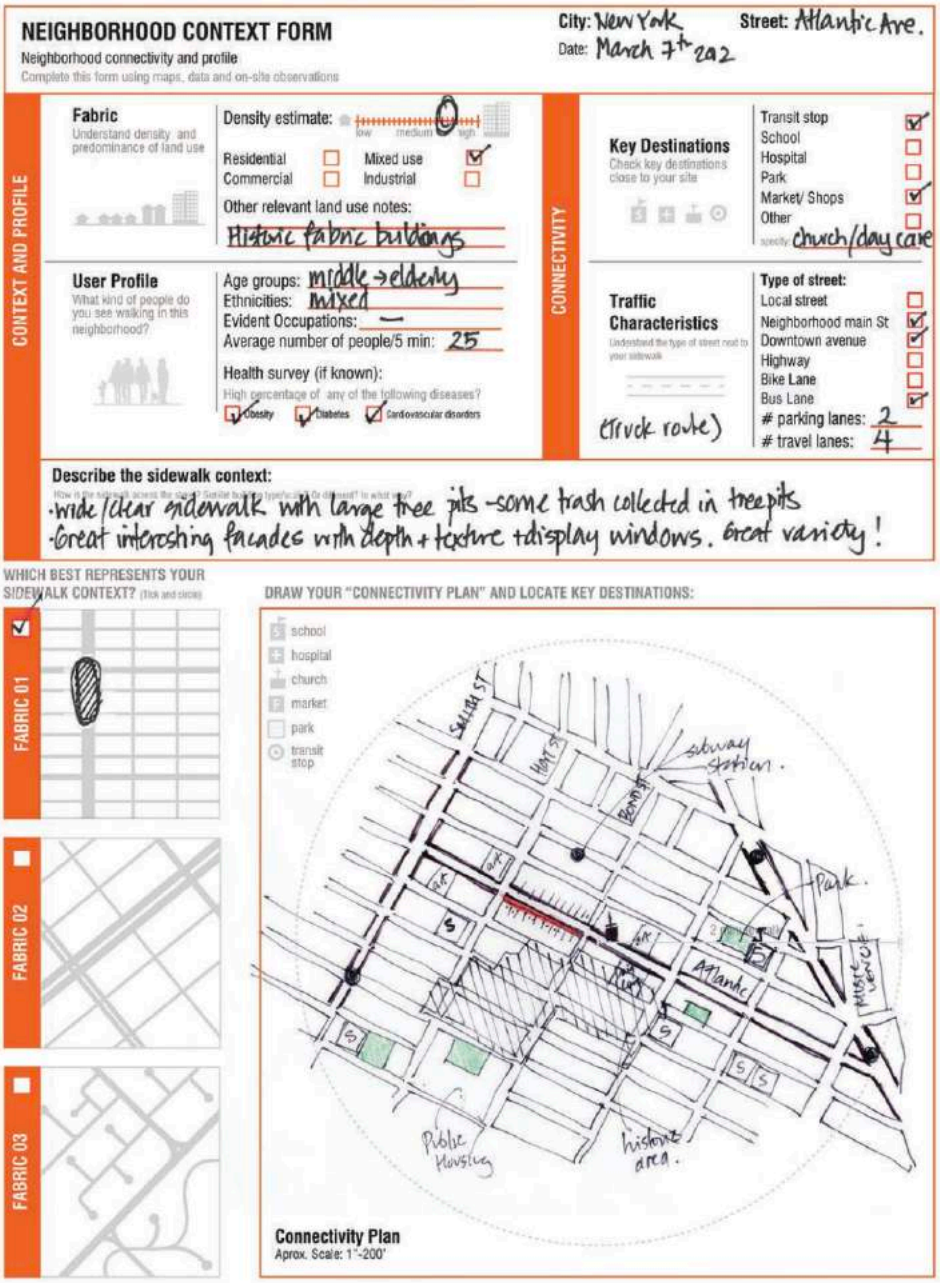


Fig. 1.2: Atlantic Avenue Case Study – Page Two ("Active Design: Shaping the Sidewalk Experience Tools and Resources")

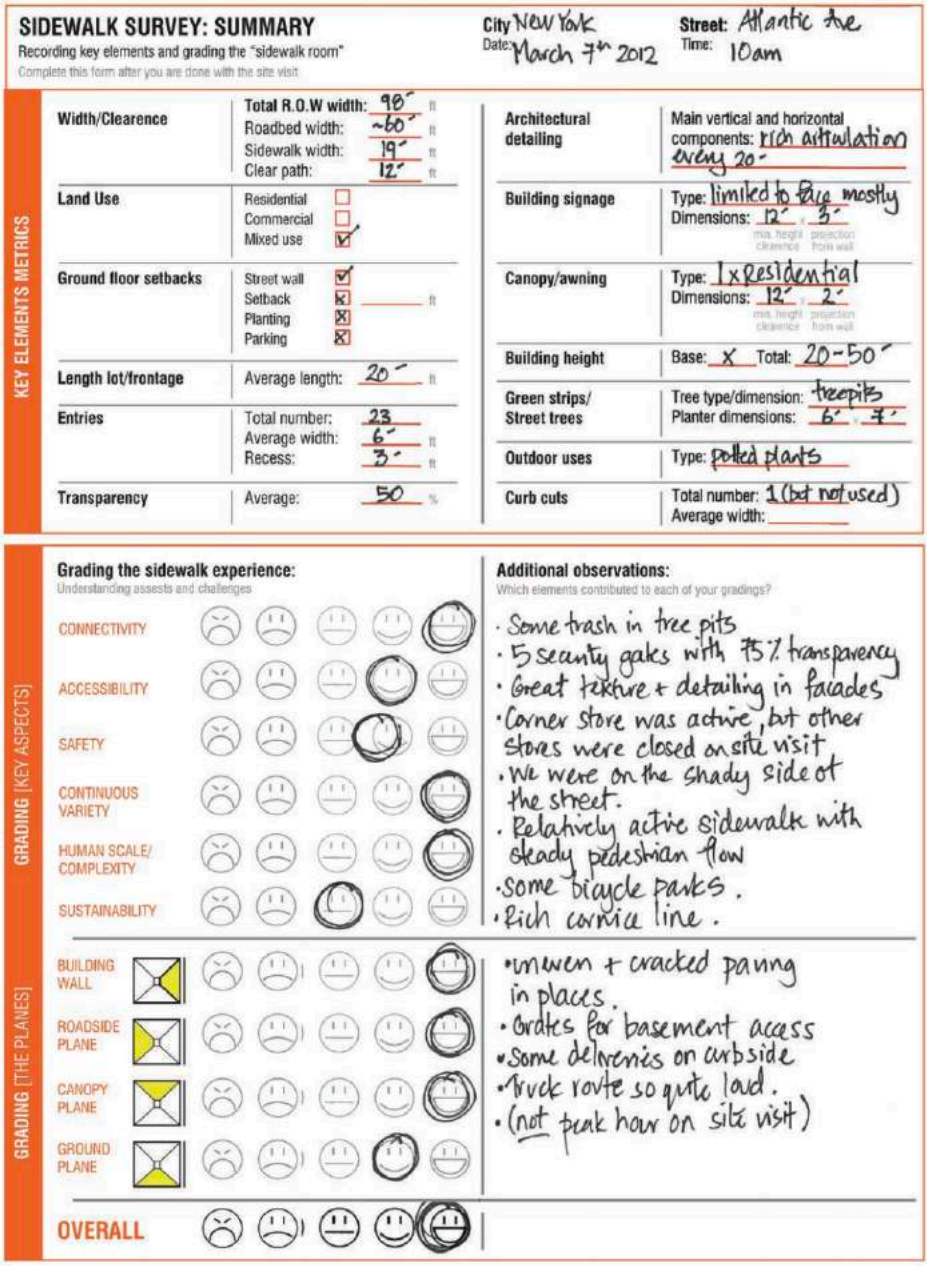
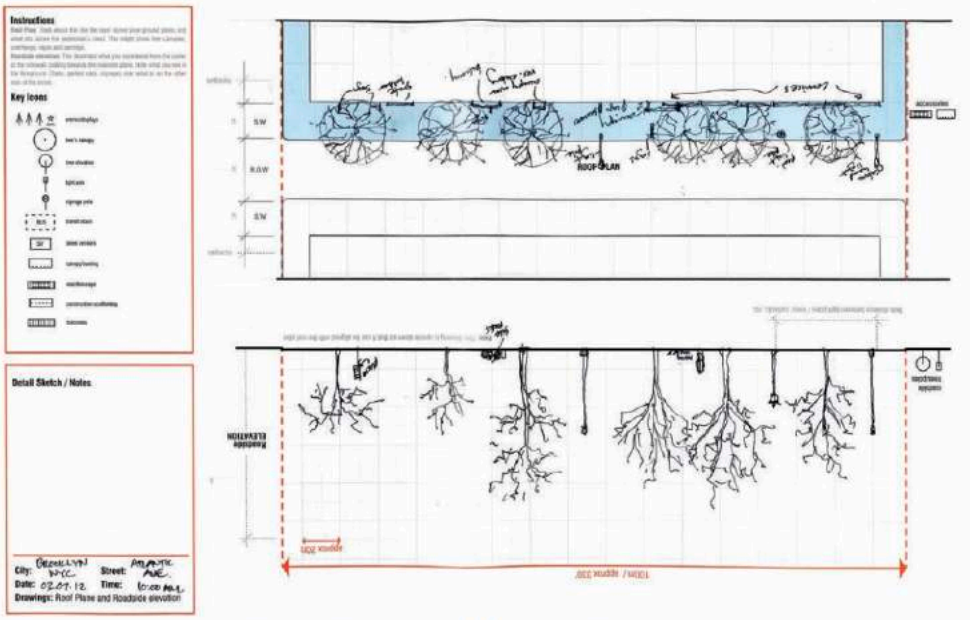


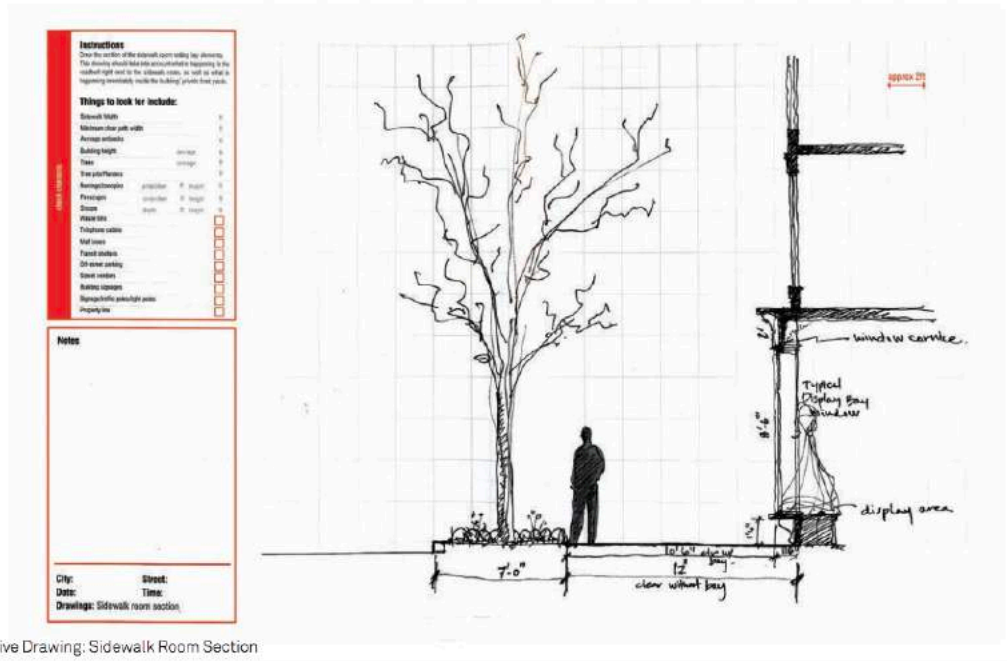
Fig. 1.3: Atlantic Avenue Case Study – Page Three ("Active Design: Shaping the Sidewalk Experience Tools and Resources")

Quantitative Drawing: Ground Plane and Building Elevation

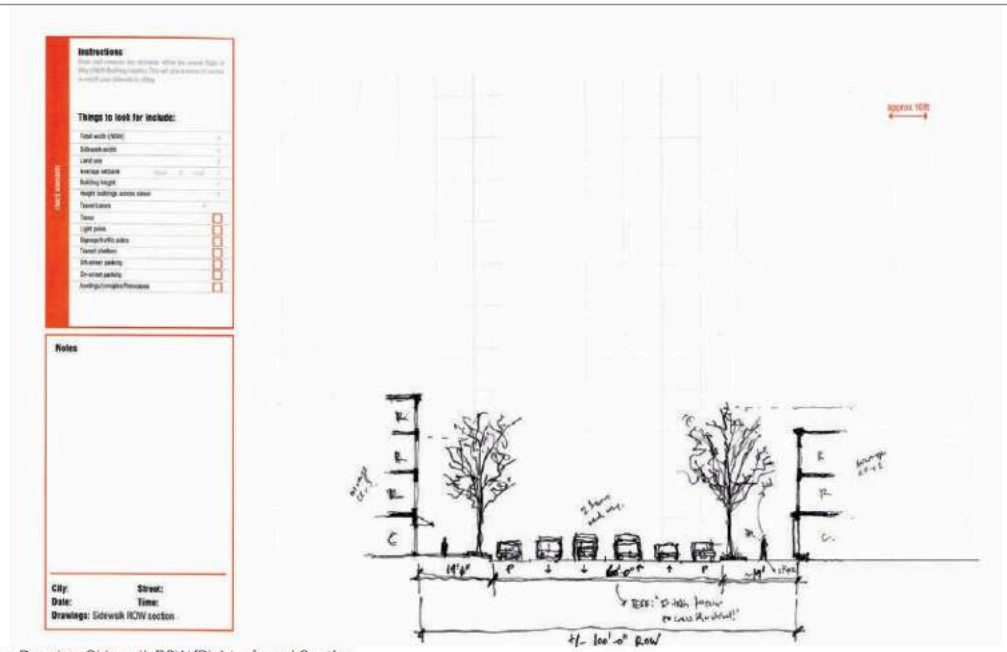


Quantitative Drawing: Canopy Plane and Roadside Elevation Note: this drawing is upside down to align with the canopy plane

Fig. 1.4: Atlantic Avenue Case Study – Page Four ("Active Design: Shaping the Sidewalk Experience Tools and Resources")

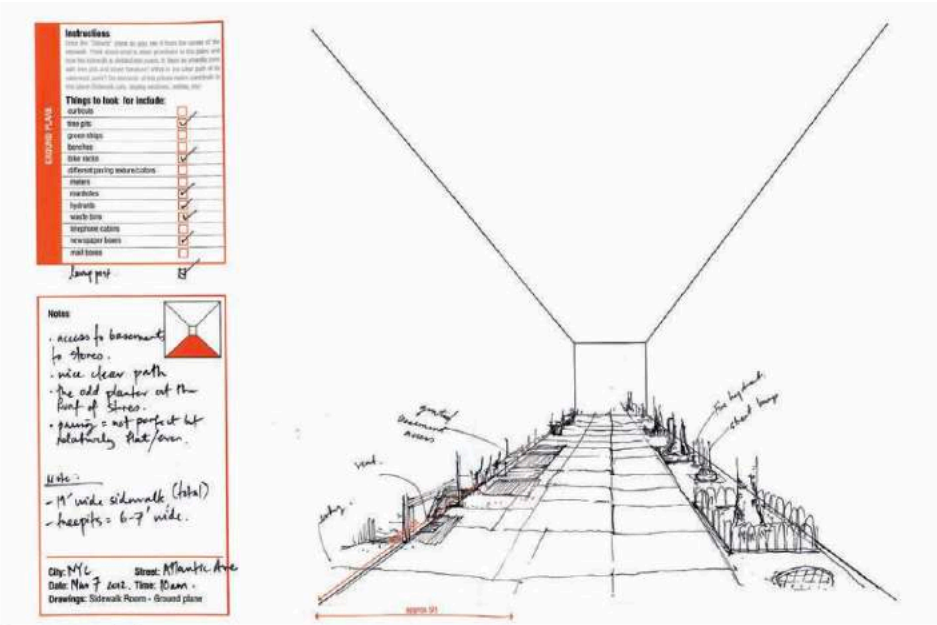


Quantitative Drawing: Sidewalk Room Section

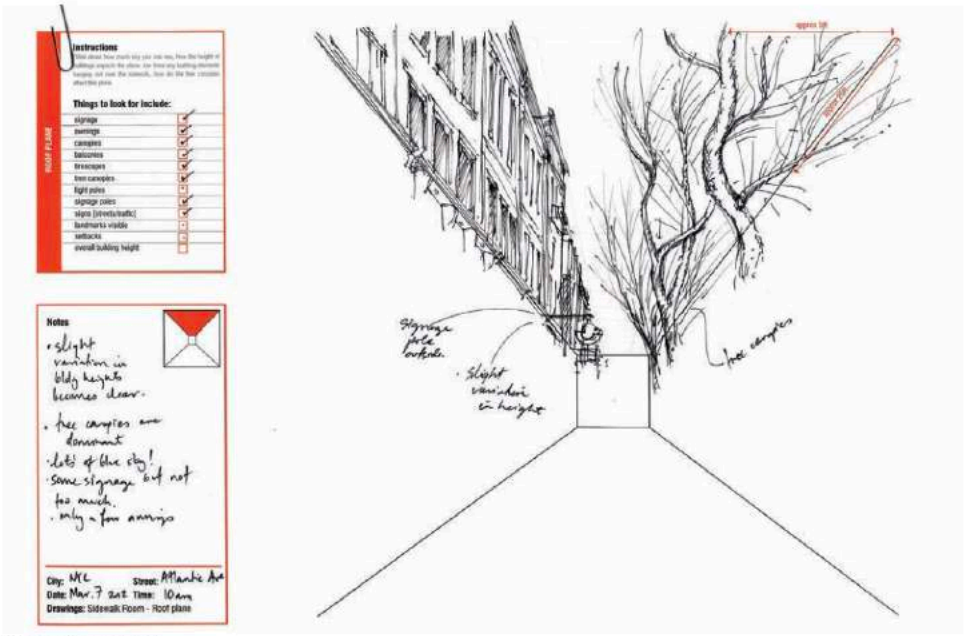


Quantitative Drawing: Sidewalk ROW (Right-of-way) Section

Fig. 1.5: Atlantic Avenue Case Study – Page Five ("Active Design: Shaping the Sidewalk Experience Tools and Resources")

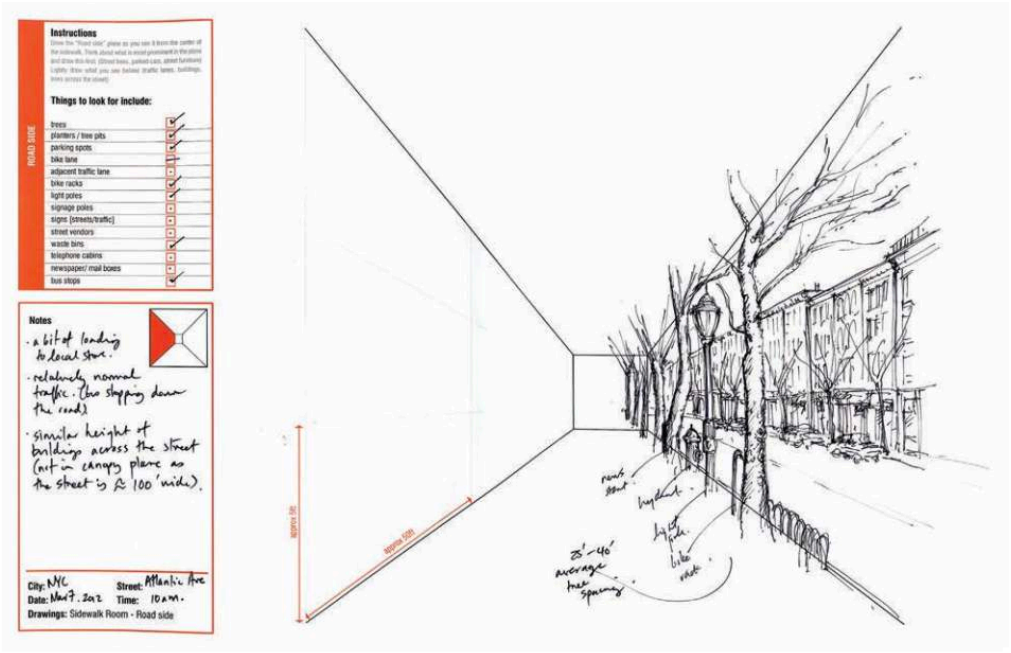


Qualitative Drawing: Ground Plane

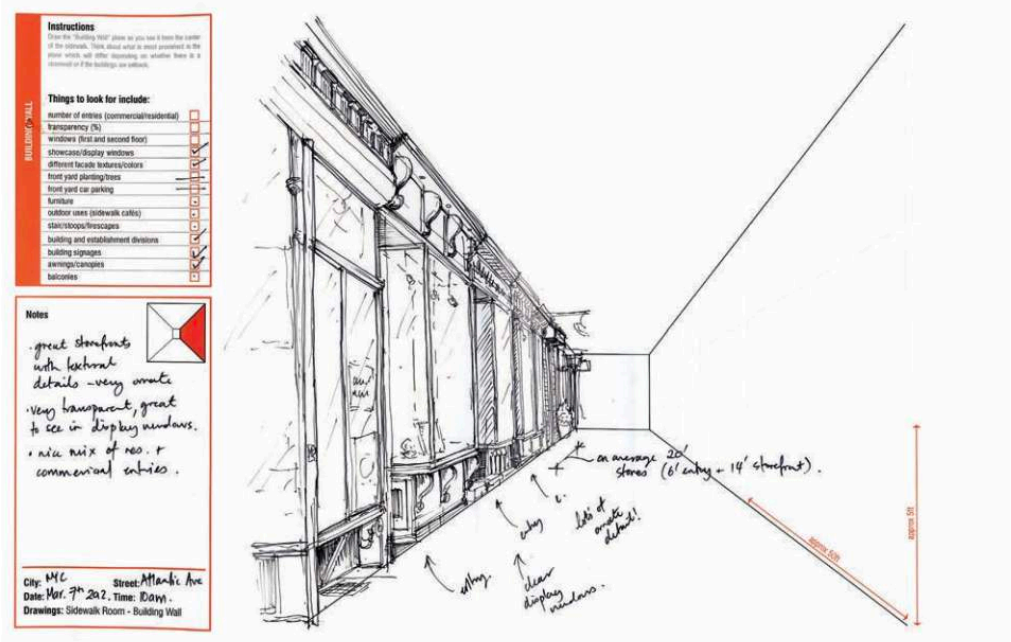


Qualitative Drawing: Canopy Plane

Fig. 1.6: Atlantic Avenue Case Study – Page Six ("Active Design: Shaping the Sidewalk Experience Tools and Resources")



Qualitative Drawing: Roadside Plane



Qualitative Drawing: Building Wall Plane

Fig. 1.7: Atlantic Avenue Case Study – Page Seven ("Active Design: Shaping the Sidewalk Experience Tools and Resources")

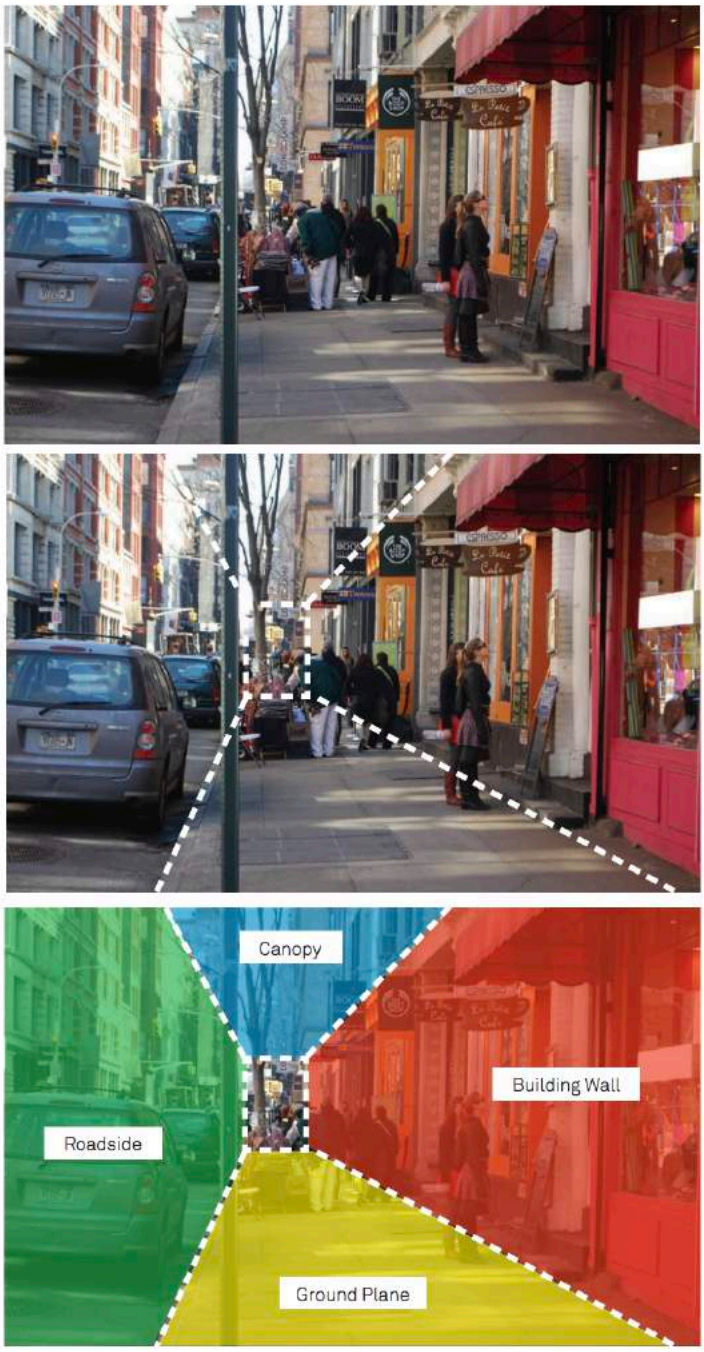
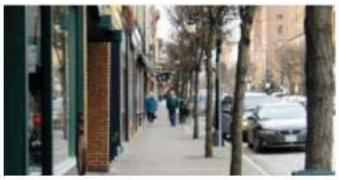


Fig. 1.8: The Sidewalk Room ("Active Design: Shaping the Sidewalk Experience")

DOWNTOWN
Conventional Sidewalk

Sidewalks are central to pedestrian life. Cities can enhance the public realm by creating venues where people can observe street life and activity, especially in retail and commercial areas.



NEIGHBORHOOD
Narrow Sidewalk

Narrow neighborhood sidewalks should be redesigned to provide a wider pedestrian through zone and street furniture zone whenever practicable.

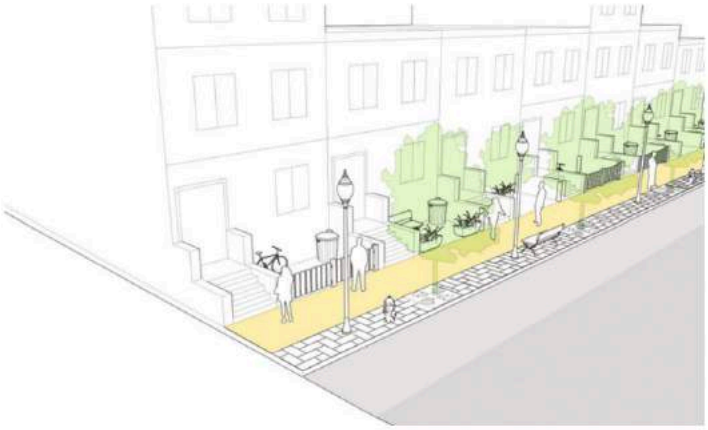


Fig. 1.9: Sidewalk Overview Diagrams (NACTO)

Fig. 1.10: Sidewalk Zones Diagram (NACTO)

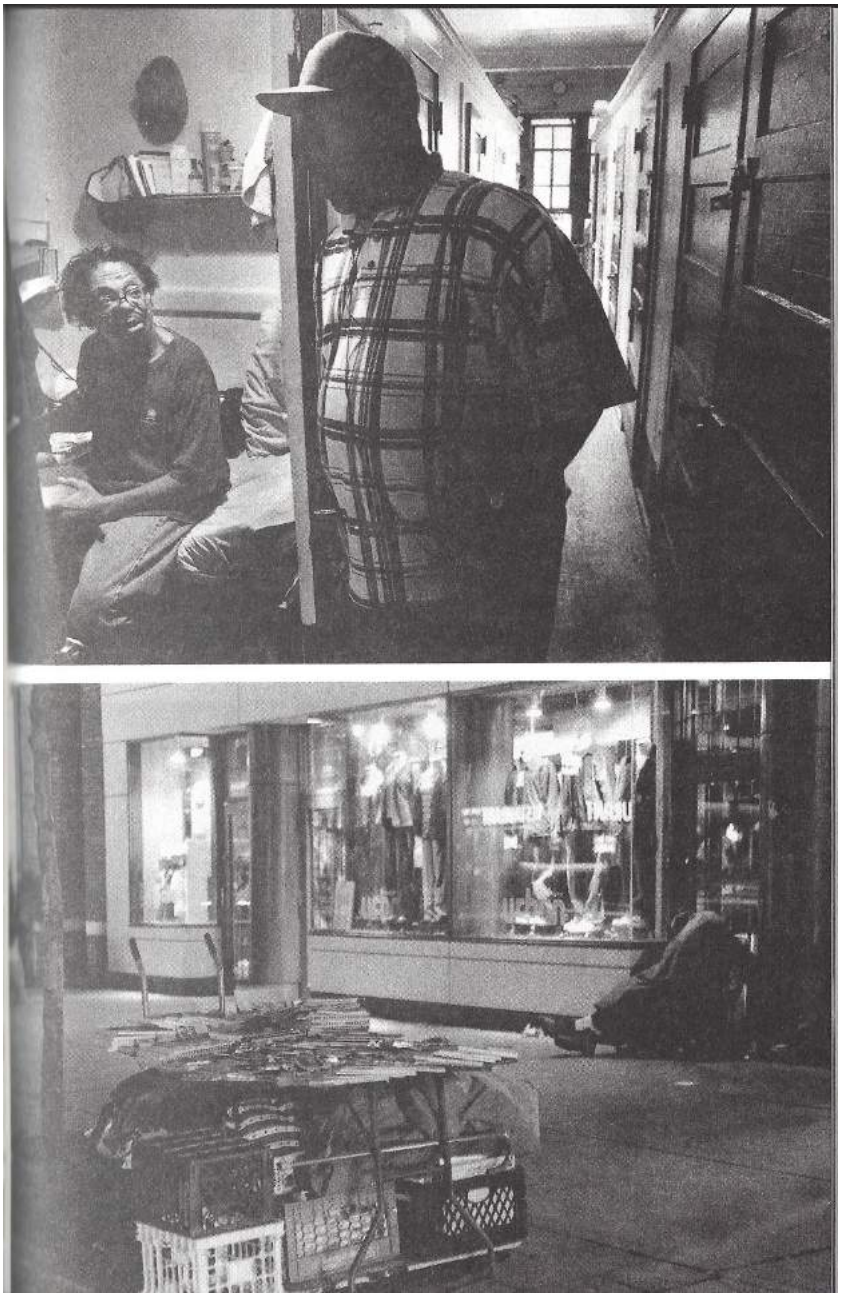


Fig 1.11: Life of a Street Vendor, Photographed by Ovie Carter (Duneier and Carter)

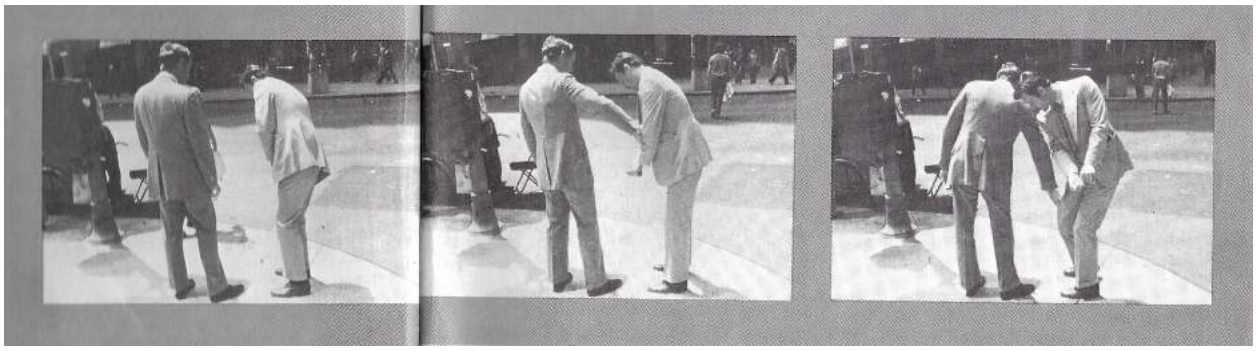


Fig 1.12: Men Interacting at Street Corner (Whyte)

Fig. 1.13: "How is a bench used?" (Gehl "People on Foot," as cited in Gehl and Svarre)

CHAPTER 2: The Project

Project Scope and Aims

This study is situated within a discourse which accepts that urban public spaces require observational study at the human scale. Yet, little research of this type has been done on the sidewalk thus far. Loukaitou-Sideris and Ehrenfeucht suggest that this may be because the sidewalk is typically considered to be part of the larger streetscape, as opposed to a separate, unique space (6). The sidewalk is an important urban public space in need of observational study at the scale of the sidewalk itself, instead of at the scale of the city or street (the "top-down" approach).

"Broad agreements about what should be permitted on sidewalks may be irrelevant when the debate is about a particular strip of sidewalk for specific, competing desires" (Loukaitou-Sideris and Ehrenfeucht 125). This sentiment echoes Jane Jacobs' that no two sidewalk areas are identical, and each has its own unique conditions, which are constantly changing. Along these lines, the goal of this thesis is to create a new tool to expand the set of existing tools designers have at their disposal to observe and understand the sidewalk. One segment of sidewalk (the site) is captured using photomontage as a technique to create a Photographic Sidewalk Narrative.

The Photographic Sidewalk Narrative is a fine-grained tool that represents the sidewalk experience – the ephemeral fleeting moments and the subconscious and intuitive interactions that take place every day on one stretch of sidewalk. This is in contrast to Lynch's idea of the continuous "path" and Whyte's and Gehl's methods of studying multiple, similar public spaces (e.g. plazas), and drawing generalizations from the collected footage (Fig. 2.1). The Photographic Sidewalk Narrative is intended to allow designers to see and to study the sidewalk

experience in a new light, because it represents the sidewalk in a way that it has not been represented before.

In the context of this study, "fine-grained" is a term that will be used to describe the Photographic Sidewalk Narrative, meaning "involving great attention to detail" (fine-grained, n.2.). I made an effort to capture every aspect and feature of the sidewalk site, both large and small, from the tree canopy overhead, down to the small pieces of gum, cracks, and paint spills on the sidewalk surface. This is in contrast to other approaches to representing the sidewalk, such as the diagrammatic drawings in NACTO's *Urban Street Design Guide,* which show zoomed out views of the sidewalk, and thus focus on broader issues such as circulation and zoning. The Photographic Sidewalk Narrative produced by this study depicts a small stretch of sidewalk through photomontage, and within that stretch attempts to represent the space at a fine-grained level of detail.

This is a new tool, rather than a new method. Many artists and urbanists have already pioneered methods of photomontage. The photographic approach of this project was inspired by William Whyte, and also by a number of artists and urbanists who pioneered the architectural use of photomontage, a type of collage that uses photographs. Montage can be defined as: "The technique of selecting, editing, and piecing together separate sections of film to form a continuous whole" (montage, n.1.). "Photomontage," then, is a montage created from photographs rather than from pieces of film.

The photomontages that Ed Ruscha produced of Los Angeles in the 1960s have long been a point of reference for architects. He created numerous books in which he assembled "typologically ordered photo series that document the banal urban reality of Southern California" (Stierli 132).

Ruscha's first book, *Twentysix Gasoline Stations*, was published in 1962 and, like many of his later works, "was designed to convey the most objective, deadpan view of its subject" (Schwartz 4). "Deadpan" is a term that is used in the field of photography "…to suggest a 'matter-of-fact' mode of delivery, an approach to photographic presentation that is devoid of subjective emotion or affect" (Vinegar 854). Ruscha stated that he took photographs like a journalist, and that his photographs were a "collection of facts" (Ruscha 217). He insisted that he was not interested in photography for its aesthetic or artistic aspects, but for its ability to show reality, stating that "…the photograph isn't the art – the gas station might be. The photograph is just a surrogate gas station. The photograph itself doesn't mean anything to me; it's the gas station that's the important thing" (Ruscha 215).

The manner in which Ruscha compiled his photographs into books is also of interest. Taylor and Rawlinson argue that "…the photobook becomes in and of itself a new field of perception, able to produce in the viewer a particular perceptual experience…" (23). I designed the Photographic Sidewalk Narrative as a book, a set of pages printed front and back, some pages featuring one photograph and some featuring two. This is similar to the way Ruscha laid out his pages in *Twentysix Gasoline Stations,* which features photographs laid out one per page, sometimes taking up a full spread (Fig. 2.2). This allows each photograph to be viewed on its own, but also adjacent to other photographs. A single photograph provides a reading of that frame, while two or more photographs together inspire comparison.

Another of Ruscha's books, *Every Building on the Sunset Strip*, was published in 1966 and documents the entire Sunset Strip in a twenty-five foot long accordion fold-out (Stierli 134-135). While Ruscha's previous works had presented photographs of architectural typologies (such as the gas station), *Every Building on the Sunset Strip* shows complete, continuous

elevations of both sides of the Sunset Strip (Stierli 135). Ruscha attached a 35-millimeter camera to a pickup truck and drove down the Strip to capture the photos which he then stitched together. The camera featured a motor that automatically advanced the film, thus reinforcing a deadpan gaze as opposed to a subjective gaze (Stierli 135-136). The result is a realistic and complete representation of the Strip in elevation (Fig. 2.3). The photomontage elevation I created of my sidewalk site is similar, but was photographed by hand, as opposed to from an apparatus like a car or tripod, and then stitched together digitally (Fig. 2.8). The elevation reveals very little about the sidewalk, as it is too zoomed out and thereby misses critical detail. Cars also block the view of the sidewalk. This opened my eyes to the necessity for the sidewalk to be studied at a fine-grained level of detail, as the space cannot really be seen in a zoomed out elevational view, other than from a broad, contextual perspective.

Every Building on the Sunset Strip was particularly influential for Robert Venturi, Denise Scott Brown, and Steven Izenour's book *Learning from Las Vegas*. In her article "On Pop Art, Permissiveness, and Planning," Scott Brown wrote that Ruscha's "…*Sunset Strip*…suggests a new vision of the very imminent world around us" (186). The ability of Ruscha's photomontages to help architects see everyday places in new ways made them more than just art. They were a valuable form of analysis and representation as well.

Martino Stierli, in his book *Las Vegas in the Rearview Mirror: The City in Theory, Photography and Film*, discusses the significance of *Learning from Las Vegas* in the field of visual studies and places it within 1960s urban and artistic discourse. Stierli writes that Venturi, Scott Brown, and Izenour "followed Ruscha's guidelines in both concept and method to produce an image of the city that allowed for emotional distance and the absence of involvement. Like the artist, they replace the selective perception of the human eye with the mechanical gaze of the

camera" (139-140). Venturi and Scott Brown adopted Ruscha's deadpan gaze to create elevations of the Las Vegas Strip matching his of the Sunset Strip.

The goal of the Las Vegas project was to understand urban sprawl "…through open-minded and nonjudgmental investigation…and to begin to evolve techniques for its handling" (Venturi, Scott Brown, and Izenour xi). The view from the automobile was therefore considered critical to Venturi and Scott Brown's work as they "arrived at the conviction that the traditional image of the city in the sense of a coherent, closed entity was no longer valid and that the new, paraurban city form had developed its own type of organization based on the perception of an automobilized viewer passing through at high speed" (Stierli 128). They created films showing the view of the Strip from the inside of an automobile, with the conviction that this new, automobile-centered architecture necessitated this type of representation (Fig. 2.4). Just as Venturi and Scott Brown adapted techniques of photomontage for the particular architecture of the Strip, the Photographic Sidewalk Narrative produced in this work aims to adapt techniques of photomontage for the particular urban architecture of the sidewalk.

Although an inspiration for Venturi and Scott Brown, the deadpan style of Ruscha's work has often been critiqued. Kenneth Frampton, who was critical of Venturi and Scott Brown's interest in the everyday landscape, also took issue with the idea of Ruscha's "neutral" deadpan gaze:

> The essence of Ruscha's [books] is surely that of the alienated environment augmented by subsequent alienation through deadpan photographic record. Although the vernacular is by popular definition…the art of the people, a sophisticated pop record of its meaningless yet varied vacuity…displays little warmth for the lifestyles that these decultured forms no doubt serve to support. For far from having an affinity to their kitsch subject matter, Ruscha's photos are solely

> clinical observation, made nonetheless objective through their fixation on motopia… (Frampton 36)

Frampton took the "deadpan" and "clinical" tone of Ruscha's works to be a specific satirical attitude about the urban typologies he photographed, arguing that his work could therefore not really be considered neutral (Schwartz 159). In the Photographic Sidewalk Narrative, I aim to display more "warmth for the lifestyles" (as Frampton described it) supported by the sidewalk. I tried to capture lively activity as well as quieter moments from many different angles, rather than portraying a solely "clinical" tone. Frampton was critical of many aspects of Ruscha's and Venturi and Scott Brown's work. I hope that the Photographic Sidewalk Narrative might alleviate in some small way Frampton's issue with the cold, insensitive mood he ascribed to the photographs they used to represent everyday places. The Photographic Sidewalk Narrative captures more diverse angles, lighting, weather, colors, and activity levels, for instance, of the everyday space of the sidewalk. The sidewalk is highly multipurpose, and showing it with this diversity of views helps to capture the many different lifestyles it supports as the city's most public urban space.

Despite Frampton's critique, Ruscha's work is particularly relevant to the Photographic Sidewalk Narrative because of his ability to capture everyday aspects of the urban landscape and spark discourse about their representation and their role in urban life. As a representational tool, the Photographic Sidewalk Narrative should also spark inquisitiveness and discourse. As Scott Brown argued, a "new vision" is revealed by Ruscha's work, and the Photographic Sidewalk Narrative this thesis produces is likewise intended to reveal the sidewalk anew.

The Photographic Sidewalk Narrative also draws on the work produced by Gordon Cullen as part of the Townscape movement. The Townscape movement began in the late 1940s

and "addressed visual aspects of contemporary urbanism and…had its voice in the magazine *The Architectural Review*" (Stierli 115). It focused on representing urban space from a pedestrian perspective, rather than from the perspective of someone riding in an automobile. Cullen created the concept of "Serial Vision" which is a method of representing the unveiling of urban views as one walks through a city (Fig. 2.5). On Serial Vision, he wrote that "…although the pedestrian walks through the town at a uniform speed, the scenery of towns is often revealed in a series of jerks or revelations" (Cullen 11). Since the sidewalk is experienced primarily on foot, this body of work is particularly relevant to this thesis. The Photographic Sidewalk Narrative attempts to capture slight shifts and juxtapositions in perspective, although not all from the pedestrian viewpoint. The perspectives of someone standing still or sitting, or looking down, up, or sideways are captured as well, as the sidewalk is considered a highly multipurpose space.

Mira Engler, in her book *Cut and Paste Urban Landscape: The work of Gordon Cullen,* describes and analyzes Cullen's books and drawings. Cullen drew extensively, but his drawings were often based on a photograph. He recognized certain advantages to using photography (Engler 113). He often relied on "the camera to reframe and refocus reality…illustrations to abstract and make reality fictive" (Engler 109). Like Ruscha, Cullen thought of himself as a photojournalist, and took many more pictures than he actually used in his layouts for *The Architectural Review* (Engler 109). He photographed not only zoomed out spatial views, but also details, like handrails and stone textures, in an effort to keep the viewer engaged (Engler 111-112). In the Photographic Sidewalk Narrative, I borrow from this technique, photographing details such as gum on the sidewalk surface and chipped paint on a wooden bench, for instance. This is part of the Photographic Sidewalk Narrative's fine-grained, in-depth approach to sidewalk representation.

Artist David Hockney's "joiners" also serve as a point of reference for the Photographic Sidewalk Narrative. These are photomontages created from multiple images to create a composite whole. Like the work of Ruscha and Cullen, Hockney's work exhibits a certain curiosity about the world. He has stated that he values photography because the camera requires "intense looking" (Knight and Hockney 32). He "uses his kind of photocollage as a Realist, to sharpen the sensations of actuality in his art. He directs attention outward to the world and heightened perception of it" (Hockney et al. 64). This "heightened perception" causes the viewer to notice things they would not with just the naked eye. Multiple images of the same object or space from slightly different perspectives are a way the Photographic Sidewalk Narrative tries to heighten the viewer's perception of the scene. The repetition of the same object from a different angle or distance, brings something different about the object to the viewer's attention.

Hockney's photomontage *Pearblossom Highway #2*, was studied in particular (Fig. 2.6). It depicts the entire length of the highway, collapsed into a single, composite image (Hockney et al. 64). Hockney actually shows the surface of the road, while in Ruscha's elevations (Fig. 2.3), only a small portion of the road can be seen. I created a photomontage in the style of Hockney's as an introductory guide to the Photographic Sidewalk Narrative, showing the entire sidewalk site (see page 78). This photomontage shows the surface of the sidewalk in the same way that Hockney showed the surface of the highway in *Pearblossom Highway #2*. This photomontage technique allows objects like trash bags and fire hydrants, that can otherwise disappear, to become quite prominent. This is also the case in *Pearblossom Highway #2,* where the abandoned cans and road signs are highly noticeable.

The Photographic Sidewalk Narrative borrows from this existing methodology of photomontage, and uses it to create a new tool specifically for seeing the sidewalk. The sidewalk

is a unique, highly multipurpose space, and the Photographic Sidewalk Narrative has been designed to showcase these qualities as they pertain specifically to the sidewalk. The Photographic Sidewalk Narrative is thus a tool that gives new terms to the way the sidewalk, a space that has not been extensively studied or observed, is seen and studied by designers. When designers see anew, they design anew, and this is the potential larger impact of this photographic tool.

Site

This study focuses on one 250-foot stretch of sidewalk on St. Mark's Place between 1st and 2nd Avenues in lower Manhattan (Fig. 2.7). While this thesis addresses urban sidewalks, generally, New York City was chosen as the site for a fine-grained study because the stakes may be particularly high there. The city's population has been on track since 2007 to increase by 1 million by 2030, which means that there will be 1 million more sidewalk users there relatively soon (Sadik-Khan and Solomonow 24).

This particular sidewalk site has been evolving since the 1600s (Calhoun 1). While this could be said of many sites in Manhattan, it is particularly evident here. Ada Calhoun, a writer who grew up on St. Mark's Place, writes:

> The area has undergone constant, and surprising, evolution in the past four hundred years. In the sixteen-hundreds, the land was a farm owned by the Dutch director-general, Peter Stuyvesant, who stumped through the fruit orchards on his silver-and-wooden peg leg. In the eighteen-thirties, judges and statesmen lived here, including the Hamilton family. In 1904, it was devastated by the General Slocum disaster, a pleasure-ship fire that killed more than a thousand German picnickers from the St. Mark's Lutheran church on Sixth Street – New York's deadliest tragedy before the terrorist attacks of 2001. In the early twentieth century, gangsters and

> bootleggers thrived. In the nineteen-forties, it was a working-class immigrant neighborhood; a man who grew up on St. Mark's around the time of the Second World War told me that, as a kid, he chose his route home from school based on whether he preferred to be beaten up by Polish or Italian toughs…St. Mark's in the nineties was a place where you could geek out any way you wanted…The religion of the block, meanwhile – the belief that the street is a space for people who are different – endures, and so do plenty of longtime residents. (2-4)

Today, St. Mark's Place is an eclectic, diverse street, and the sidewalk there embodies centuries of change. The diversity of this street allowed me to choose a small section of sidewalk to study, while still ensuring that I would be able to capture a wide range of activities, interactions, and objects. It is a relatively safe area today, save perhaps at certain late hours of the night, and so this site allowed me to film and photograph the sidewalk without safety concerns.

The particular 250-foot stretch of sidewalk that was chosen transitions from abutting commercial restaurants and bars, to private dwellings, then back to another restaurant. This creates a clear urban sequence. In many places in Manhattan, one large store, restaurant, hotel or apartment building can be found to occupy an entire 250-foot width at sidewalk level. This type of condition creates a completely different sidewalk experience than the site I have chosen. Both conditions deserve to be observed at the fine-grained level this study proposes. However, since this is a new idea, this study attempts to give new terms to the sidewalk by including both commercial and residential properties, with the intention that many more sidewalk stretches with very different conditions be studied in the future.

The site is bound on one end by a restaurant and bar called Jules Bar, and on the other end by an Italian restaurant called Stromboli Pizza on the corner of St. Mark's Place and 1st Avenue. From left to right as one faces the site is Jules Bar, followed by four buildings that are

residential at ground level, then Holiday Cocktail Lounge, a Mexican restaurant called La Palapa, another Mexican restaurant called Taqueria, a Chinese restaurant called Xi'an Famous Foods, a Middle Eastern restaurant called Rakka Café, and finally Stromboli Pizza on the street corner (Fig. 2.8). This site is near Tompkins Square Park, which hosts many events and contributes to the sidewalk activity on the site. The majority of the buildings on the site are residential above the first-floor businesses, and consist of 5-6 floors. The area of the site is small, as the purpose of this study is to tell the fine-grained story of one small sidewalk segment.

Research Methodology I: Time-lapse Filming

To conduct this empirical study, the site was visited on three separate days. All photographs were taken and videos filmed using Nikon 7200 cameras. A time-lapse film inspired by the work of William Whyte was created as part of this research. It documents a single day, consisting of 10-minute clips filmed at five different times throughout the day – at 8:30 am, 10:30 am, 12:30 pm, 2:30 pm, and 4:30 pm. This method of observation-at-intervals posed multiple logistical challenges. I had two tripods and two cameras to set up, then pack up, then set up again to film each clip. I frequented a different café during each filming break, which was an informative activity for broadening my understanding of the neighborhood. Locals told me that this area becomes very lively at night, which was interesting information since I did not continue the time-lapse filming into the evening for lighting and safety reasons. Across the street from the site is a cut out where I was able to set up the tripods in roughly the same spot each time I filmed, while standing out of the way of pedestrian traffic and people entering and exiting the building located just behind (Fig. 2.9). The cameras were set up roughly 20' apart to take in as wide a view as possible of the sidewalk on the opposite side of the street. One drawback of

filming the time-lapse was that with only two cameras, only a portion of the 250' site could be filmed, from Jules Bar to Holiday Cocktail Lounge (Fig. 2.10).

Several people on the sidewalk from which I was filming did notice and acknowledge the cameras, but the pedestrians on the other side of the street, the side being studied, did not. I experimented with setting up the cameras at the edge of the sidewalk, near the curb, so as to get a clearer view of the opposite sidewalk (the site), unobstructed by passersby and parked cars. However, people across the street, on the site, then noticed that they were being filmed, without the constant "screen" of people and cars shielding them from direct view of the cameras. Filming from the cut out rather than from the curb meant not being able to capture as much of the site in the frame. Ideally, I would have liked to use more than two cameras, but logistics did not allow this, and more cameras would also have been very conspicuous.

Due to time, equipment, and weather restrictions, the time-lapse filming was only done for one day. Since it was a weekday (Friday), a variety of activities were captured by the camera, and the film is interesting to study. Several surprising sidewalk uses were documented, such as a little boy on a man's shoulders pointing at each individual letter on the awning of Holiday Cocktail Lounge. The man paused and engaged in an impromptu spelling lesson with the boy.

While filming the sidewalk for this study, I faced the issue of becoming a recognizable "character" on the street, to quote Jane Jacobs. Several locals in the neighborhood took notice of my on-and-off presence on the sidewalk by the end of the day of filming. One man even stopped to ask what I was doing, as he had noticed me filming there periodically all day. Even though I was only there for 15 minutes or so at a time, people had become aware of my presence, at least on the side of the street from which I was filming. To reference Jacobs again, this street

certainly has plenty of "eyes" on it. I felt that were I to film a time-lapse again on another day, my presence would by then be fairly conspicuous. This issue might be combatted by more subversive filming techniques, such as tucking the camera under my arm and subtly filming the sidewalk, a technique used by William Whyte. I attempted this technique as well, but it did not solve my problem of having a noticeable presence on the street. I also visited the site to take still photographs multiple times, and on these visits my presence was also noticed, but much less so than when I was filming the time-lapse video with tripods.

Of the many activities that take place on the sidewalk, filming and photographing the sidewalk itself is not usually one of them, and therefore tends to be noticed. This is not to say that the type of work I was conducting is impossible or not to be encouraged. The extent to which a photographer would be noticed would vary on different sidewalks throughout the city. No one seemed bothered by my photographing or asked not to be photographed. Several people smiled and waved at the camera. While I was noticed with my camera, it did not seem that I was bothering anyone.

The time-lapse film I created shows one "slice of sidewalk life" that will never repeat exactly the same way again. Overall, however, I felt that the time-lapse film was not as successful as the still photographs in representing sidewalk life. Filming from the opposite side of the street created a distance and lack of intimacy with the sidewalk being studied. Filming was conducted on the site as well, but not as a time-lapse. I walked down the sidewalk site with the camera around my neck, recording. The resulting footage was jerky and biased towards the pedestrian perspective of the sidewalk. I felt that my end tool or artifact should represent the sidewalk in a more comprehensive manner than what either the time-lapse or my "walking while

filming" could accomplish. For these reasons, I turned my attention to developing the Photographic Sidewalk Narrative as the main focus of this thesis.

Research Methodology II: Photomontage and the Photographic Sidewalk Narrative

I determined, through the analysis of existing sidewalk representational methods outlined in Chapter 1, and through my own photographic experimentation, that using photomontage as a method to create a "Photographic Sidewalk Narrative" had the potential to show experiential aspects and fine-grained details of the sidewalk that are currently missing in sidewalk representation.

Taking inspiration from existing techniques of photomontage, this thesis produces a Photographic Sidewalk Narrative. This is a test, an attempt to document the complexity and nuance of the sidewalk in a way that can be used as a tool for design. This is not, however, an exhaustive study, and should therefore not be interpreted as such. This study, done at different times, on a different sidewalk stretch, would depict a completely different narrative. There is no generic sidewalk space. Each is synergistic and unique – more than the sum of its many distinct, contributing parts. Iterations of this tool could be created for different sidewalk segments, to create a larger catalogue of Photographic Sidewalk Narratives.

This Photographic Sidewalk Narrative consists of still photographs taken on two different Saturdays. The photographs are mixed together, such that time goes forward and backwards in the narrative. This technique captures changing, ephemeral, and time-sensitive qualities of the sidewalk experience.

The Photographic Sidewalk Narrative I created is not completely adherent to a deadpan gaze. The photographs are in color, and they were taken manually as I walked up, down, across,

next to, and around the sidewalk site. I also paused and sat when possible to capture different aspects of the space. The resulting photographs are not flat, as is typical of the deadpan gaze, but shift perspectives, more in tune with Cullen's Serial Vision. I borrowed this technique from Cullen, given his interest in the pedestrian perspective. However, as I have previously described, walking is not the only activity that takes place on urban sidewalks. Therefore, while the concept of Serial Vision inspired parts of the Photographic Sidewalk Narrative, the sidewalk is also shown from many other angles and perspectives other than a pedestrian's. The Photographic Sidewalk Narrative begins with four photographs showing Serial Vision, but then moves to a detail of a fire hydrant, for example.

I did not have access to a car, drone, or other apparatus to set up a camera to mimic the mechanical deadpan approach of Ruscha that inspired Venturi and Scott Brown. Nor did I want the Photographic Sidewalk Narrative to necessarily have the neutrality commonly associated with deadpan. Just as Ruscha, Venturi, and Scott Brown used photography to show the car-oriented condition of urban sprawl, I aimed to use photography to show the condition of the urban sidewalk. The Photographic Sidewalk Narrative is therefore highly designed – it is not a neutral artifact, but a tool created with the intention of highlighting intricate, overlapping purposes and features of the sidewalk site.

I took photographs that I thought would be interesting in the photomontage – people sitting, cracks in the sidewalk, light hitting adjacent building facades, the view of the sidewalk from across the street. My work is not about neutrality, but about capturing real, candid moments. The deadpan approach, Aron Vinegar argues, is not only about practicing non-judgment and conveying a neutral mood, but it is also a "…mood of awareness, readiness, and openness to the world" (869). I tried to capture this aspect of the deadpan gaze in my work,

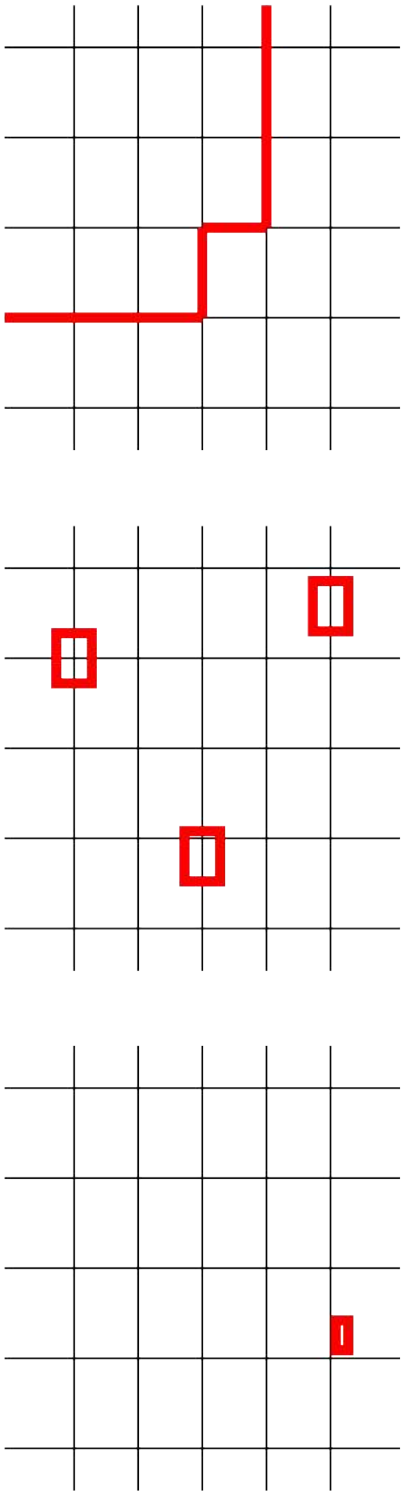
taking hundreds more photographs than necessary, and striving to explore, experience, and capture as much of the sidewalk site as I could. The Photographic Sidewalk Narrative is filtered in the sense that hundreds of photographs were taken manually, and a handful selected and then arranged in a particular order for the final photomontage. However, the contents of the photographs are not edited or altered beyond their framing. Unlike existing sidewalk representations that use graphic or textual observational techniques, the contents within the frame of my photographs show layers that can be otherwise missed or omitted in drawings or in text, such as gum, graffiti, or a person walking with food in one hand and a dog leash in the other. This fine-grained level of detail is achieved in part due to the speed of photography – it only takes a few seconds to take a picture. Photography can capture fleeting moments unlike any other observational method. Walter Benjamin described the ability of photography to capture parts of reality that the eye cannot as the "optical unconscious":

> It is indeed a different nature that speaks to the camera than that which speaks to the eye; different above all in the sense that a space saturated by a person who is conscious is superseded by one saturated unconsciously. While it may now be quite usual that, for example, someone might account for a person's gait, even if only roughly, that person would certainly know nothing of the posture in that fraction of a second when the person 'takes a stride'. Photography, with its technical aids – freeze-framing, image enlargement – make this accessible. One learns of this optical unconscious only through photography, just as the instinctual unconscious is discovered in psychoanalysis. ("On Photography" 67-68)

To create the Photographic Sidewalk Narrative, I borrowed and adapted techniques used by others who have created photomontages, and at the same time retained the ability of photography to capture quickly passing aspects of the space that the naked eye cannot.

My hope is that this photographic work will speak for itself, immersing planners and architects in both recognizable and new moments of the sidewalk that they have not seen before, because they are used to seeing them unconsciously with the naked eye, or through graphic or textual representation. Photographic representation adds a new perspective. The Photographic Sidewalk Narrative both represents the sidewalk and serves as a tool to analyze it. Planners and architects might come away with a deeper understanding of the complexity of the sidewalk. This tool uses photomontage specifically for seeing the sidewalk, and can be used to recognize design flaws and inspire design potentials.

FIGURES: CHAPTER 2



Sidewalk studied as sequential, continuous path (e.g. Kevin Lynch's notion of "path" as urban unit).

Separate sidewalk areas studied. Common elements compared (landscaping, adjacent facades, street furniture, etc.) and used to draw generalized conclusions (e.g. Whyte's and Gehl's public space studies).

This thesis focuses on one small segment of sidewalk area. It aims to represent this space through a new, fine-grained, photographic tool that can help planners and architects see the sidewalk anew.

Fig. 2.1: Scales of Potential Sidewalk Study Diagram

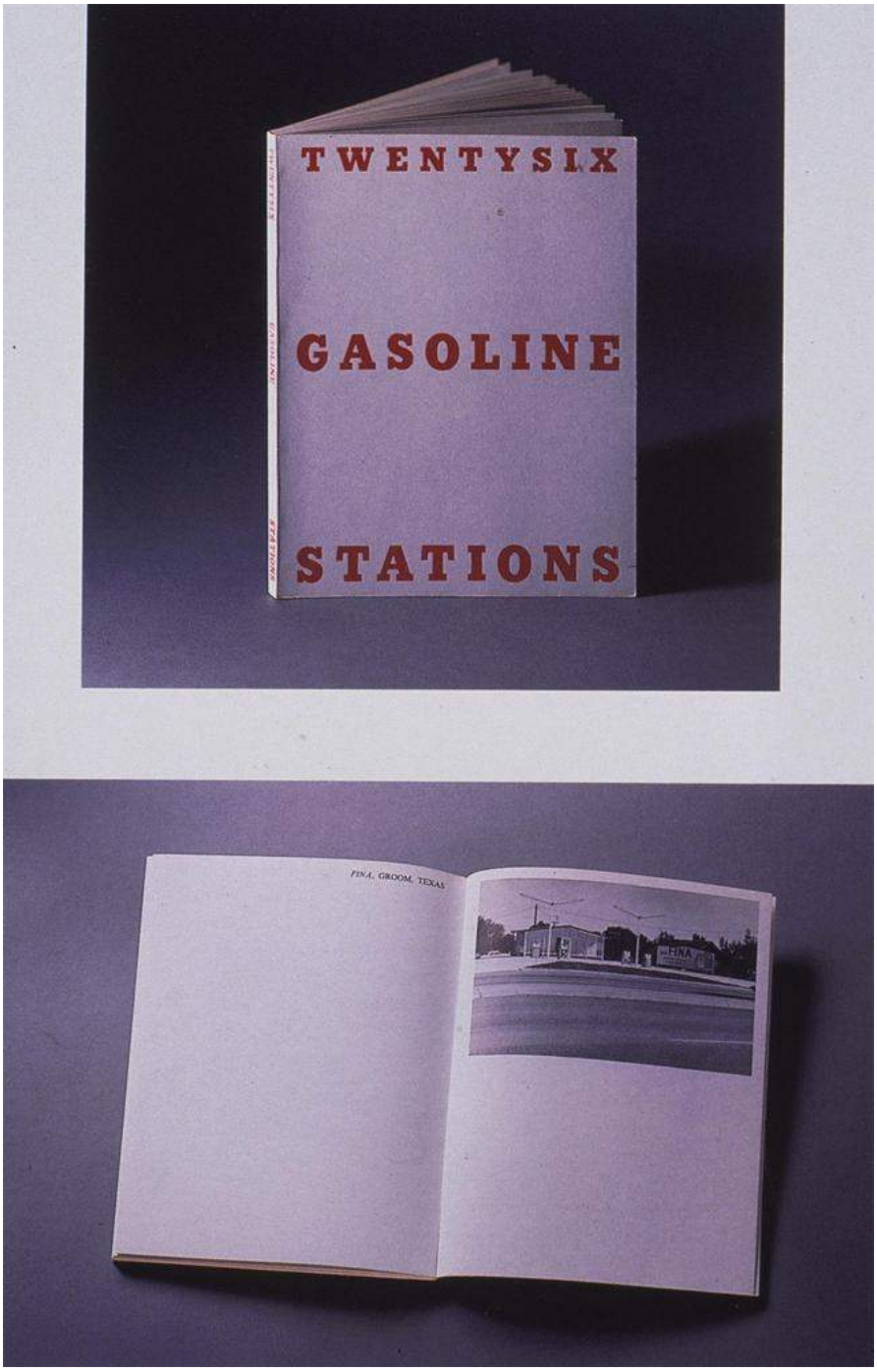


Fig. 2.2: *Twentysix Gasoline Stations* (Ruscha, *Twentysix Gasoline Stations)*

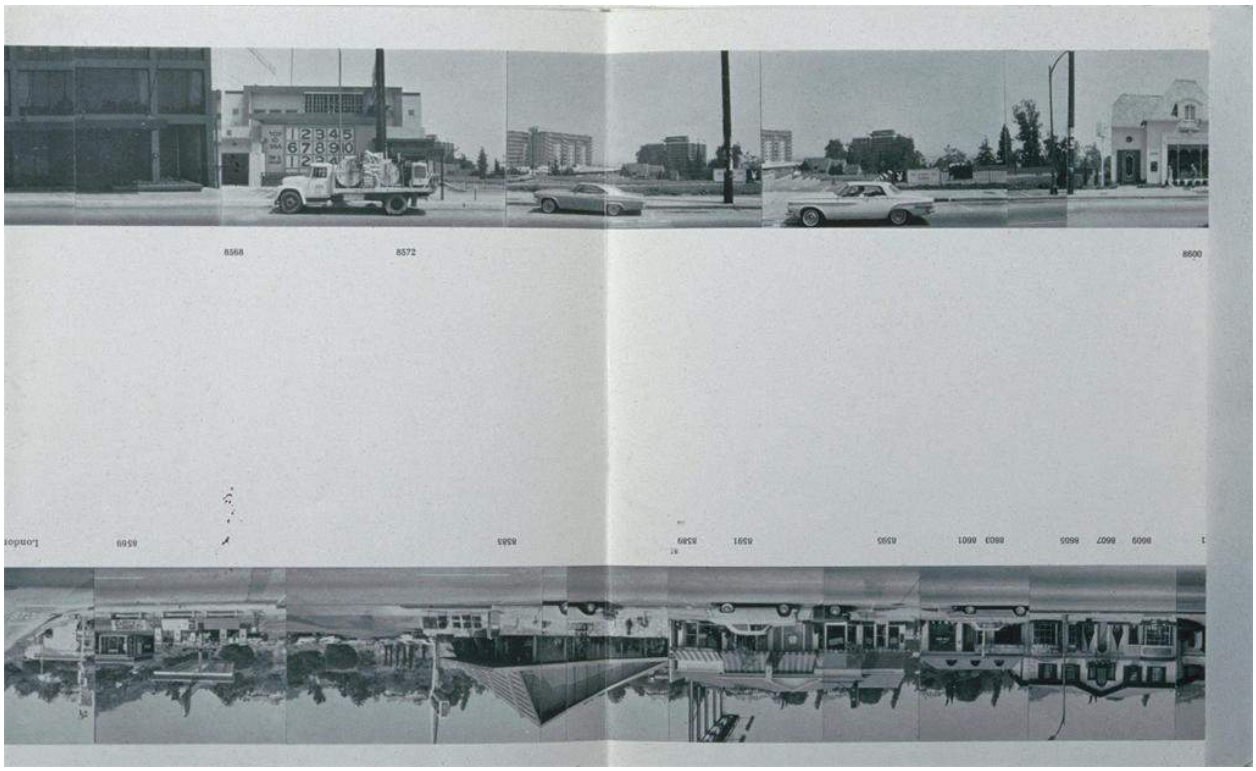


Fig. 2.3: Excerpt from *Every Building on the Sunset Strip* (Ruscha, *Every Building on the Sunset Strip*)

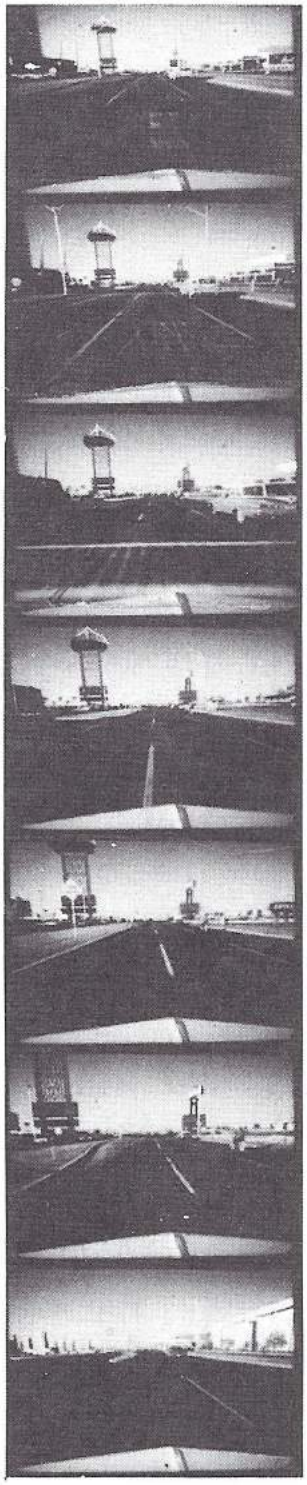


Fig. 2.4: Movie Sequence from *Learning from Las Vegas* (Venturi, Scott Brown, and Izenour)

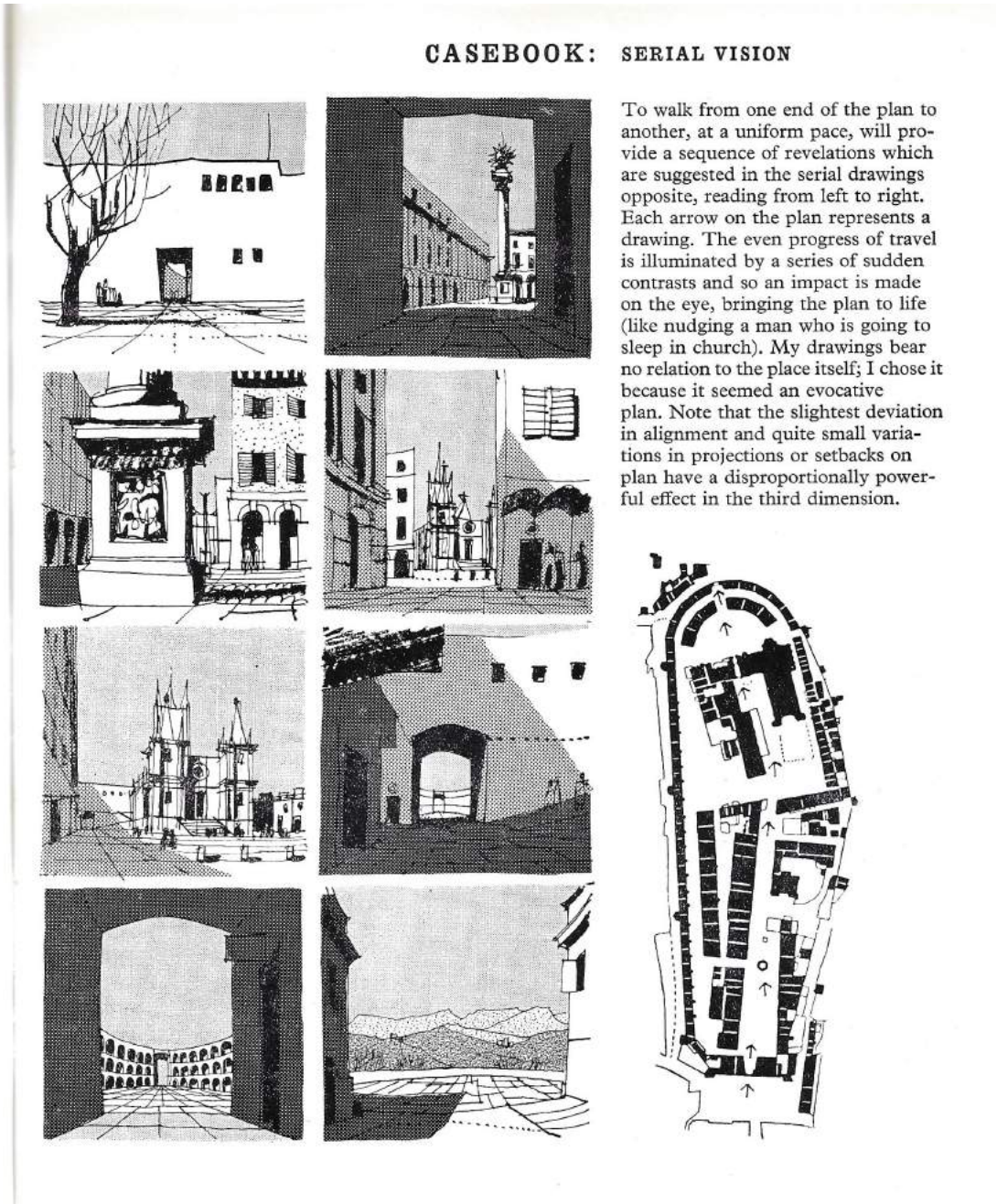


Fig. 2.5: Serial Vision (Cullen)

Fig. 2.6: *Pearblossom Highway #2* (Hockney)

Fig. 2.7 Site Area (Diagram by author, Map ©2017 Google).

Fig. 2.8: Site Elevation (Jules Bar is far left, Stromboli Pizza is far right)

Fig. 2.9: Cut Out where Cameras were Positioned for Time-lapse Filming Across from Site

Fig. 2.10: Time-lapse Stills

CHAPTER 3: The Photographic Sidewalk Narrative

"…areas of vitality need to have their remarkable functional order clarified…Whatever is done to clarify this order, this intricate life, has to be done mainly by tactics of emphasis and suggestion. Suggestion – the part standing for the whole – is a principal means by which art communicates; this is why art often tells us so much with such economy. One reason we understand this communication of suggestion and symbol is that, to a certain extent, it is the way all of us see life and the world. We constantly make organized selections of what we consider relevant and consistent from among all the things that cross our senses. We discard, or tuck into some secondary awareness, the impressions that do not make sense for our purposes of the moment – unless those irrelevant impressions are too strong to ignore. Depending on our purposes, we even vary our selections of what we take in and organize. To this extent, we are all artists. This attribute of art, and this attribute in the way we see, are qualities on which the practice of city design can bank and which it can turn to advantage…The tactics needed are suggestions that help people make, for themselves, order and sense, instead of chaos, from what they see." (Jane Jacobs 377-378)

Introduction

This chapter tells the story of a segment of sidewalk – a slice of life captured in photographs. The photographs are arranged to create a narrative through photomontage. It can be viewed forwards or backwards or starting from anywhere in between. This narrative requires active looking, looking with the goal of understanding the nature of this unique space. This may require multiple viewings of the narrative, with the viewer aiming to understand a different aspect of the space and experience with each viewing. One might look only for pedestrian engagement with the sidewalk in one viewing, while in another look to understand how changes in light or weather affect the experience, and in another look for the interaction between adjacent buildings and the sidewalk space, for instance. Single photographs reveal certain aspects of the space, while comparing two or more photographs reveals other apsects. A photomontage of the site, inspired by the work of David Hockney, introduces this Photographic Sidewalk Narrative. This photomontage shows the entire sidewalk site, arranged to emphasize the sidewalk surface.

It is a map intended to help the viewer visualize the site as a whole and place parts of the narrative in context.

I challenge the viewer of this Photographic Sidewalk Narrative to make their own "order and sense" from the "chaos" of the sidewalk. Each viewer's "seeing" will be different, because each viewer is an artist, seeing and then interpreting the sidewalk from their own perspective.

Although I describe this artifact as a narrative, each viewer will bring their own experiences, their own ways of understanding what they see, such that the viewer will actually create their own narrative. If many different planners and architects view the narrative and observe different interactions and qualities of the space, a productive dialogue on the sidewalk's design might emerge. Furthermore, this narrative allows a different kind of "seeing" than the kind done on the sidewalk every day. Fleeting moments of time have been recorded by the camera, allowing them to be seen more closely, more critically, than in the rapid passing of everyday life. This creates an opportunity for shifting the way we see the sidewalk from unconscious to conscious, and, hopefully, for finding a newfound understanding of its spatial characteristics and needs. This Photographic Sidewalk Narrative is an attempt to capture one unique segment of sidewalk in an experiential way, that can serve as a tool to help designers see and understand this everyday piece of infrastructure more profoundly, and in a way that can inform the sidewalk's design.

Photographic Sidewalk Narrative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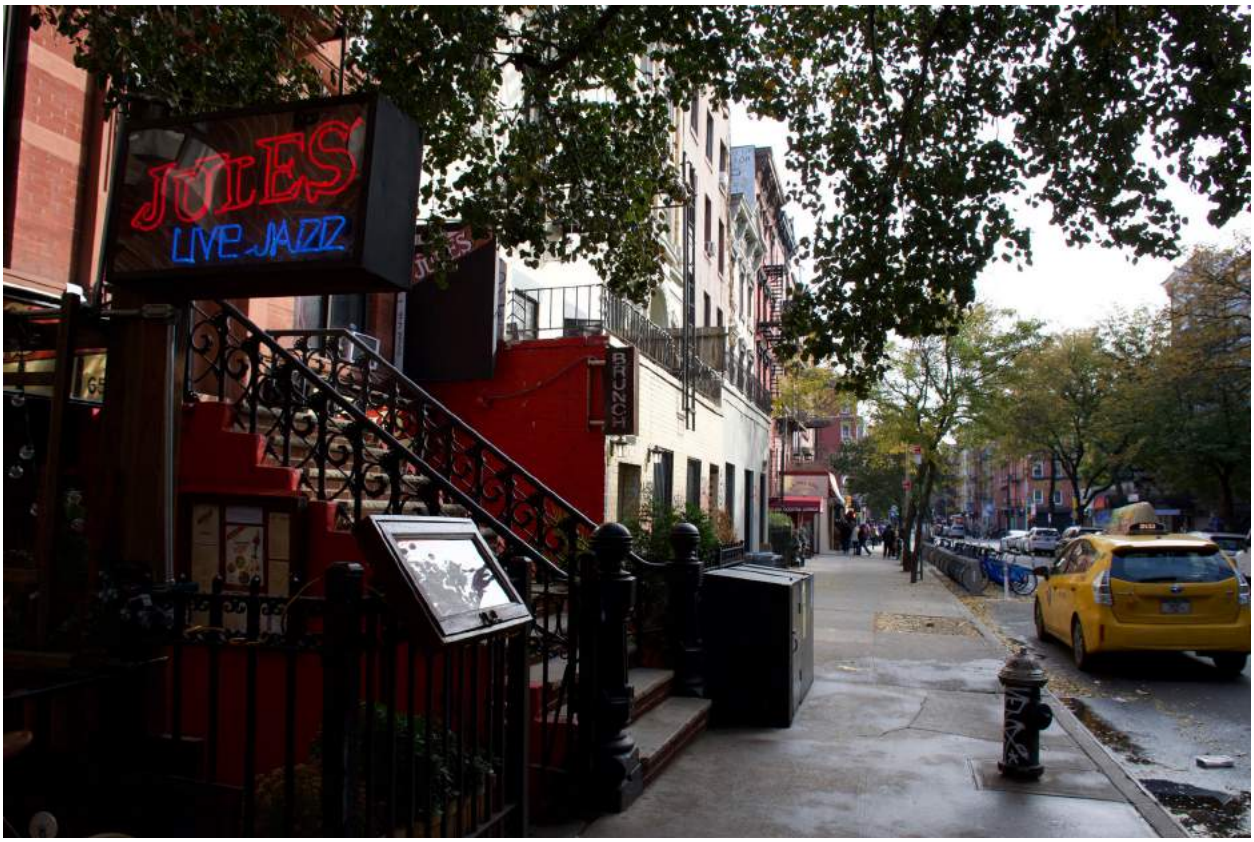
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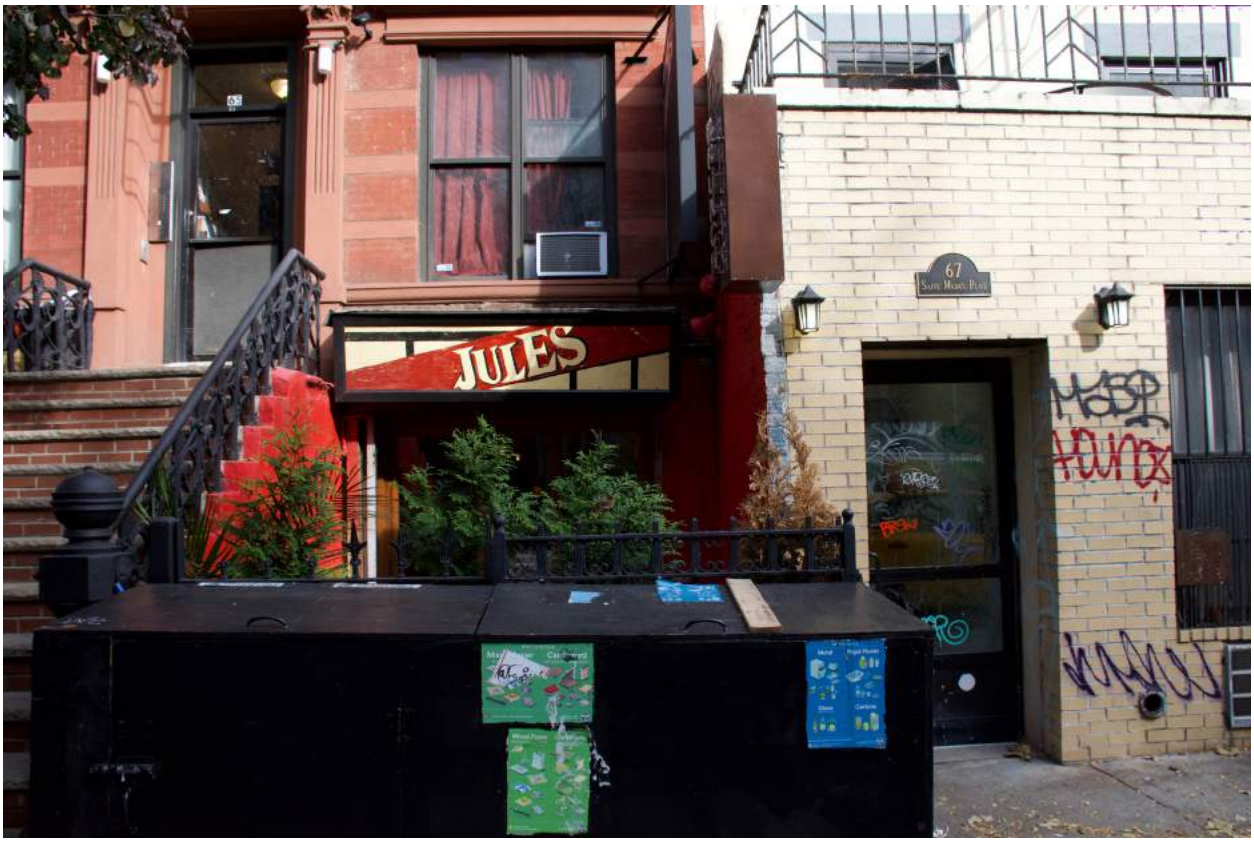
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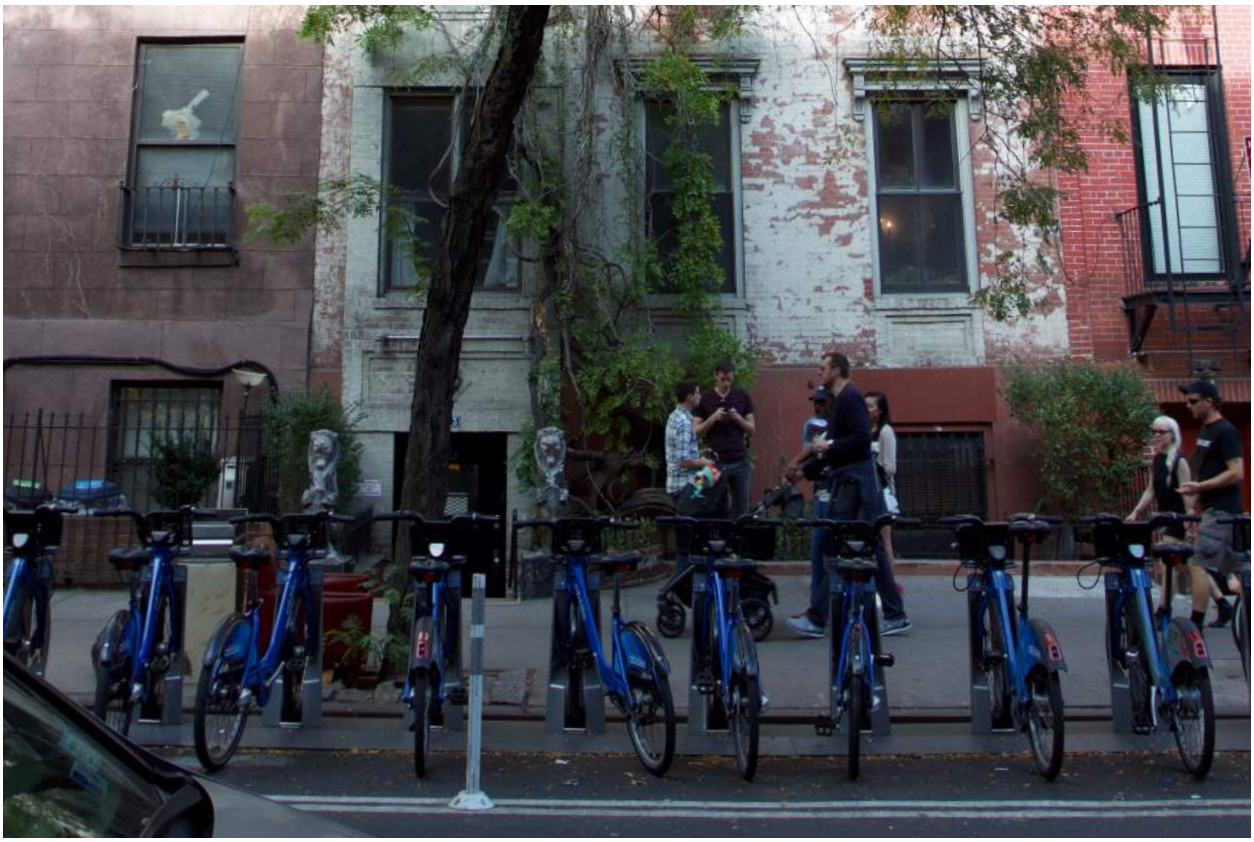

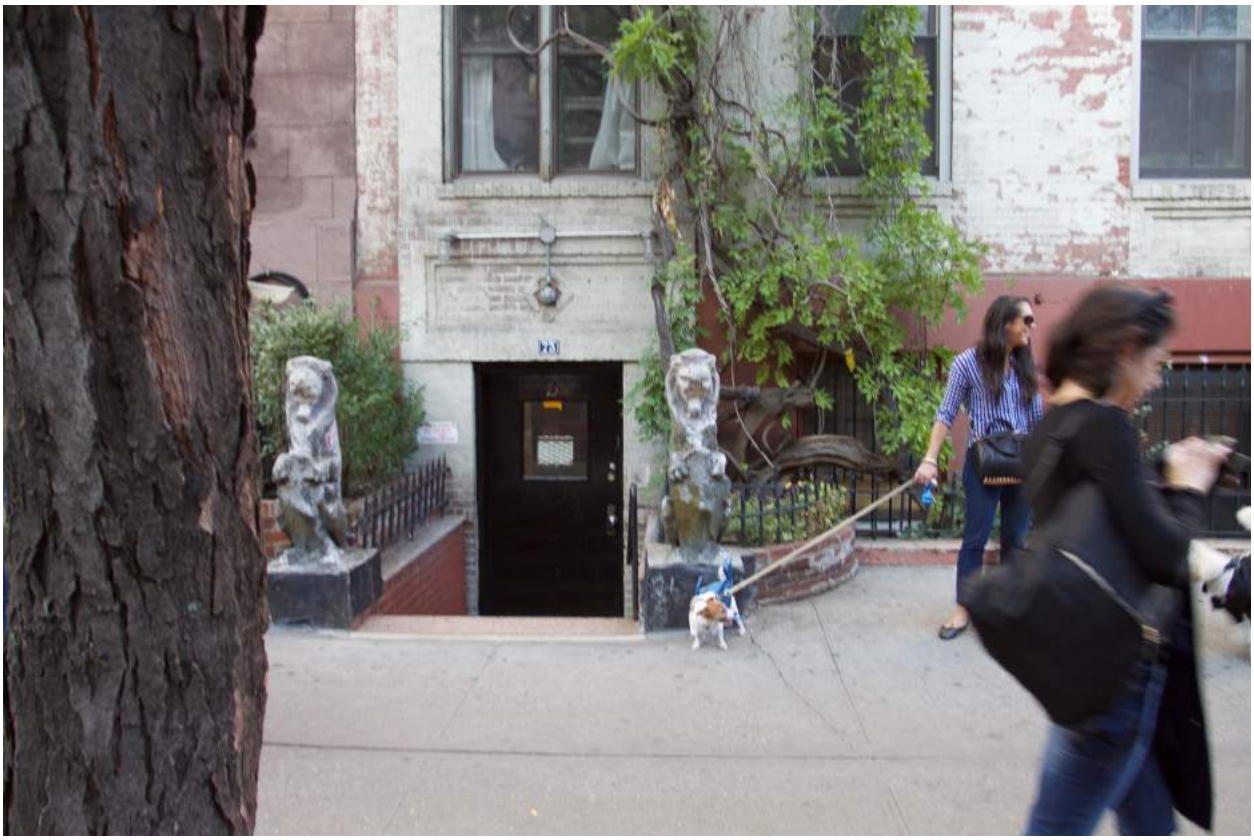

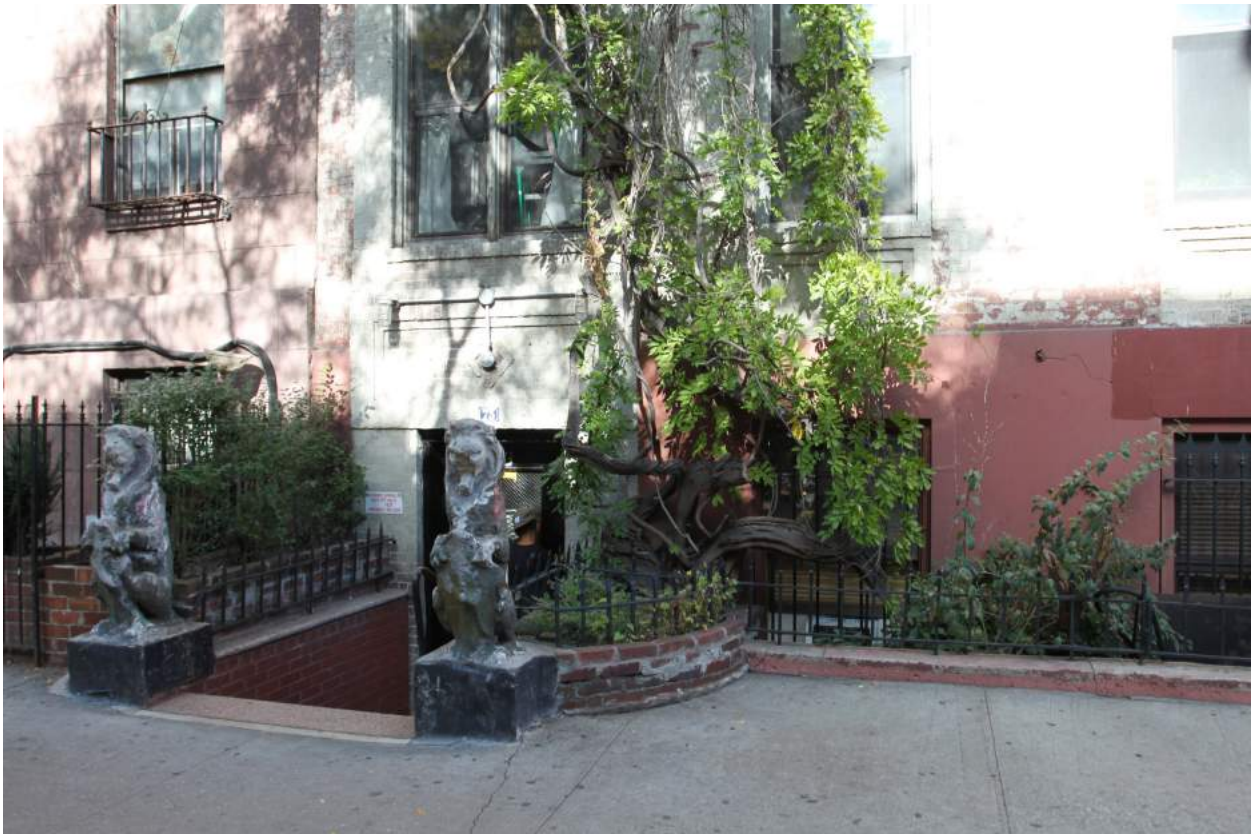


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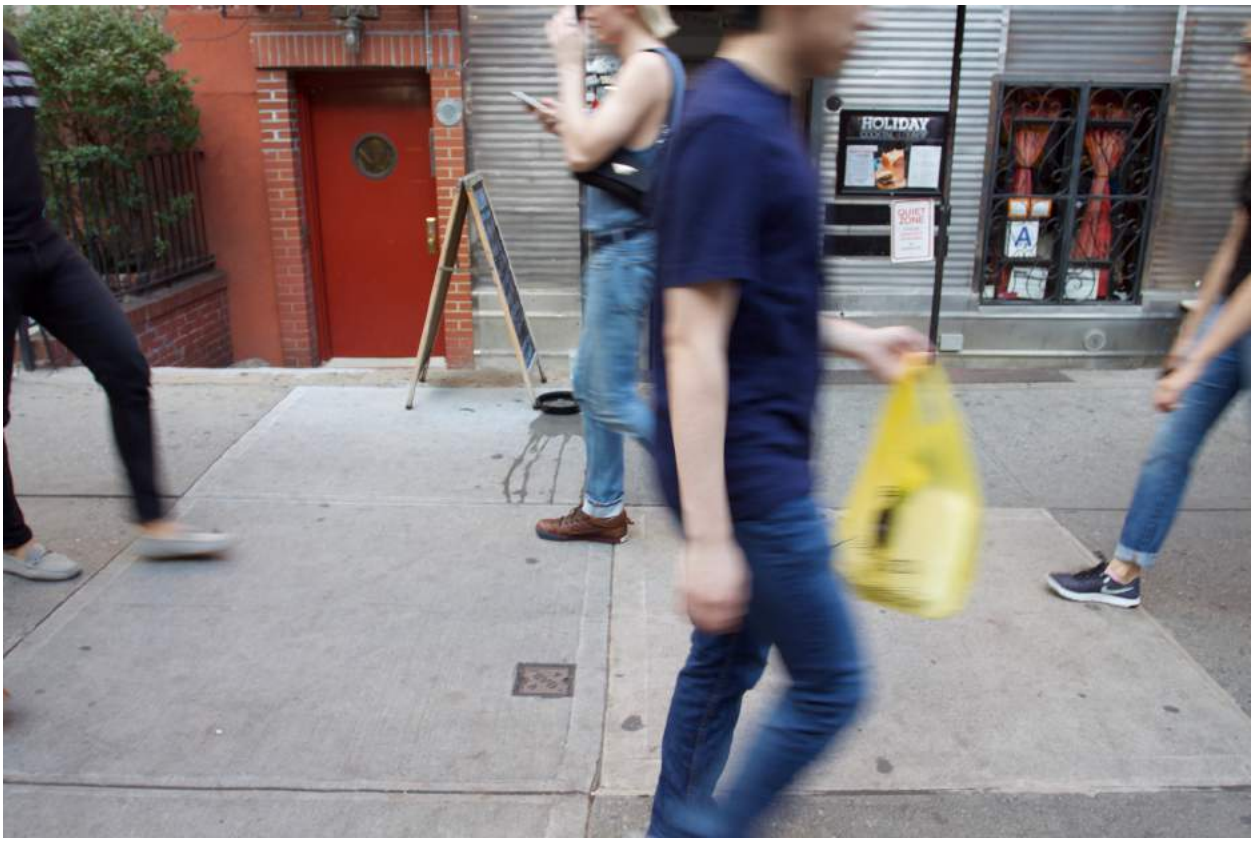
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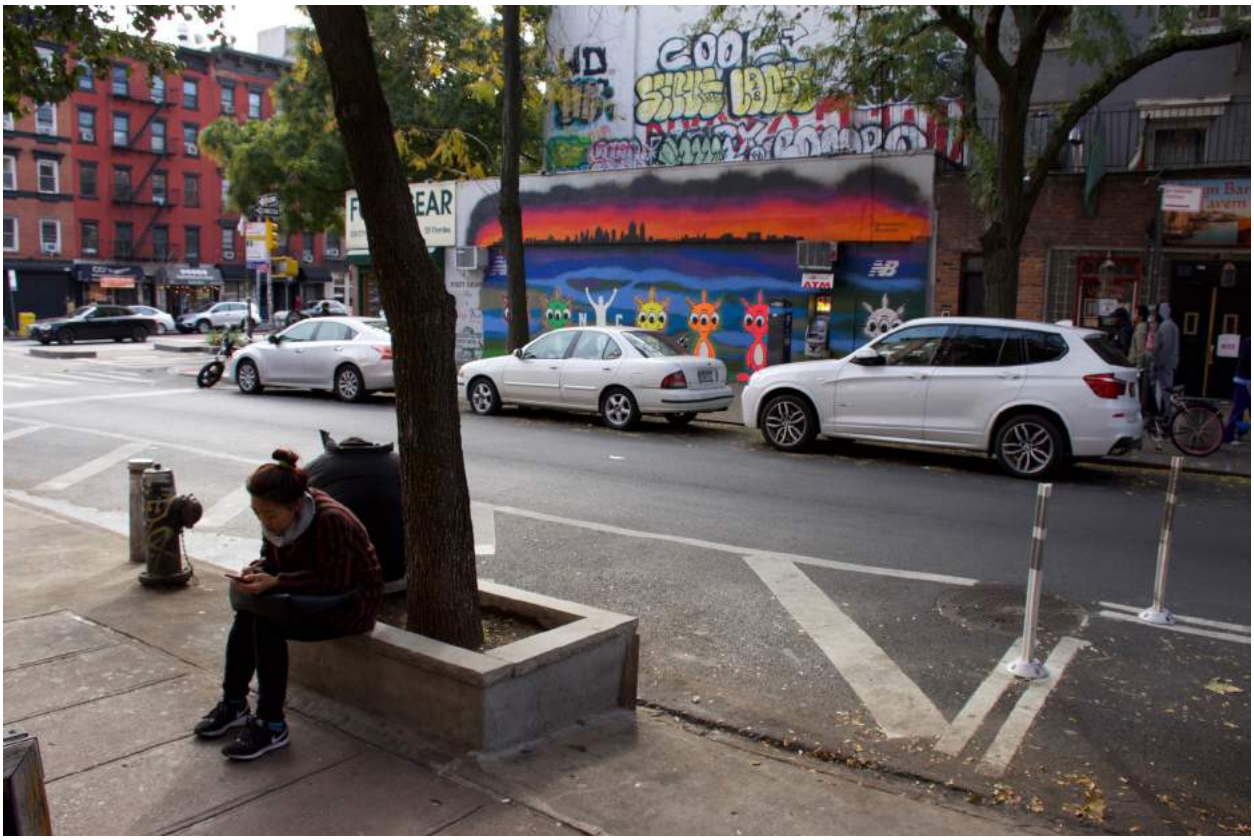


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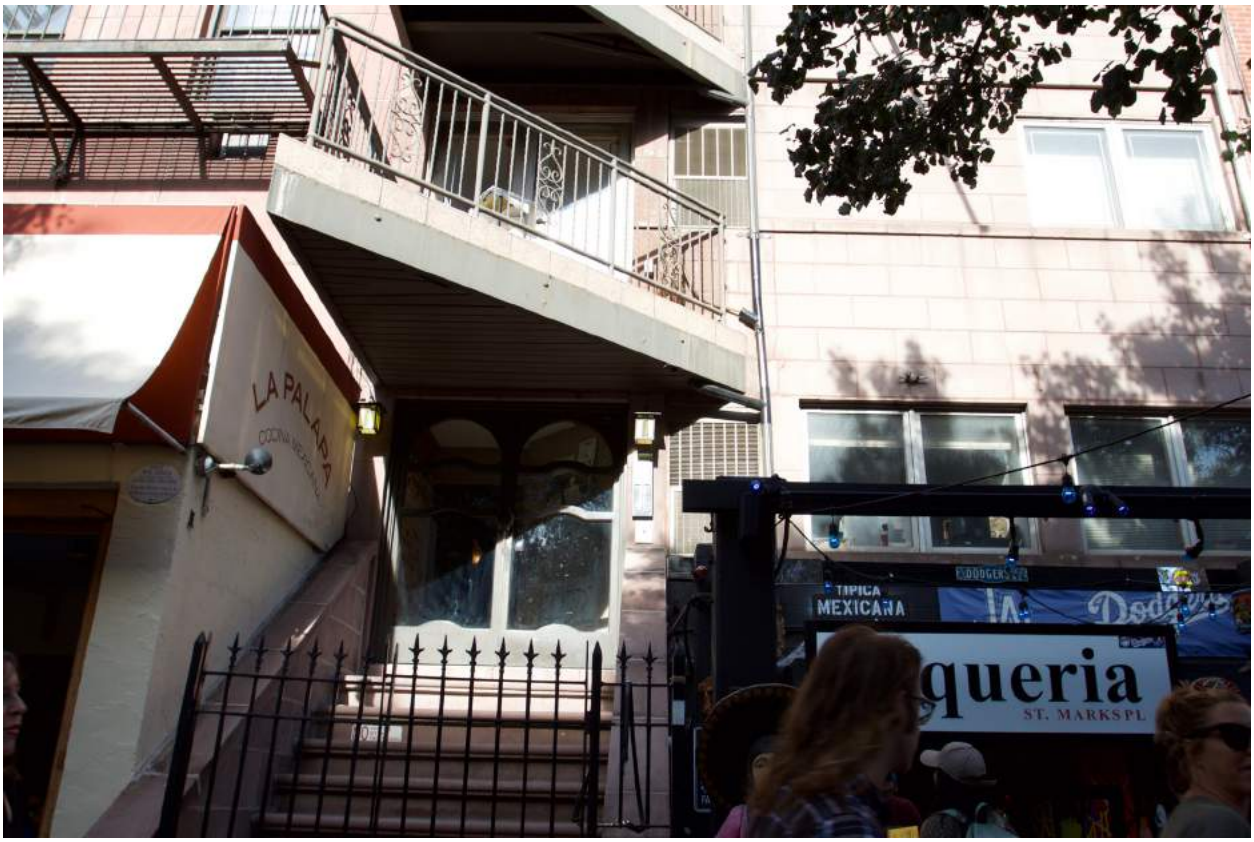
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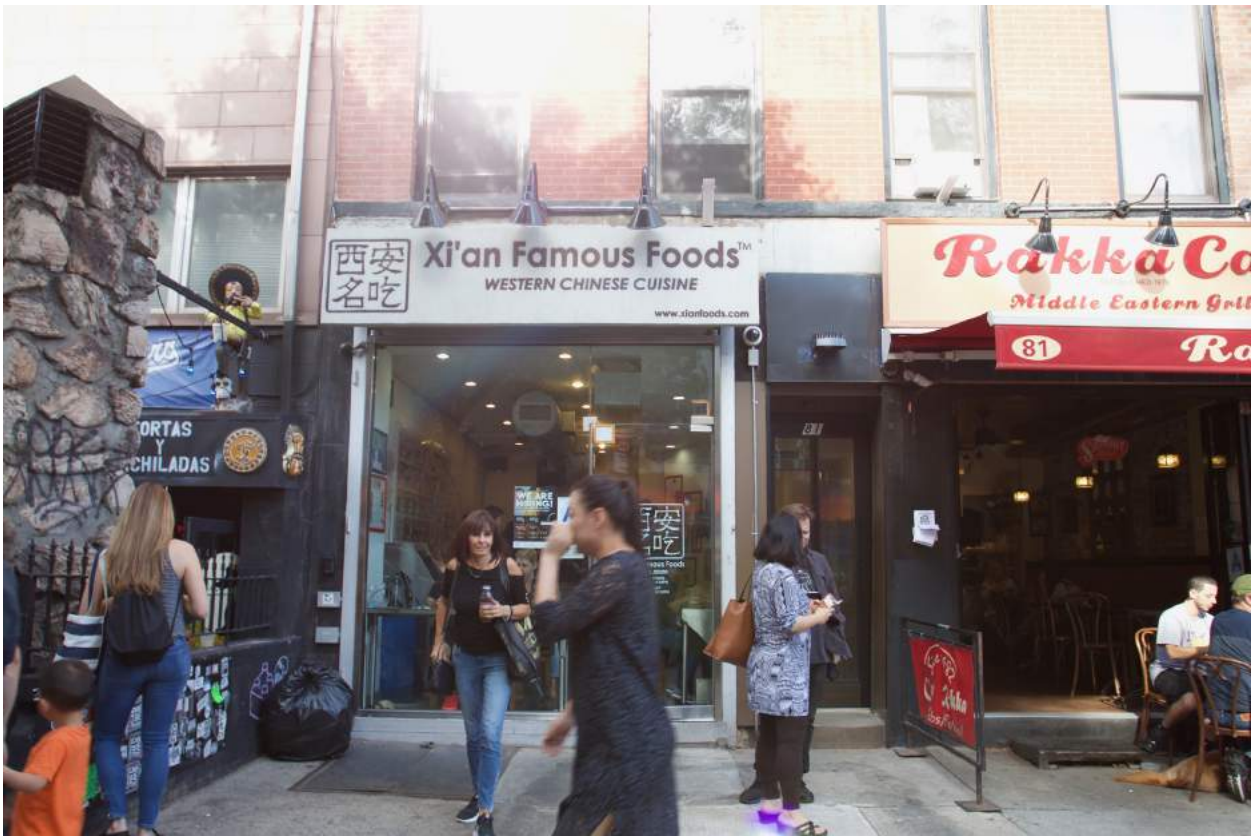
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CONCLUSION

"The still picture to me is very powerful. A painting, of course, has time in it; it took time to paint it, so there are layers of time in whatever you've painted. You can't detail with time in a simple image. The photograph represents the time it took to shoot it – most of the images are chosen and taken in five seconds." (Quote by Hockney, in Knight and Hockney 38)

The sidewalk, although humble, and some might say mundane, is an integral component of the urban fabric. Although there is very little published research on the sidewalk as its own entity, closer observation of this everyday space has the potential to reveal insights about its current and future design potential to planners and architects.

The Photographic Sidewalk Narrative presented in this thesis is a photographic tool, created using techniques of photomontage, which planners and architects can use along with other tools in the "toolkit of ways to understand a sidewalk" to analyze in-depth the myriad spatial practices taking place on a particular sidewalk segment. As a part of the design process, this tool can yield insights regarding ways to improve the functionality, appearance, and overall experience of the sidewalk.

A page-by-page example of insights one might gather from this photographic tool is presented in Appendix C. More detail is seen with each viewing of the work, perhaps signifying that a deeper level of understanding of the spatial practices of the sidewalk becomes known with repeated viewings. Some of the insights gained could be generalized to other sidewalk segments (e.g. people often lock personal bicycles to sign posts), while others are very specific to the sidewalk segment studied (e.g. the sporadic recurrence of the color red along this site).

The process of creating the photographic tool that is the Photographic Sidewalk Narrative could be applied to any urban sidewalk segment and the results would reveal new conditions and

possibilities that differentiate that sidewalk segment from any other that has been or will be studied. Every sidewalk segment is unique; therefore, a planner or architect intending to advocate for changes to any sidewalk segment could create a Photographic Sidewalk Narrative as part of their design process to understand more deeply the nature of that sidewalk's uses and the type of experiences it provides. If this were done for many different areas and types of sidewalks, a catalogue of Photographic Sidewalk Narratives could be created from which similarities and differences between sidewalk segments in a city could be inferred. The Photographic Sidewalk Narrative, a fine-grained tool, thus could also reveal larger, city-wide design potentials for sidewalks.

The contribution of the Photographic Sidewalk Narrative to the design process is the combination of multi-angled, multi-directional, close up (condensed), and zoomed out (expanded) views of a sidewalk segment, which allows the viewer to gain a more complete understanding of the complexity of the spatial practices that occur there. The sidewalk is at once public and infrastructural, and applying techniques to it that are used to represent other types of spaces limits the understanding of the sidewalk. The Photographic Sidewalk Narrative is a tool designed specifically to highlight the sidewalk, rather than a park, a street, or a building, for instance, which have different spatial qualities and representational requirements. It borrows the inquisitiveness and openness to exploring the world of Ruscha's deadpan approach, the many shifts in perspective and the details and textures of Cullen's work, and the composite image of many montaged photographs in Hockney's approach, to reveal the sidewalk anew.

A fine-grained level of understanding by designers of a sidewalk segment will likely ensure that design suggestions fit the needs of that unique space and its users. I did not have access to a car or drone while conducting this study, but photographs from above and from a car

moving adjacent to the sidewalk might expand the views that could be included in the narrative. Likewise, photographs taken from inside buildings that look out onto the sidewalk space could enrich the photomontage presented by the Photographic Sidewalk Narrative tool. One drawback is that the technique used to compile the tool is highly influenced by the person creating it. I took the photographs and then chose which ones to include in the final product. Undoubtedly, many moments were missed that could have revealed valuable insights about the space. Perhaps the Photographic Sidewalk Narrative is a tool better composed by a team than by an individual. Every moment cannot be included, but a team of designers, working perhaps alongside drones and other mechanically operated cameras, could capture more moments than I was able to working alone.

Developing specific design solutions for the sidewalk site represented in the Photographic Sidewalk Narrative is beyond the scope of this project, which is focused on outlining and developing the Photographic Sidewalk Narrative itself as a new observational design tool. Nonetheless, it became apparent after I had viewed the photomontage multiple times that several design problems and possibilities immediately stood out (see Appendix C). The multiple views of the sidewalk segment allowed patterns and gaps in the current design to emerge.

The Photographic Sidewalk Narrative introduces photomontage as a viable technique for studying the sidewalk. However, just as Venturi and Scott Brown combined drawing, film, photography, and text in *Learning from Las Vegas*, and Cullen combined photography, drawing, and text in his Townscape studies, one might in the future combine photomontage with other representational sidewalk techniques to further reveal and understand the sidewalk space. Given these precedents, graphic and textual representation alongside photographic representation would

likely reveal different, and potentially more, design possibilities than the Photographic Sidewalk Narrative does alone, or than the other tools in the toolkit of sidewalk representation do on their own.

The Photographic Sidewalk Narrative is designed to be interpretable. It is for this reason that my analysis of it is included in Appendix C, rather than placed next to the photographs. This is a strength, but also a flaw. This format allows each viewer to read the sidewalk space presented through the photomontage in their own way. Venturi and Scott Brown's and Cullen's works are more directly analytical, guiding the viewer or reader to see the spaces they describe in a more specific way. The Photographic Sidewalk Narrative might be made more directive with the addition of a plan indicating where each picture was taken, or with "Sidewalk Room" perspective drawings interspersed. Cullen often drew next to his photographs, extending the frame of the view (Engler 50). This technique could show the sidewalk's current reality and future design ideas simultaneously.

Looking at space in new ways and from different angles provides a deeper level of understanding. Planners and architects who are involved in the design of sidewalks are trained to document space in specific ways, such as by drawing plans, sections, and elevations. Yet, as Barbara Holzer writes:

> Understanding the interaction between human beings and spaces requires exploration and personal participation. Proverbially standing things on their heads and observing them from another angle can help us to interpret spaces in a novel way. Such a change of perspective allows the architect to recognize relevant themes and break with conventions. (3)

The Photographic Sidewalk Narrative is a tool that introduces photomontage as a valuable photographic representational technique alongside graphic and textual representational

techniques for understanding and designing sidewalks. This thesis raises many questions for future study. How do designers respond to the Photographic Sidewalk Narrative? How should the Photographic Sidewalk Narrative be combined with other tools of sidewalk representation? What does combining the Photographic Sidewalk Narrative with other tools reveal that is not revealed by the narrative on its own?

Jane Jacobs first described the importance of observing urban sidewalks in 1961. Since then, observational tools using primarily graphic and textual representational techniques have been developed for the sidewalk. This work introduces photomontage as a technique for observing urban sidewalks in the form of a Photographic Sidewalk Narrative. This new tool, alone and alongside other existing tools of sidewalk observation and study, can help planners and architects see new potential in this everyday urban space.

BIBLIOGRAPHY

"Active Design: Shaping the Sidewalk Experience." City of New York. 2013. Retrieved from: http://www1.nyc.gov/site/planning/plans/active-design-sidewalk/active-design-sidewalk.page

"Active Design: Shaping the Sidewalk Experience: Tools and Resources." City of New York. 2013. Retrieved from: http://www1.nyc.gov/site/planning/plans/active-design-sidewalk/active-design-sidewalk.page

Amato, Joseph A. *On Foot: A History of Walking.* New York University Press, New York, 2004.

Benjamin, Walter. "On Photography", edited by Esther Leslie, Reaktion Books, Limited, 2015. ProQuest Ebook Central, https://ebookcentral.proquest.com/lib/pensu/detail.action?docID=4438926.

Benjamin, Walter, and Rolf Tiedemann. *The Arcades Project.* Belknap Press of Harvard University Press, Cambridge, Mass, 1999.

Ben-Joseph, Eran. *ReThinking a Lot: The Design and Culture of Parking.* MIT Press, Cambridge, Mass, 2012.

Ben-Joseph, Eran. *The Code of the City: Standards and the Hidden Language of Place Making.* MIT Press, Cambridge, Mass, 2005.

Blomley, Nicholas K. *Rights of Passage: Sidewalks and the Regulation of Public Flow.* Routledge, Milton Park, Abingdon, Oxon, New York, 2011.

Bobić, Miloš. *Between the Edges: Street-Building Transition as Urbanity Interface.* Thoth Publishers, Bussum [Netherlands], 2004.

Borroz, Tony. "May 13, 1935: Enter the Parking Meter." *Wired*, Conde Nast, 13 May 2010, www.wired.com/2010/05/0513parking-meter-patent/.

Calhoun, Ada. "The Many Lives of St. Marks Place." The New Yorker. October 30, 2015. Accessed October 16, 2017. https://www.newyorker.com/books/page-turner/the-many-lives-of-st-marks-place

Carr, John, and Maria Rita Dionisio. "Flexible spaces as a "third way" forward for planning urban shared spaces." *Cities*, vol. 70, 2017, pp. 73–82., doi:10.1016/j.cities.2017.06.009

Catling, H.W. "Archaeology in Greece, 1986-87." *Journal of Hellenic Studies*, vol. 107, 1987, pp. 3-61.

Cullen, Gordon. *Townscape*. Reinhold Pub. Corp, New York, 1961.

Deacon, Leslie. "Planning Sidewalks: Implications of Regulating Sidewalk Space in the East Village." Master's Thesis. *Columbia University.*

De Certeau, Michel. *The Practice of Everyday Life.* University of California Press, Berkeley, 1984.

Duneier, Mitchell, and Ovie Carter. *Sidewalk.* Farrar, Straus and Giroux, New York, 1999.

Elliott, Cecil D. *Technics and Architecture: The Development of Materials and Systems for Buildings.* MIT Press, Cambridge, Mass, 1992.

Engler, Mira. *Cut and Paste Urban Landscape: The Work of Gordon Cullen*. Routledge, Taylor & Francis Group, New York, 2016.

"fine-grained, n.2." *OED Online*, Oxford University Press, March 2018, www.oed.com/viewdictionaryentry/Entry/11125. Accessed 23 March 2018.

Frampton, Kenneth. "America 1960-1970: Notes on Urban Images and Theory." *Casabella,* Dec. 1971, 24-38.

Gehl, Jan. *Cities for People.* Island Press, Washington, D.C., 2010.

Gehl, Jan, and Birgitte Svarre. *How to Study Public Life.* Island Press, Washington, 2013.

Geist, Johann F. *Arcades, the History of a Building Type*. MIT Press, Cambridge, Mass, 1983.

Golec, Michael. ""DOING IT DEADPAN" Venturi, Scott Brown and Izenour's Learning from Las Vegas." *Visible Language,* vol. 37, no. 3, 2003, pp. 266.

Harvey, David. *The Urban Experience*. B. Blackwell, Oxford, UK, 1989.

Hillier, Bill, and Julienne Hanson. *The Social Logic of Space.* Cambridge University Press, Cambridge [Cambridgeshire];New York;, 1984.

Hockney, David, et al. *David Hockney: A Retrospective.* Los Angeles County Museum of Art, New York;Los Angeles, Calif;, 1988.

Holzer, Barbara. "Architectural Interface: Space – Architect – Humans." *Holzer Kobler Architekturen,* 14 Dec. 2017, http://holzerkobler.com/process/architectural-interface-space-%E2%80%93-architect-%E2%80%93-humans

Houghton, A. A. *Concrete Floors and Sidewalks: A Practical Treatise Explaining the Molding of Concrete Floor and Sidewalk Units, with Plain and Ornamental Surfaces, also the Construction of Plain and Reinforced Monolithic Floors and Sidewalks. with Illustrations of the Easily Constructed Molds for Diamond, Hexagonal and Octagonal Floor Tile.* vol. no. 2.;no. 2;, Norman W. Henley publishing co, New York, 1914.

Jacobs, Allan B., Elizabeth Macdonald, and Yodan Rofé. *The Boulevard Book: History, Evolution, Design of Multiway Boulevards.* MIT Press, Cambridge, Mass, 2002.

Jacobs, Allan B. *Great Streets.* MIT Press, Cambridge, Mass, 1993.

Jacobs, Jane. *The Death and Life of Great American Cities.* Random House, New York, 1961.

"J.B. Jackson and the Love of Everyday Places.", directed by Robert Calo, John B. Jackson, and Encyclopaedia Britannica Educational Corporation., 1988.

Knight, Christopher, and David Hockney. "David Hockney's Photographs." *Aperture*, no. 89, 1982, pp. 32–47. *JSTOR*, JSTOR, www.jstor.org/stable/24472143.

Kostof, Spiro. The City Assembled: The Elements of Urban Form through History. Little, Brown, Boston, 1992.

"Koyaanisqatsi: Life Out of Balance.", directed by Francis F. Coppola, et al., MGM Home Entertainment, 2002, Widescreen.

Lefebvre, Henri, Eleonore Kofman, and Elizabeth Lebas. *Writings on Cities.* Blackwell Publishers, Cambridge, Mass, USA, 1996.

Lonsdorf, Kat. "Hungry? Call your Neighborhood Delivery Robot." NPR. March 23, 2017. Accessed November 01, 2017. https://www.npr.org/sections/alltechconsidered/2017/03/23/520848983/hungry-call-your-neighborhood-delivery-robot

Loukaitou-Sideris, Anastasia, and Renia Ehrenfeucht. *Sidewalks: Conflict and Negotiation Over Public Space.* MIT Press, Cambridge, 2011; 2009.

Lynch, Kevin. *The Image of the City.* Technology Press, Cambridge [Mass.], 1960.

Mangurian, Robert, and Mary-Ann Ray. *City Proposals: 29 Drawings for east West Hollywood.* City of West Hollywood Department of Community Development, 1997.

Mikoleit, Anne, and Moritz Pürckhauer. *Urban Code: 100 Lessons for Understanding the City.* MIT Press, Cambridge, Mass, 2011.

Miller, Kristine F. *Designs on the Public: The Private Lives of New York's Public Spaces.* University of Minnesota Press, Minneapolis, 2007.

Moehring, Eugene P. *Public Works and the Patterns of Urban Real Estate Growth in Manhattan, 1835-1894.* Arno Press, New York, 1981.

"montage, n.1." *OED Online*, Oxford University Press, March 2018, www.oed.com/viewdictionaryentry/Entry/11125. Accessed 23 March 2018.

Moudon, Anne V. *Public Streets for Public use.* Van Nostrand Reinhold, New York, 1987.

NACTO (National Association of City Transportation Officials). *Urban Street Design Guide.* Island Press, Washington, 2013.

New York City Department of Transportation. Instructions for Filing Plans & Guidelines for the Design of Sidewalks, Curbs, Roadways and Other Infrastructure Components. 2010. Retrieved from http://www.nyc.gov/html/dot/sidewalks.

New York City Department of Transportation. Pedestrians and Sidewalks. Retrieved from New York City Department of Transportation website: http://www.nyc.gov/html/dot/html/sidewalks/sidewalks.shtml

New York City Department of Transportation. *Street Design Manual.* New York City Dept. of Transportation, New York, N.Y., 2013.

Ruscha, Ed. “Ed Ruscha: An Interview.” By Henri Man Barendse. In *Leave any Information at the Signal: Writings, Interveiws, Bits, Pages,* edited by Alexandra Schwartz, 201-19. MIT Press, Cambridge, Mass, 2002.

Sadik-Khan, Janette, and Seth Solomonow. *Streetfight: Handbook for an Urban Revolution.* Viking, New York, 2016.

Schwartz, Alexandra. *Ed Ruscha’s Los Angeles.* MIT Press, Cambridge, Mass, 2010.

Shkapich, Kim, et al. *A Public Surface: Finding Space in the Margins.* The Center, Hollywood, CA, 2003.

“Sidewalk Inspection and Violations.” NYC DOT – Sidewalk Inspection and Violations, http://www.nyc.gov/html/dot/html/infrastructure/sidewalk-inspection.shtml

Smith, Naomi and Walters, Peter, "Desire lines and defensive architecture in modern urban environments." 2017. *Urban Studies*. https://doi.org/10.1177/0042098017732690

Solnit, Rebecca. *Wanderlust: A History of Walking.* Viking, New York, 2000.

Sorkin, Michael. *Twenty Minutes in Manhattan.* Reaktion, London, 2009.

Southworth, Michael, and Eran Ben-Joseph. *Streets and the Shaping of Towns and Cities.* McGraw-Hill, New York, 1997.

Stierli, Martino. *Las Vegas in the Rearview Mirror: The City in Theory, Photography, and Film.* Getty Research Institute, Los Angeles, California, 2013.

"Streets as Places Toolkit." *Project for Public Spaces*, Project for Public Spaces, 15 Sept. 2015, www.pps.org/article/streets-as-places.

Taylor, Phil, and Mark Rawlinson. *Various Small Books: Referencing Various Small Books by Ed Ruscha*. Edited by Jeff Brouws et al., MIT Press, 2013.

"The Social Life of Small Urban Spaces.", directed by William H. Whyte, et al., Direct Cinema Ltd, 1990.

Toth, Gary, et al. *A Citizen's Guide to Better Streets.* Project for Public Spaces, Inc., 2008.

Vallance, Suzanne, Dupuis, Ann, Thorns, David, and Edwards, Sarah. "Temporary use and the onto-politics of 'public' space." *Cities*, vol. 70, 2017, pp. 83-90., doi:10.1016/j.cities.2017.06.023

Venturi, Robert, Denise Scott Brown, and Steven Izenour. *Learning from Las Vegas: Revised Edition.* MIT Press, Cambridge, Mass, 1977.

Vinegar, Aron. "Ed Ruscha, Heidegger, and Deadpan Photography." *Art History,* vol. 32, no. 5, 2009, pp. 852-873.

Washburn, Alexandros. *The Nature of Urban Design: A New York Perspective on Resilience.* Island Press, Washington, DC, 2013.

Winter, James H. *London's Teeming Streets: 1830-1914.* Routledge, New York, 1993.

Wohl, Sharon, "Tactical urbanism as a means of testing relational processes in space: A complex systems perspective." *Planning Theory*, 2017, p. 1-22., doi:10.1177/1473095217722809

Whyte, William H. *The Social Life of Small Urban Spaces.* Conservation Foundation, Washington, D.C, 1980.

APPENDICES

Appendix A: Table of Sidewalk Regulations in New York City

"Sidewalk Regulations & Impacts" (Deacon 45)

	REGULATION	STAKEHOLDERS	HOW	IMPLICATIONS
PHYSICAL				
Width	Setback requirements	Department of City Planning, property owners	Setbacks determined according to applicable zoning	• Cannot retrofit setbacks once buildings are built
Materiality	Material requirements set forth by DOT, other material & patterns require permit	Department of Transportation, Department of Buildings, Design Commission, property owners	Distinctive Sidewalk Permit	• Unified streetscape • Ensures safe walking conditions • Limits creativity and variety within pavement
OBJECTS				
Trees	Required to plant street trees for all new buildings and enlargements that exceed 20% of the floor area	Parks & Recreation, property owners	MillionTrees NYC, public-private partnerships	• Trees can cause sidewalk defects • Provide city-wide benefits • Responsibility transferred to private property owner
Scaffolding	Building construction requires scaffolding and sidewalk sheds for pedestrian protection	Department of Buildings, Department of Transportation, property owners, construction companies	Permits required to ensure scaffolding and sheds are installed safely	• Scaffolding posts used to lock bikes to • Pedestrian protection from rain/snow • Sheds can cause unease
Trash Cans	Trash cans located at many street intersections	Department of Sanitation, Business Improvement Districts	DSNY periodically empties trash cans to prevent overflow	• Improve cleanliness of the street & sidewalk • Open wire trashcans can lead to problems with rodents • BIDs monitor trashcans within their jurisdiction
Trash Bags	Trash bags placed along curb outside residential and commercial buildings	Department of Sanitation, private companies for commercial pick-up	Establishments responsible for putting trash out at reasonable time	• Trash bags may block pedestrian circulation • Can lead to problems with rodents
Bikes	Restrictions on parking bikes, riding on sidewalk	Personal users, NYPD, Department of Sanitation	Ticket issued to bikers for parking bikes illegally	• Abandoned bikes scattered in the streetscape • Theft occurs when bikes left outside for extended periods of time • Difficult to enforce fiscal penalties for parking bikes illegally because difficult to track bicyclists
Bike Racks	CityRacks & Bike Corrals	Department of Transportation, property owners, personal users	CityRacks are bike racks placed in the streetscape by the DOT. Bike Corrals are converted on-street parking spaces filled with bike racks and managed by a maintenance partner	• Design of new city bike racks minimizes the amount of bikes that can be locked to bike racks • Bike Corrals allow for increased bike parking

				and fewer bikes located in the streetscape • Providing bike racks does not mean that bikers will use them
News Racks	Must follow placement and size restrictions	Department of Transportation, circulation community – various newspapers and publishing	News racks must be registered with the DOT	• Opportunities for local news circulation • Communication for marginalized populations • Can lead to messy streetscapes with redundant news racks block after block
Benches	CityBench program, small unenclosed sidewalk cafes	Department of Transportation, Department of Consumer Affairs, private commercial establishments	City provides regulated benches throughout the streetscape, commercial establishments required to obtain permit for sidewalk cafes	• Provides seating for pedestrians & can help promote social interaction • CityBench helps create unified streetscape throughout the city
Newsstands	Spatial regulations for location; license required to operate newsstand	Department of Consumer Affairs, newsstand operators, Cemusa	Permit required to determine location of newsstand and license for operation	• No longer privately owned and operated • Unified streetscape throughout the city
Bus Shelters	Spatial regulations for placement	Department of Transportation, Bus riders, Cemusa	Permit required to ensure spatial restrictions are met	• Provides shelter for pedestrians waiting at bus stops • Helps demarcate space • Shelters cannot always accommodate all of the users causing spillover into circulation space
Sidewalk Signs	Sidewalk signs must be placed adjacent to commercial establishment	Department of Small Business Services, private commercial establishments	Tickets and fines issued for noncompliance	• Increased commercial activity • "Zero display sidewalks" limit advertising along sidewalks
Payphones	Payphones located in the streetscape	Department of Information Technology & Telecommunications, private companies	Permit required to ensure that spatial restrictions are met	• Many payphones do not have dial tone and are unusable • Increased cell phone usage minimizes the necessity for public payphones • Citizens can report nonworking payphones to 311, private companies
Display of Commercial Goods	Commercial Establishments may display goods for sale outside store	Private commercial establishments	Can only extend 3 feet beyond building line to allow pedestrian right of way	• Benefits commercial establishments by increased foot traffic in store • Provides interest along pedestrian space • Opportunities for spontaneous activity

ACTIVITY				
Vending	Spatial restrictions for location of vending; vendor required to have permit/license	Department of Consumer Affairs, Department of Health and Mental Hygiene, vendors	Quality of Life violations for illegal vending: vending in a restricted area or vending without a license	• Allow for informal economic activities • Complexity in regulation increases opportunities for regulation enforcement • Opportunities for spontaneous activity
Panhandling	Cannot aggressively panhandle	NYPD, marginalized population	Quality of Life violation	• Reduces areas panhandling is allowed • Helps ensure pedestrian comfort and safety • Difficult to qualify if panhandling is "aggressive"; subjective
Sidewalk Cafe	Unenclosed sidewalk cafes, small unenclosed sidewalk cafes, enclosed sidewalk cafes	Department of Consumer Affairs, Community Boards, private restaurant establishments	Permits and licenses required for operation; spatial restrictions for the location of cafes; restrictions on the streets cafes are allowed	• Increases street activity • Regulations ensure that adequate space is provided for pedestrian circulation • Various types of sidewalk café help increase the amount and forms of cafes • Commercialization and exclusion within public space
BEHAVIOR				
Quality of Life Enforcement	Restricted behavior within public space	NYPD, citizens	Tickets and fines issued for behavior deemed illegal/inappropriate	• Controls and manages allowable behavior • Restricts how people may behave within public space • citizens can report to 311 instances of nuisances • Criminalizes marginal population; issues fines to people who may be unable to pay them

Appendix B: Partial Lists of Activities and Objects on New York City Sidewalks

Partial List of Sidewalk Activities Observed in New York City (compiled by author)

- Stores selling goods on the adjacent sidewalk
- Vendors (mobile, selling small goods on tables or blankets)
- People handing out advertising, political, or event flyers
- People watching parades, standing or sitting on curbs
- People eating at sidewalk cafés
- Homeless people sleeping, sitting, pushing shopping cart with all their belongings in it
- Graffiti artists painting sidewalk, building facades, fire hydrants, signs, etc.
- Skateboarders, inline skaters, Segway riders, push scooters, hover boards
- Bicyclists (who should be on street but are not)
- Sidewalk artists using the sidewalk as a canvas or selling their work as vendors
- Panhandlers/beggars
- Criminals – pickpockets, purse snatchers, assaults
- People waiting for bus/Uber/cab
- People flagging down cabs
- Sidewalk performers – musicians, mimes, small acts
- Trash pickup
- Restaurant and store deliveries (often with hand truck and moving against, not with the flow of sidewalk traffic)
- Dog walking (and dog walkers with many dogs in tow)

- Protesters/picketers/groups on strike
- People waiting for a restaurant table
- People walking slowly with cane, crutches
- People in wheelchairs
- People waiting to enter a museum, theatre, or store
- Loitering, hanging out, talking on phone, people-watching
- Food trucks/vendors
- People waiting in line at food trucks
- People standing or walking while eating/drinking
- Salespeople trying to lure people into their store
- Salespeople offering samples
- Bouncers standing outside bars
- Shop or restaurant employees or doormen sweeping, hosing down the sidewalk
- Window washers regularly cleaning store or restaurant windows
- Baby strollers, dog strollers
- People pulling suitcases
- Policemen/women doing routine patrols
- People tripping on uneven paving materials
- Delivery people filling newspaper boxes
- Mailmen/women delivering mail and packages
- People who have left their workplace to smoke outside
- People picking through trash cans, collecting recyclables

- People picking up lost change
- People waiting to meet someone
- Tourists stopping at awkward places to take photos
- Loading and unloading in front of hotels
- Window shoppers
- Children playing
- People sitting on stairs to eat lunch
- People sitting on benches
- People stopping to tie their shoelaces in the middle of the sidewalk
- Small children and parents walking to and from school
- Older kids walking to school in groups or waiting for school bus
- Autograph seekers hanging around theatres or other celebrity hot spots
- Joggers
- Drunk people talking loudly, trying to get home late at night
- Walking tour groups
- People paying parking meters
- Parking meter attendants writing tickets
- Cars driving over sidewalk to enter parking garage
- People talking to strangers (asking for directions, just chatting, etc.)
- Multitasking (e.g. talking on the phone while pushing a stroller)

Partial List of Sidewalk Artifacts Observed in New York City Not Listed in Appendix A (compiled by author)

- Multiple types of paving material next to each other or overlapping – cement, asphalt, plywood, pavers, brick, cobblestone, dirt, gravel
- Litter – paper, cans, bottles, cigarette butts, dog waste
- Birds, squirrels eating spilled food
- Fire hydrants
- Light posts
- Gum dried into dark spots
- Spit, in wet or dried splotches
- Handprints, initials etched into wet concrete
- Graffiti on sidewalk or other artifacts
- Tree stumps
- Leaves blocking drainage
- Uneven cracks, wider cracks with weeds growing or cigarette butts stuck in them
- Roots uplifting
- Construction cones

Appendix C: Example Interpretation of the Photographic Sidewalk Narrative

p. 79
Sidewalk narrowing – bike, stairs jutting out, sandwich board sign, tree. Bottleneck almost forces people standing and chatting to stay in tree planting area. Bikes parked on both edges of sidewalk. Bottleneck slows people down, which could be good or bad. Other ways of displaying Jules' sign (e.g. on fence) might not be as noticeable by pedestrians, and also not as picturesque.

p. 80
Bikes are parked on fencing and on rack. When sidewalk is hosed down and drains toward curb, improper street drainage and lack of cleaning can detract from the sidewalk landscape.

p. 81
Sidewalk itself is untouched by graffitists, but even small objects like the fire hydrant get graffiti, with small, detailed messages. People walk around the fire hydrant, on the side farthest from the curb.

p. 82
A lot of gum residue. Hosing off sidewalk does not appear to remove gum. Sidewalk is wet on one side of the crack, and dry on the other.

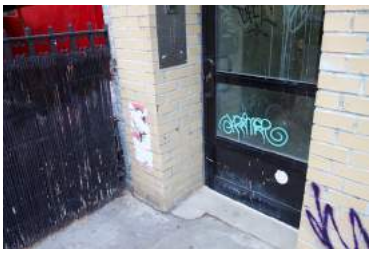
p. 83
Repair done to largest missing chunk of concrete, but other cracks left as is. At what point does a cracked sidewalk need total repair? After 3 patches? When cracks lead to uneven tripping points? When there are a certain defined number on a section of sidewalk that all warrant repair, and can be fixed at the same time? Could sidewalk artists incorporate cracks into artwork? This might create interest until sidewalk is fully repaired.

p. 84
Bike traps leaves, but also makes it an identifiably homey, comforting scene to see it parked in front of the residence. Lower photo looks small-town, not necessarily large, urban landscape. Pleasant to see bike parked this way.

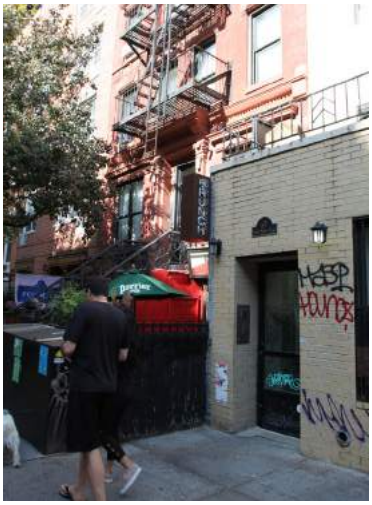
p. 85
People waiting outside restaurant while others want to pass by. Some people have had to step into the road, as the sidewalk is not wide enough. In addition, people entering at right angle from staircase that juts into sidewalk space. The staircase also cuts through Jules' courtyard, dividing it and making it feel even more sunken and secluded than it actually is. People are coming from a lot of different directions here.

p. 86
Plywood box holding recycling cans obstructs right courtyard of Jules, but is not covered in graffiti. There is a distinct line where clean facades end and graffiti-filled facades begin. The courtyard on the left of Jules has a vibrant, café atmosphere, even though it is very small.

p. 87
Bare wooden board appears to be keeping black plywood recycling box closed. Wooden board has black writing on it; unclear if this is graffiti or recycling instructions. Water collects at base of recycling box.



p. 88
Reveals where graffiti line begins – end of plywood box which is part of sidewalk space in front of light brick facade. Concrete addition in front of door is neat but oddly shaped, creating another uneven corner area and a crack within the patch. Looks as if lower extension to this addition will eventually break off, creating a tripping point again. Lots of graffiti on glass door. A man uses his phone while sitting on the staircase. Reed-like covering is attached to fence to block view from Jules' courtyard.



p. 89
Facade invites graffiti by showing lack of care – one side light lit, the other burned out. Setback of facade, where sidewalk widens, seems to have no useful purpose.

p. 90
Tree, lit Jules sign, people, all invite viewer down the sidewalk, away from barren, wider sidewalk desert in foreground.

p. 91
Window safety grilles and unreadable graffiti do not invite pausing on this sidewalk section for any reason.

p. 92
The scene reads “unwelcome – move on.” Unswept leaves, trash on sidewalk even where there are trash cans within a few steps. The farther back one steps, the more disarray and signs of lack of care are visible on this sidewalk section.

p. 93
Are the light brick and the sidewalk setback an invitation to graffitists to stop and work here? Small trash cans with lids that do not stay attached quickly add to litter on sidewalk.

p. 94
Even grillwork on window becomes place for graffiti.

p. 95
"Welcome" mat in front of door is filthy and uninviting. Additional trash bags in front of door are also uninviting. Graffiti sticker shows small boy balancing by one finger on vent pipe coming out of sidewalk. Other graffitists have avoided painting over him (except for one careless, or intentional, slash through an ankle). Could this be made into an artists' sidewalk setback?

p. 96
Some sidewalk squares have been replaced. Surface texture is uneven. Cigarette butts get stuck in cracks.

p. 97
Shadows from the buildings on the opposite side of the street block the lower, graffiti and trash-covered part of building facade and illuminate upper facade.

p. 98
Shadow on building minimizes or hides trash cans, graffiti, to show how nice upper floors' facades are. Can still see that there are two different worlds presented here, but one is being naturally suppressed for a short while so the other part of the building's character is seen.

p. 99
People move past this sidewalk area, looking down or away. Missing tree – a stump in a large dirt patch adds to forgotten, lack-of-purpose ambiance of this whole sidewalk section.

p. 100
Rental bikes add to congestion in denser, narrower area of sidewalk in background, while wider sidewalk area in foreground provides no parking on either side of curb for bikes or cars, plus no shade or seating. Man in background leans on bike rack. Perhaps benches should be located in this area, or designed as part of the bike rack?

p. 101
Wide cracks, even when intentional expansion cracks, collect and hold small items like leaves and cigarette butts. Bright yellow leaves collect in cracks and corners, and actually help to enliven an otherwise gray sight.

p. 102
A foot is seen stepping in dirt planting area. Could a twisted ankle or fall easily happen here? Cracked curb adds to disheveled appearance.

p. 103
Visibly less gum on the desert section of the sidewalk. No one wants to be there, even to pause briefly to spit out gum. Cabs pick up and drop off here, but no parking. Spaces like this needed in future for self-driving cars to pull over for drop off/pick up. Yellow leaves collect in planting area, match the yellow cab, and add color to the scene. Large wet area in background. Graffiti on side of black recycling box visible. Curb and sidewalk crumble into mosaic chunks. Could a mosaic of paver stones be created intentionally as part of the sidewalk design?

p. 104-105
Vibrant, calculated use of red (side of staircase) signifies end of sidewalk desert. Red sign for Jules Bar matches nicely – this is probably intentional. Red graffiti also matches, but probably unintentionally. A big box is falling out of the trash. Shadows frame windows nicely.

p. 106-107
Something is needed to initiate a change in perception of this desert section: red bike racks for residents' bikes? Low, red box for trash cans? Paint to cover the light brick facade and stucco? Red doors or window trim along this stretch? Or perhaps Jules Bar would object to their red being repeated elsewhere along the sidewalk stretch?

p. 108
Five trash cans in a row, plus bags and a box. Could be the back of a building – generic gray paint and no window decoration.

p. 109
Stepping back, can see that the upper part of the building facade has nice window detailing. Lower facade could benefit from similar framing around windows to add dimension and tie in with the elegant upper facade.

p. 110
People who pause in wasteland sidewalk spaces may be picking through trash cans or may be putting out trash. Others leave the area. A black plywood box, similar to the one by Jules Bar, could consolidate the cans and possibly contain all the graffiti to its sides. How could a designer start a design conversation with a graffitist about ways to limit graffiti, contain it to certain areas, or perhaps make it a purposeful, designed element of the space?

p. 111
Could a string of LED lights tucked along the molding ledge at the top of the ground floor light the facade to add liveliness to this rundown sidewalk?

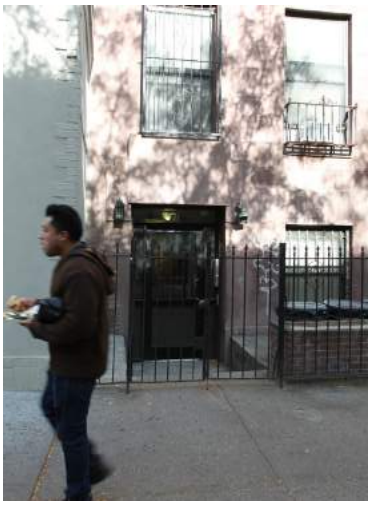
p. 112-113
Iron fence and less graffiti indicate that sidewalk desert has ended.

p. 114
A door detail reveals a lot of graffiti. The styles of script do not all match, indicating work by different graffitists. Only the door is painted in graffiti, not the edge trim. Graffiti is highly noticeable on the door, but only two words are written on the adjacent facade surface, indicating that the facade has been recently painted. Residents and landlords may be in a war with graffitists over this facade.

p. 115
The trash cans look relatively uniform in this view, aside from one open box sitting on top of one of the cans and a black bag stuck in the grate. The blue trash cans almost match the blue graffiti on the facade, although this is probably accidental.

p. 116-117
Tree at edge of sidewalk desert section – why is there no graffiti on tree, but light post has stickers and graffiti?

p. 118
There is graffiti on the building facade inside the fenced-in area. Was the fence built because of this graffiti, or was the graffitist able to get past the fence? The writing on the light post syncs with the graffiti on the building facade in this view.



p. 119
Enclosed, secured courtyards present a cleaner, neater look, but also say "private," and are separated from public sidewalk space. If the public sidewalk space along the desert stretch is uninviting due to trash, graffiti, dead tree stump, then it doesn't matter that it is wider and more open, and has newer concrete squares, because no one wants to spend time there. A man is seen eating while he walks, as this sidewalk experience is uninviting and encourages people to keep moving. The light shining on the facade and the shadows from the tree do help to enliven the scene.

p. 120
Even with almost no pedestrians on them, these two views of the same place on the sidewalk site show two very different moods. The lower one with high fencing and a courtyard filled with just trash cans says "keep moving." The upper stretch with greenery and shade hiding the same trash cans, and accessible rental bikes, invites people to slow down and spend time there. In the same place, two different views indicate two completely different atmospheres. Is the sidewalk designed up close or zoomed out? How can it be designed with both perspectives in mind?

p. 121
Leaves clog iron fencing, requiring wind, broom, and blower to maintain clear sidewalks.

p. 122
At a distance, the sidewalk looks clean and the courtyard looks practical. Up close, however, the view shows a place where ordinary trash cans must be chained to the fence, even inside the fairly secure courtyard. The planter box has been filled in with cement. Effort is no longer being expended to add greenery or flowers to this courtyard.

p. 123
A sidewalk patch without stains or gum - up close and at a distance. People are not stopping here, just passing through. How long will an empty box sit in a stairwell?

p. 124-125
Leaves become trapped wherever there is open grillwork-type fencing or in spaces between parked bikes. They may get swept off sidewalk, but get stuck again wherever sweeping or hosing-down ends (often the curb). Vine-like tree adds color, dimension, texture, shadows to otherwise bland facade. Same location, two different feels. Pedestrians and plants versus lifeless. The street edge of this sidewalk stretch shows life – trees, bikes waiting to be used in the delineated sidewalk extension. Blue bikes are in a similar tone to the pavement and blend in well.

p. 126
More edges along curb, more places for leaves to get stuck in what is intended to be a drainage area. Who is responsible for this space? Store and residence owners? Street maintenance crew?

p. 127
How has drainage changed since the addition of bikes here? How many people rely solely on city bikes instead of having their own?

p. 128
Cobblestones surrounding tree break up monotony of sidewalk concrete and looks better than packed, bare dirt. It looks particularly vibrant with yellow leaves sandwiched in the gaps.

p. 129
A small bottle that likely used to contain alcohol is abandoned on the bike rack. This area may be lively at night. There is a lock next to a signpost, but no bike at the moment. Could bike locks somehow be designed into signposts?

p. 130
Sidewalk area extension for bike rentals provides off-sidewalk space for information board, saving space on sidewalk for pedestrians.

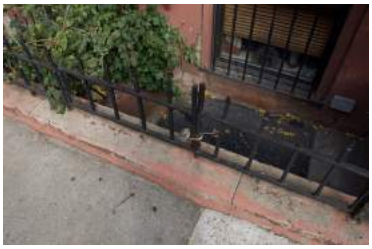
p. 131
A man can be seen leaving a flyer or advertisement in the seat of the parked bikes. A creative way to advertise on the public sidewalk.

p. 132-133
Full line of rental bikes not in use. Private owners' bikes that are being used have no place to park, except on sign posts. Red chair fits the space, although most likely set out as trash with the file cabinet. Although not positioned correctly to belong there, it is the right shape and color for this stretch of sidewalk where pops of red keep occurring. Wedged between tree and file cabinet, it was placed with enough care to be noticed (not upside down or on its side) as a viable seating place.

p. 134
The statues serve a dual purpose: they provide interest while walking along sidewalk, and also act as demarcation for the start of the stairwell, for aesthetic and safety purposes. They are large enough to be seen from the other side of the street, even with the row of bikes blocking parts of the view.

p. 135-136
The tree-like vine adds to the vintage garden look of the facade, along with the statues and the short iron fencing along the sidewalk. On page 134, other views of this area show a lonely, haunting sidewalk space – no people, no dogs, abandoned boxes, ruffed up curtains, no vertical greenery. Without the vertical greenery and activity shown here, it becomes an empty sidewalk space.

p. 137
Utility hatches to cellars are padlocked closed when not in use. Surrounding greenery and designs in their metal doors can make them less austere.



p. 138
Light is highly changeable in this area. It appears constant in the first image, but very dramatic in the second, where the lower portion is very dark and the upper part is lit, with dramatic shadows.

p. 139
From the sidewalk, looking up makes the space seem larger (as a room with a high ceiling looks larger than one with a low one). Tall light poles and vertical vines lead the eye up the building facades to the sky (the final sidewalk ceiling, beyond any tree canopy or roof).

p. 140-141
Tall trees invite people to look up and also add color, scent, texture, movement, shade, shadows, and seasonal variety to the horizontal sidewalk plane and the vertical plane of the building facades.

p. 142-143
The vine growing on the building blends in well with the branches of the tree on the other side of the sidewalk. Together, they form an archway. This is a pleasant experience, although there are few other signs of life. The space is otherwise still and dark.

p. 144
The metal end piece to the railing is a safety feature to keep pedestrians from walking into the raised brick below and to guide away from the stairs when on the sidewalk. It also becomes a mini community sticker and graffiti board. This is juxtaposed with the neatly-lettered, free-standing sandwich board, and shows a more chaotic version in the same color palette, except for the addition of the pop of red/pink prevalent in this sidewalk section. Since most of the stickers are partially peeled off, they are providing shapes more than words. They are a sign of events coming and going in the neighborhood.

p. 145
The metal facade of Holiday Cocktail Lounge meets the red door very abruptly. The red door is a different shade than the bricks and the awning of Holiday Cocktail Lounge, creating an interesting, though probably unintentional, collage of red. The sunken area in front of the door looks like it could be a nice place to sit, depending on how often people are using the adjacent doors. When the view is shifted upwards, the brick facade is highlighted and the scene appears to be much more uniform.

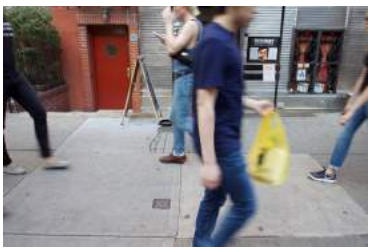
p. 146
Loose objects on the sidewalk may be temporary or not. The rock door holder stays there. The chalk sandwich board and dog water bowl are probably taken in at closing time. There is new graffiti on the front of the awning, not seen on page 145. Why was white paint chosen? To match the white lettering on the awning or by accident?

p. 147
Most of the bikes are missing from the rack, even though there is very little activity on the site. Perhaps only people in the immediate neighborhood use these bikes, and don't have to walk too far on the sidewalk to get to them.

p. 148-149
The sunken courtyard area would be more dangerous to the sidewalk pedestrian without the metal surround on the facade reflecting light onto it. This also creates a unique lighting condition, making an otherwise awkward area a bit more inviting.

p. 150-151
Multi-level, unusual entrance configuration is kept leaf and trash free (except for one can that has blended into its surroundings well). This entryway draws attention with color and large, contrasting block lettering. Green turf material is awkward. Odd mix of materials here. White and black stains are visible.

p. 152
A man pauses near the trash bag. Other people appear to all be walking by themselves.



p. 153
The canvas covering the entryway on page 150 is gone on a warmer day. The door to Holiday Cocktail Lounge is wide open, inviting people in from the sidewalk.

p. 154
Stickers and graffiti cover light post. Green and white bike adds color, matches greenery in background. The bike is attached to the light post with a sturdy lock.

p. 155
Many unused city bikes. Do people only use them on certain days during the week or at certain times of the day? Horizontal line of repeating bike wheels and vertical line of diagonal fire escape ladders have a similar rhythm. Blue color of bikes helps them blend with the color of the street pavement fairly well so the look is uniform and not jarring or chaotic.

p. 156
Black office chair wedged between city bikes and post. Is this just a discarded chair placed for easy pickup? Or perhaps someone is making a statement that people would rather sit and enjoy that space instead of it being filled up with bikes? The abandoned furniture items along this sidewalk section are not worn out, indicating a demographic of relatively affluent, young, working people. The prevalence of trendy ethnic restaurants and bars also indicates this. These are all inanimate signs of who lives in and frequents the neighborhood. Observing the people backs up the conclusions from the previous observations.

p. 157
Door framed with pink granite is wedged in, with stairs leading down to it. Several shades of red/pink touch each other on the facades, not quite matching. The adjacent white stucco wall with wood trim looks more cohesive. Door entry is not visible from all angles, causing people to have to lean around the corner to see if someone is coming out of the restaurant before they can enter. People are traveling in pairs, but at different paces.

p. 158-160
Time of day determines denseness of pedestrian traffic on this section of sidewalk. As sidewalk becomes more crowded, it also becomes narrower, encroached upon by piles of trash bags, people making deliveries, or waiting to get a restaurant seat. Doors to La Palapa restaurant can be open or closed, depending on time of day and weather.

p. 161
When doors are open, the restaurant makes the sidewalk space appear to continue inside the building. It also invites people to look in or out. Lots of people are gathering in groups outside of the restaurant – perhaps this is why the bench was installed around the tree.

p. 162
Looking up shows the importance of greenery. There is also a tall light post pointing towards the street, but probably also illuminating the sidewalk partially at night.

p. 163
Many people are sharing the square bench, which is painted red like the Holiday Cocktail Lounge awning. One man is crouching with one foot on the bench. Trash is visible in background. Only one man is walking by in this scene - everyone else is sitting in the restaurant or on the bench.

p. 164-166
The stone bench is actually a planter box around the tree, while the red wooden bench just frames the tree. Was the wooden bench added later, after someone noticed that people regularly sat on the edges of the planter box? The two "benches" are similar but not identical. Many people sitting on the benches are hunched over their phones.

p. 167
Staircase with tall metal fence sharply divides La Palapa from Taqueria, and is a bit intimidating.

p. 168
A lot of gum has accumulated here – perhaps people spit out their gum right before entering the adjacent restaurants? Light shines through the metal fence and creates interesting patterns on the sidewalk. The sidewalk surface has changed here, from squares to long rectangular strips, some of which have a pink tint and are uniform, while gray pieces stitch them together. The proportions seem to relate to the staircase.

p. 169

People sit on stairs leading down to Taqueria, potentially blocking others from getting through. Why do steps lead down to some buildings on the sidewalk and not others? Holiday Cocktail Lounge (pages 150-151) is also sunken. How can these different levels be better mediated? When looking up, awkward triangular balconies are visible. Does this shape block less light from reaching the sidewalk?

p. 170-171

Large statues on either side of Taqueria define the entrance but also could potentially create a congestion zone on the sidewalk. Entrance to Taqueria looks bright and inviting from this angle, but is barely visible when the view is slightly shifted. The outdoor, fenced-in stone chiminea appears almost like a mini obelisk on the sidewalk landscape. Metal framing appears to define the sunken entryway to Taqueria. There are perhaps too many different colors, patterns, and materials in this area, and it is perhaps too segregated from the rest of the sidewalk. There appears to be no connection or flow between the entry to Taqueria and the entry to Xi'an Famous Foods. People pause with suitcases in open area in front of Xi'an Famous Foods. Perhaps this would be a good place for a bench or outdoor tables? The lack of flat surfaces has led one lady to place drinks on top of her suitcase.

p. 172
The highly-organized nature of the graffiti stickers on the wall suggests that the residents of this sidewalk section both want to express themselves and care about the look of the area. The graffiti on the low black wall appears to be by a different artist than the black graffiti on the chiminea.

p. 173
The people on this sidewalk appear to be between 20 and 40 years old, approximately. They look well-dressed and confident. Some have backpacks, and might be students, while others could be working people. Two people are seen pausing in front of the staircase, while two other people are standing and using their phones in front of Xi'an Famous Foods. The tree adds shade to this area, making it feel a bit enclosed from the other side of the street.

p. 174-176
Why are there so many stains around the fire hydrant? Is it dogs marking their territory? Or stains from leaky trash bags being placed there? Trash bags are placed by the curb but one can also be seen sitting near the entrance to Xi'an Famous Foods. Gum appears to be spit out near the curb generally. Bikes locked to the street sign actually touch the trash bags. Which has been there longer, the trash bags or the bikes? Are the bikes serving to keep the trash bags from blowing away? One of the bikes has a plastic bag over the seat – perhaps it was locked there on a different, rainy day? The boxes on top of the trash look as though they might have been added later, perhaps by someone different than the person who originally put the trash bags out. Is this the best way to place trash bags along the curb for collection?

p. 177
A child passes by hand-in-hand with an adult. Many people are standing in groups – in front of the residential gated staircase and in front of Xi'an Famous Foods. Even though it appears to be a sunny day, this sidewalk area is mostly in shadow and seems a bit dark.

p. 178
A temporary metal barrier separates the seating area of Rakka Cafe from Xi'an Famous Foods. Although there are only 4-5 people walking by in each scene, it appears to be a lively, congested area. Perhaps this is because each person is walking in a different direction or standing in a different place. In the lower scene, one man is talking on his phone, while another pauses with his dog, and two women look at their phones, one standing, one walking. How can cellphone use be better accommodated in the sidewalk space?

p. 179
Flexible seating outside Rakka Cafe. This area feels open, with the outdoor seating in front of Rakka Cafe and the open seating at Stromboli Pizza next door. The color scheme is uniform – black and red with a bit of yellow. This area feels relatively cohesive. No shadows are visible in the upper photograph, but they are prominent in the lower one, making the space appear more atmospheric.

p. 180
The speckled pattern of gum on the sidewalk is noticeable. It is random but also somehow consistent. Does this indicate that people mostly spit out gum while they walk, as opposed to while they are sitting or standing in one specific area? A lady can be seen leaning around the corner of a column to look at a small dog on the sidewalk, reinforcing the open connection between interior and exterior.

p. 181
The dead tree space is avoided by pedestrians, although one man stands only a few inches away. There are some wet areas – perhaps dogs have relieved themselves in this area.

p. 182
Turning away from the building facades and instead towards the street yields a different view. The scene appears calm and almost serene from the lack of activity, although the colorful murals on the buildings across the street add vibrancy. These murals look like they may have been done by graffiti artists. Why did this graffiti become a mural, as opposed to a composition of sporadic, random words (as seen on pages 92-93)?

p. 183
Someone carved letters into the concrete before it dried, perhaps they are initials. Does this ever cause a tripping hazard? Some very small leaves are stuck in the crevices. The bike creates a dramatic shadow on the sidewalk surface. Perhaps there is an opportunity to design the shape of shadows that fall on the sidewalk at different times of day?

p. 184
Congestion builds in front of this row of restaurants. The nearby street corner may be contributing to this congestion. The street corner appears much sunnier than the area shaded by the tree. One tree can provide a lot of shade all on its own. Should sidewalks adjacent to private residences perhaps be more shaded than sidewalks adjacent to commercial restaurants?

p. 185
The concrete square in front of the door is a brighter color than the rest of the sidewalk paving. Stromboli Pizza casts a shadow that proportionally defines the entryway to this door.

p. 186
The color red is again very prominent – on the signs for Stromboli Pizza and on the newspaper boxes. White graffiti on boxes appears to blend in when viewed from the opposite side of the street.

p. 187
Stickers on side of box vary from political imagery to advertisements. The four boxes together create long, dramatic shadows on sidewalk when the sun is low.

p. 188
An artistically-drawn or painted face can be seen on top of the orange box. These scenes look cohesive because of the consistent color red.

p. 189
The graffiti on this side appears to be written, but it is difficult to make out words or names. The white box looks the most defaced – perhaps purposefully?

p. 190-191
The red newspaper box is quite dirty on the side, but less so on top. There are a lot of small stickers on the side, which people can see from the nearby street corner. The boxes are placed only a few inches from the edge of the curb. Are they attached to the sidewalk somehow or weighted? Someone can be seen refilling one of the boxes. Is there still a high demand for newspapers, or would more attention be paid to some kind of digital newsstand?

p. 192
A bike path on the intersecting street means there may be a need for more racks on the sidewalk site, and indicates why there are so many bikes locked to street signs. In this view, the street corner is mostly in shadow, whereas on page 184 it appears very sunlit.