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The sidewalk ballet in the age of social distancing: interactive geospatial mapping to study NYC's pandemic urbanism

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ABSTRACT

This article explores and characterizes the pandemic urbanism of NYC during the first year of COVID-19. It analyzes changes to the sidewalk and the urban lifestyle using a novel method of remote ethnography: the integrated use of Zoom video conferencing and GPS smartphone tracking to interview participants as they walked and filmed the city. The dataset, composed of transcripts, videos, and routes, was analyzed to reveal recurring themes and visualized through individual Scrollytelling maps combined into one Supermap. The findings are broken down into: 1) changes to the sidewalk, including fewer people, more outdoor sports activity, signs of social distancing, signs of closure, more bikes, and construction; and 2) lifestyle changes, including longings for the urban lifestyle, new-formed solidarity, a renewed appreciation for the local neighborhood, an undercurrent of “moving out” of the city or “moving up” to a better neighborhood, and a difference between Manhattan and the boroughs.

KEYWORDS

COVID-19; New York; social distancing; remote ethnography; walking interviews

Introduction

In *The Death and Life of Great American Cities*, Jane Jacobs (1961) describes a twenty-four-hour period on NYC's streets, using ballet and stage metaphors to describe the people's movement on the sidewalk. During COVID-19, the “sidewalk ballet” of NYC came to a sudden halt, and the freedom to go outside and walk the streets became a highly sought-after privilege that was only gradually restored to city dwellers. In addition to the closure of all offices, educational institutions, shops, cultural institutions, and restaurants, social distancing restrictions dramatically changed the everyday dance people performed as they moved through the city (Kourlas 2020). Our research aims to understand how COVID-19 changed both the sidewalk ballet of the city and the urban lifestyle.

For the past two years, the urban discourse has naturally been flooded with research about the changes in cities due to COVID-19. Urbanists, planners, designers, architects, landscape managers, and journalists have observed the pandemic's effects on different cities throughout the world: from European countries such as England, Germany, Italy (AbouKorin, Han, and Mahran 2021), and Poland (Majewska et al. 2022); to the United States (Kuznar 2021; Glaeser, Gorbach, and Redding 2022; Carozzi, Provenzano, and Roth

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2020; Sy, White, and Nichols 2021, Ju, Yavo-Ayalon, Mandel, Saldarini, Friedman, Sibi, Zamfirescu-Pereira and Ortiz 20202020); to Middle Eastern countries such as Iran (Shaer, Rezaei, and Moghani Rahimi 2021; Bijari, Mahdinia, and Mansouri Daneshvar 2021), Algeria (Kadi and Khelfaoui 2020), and Israel (Shadar 2021; Barak, Sommer, and Mualam 2021); to East-Asian countries such as China, where the disease first struck, and Korea (Fallas and Kochetkova 2021); to Oceanic countries such as Australia (Hu 2020) and New Zealand (Herman and Drozda 2021). Some work has focused on comparing and contrasting the pandemic's effects: for example, how it changed the atmosphere on the streets of London, UK in comparison to Graz, Austria (Abusaada and Elshater 2021a), or the importance of green infrastructures in both Wellington, New Zealand and Warsaw, Poland (Herman and Drozda 2021). Each locale poses its own unique set of physical and socio-political issues; however, like the concept of urbanism itself, some urban questions are universal and need to be defined (Scott, and Storper 2014). Our research is a modest attempt to fill this gap by defining the characteristics of NYC's pandemic urbanism. It does so by analyzing the physical changes on the sidewalk and the social changes to the urban lifestyle. Although we focus on a specific locale, our aim is to help better understand the pandemic urbanism in other cities using research methods that engage in remote ethnography.

NYC was one of the world's most severely hit cities. On 20 March 2020, New York's Governor Andrew Cuomo issued a "stay at home" order, and by the end of March, with over 30,000 cases and over 2,000 deaths, the city had become the worst-infected area in the US. Within a short time, the city had more confirmed coronavirus cases than China, the UK, or Iran. By April, hundreds of thousands of New Yorkers were out of work, with billions of dollars in estimated lost tax revenue; significant impact on low-income jobs in the retail, transportation, and restaurant sectors; and a 13% decline in commercial rents from the previous year. A year later, as the city reopened and vaccination rates rose, the social distancing restrictions were gradually lifted. However, in terms of its death toll, the pandemic has been the deadliest disaster in the history of NYC (NYC Health 2022). This course of events has made NYC an epic urban stage for observing and understanding pandemic urbanism (Figure 1).

To define NYC's pandemic urbanism, we developed a novel methodology of remote ethnography to collect, analyze, and visualize data. Using this approach, we created a visual thick description that documents and interprets how New York City changed during the pandemic. We combined the individual stories into an interactive web map that displays all the routes at once and enables the viewer to move from one story to another. This combination of methods was employed to produce our new visual thick description (Geertz 1973). The contributions of this research are therefore multilayered: based on the data collected, it creates a snapshot of an unprecedented period in the history of NYC; through its method of capturing data, it suggests a new way of engaging in remote ethnography; through its analysis of three layers of information (images from the video, personal stories from the text and audio, and routes from GPS), it identifies recurring themes that resonate in all the stories; and through visualization of the stories and the recurring themes on an interactive map, it helps communicate and disseminate this research knowledge to wider audiences.

In this article, we begin by presenting the classical theoretical background of the characteristics of urbanism and some current research that observes the ways they



Figure 1. New York City during COVID-19.

were altered during the pandemic. We continue with a presentation of our methods and then turn to our findings, which are categorized as *changes to the sidewalk* and *changes to the urban lifestyle*. In this context, we present images from the interactive maps that were an inseparable part of our research (for a better understanding of our methods and findings, please visit the project’s website).¹ We conclude with a discussion that critically observes our findings in comparison to the growing field of knowledge of pandemic urbanism and that highlights the study’s contributions and limitations.

Theoretical background: urbanism and the pandemic

Our research questions arose out of the challenges posed by COVID-19 and its sharp spike in NYC but builds on deeper roots. They were inspired by the Chicago School’s notion of urbanism as the reciprocal relationships between the physical structure of the city and the way people behave (Park 1915; Simmel 1950; Wirth 1938). Their underlying theory evolved hand-in-hand with the methodology of street corner ethnography (Whyte 1947) and developed into the main tool of urban designers for understanding public spaces in cities. In a way, Jacob’s concept of the “Sidewalk Ballet” (Jacobs 1961) and William Whyte’s observations on *The Social Life of Small Urban Places* (Whyte 1980) linked that methodology to the world of urban designers, informing designers’ decisions with their pragmatic analyses and shaping the discipline of urban design in the US and elsewhere (Teaford 2013; Jacobs 1961; Wong 2021; Laurence 2006). This methodology, of observing the street and counting people on the sidewalks and in parks or squares to assess use patterns and evaluate the healthy functioning of public spaces, still plays a leading role in the work of planners and designers (Gehl 2013; Binkovitz 2019). It also helped inspire our methodology.

Understanding urbanism as the reciprocal relationships between the physical and the social structures of the city encapsulates three key concepts that constitute the basis of our analysis: the urban lifestyle and its impact on local identity; the neighborhood as a social unit; and the spatial hierarchy in different parts of the city.

The urban lifestyle and the city's local identity

The modern meaning of urban lifestyle was born in the nineteenth century on the boulevards of Paris, London, and Barcelona, with the image of the urban *flâneur* (Baudelaire and Mayne 1965; Benjamin 2006). Strolling the streets became one of its characteristics, combining the emerging consumer culture and the opportunity to see and be seen (Sennett 2018). In the current neoliberal age in which “global cities” compete to become the leading city among a network of world cities (Brenner and Schmid 2015; Sassen 1991; Brenner and Keil 2006), these two basic activities have intensified. Consumer culture has evolved into a pursuit of revenue and growth (Harvey 2006; Molotch 1976; Peterson 1981) through symbolic economy (Zukin 1998a), and the urban lifestyle is marketed to strengthen a city's capital (Bodnar 2015). This new urban lifestyle further encourages cultural consumption and the development of highly visible consumption spaces, such as hip restaurants, boutiques, art galleries, and coffee bars. The Creative City theory (Florida 2005) further branded the urban lifestyle to become an attractive way of living, emphasizing the diversity of cities that make room for all genders, family structures, and creative people. In this context, New York City is at the top of the cultural hierarchy and ranked as one of the world's leading cities according to all platforms (Knudsen et al. 2020). It is also one of the cities that were most severely impacted by the pandemic, with the two abovementioned activities – shopping and socializing – being precisely the activities that were most affected by COVID-19 (Honey-Rosés et al. 2020, 4). The social distancing restrictions and lockdowns significantly affected public life in sociable spaces (Abusaada and Elshater 2021b; Mehta 2020). Social distancing also fundamentally changed consumer culture by accelerating digitization and automation in retail and grocery shopping, as well as dining (Shapiro 2022).

During the pandemic, urbanists and planners focused on correlations between the urban lifestyle (physical and social structures) and the outbreaks and spread of the pandemic (Carozzi, Provenzano, and Roth 2020; AbouKorin, Han, and Mahran 2021; Kadi and Khelfaoui 2020). Carozzi, Provenzano, and Roth (2020), for example, found that population density affected the timing of outbreaks, with denser locations more likely to experience an early outbreak. They did not find evidence of a linkage between denser areas, higher numbers of cases, and higher death rates. Glaeser, Gorbach, and Redding (2022) found correlation between the restrictions on mobility and the spread of the disease, highlighting that this correlation was stronger in US East Coast cities, and especially NYC, in the early days of the pandemic.

The interrelationship between nature, urban spaces and the habits of city dwellers has also been reconsidered. Researchers have highlighted the importance and use of urban green infrastructure during the pandemic (Herman and Drozda 2021; Ugolini et al. 2020). Others have suggested this as an opportunity to improve urban health and well-being (Hassen 2021; Andres, Bryson, and Moawad 2021), showing how the

decrease in vehicular movement contributed to better air quality (Rodríguez-Urrego and Rodríguez-Urrego 2020) (Bashir et al. 2020).

The neighborhood as a social unit

The neighborhood is a fundamental unit of research for understanding the urban lifestyle. The scholars of the Chicago School initially identified spatial division according to two systems of amalgamation: one according to professional specialization, wealth, and common interests (Wirth 1938), and another on the neighborhood level, based on kinship and proximity (Park 1915). On the neighborhood level, studies have shown that minorities and immigrants tend to group together, whereas high income groups tend to cluster within designated neighborhoods and gated communities (Atkinson and Blandy 2005). Although Chinatown and Little Italy are the best known examples in NYC, many neighborhoods in the City are known to have their own distinctive ethnicity. Such spatial congregation allows community life and creates a common sense of identity, belonging, and solidarity (Hazan 1988, 289). From this perspective, the neighborhood is viewed as helping a group of people, with an emphasis on minorities, preserve their culture, develop a local economy, and organize itself socially and politically. During the pandemic, neighbors found creative ways to stay connected and combat isolation by communicating balcony-to-balcony or driveway-to-driveway. At the same time, the pandemic limited the ability of city dwellers to develop new relationships, especially with strangers (Honey-Rosés et al. 2020, 3).

Hierarchy

The notion of hierarchy is interlinked with the neighborhood divisions. Whereas the Chicago School's early models underemphasized the role of decision making in segregating neighborhoods, their successors highlighted the role of power relations, policy, and decision making in creating spatial hierarchy (Brenner 2009; Castells 1997; Lefebvre 1974). Minority groups congregate not only due to their own social and economic priorities but also due to policies of discrimination (Goetz 2003; Jargowsky 1997) (Massey 2013). As result, weaker populations are concentrated in run-down areas that may turn into ghettos or enclaves plagued by crime and sanitation issues (Bauman 2001; Du Bois 1899; Sampson 2012; Wilson and Toub 2006; Wacquant 2016; Krase 2016). Planning decisions concerning the location of workplaces and urban and cultural centers positively impact areas of the city, while decisions to withhold other aspects of development result in their neglect and abandonment. Such decisions are based on class, race, and gender (Massey 2013, 86–115). The spatial segregation of NYC has long been long recognized (Marcuse 1985), with census data indicating a whiter and richer Manhattan and boroughs dominated by middle-class and low-income residents. From an ethnic perspective, Brooklyn has an African American majority and Queens has Hispanic majority (U.S. Census Bureau 2021). As seen in Figure 2, COVID-19 has intensified these differences. The maps show that the areas with the highest rates of COVID-19 cases also have some of the highest numbers of service workers, rent-burdened households, and people of color (Brooks and Roy 2020). During the pandemic itself, researchers showed how the crisis enhanced the already severe sociopolitical divide (Keil 2022; Kuznar 2021; Yasin and Ferguson 2021),

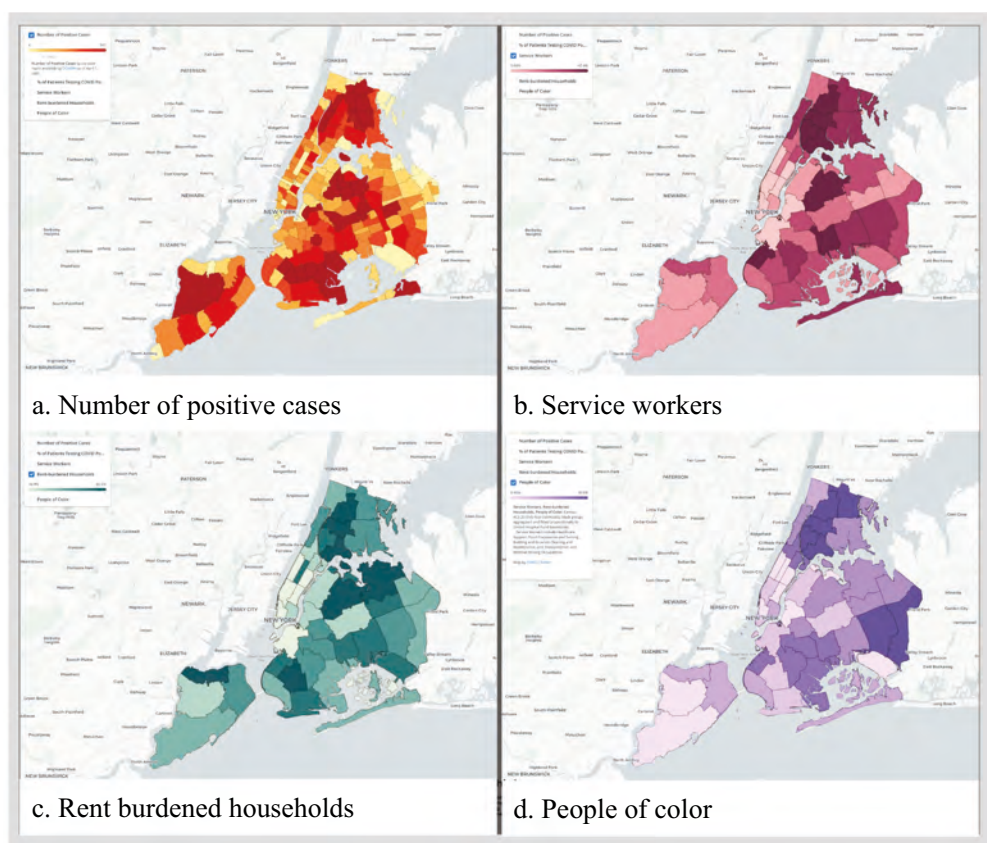


Figure 2. Maps showing how COVID-19 intensified the social hierarchy of NYC. Source: Association of Housing and Neighborhood Development; <https://anhdnyc.carto.com/builder/f7994ecc-fc14-4e3c-a5d6-c90196e20b2f/>

considering the devastating effects of poor residential living conditions, low socio-economic status, neglected neighborhoods, and household crowding on the most affected communities (Sethi and Mittal 2020; Marsh and Feis 2020; Wall 2020), on the one hand, and observing the pandemic as an opportunity for creating new kinds of communities, on the other (Hu 2020).

In its various expressions, from the *flâneur* to the Chicago School to Jacob's sidewalk ballet scholars, urbanism discourse has advanced the notion that the city shapes the personality and the social ties of the people who inhabit it, with each city producing its own "urban personality" (Simmel 1950). In a world in which your city is ranked number one, you are also number one. People are attracted to NYC because of this global city image and because of the branding mechanism that markets the proximity to cultural amenities and different forms of capital (Bourdieu 1985; Zukin 1998b). The urban lifestyle, with its diversity of neighborhoods and social hierarchy, is part of New Yorkers' identity. The drastic change from being "the City" to becoming the world's COVID-19 epicenter was apparent throughout NYC during the first months of the pandemic. To meet the challenge of a period in which walking in the

street and observing its sidewalk ballet was considered a life-threatening activity, we developed a novel methodology for learning about this change while complying with social distancing policy.

Methodology: employing remote ethnography and interactive geospatial mapping to produce a visual thick description

To understand how the social distancing restrictions affected the sidewalk ballet of NYC during this period, our research method was structured so that it could be conducted in-situ but from a distance. Our protocol, which we called “Walkie-Talkie,” makes use of modern-day video conferencing software and mobile phone technology to conduct ethnographic research, with participants speaking with a remote researcher as they walk around their neighborhood. We used timestamped GPS logs from participants’ mobile phones to help synchronize collected audio and video with GPS waypoints. These interviews were analyzed for thematic content by researchers. Subsequently, we developed an online interface to plot the interview content and the thematic markers on a geospatial map, providing an interactive geospatial visualization of the interview data and observations from all the study participants. Viewers can use this interface to move from one story to another to make their own observations of the data. This combination of methods constituted our new visual “thick description.”

Data collection: zoom walk-and-talk interviews (walkie-talkie)

For our data collection, we recruited 25 participants to perform “walkie-talkie” interviews. The interviews were conducted via Zoom in the fall of 2020 and the winter and spring of 2021, and took place while interviewees were walking in a very familiar area (the neighborhood in which they live or work). We recruited the interviewees through various university mailing lists, personal mailing lists, and social media platforms. In addition, interviewees were also happy to invite their friends to participate, which proved to be the best way to recruit participants under the conditions of social distancing. Interviewees were instructed on how to mount their mobile phone cameras so that they faced forward, and the video feed that was live streamed from their phone and the real-time narration they provided enabled the remote interviewer (and subsequent audiences) to observe the interviewee’s perspective of their immediate environment.

Interviewees were asked to walk through a part of the city with which they were familiar and were prompted, through a semi-structured interview, to reflect on aspects of the environment that have changed due to the pandemic. The interviewer helped focus the interviewees’ narration on the specific places in which they were walking by asking for examples: What did their routine walk look like before the pandemic, and how had it changed? Could they point out things on the street that looked different from how they looked before? If they could be anywhere in the city, where would they go? The interviewees were also asked what they missed most about the city and to recall a specific event that highlighted the change for them. Each interview concluded with us asking the participant to imagine NYC exiting the

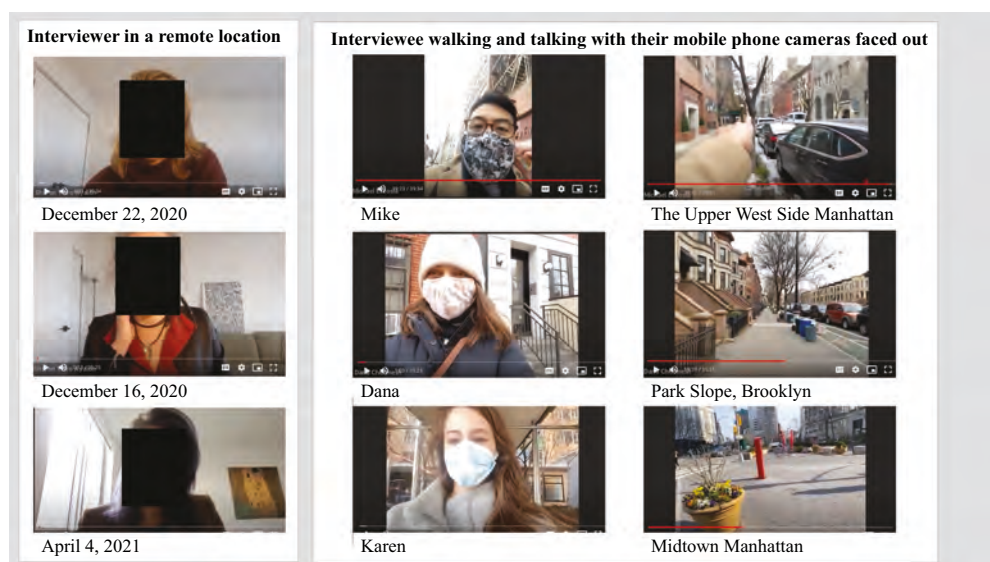


Figure 3. Zoom Walk and Talk Interviews (Walkie-Talkie) settings: Interviewer in a remote location guiding the interviewees to mount their mobile phone cameras to face out.

pandemic and their predictions for the coming summer. This method allowed interviewees to represent the world as they saw it, while providing additional data visualizations and imagery (Figure 3).

Data analysis: thematic content analysis

The walkie-talkie interview protocol provided us with three layers of information: (1) the video – what we see in the street; (2) the audio and the transcript – what the interviewer and interviewee talked about during the interview; and (3) the route – what we know about the area and the specific location. The three layers of information corresponded to one another, although sometimes the discussion between the interviewer and interviewee had to do with previous time points, off-screen locations, or other topics which did not relate directly to anything that was in the interviewees geographical vicinity or that could be viewed in the video stream.

Consisting of five individuals with varied backgrounds ranging from architecture and urban planning to urban sociology, to computer science, and to Human Robot Interaction, the research team analyzed these layers to acquire as much information as possible. The video provided information about the features and physicality of the street, the size of the sidewalk, and the comfort of walking. Like Whyte (1980), we researchers could count other people on the street and observe what they were doing. The video also provided data about the time of day, the weather, traffic, sidewalk and street cleanliness, and so forth.

Combining the video with the audio and narrative also furnished information about the physical changes in the area in question, including things that were not there prior to the pandemic or things that are now missing. The audio and the

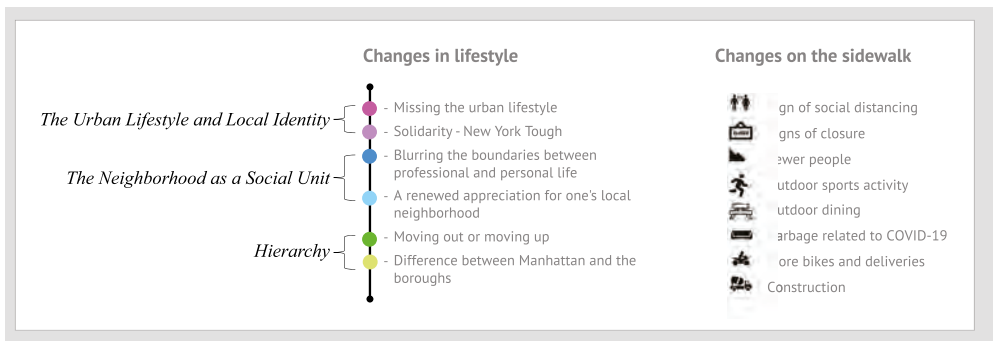


Figure 4. Legend of recurring themes divided according to changes in the sidewalk and lifestyle.

transcript reflected how people were feeling about the changes in their lives and in the urban environment.

Based on the theoretical background, we divided the recurring themes into two categories: changes to the lifestyle (marked with a colored dot) and changes to the sidewalk (marked with an icon) (see [Figure 4](#)).

Visualization

Individual scrollytelling maps

To visualize the findings of our interviews, we used the Mapbox Scrollytelling API – designed to create web-based digital multimedia “stories” that unfold as a viewer scrolls through the webpage (with a map trace function that helps indicate changes in the location of each story as each narrative unfolds) – to create an interactive map-based rendering for each interview. In the first stage of our research, we selected 10 high-quality interviews out of the 25 conducted for rendering.

In our walkie-talkie interviews, the interviewee’s route is drawn on the map as the viewer scrolls down the webpage, and viewers can watch the video and hear the interview segments corresponding to different locations. All the Scrollytelling narratives are similarly structured. Each narrative begins with an expository introduction containing background information on the neighborhood the person is traversing and how the neighborhood was affected by the COVID-19 pandemic (from the NYC data website²). Following this introduction, the map zooms in to focus on interview footage, which enables viewers to hear how it felt to be in this area at that moment in time during the pandemic. These narratives give viewers insight into the experiences of specific individuals in specific locations at a specific time. The interview map routes are annotated with markers corresponding to themes we developed during the content analysis; at points on the map where the interviewee mentions or shows elements related to these themes, we placed marks (colored dots when discussing changes to lifestyle, and icons when discussing changes to the sidewalk) to illustrate where various issues arose. At the end of each interview, the method resulted in a line indicating the route of the walk marked with dots and icons – a visual representation of the walk ([Figure 5](#)).

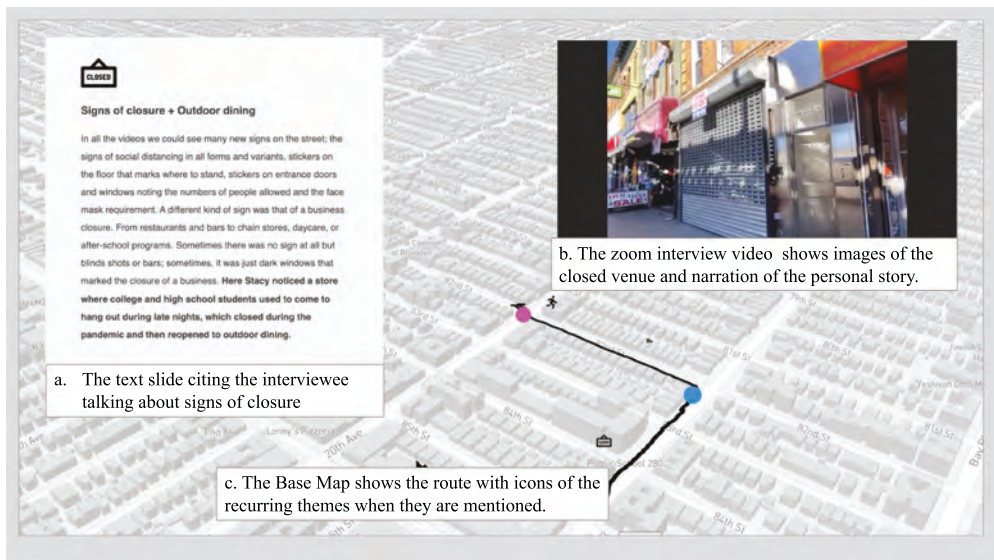


Figure 5. The individual Scrollytelling map interface.

Supermap (link not included to ensure anonymity)

The individual Scrollytelling Maps were combined into one “supermap” that includes an image and a route for each interview. This map, marked with the same color-coded markers as the individual narratives, helps viewers locate areas where recurring themes arise and facilitates non-linear browsing; that is, instead of viewing individual narratives in sequence, a viewer can toggle between similar markers to compare vignettes from

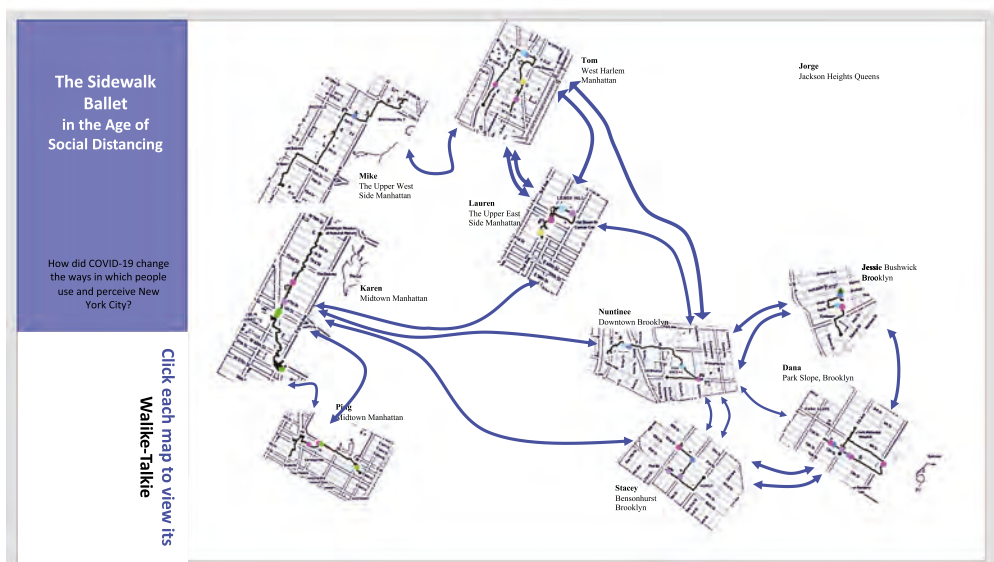


Figure 6. The Supermap. Every map is linked to this Scrollytelling map on the Project’s website.

different narratives or view all the stories of various interviewees pertaining to similar locations. This map enables us to observe all the locations at once and to view their diversity and their distribution throughout the city. It also offers a visual summation of the recurring themes, enabling a crosscutting analysis and understanding of these themes and the links between them (Figure 6).

Although we have presented the three parts of the project's methodology as distinct elements, the data collection, analysis, and visualization of the data occurred iteratively throughout the research process. Tracing the interviews on interim super maps helped us identify where we might want more coverage and locations that were yielding interesting thematic content. Some of the themes were more apparent when we viewed an interviewee's routes on a map (link not included for reasons of anonymity). The videos and the maps were used to come up with the recurring themes that are at the heart of this paper.

Results: the new sidewalk ballet – stage and choreography

The classic literature defines urbanism as the reciprocal relations between the city's physical structure and social structure (Park 1915; Simmel 1950; Wirth 1938). On this basis, when we analyzed our data to define the city's pandemic urbanism, we divided our recurring themes into physical changes to the sidewalk and social changes to the urban lifestyle. In our interactive maps, changes to the sidewalk are marked with icons, whereas changes to the urban lifestyle are marked with a colored dot. Figure 7 provides an example of one route that touches on many of the themes, as they appear at the end of the route.

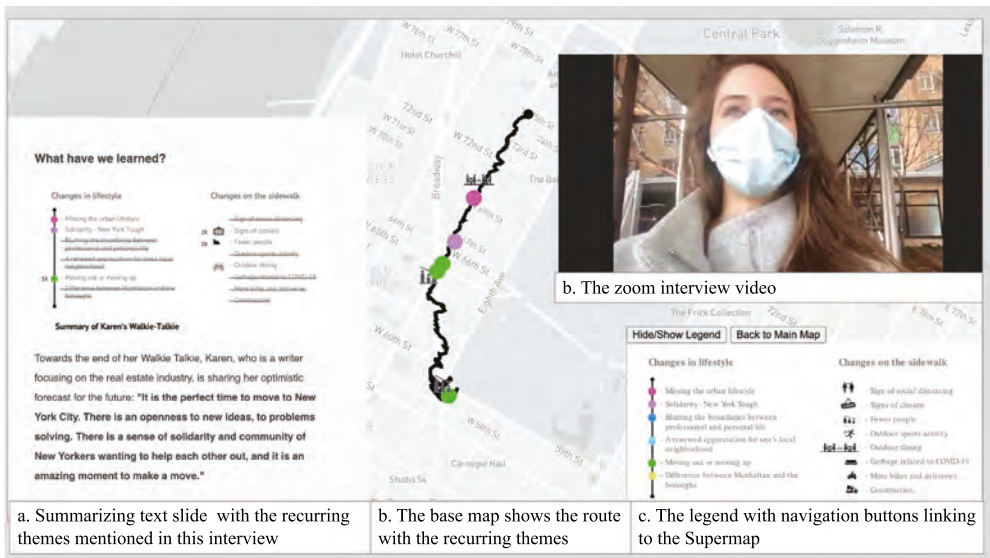


Figure 7. The individual Scrollytelling map summarizing slide.

How did the stage change? Changes on the sidewalk

Fewer People

The major change was the emptiness of the sidewalk. In the most crowded videos, we counted between 60 and 100 other people during a 40-minute walk. In other videos, the number was less than 10. This may seem like a high number for other cities, but not for NYC. In addition, when walking a familiar street, all the interviewees noted that, based on their experience, “this street is usually” packed with people traveling to work or packed with tourists, and “this playground is usually” filled with families. Most of the people we observed were not in a hurry and were usually by themselves. On a main avenue in Manhattan, we saw people walking with shopping bags, walking their dogs, and strolling with kids. In the earlier interviews, there were also fewer cars on the streets. Interestingly, in residential neighborhoods in Brooklyn and Queens, although we saw fewer people in the videos, the interviewees themselves noted that the streets had been empty this time of the day prior to the pandemic, but that they could now see more people walking in the neighborhood because the schools were closed, and people were working from home. Though in Manhattan we counted more people than in the boroughs, the interviewees always emphasized that in normal times, there were typically more people on the streets.

Outdoor Sports Activity

When the weather improved, more people started spending time in parks, which became one of the few alternatives to cultural life. All interviewees mentioned this, and, in each interview, we counted more than 15 examples of people running, jogging, or passing by the camera lens engaged in other sports activities.

Signs regarding Social Distancing

In all the videos, we observed many new signs on the street; these were signs regarding social distancing in all its forms and variants, including stickers on the sidewalk marking where to stand, stickers on entrance doors and windows indicating the maximum number of people allowed inside, and stickers indicating the face-mask requirement.

Signs of Closure

A different kind of sign marked business closures, from restaurants and bars to chain stores, daycare, and after-school programs. In some cases, there was no sign per se, and the closure of a business was marked merely by shut blinds or dark, barred windows. Business closures were more apparent in the interviews conducted in Queens, Brooklyn, and Harlem. With the passage of time and the arrival of springtime, we saw new signs stating, “we are open,” which was taken for granted prior to the pandemic but now needed to be explicitly stated in order to help a business recover. These new signs marked the re-opening of the city.

Outdoor Dining

The primary and most notable change to the city’s sidewalks was the new outdoor dining initiative that sprouted up all over NYC. The city encouraged outside dining in places where the infection rates were lower and allowed restaurants to set up tables and chairs on the sidewalk or in parking areas adjacent to their venue, in order to enable more

customers to dine while maintaining social distance. Such outdoor dining had been illegal prior to the pandemic and dramatically changed the appearance and use of sidewalks throughout the city.

Trash Related to COVID-19

The periodic presence of trash bags on sidewalks has long been a trait of New York City, as this is how garbage in the city is collected. However, the videos also revealed substantial amounts of discarded furniture and other new kinds of trash, such as gloves, masks, and social distancing signs that had fallen due to improvised taping. This phenomenon was addressed by some of our interviewees, who recounted having seen “whole apartments dumped on the street” when people needed to leave town quickly during the pandemic.³

More Bikes and Deliveries

Another unique phenomenon that intensified during the pandemic and that was apparent in our videos was the increasing number of delivery bicycles and motor vehicles. In almost every interview, we noticed the presence of a delivery truck, a delivery bike, or delivered packages awaiting pickup. Some of the interviewees referred to this phenomenon explicitly during their walks.

Construction

Construction sites and scaffolding are typical elements of big city life. The videos filmed during the walks revealed significant construction, and some interviewees said that they felt as if there was more construction than usual going on during the pandemic: “It does seem like a lot of folks who have buildings are using this time either to do repairs that needed to get done, or in some of the sort of public institutions, they’re actually continuing to expand.”⁴

How did the choreography change? Changes to the urban lifestyle

The interviewees’ stories enhance the video analysis. In many cases, the interview lent meaning to or made sense of things we saw in the video. The changes on the streets are manifestations of more profound lifestyle changes, represented on our interactive maps by colored dots.

The Urban Lifestyle and Local Identity

When speaking freely about changes in the city, many of the interviewees noted how much they longed for the urban lifestyle. Some mentioned missing the opportunity to be in the same space with both friends and strangers, which for them is what makes New York so fascinating and attractive.⁵ Others spoke of cafes, restaurants, and bars, explicitly describing such sites as places to meet “interesting people and have conversations with people from diverse backgrounds.”⁶ Group activities such as workout classes were also mentioned as a longed for aspect of the urban lifestyle.⁷ When explicitly asked what they missed the most since the pandemic began, the most common answer was cultural life: museums, galleries, theatres, live performances, and the like. In interviews

conducted after the reopening of museums, many related the excitement of going to a specific museum or gallery.⁸

In the early days of the pandemic, media campaigns encouraged New Yorkers to be tough, to be there for one another, and to comply with the social distancing restrictions. This sense of solidarity, arising from the image of a tough New Yorker, was reflected in many of the interviews. For example, when interviewed in cold weather, some stated explicitly: "It is not a problem for me to go out in 30F degrees. We are New York tough."⁹ Some talked about making reassuring gestures and nodding to strangers outside to express solidarity with one another and the sense of a shared undertaking. Although one may not know the person that is walking past them, and although in normal times people in New York are taught to ignore strangers in the street, the struggle against a common enemy (Marx) – in this case, the pandemic – created a sense of solidarity and unity among those who remained in the city. Some related to this on the neighborhood scale, mentioning getting to know their neighbors better¹⁰ or the way in which restaurants and bars were collaborating to stay afloat.¹¹ Others talked about this on the city scale, noting the way the city was functioning in unison.

The neighborhood as a social unit

Many New Yorkers are accustomed to spending a large part of the day at the office or at school and returning to their own neighborhoods only at the end of the day, sometimes after dark. During the COVID-19 pandemic, all of our interviewees had to work from home. This significant change in their daily itineraries meant that, for the first time in a while, they were able to observe the streets of their neighborhoods during work hours, to which Jacobs refers as "the heart-of-the-day ballet." On the one hand, this resulted in renewed appreciation of their neighborhoods; on the other hand, it led to a shift in their work-life balance and to a blurring of the boundary between professional and personal life. This change was mentioned in interviews with families, in particular. For some, foregoing the commute meant more time to work, greater efficiency, and more time to spend with their children.¹² For others, it meant losing quality time with their children on the way to school. The intensification of family relations that resulted from spending so much time together was felt to various degrees. Some mentioned going outside to be alone, and it was common to miss going to work or feel the need to be with people from outside the family. On the other side of the spectrum, working from home posed a different challenge for interviewees who lived alone. For them it highlighted the loss of the urban lifestyle. Without the social and cultural life of the city, staying home meant being alone.

As people spent more time in their own neighborhoods, many discovered new things about them. Moreover, since people had to spend more time working from home, the only break from their computer screens were their daily walks. Interviewees mentioned that they walked more often during the pandemic, usually with no other explicit purpose other than leisure. In doing so, they made more use of the outdoor spaces at home than they had in the past. During these walks, people discovered new parts of the city, new local shops, and connections between areas of which they were unaware because they used to take the train.¹³ In addition, interviewees expressed a new appreciation for the physical and social attributes of their neighborhoods. Socially, many talked about getting to know their neighbors. One of our interviewees, who now lives with his kids in the same

neighborhood where he grew up, talked about how he now better understands the values of this immigrant neighborhood.¹⁴

Hierarchy

Despite the standstill in the streets, there was much movement in the city – movement that was less apparent, like an undercurrent of switching places. Many of our interviewees moved out of their apartments during the pandemic. “Moving out” here refers to relocation out of the city, even just for a few months, and meant that the person in question had a more flexible socio-economic situation or had family elsewhere. For those who remained in the city, a new set of opportunities presented themselves as rental rates declined. At least four interviewees mentioned being able to rent a larger apartment or move into a better neighborhood, indicating that the pandemic provided an opportunity for potential or temporary upward social mobility.

There was a notable difference between the spatial change that occurred in Manhattan and that of the other boroughs. As Manhattan emptied out due to the out-flux of the affluent population and the closure of offices, retail properties, restaurants, and cultural sites, the residential neighborhoods came to life. People walking in neighborhoods outside Manhattan said that they could now see more people on the street than when everyone was at work in “normal” times, whereas people in Manhattan describe the street as “so quiet.” Some attributed this to the absence of tourists, who usually fill the streets of Manhattan.

Discussion: NYC pandemic urbanism

As we write these words in the spring of 2022, the world is gradually adjusting to the new normal and most social distancing regulations have been lifted. In this discussion, we link the changes we identified to current research regarding pandemic urbanism and ponder which changes were temporary and which are here to stay.

On the sidewalk, two main themes correspond with other trends reported in the current research: the importance of green infrastructure, and the spatial change to urban public space due to outdoor dining. While we observed fewer people on the streets, more of them were engaged in outdoor athletic activity. Our interviewees reinforced this observation by stressing the importance of walking around their neighborhood as the only leisure activity they had while working from home. This theme corresponds with Herman and Drozda (2021) research about the use of urban green infrastructure during the Ugolini et al. (2020) exploratory study about the perceptions of urban green space. Our findings support theirs and show that outdoor spaces became more essential during the pandemic and that people used them in different ways and appreciated them more. We support their recommendation and join their call for more integrated green infrastructure within all urban fabrics.

The second prominent change on the sidewalks stemmed from the outdoor dining initiative. During the summer of 2020 and the winter of 2021, New Yorkers cherished what was then the only option for social and cultural activity. However, once indoor dining reopened, most of these structures were deserted. Over time, thousands of public complaints regarding trash, rats, noise, and fewer parking spaces incited a push to regulate outdoor dining (Adams 2022). This change is more fundamental than simply

arranging tables and chairs on the sidewalk; it is linked to a profound change in social structures of privatization, commercialization, and securitization of public spaces that are immanent to American urbanities (Bodnar 2015; Yasin and Ferguson 2021) and requires further research.

Regarding the urban lifestyle in pandemic urbanism, we learned that when NYC became the global COVID epicenter, many New Yorkers fled the city. At that time there were speculations about the death of the urban lifestyle and predictions that cities would be abandoned for safer suburbia (Pojani and Alidoust 2021; Batty 2022; Keil 2022; Jasiński 2022; Neuman, Chelleri, and Schuetze 2021). However, our interviews show that, even during the pandemic, cities and the urban lifestyle remained attractive and city residents found alternative ways to maintain it. Since cultural activity was not considered “essential” it was the last to reopen. However, when we consider what makes the city a unique social phenomenon, cultural variety *is* essential. For this reason, more effective and extensive maintenance of outdoor cultural activity and the urban lifestyle during future lockdowns is worth considering.

Since the onset of the pandemic, several quantitative studies have proven some of our qualitative observations. For example, reports by the Cornell School of Public Policy (Dean 2022) and the Office of the NYC Comptroller (Lander 2021) support our observation of an undercurrent of “moving out” or “moving up,” revealing that, between April 2020 and July 2021, NYC’s population plunged by nearly 4%, with most of those moving out coming from the higher socioeconomic deciles. We learned from our interviewees that these movements initially created the atmosphere of an abandoned city, leading to reduced rents and upward social mobility for those who stayed. Data from StreetEasy¹⁵ reinforces these individual observations, showing that at the early stages of the pandemic, rent prices plunged and landlords waved amenity fees and granted free months. However, this period ended quickly. Between December 2020 and December 2021, the city’s median rent made its largest year-over-year gain since the pandemic began, from \$2,500 to \$2,800. Similarly, the number of rental vacancies dropped from about 41,400 units to 24,413 (Rosenberg 2022). As a result, rents in Manhattan have reached pre-pandemic rates, and the competition has gotten fiercer (Spivak 2022). For a moment, the pandemic appeared to be an opportunity to reshuffle the deck and provide more affordable housing. However, with the return of the urban lifestyle, this window has closed. When thinking about the future of cities, this temporary deviation from urban migration patterns highlights the need to enable those who remain in the city to engage in upward social mobility, which was once one of the main advantages of cities.

The solidarity among those who remained in the city was a unique phenomenon linked to the time of crisis. Whether this was a product of the looser urban ties that tightened due to the common goal, the absence of tourists on the street that enabled New Yorkers to see one another, or the media campaigns calling for New York toughness, the middle class and lower class were unified in creating a new urban force. Similar conclusions were reached by Hu (2020), who found that COVID-19 helped city residents rediscover local community and nurture a special community spirit, under the conditions of social distancing.

In this regard, we call attention to the difference between Manhattan and the boroughs. Our interviews indicated that people who lived in the boroughs were more inclined to express a renewed appreciation for their neighborhood, creating an alternative supportive network vis-à-vis the urban lifestyle they were missing. Also supportive of these findings are statistics showing that the boroughs were severely hit by the virus in terms of death rates and business

closures, specifically in Queens and the Bronx (Bowles and Shaviro 2022), but that the same boroughs lost the fewest residents. While Manhattan shed 117,275 residents, or nearly 7% of its population, the populations of Queens and the Bronx declined by 74,321 and 47,706 respectively (Dean 2022). Indeed, despite much research that showed how the pandemic enhanced the already severe sociopolitical divide (Keil 2022; Kuznar 2021; Yasin and Ferguson 2021; Sethi and Mittal 2020; Marsh and Feis 2020; Wall 2020), this observation is important because it shows that remaining in place is what allowed them to develop this solidarity and sense of community.

The linkages between these themes indicate the importance of the neighborhood unit and the need to think about strengthening neighborhoods and small businesses that support their communities.

As time passes, it is becoming increasingly apparent that working from home is one aspect of pandemic urbanism that is here to stay, as is the resulting blurring of boundaries between professional and personal lives. Working from home has many urban advantages, such as the reduction of traffic and improved air quality (Rodríguez-Urrego and Rodríguez-Urrego 2020; Bashir et al. 2020). From a social perspective, empty office buildings present an opportunity to increase the housing stock. In NYC, there is a growing push to convert Midtown and Downtown office space into apartments (David 2022), and this change can be key to creating a new urban model of hybrid home-work living and an opportunity for transforming traditional business districts into innovative neighborhood units and for reshuffling urban thinking to create more equitable and livable environments.

Conclusions

As we all know by now, COVID-19 has fundamentally changed the way we use and perceive cities. Still, it is essential that we empirically define how and in what ways it did so. Our research sought to assess these changes and to propose a method for studying cities while maintaining social distance. First, following the urban *flâneur* tradition, we interviewed people who agreed to walk the city's sidewalks and film them for us. We then created a data set composed of three layers: transcript, video, and location; analyzed it to reveal recurring themes; and visualized it through individual Scrollytelling maps combined into one Supermap. This article, and its accompanying interactive geospatial maps, constitute our visual thick description that documents and interprets the character of pandemic urbanism in NYC.

We divided our findings into "changes to the sidewalk" and "changes to the urban lifestyle." The changes to the sidewalk we found included signs of social distancing, signs of closure, fewer people, greater outdoor sports activity, outdoor dining, COVID-19-related garbage, more bikes and deliveries, and more construction. Most of these have proven transient. However, two primary changes that we assume will have a long-term impact on public space in the city are the realization of the importance of green infrastructure that can support sports activity and leisure during lockdowns, and the importance of outdoor dining regulations. Further critical research can help understand the long-term effects of these changes. The major change in urban lifestyle was its temporary disappearance. Longings for the urban lifestyle were shared by all the interviewees, who mentioned missing casual interactions and cultural variety. Other changes to lifestyle included newly-formed solidarity among those who remained in the city, which increased the sense of local identity and belonging; a renewed appreciation for one's local neighborhood, stemming from the two previous themes; a new undercurrent of

moving out of the city, for those who had the option, and of “moving up” to a more desirable location in the city, for those who remained and could benefit from the lower rental rates. These themes are related to and magnified by a final one: the difference between Manhattan and the boroughs. Similar to the transformed sidewalk ballet that for the most part has since returned to its pre-pandemic state, most of those changes were transient. We believe, however, that the redefining of boundaries between professional and personal lives and the flexibility of working from home are here to stay and will play a major role in changing the future of cities.

Limitations and recommendations

Our aim here was to tell the story of the city under the mandated social distancing restrictions, which posed many limitations. The main challenge we faced was recruiting participants during a period of social distancing. In addition, a significant number of the interviews were not good enough to use, with some suffering from lost GPS data and others from low-quality video. The result was a narrow sampling of participants largely from upper-middle-class and highly educated backgrounds and from only some of the city’s five boroughs, which painted a specific image of the city from the participants’ perspectives. To overcome this challenge and to support and enrich our map, we integrated layers of data on the city scale into each Scrollytelling map, including links to specific statistics, information about how the area in question was affected by COVID-19, and links to media articles pertaining to particular remarks made by the interviewees. For example, in the case of an interviewee who pointed out that she could not take her children to the playground, we added a data set of all the closed playgrounds in the city. Those additional data sets are elaborated in [Figure 8](#), including data on rent-burdened households, loan grants for Covid, Park closures, etc. When another interviewee

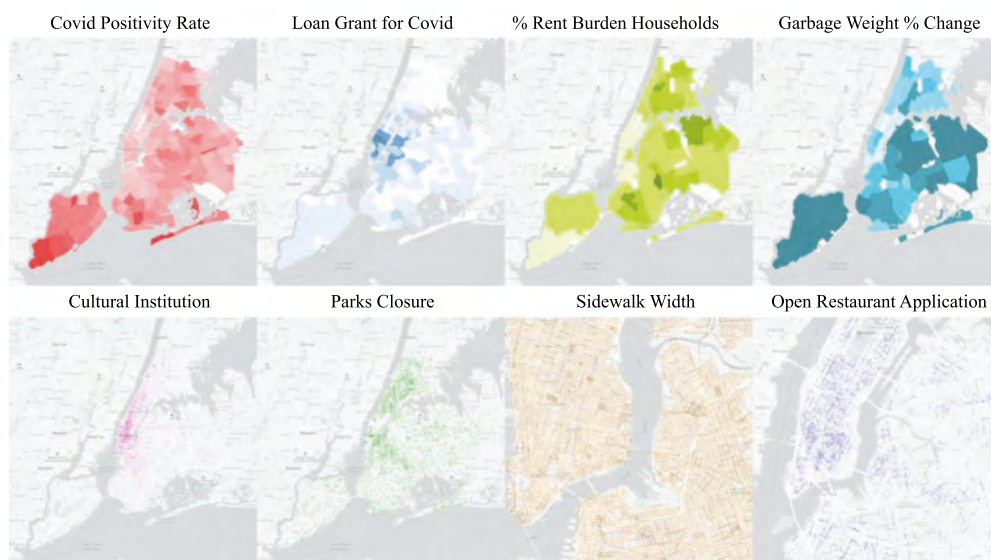


Figure 8. Integrated layers of data added to each the individual Scrollytelling map. Source: NYC Open Data.

noted how badly a specific neighborhood of immigrants had been hit, we added a link to an article that elaborates on the neighborhood's story during the pandemic. Overlaying the individual route of the interviewee and the multiple datasets grounded each story in its specific locale. The addition of these extra layers of data to each interview enriched our visual thick description, compensated for the small sample of participants, and generated an integration of the individual points of view with that of the city as a whole. Further research is necessary to employ and improve the proposed research method – remote ethnography and visualization in interactive geospatial maps – in different scenarios, such as conducting cross-continent ethnographic research without physical travel. It could also be used to research multiple locations simultaneously.

Based on our analysis of the changes, we concluded that, despite prolonged lockdowns and predictions of the end of city life, the urban lifestyle is still attractive and fundamental to human nature. To make cities more resilient in the face of crises such as another future pandemic, we suggest (a) developing ways to maintain cultural activity and the urban lifestyle during lockdowns; (b) defining the city's green infrastructure and evenly developing it into all neighborhoods by investing in suitable open spaces; (c) taking advantage of the flexibility of working from home to reinvent urban neighborhoods based on old business districts in order to facilitate more affordable housing in inner-city locations; (d) strengthening neighborhoods through policy and planning that define them as community units; and (e) strengthening small businesses that support the community.

As we write this article, New York's sidewalk ballet has been gradually returning to its typical pace, highlighting this study's contribution as invaluable documentation and analysis of an unprecedented time in the life of the city.

Notes

1. All links to the maps and the project's website have been removed for anonymity reasons.
2. COVID-19 Data in New York, Retrieved November 3, 2021.
3. Interview date 01.19.2021.
4. Interview date 01.20.2021.
5. Interviews date 01.20.2021; 12.23.2020; 01.20.2021.
6. Interview date 01.19.2021.
7. Interview date 01.29.2021.
8. Interview 01.26.2021; 01.21.2021.
9. Interview date 12.16.2020.
10. Interview date 12.23.2020.
11. Interview date 12.16.2020.
12. Interview date 12.23.2020.
13. Interview date 01.26.2021.
14. Interview date 12.23.2020.
15. <https://streeteasy.com/>.

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