

URBAN JOURNAL

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FROM THE EDITOR
First Response

No doubt, we are on the precipice of an era of remarkable urban transformation. The COVID-19 Pandemic has already had profound impacts on the way we live and socialize, but for now, the phrase of the year in Urban Studies seems to be: “We’ll have to wait and see what happens.”

This edition of the Urban Journal is a first response to this waiting-and-seeing; an urban-oriented reflection on the first year of the pandemic, an initial glimpse into the future that may follow it, and a reminder of what came before. More specifically, it will explore metropolitan places that may be especially apt for transformation: downtowns, parking lots, co-ops, borders, virtual gathering spaces, airports, peripheries, homes, and offices. The pieces inside will help us answer some of the most prominent questions that have been circulating around the city streets over the last year. How have different forms of placemaking happened before COVID, and how will they happen after? What types of community-level action have been and will be seen? Will we, either spatially or socially, recognize our cities on the other side of this?

The Urban Studies community at Brown is uniquely equipped to provide the first response to these questions. Each of this year’s contributors has given us a unique perspective with which to understand the cities of the past, present, and future. Moreover, these works are records of what was achievable during immense societal stress. We should treasure them not only as reports on urbanity, but also as first-hand documents of what our student community created during a global crisis. Thanks to the efforts of sixteen wonderful contributors, this year’s Urban Journal will bring us a little bit closer to appreciating the places around us. I am deeply proud of each of them, and I know you will be too.

Thomas Wilson

Providence, Rhode Island

Front Cover: *Providence’s Wedding Cake House* by Nell Salzman
Back Cover: *The Ethics of Architecture* by Yunni Cho

Edited and Designed by Thomas Wilson

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THE “ERA OF PANDEMICS”: HOW WILL CITIES WORK?

A Photographic Discussion Of New York City During the Coronavirus Pandemic

Gretchen Peterson

The global coronavirus pandemic is changing how we think about cities. In a moment ruled by “social distancing,” “quarantine,” and “isolation,” compact cities are failing to make their residents feel safe. Once marked efficient and effective for sustaining increasingly dense populations, urban centers are now identified as hotspots and danger zones for a virus reliant upon proximity and public use for transmission. Across the globe, government and health officials’ responses to the novel coronavirus have renewed stark divisions between public and private space in the social conscience. The “home,” in its plethora of forms, has been renegotiated in the public conscience, no longer the place of rest and leisure, but rather the site of our professional, private, social, familial, economic, and public existence. If we truly are entering the “era of pandemics,” the city, and moreover the entirety of the built environment, will be forced to adapt to protect the public masses it once attracted. Nearly everything we understand about the city has been thrown into question by the presence of an invisible, silent virus, rippling through populations at an alarming speed and spreading destruction beyond the internal organs. In the “era of pandemics,” how will cities work?

Revered by urban planners and theorists, artists and architects, businesses and politicians, New York City is unquestionably one of the most preeminent cities in the world. In a nation defined by vast highway networks, sprawling suburbias, and wide-open spaces, New York City is the antithesis of urban America. With an expansive subway system, compact verticality, and profound population density, New York is a city predicated on a unique experience of the urban public realm. In 2016, 45.6% of New Yorkers in the five boroughs owned vehicles, compared to 87.8% of residents in central Los Angeles.¹ Movement within and between the public and private realms is most often experienced by the pedestrian, on the sidewalk or on the subway, but constantly part of the masses. Urban density is the hallmark of the city, with apartments crammed together or stacked in massive structures, offices and businesses confined to small spaces at great real estate cost.

During the coronavirus pandemic, New York City has been one of the hardest-hit areas in the country. As the number of cases in the city increased dramatically, NY Gov. Andrew Cuomo issued “shelter in place” orders, and closed non-essential businesses and public areas, and requested a halt in non-essential travel in an attempt to curb the spread of COVID-19. In a city like the densely populated urban metropolis of New York, the effects of these orders appeared to destroy the norms of city life. The closure of non-essential businesses and “shelter in place” orders removed workers from the office buildings, pedestrians from public spaces, cars from streets, diners from restaurants. A city, renowned for constant use, became a vacant, silent shell of its pre-pandemic self.

In New York City, and across the globe, responses to the coronavirus pandemic have redefined and exacerbated the divisions between public and private space, especially noticeable in densely populated urban areas. With the presence of an invisible but catastrophic virus, the public realm has become an untrusted place. Prior to the virus, the density of the public and the visibility offered by so many “eyes on the street”—Jane Jacobs’ theory of security within the city²—promoted a certain safety of the urban sphere. While “cities are, by definition, full of strangers,” as Jacobs notes, “the sight of people attracts still other people.”³ Despite the anonymity offered by the crowd, city dwellers could be comforted by a sort of constant companionship with other urban residents. However, the nature of the coronavirus—a publicly spread, invisible virus—has transformed the public realm into an unknown, unprotected space, associated in the social imagination more closely with contagion than with safety.

Responding to a public health crisis in which the ability for containment and prevention falls within the responsibility of the individual, the previously welcoming, populated public realm becomes an untrusted, deserted space. Orders to “shelter in place” contradict the foundational public realm of the city, eliminating the core urban life components of socialization and interaction. While suburbs and rural areas are understood to be spaces of natural semi-isolation, due to a lack of proximity or population density, urban areas without constant connection appear, in many ways, to be dead. We associate cities with distinctively large, compact populations, making the disappearance of those populations reflect a disappearance of the city as a whole. When the “public” is removed from the public realm, the city as we have understood it ceases to exist. The coronavirus pandemic has forced a reimagination of the urban “public,” now a socially distanced and actively separated array of individuals, reliant upon personal protection over public trust.

In the cultural imagination, cities are representative of a visible and essential relationship between the built environment and the urban public. While the built forms of cities are intentionally constructed to house and hold millions of bodies, the social structure of urban areas is reliant upon an externally visible and constant presence of those millions. Without a visible population, a city appears as a skeleton of structures, an inverse to its previous lively form. Images of a vacant Times Square evoke an eerie aura of abandonment, more frequently associated with condemned spaces than a thriving urban center. The absence of people within spaces clearly constructed for a human experience appears glaringly wrong and anti-urban. The coronavirus pandemic and its continuing detrimental impacts force us to consider what a city might be without a visible, dense public. A life of social distancing forces us to ask, what is the street without the crowd? What is a city empty of strangers?

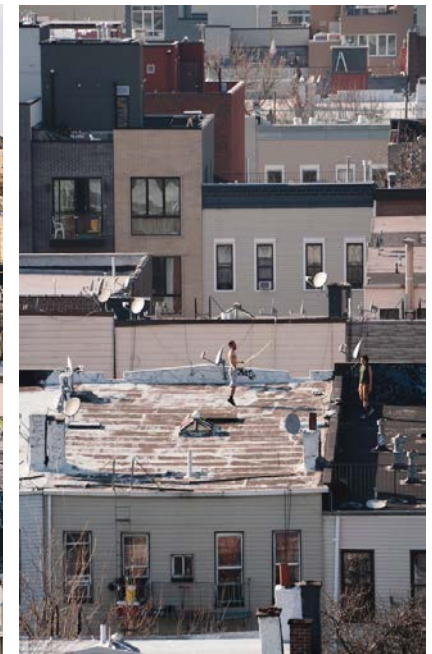
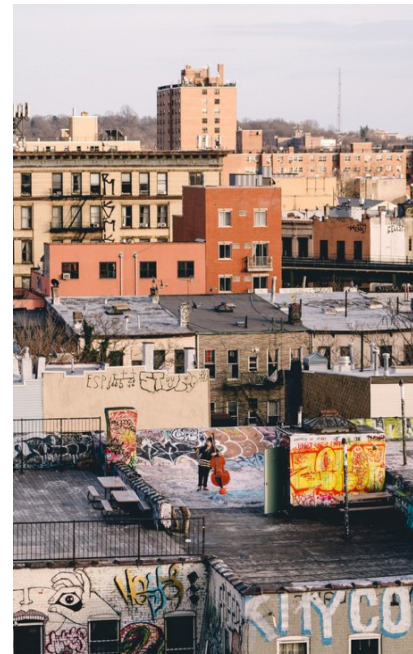
The divide between the public and private realms—the city and the home—in urban areas has been intensified by public health responses to the coronavirus pandemic, pulling city populations indoors. Against an invisible invader, the home has been reinforced as a safe haven amidst a new pandemic-determined public life. Separated from the outside world by impermeable surfaces, the home has become the bunker in which

society is waiting. In the coronavirus pandemic, the home is the sight of ultimate control, wherein the owner or occupant may account for all comings and goings from the safety of the private bubble. The privacy created by the home is no longer simply a physical barrier from public view, but a disinfectant barricade from public virus carriers. The multiplicity of “home” spaces in a global society—single-family homes, compounds, apartments, townhomes, co-living spaces, multi-family homes, temporary structures—has affected individual experiences of a universal pandemic. Dolores Hayden’s conception of the single-family “home as haven” has been expanded beyond its original structural depiction and adapted to all home spaces.⁴ In removing urban society from the public sphere, the experience of the city is privatized, stratifying groups along structural differences in the built environment.

Most noticeable in densely populated cities, the structural differences between the built environments of apartment homes and of single-family homes impact the individual experiences of the coronavirus pandemic. Due to geographic confines dictating the formation of the city, most urban areas are increasingly dense and vertically constructed, placing residents in apartments and condos within multi-unit monoliths. Orders of “stay at home” and “shelter in place” situate the entirety of residents’ urban lives—work, socialization, exercise, dining—in spaces increasingly constructed primarily for limited leisure and rest. For urban dwellers, like those in New York City, the offerings of apartment spaces are incongruous with the new requirements and limitations of pandemic life. Adapting to coronavirus-specific restrictions—closure of offices, parks and public congregation spaces, dine-in restaurants and bars, exercise facilities—apartment residents are reinventing the use of small spaces. The home is now the office, gym, restaurant, bar, attempting to fulfill every public service lost to the pandemic. Apartment rooftops are being utilized as semi-private open spaces, fulfilling needs for fresh air and sunlight.

With limited “open” space, apartment life in New York City has expanded to rooftops, creating a “rooftop culture” photographed by Jeremy Cohen—from his own rooftop.⁵ The utilization of the rooftops by apartment-dwelling New Yorkers suggests certain shortcomings of apartment living spaces, and perceptions of the coronavirus pandemic. A majority of the rooftops pictured by Cohen are not intended for active use, making the occupation of such spaces appear contrary to and additionally noticeable from a pre-pandemic ‘normal’ apartment life. The now common utilization of such unusual and unintended rooftop spaces suggests a certain reliance between livable apartment home spaces and public areas. With pandemic-related closures, apartments lose “open space” counterparts, vital for maintaining the desirability of minimalist apartment living.

Further, the prevalent use of unplanned rooftop spaces during the pandemic offers an interesting socio-spatial imagination of human retreat from the virus. While the public realm of “the street,” or at least, street level, has been deserted, New Yorkers retreat to elevated public spaces—rooftops and balconies. Fear of the virus living and traveling at street level, at the ‘base’ of the city, creates interestingly parallel imagery



“Quarantine Rooftop Culture” Series. Source: Jeremy Cohen, *New York Magazine*.

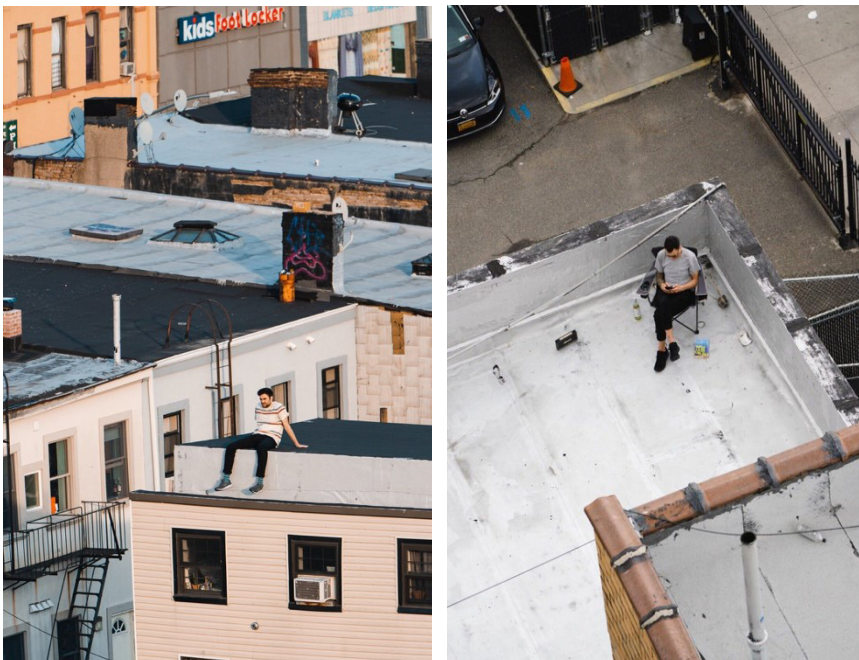


A New Orleans family sits on the roof of a flooded-out home, waiting for rescue after Hurricane Katrina. Source: Environmental Protection Agency.

to other visible disasters affecting human populations. While New Yorkers appear to ‘escape’ the impacts of the coronavirus by retreating to rooftops, victims of floods and hurricanes have waited on rooftops for rescue and evacuation.

Much like the floodwaters that continued to rise after Hurricane Katrina and Hurricane Sandy, it is not impossible to imagine COVID-19 traveling from apartment to apartment up the floors of a building. Movements of the virus raise a vitally important and extremely relevant question for urban thinkers: is there a rescue coming for urban residents? If the coronavirus signals a new “era of pandemics,” will public spaces be “open” once again? Or will a vital counterpart to apartments and cities be permanently changed, challenging the desirability of urban life?

Lacking an accessible external world during the pandemic, apartment dwellers are confined to densely populated multi-home structures, while single-family-home owners enjoy access to private yards, gardens, and sidewalks. Controversial to urban theorists, the single-family homes of American suburbia appear to offer a more desirable living space during a shutdown of public life. If the apartment “home” creates a four-wall barrier to the dangers of the outside world, the private property on which the single-family home is situated serves as a moat. The exclusively private nature of the single-family home adds to the notion of the home as a “haven” from the external pandemic.⁶ While urban apartment dwellers must contend with shared entrances, halls, elevators and stairways, if not additional communal spaces, single-family



“Quarantine Rooftop Culture” Series. Source: Jeremy Cohen, *New York Magazine*.

homes offer the occupants sole access to and from the outside world. Unlike the intentional temporality of rented apartments, the single-family home centralizes private ownership or occupancy, fully removing the resident from public interactions within and around the home space. Further, single-family homes within defined suburban developments benefit from an additional barrier to the external pandemic. Gated communities and private developments offer a geographic buffer from external dangers, both in physically constructed barriers—fences, walls, and gates—and literal air space—landscaping, yards, wide streets—between the private and public realms. Mimicking fortress-like structures, architectures of exclusion are viewed as increasingly safe and welcoming to certain groups, keeping the now infected “other” out.⁷ When coronavirus-necessitated “social distancing” is defined in measurements of six feet or more, a distance buffer is the new hallmark of safety—safety that is challenging to ensure in a dense urban environment.

Pandemic-necessitated “stay at home” and “shelter in place” orders centralize the home in the social imagination, assuming all members of society belong to and control a definable, private home space. The site of concentrated unhoused populations, cities issuing “stay at home” orders in response to the coronavirus have been forced to immediately and directly address homelessness for the sake of public health and the safety of those unprotected by private residences. When the crowd of the streets is called indoors, the absence of masses emphasizes those who cannot retreat to private spaces. The pandemic has placed unhoused populations in a position of extreme vulnerability due to an inability to separate from the exposed, uncontrolled public realm, and a reliance on systems based in communal use. Due to the masses requiring their services, shelters and food banks cannot ensure social distancing or barriers while continuing to provide for those in need. Despite being an increasingly challenging problem for urban society prior to the pandemic, the coronavirus has hastened the need for a structural and substantive change to address homelessness around the world. Anticipating similar future pandemics, urban areas must prioritize protecting all populations, both those who are housed and unhoused. The appearance of these implementations may be vastly different than previous iterations, implementing new norms of pandemic-era life.

In the pandemic moment, the home is expanded beyond the scope of eating and sleeping. The closure of non-essential businesses to slow the spread of COVID-19 has renegotiated office and workspaces, halting co-working and open office life. Impacting a majority of the salaried workforce—the “office workers” of the world—the home office is the new site of commerce and productivity. While often referred to as the ‘future’ of professional work, telecommuting and the home office offer a parallel to pre-factory and pre-industrial artisan labor, centralizing commerce and production within the individual sphere.⁸ Online and virtual mimicry of the office environment—video conferences, collaborative documents, shared projects—have created a new type of office, challenging the dynamics of the traditional office space.

Through its architectural environment and capitalist cultural influences, the American

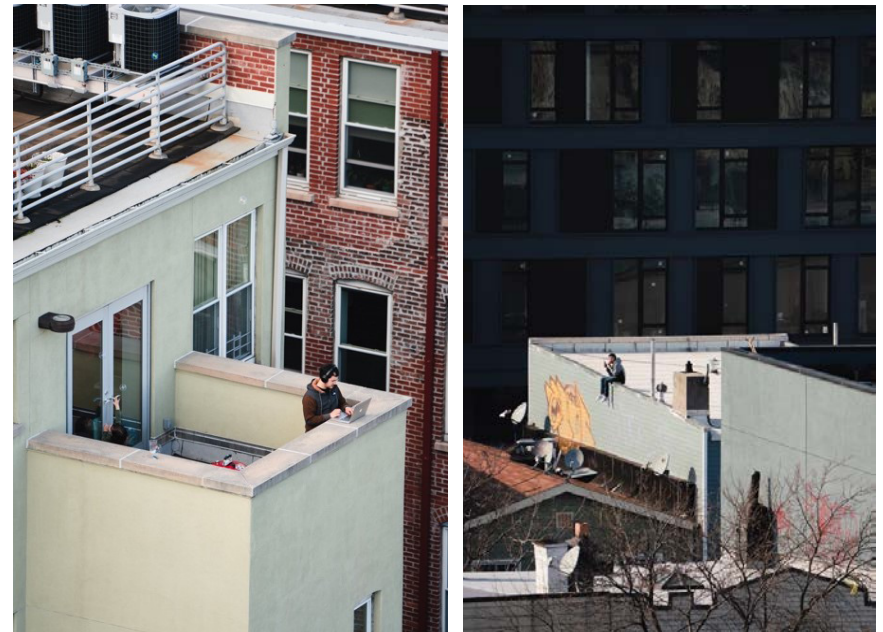
office space both creates and perpetuates the corporate hierarchy of capitalist society.⁹ However, the relocation of labor to the private home challenges the corporate structure and stratified environment of surveillance created in the American office. While virtual office technologies mimic social interactions and work conversations, the lack of a separated and defined “office” environment may serve to erase the visible and intensified stratification and hierarchy of the office space. When performing “office work” from the home, the “office” becomes the “home,” or at least a “home office.” As the home serves as a more permanent and enduring social construct and physical space, the requirements of office work are adapted to the home environment, rather than the home conforming to the demands of the office space. In the coronavirus pandemic, “work from home” spaces are not confined to desks and cubicles, but vary from beds and couches to kitchen tables and quiet rooms to back decks and car seats. The productivity of “office workers” performing work from the home has the potential to once again reinvent the traditional office space, altering the global workforce’s relationship to architecturally constructed productivity.¹⁰

As epidemiologists and virologists warn about a potentially indefinite presence of the coronavirus and COVID-19 in global public health, and as social distancing and sheltering measures are relaxed, pandemic responses have, and will continue to alter the “open office” and communal work environments. Celebrated in the age of tech startups and casual office environments—Google, Facebook, Twitter, Amazon—the open office, prior to the coronavirus, was often viewed by such startups as a collaborative, networking space facilitating increased cooperation and connection between office workers. With the presence of the coronavirus, and continued wariness about the safety of other people, the return of the closed office, the cubicle, sectioned-off space, seems likely.

Many offices and work sites are currently constructing barriers—plexiglass, temporary walls, physical distance—to both protect office workers and create a reasonably ‘safe’ office space. While many of these spatial measures are viewed as positive implementations by corporations for the public health of employees, the making of a ‘safe’ office space lends itself to the notion that office workers must return to that space in order for productivity to continue. The office is so centralized in the narrative of modern capitalist labor that, despite a global pandemic challenging all of our conceptions of public life, the office space remains the desired normative work site. The structural changes to the office layout demand the return of the worker, despite potential health dangers, as “home offices” and other variant work sites are viewed as less productive or collaborative. Further, with the demanded return of the worker, the office space becomes reliant upon the individuals it defines. Without occupants, offices are barren of their intended purposes, and if the continuing impacts of the pandemic continue to delay the return of workers to office spaces, what will the “office” as we know it become?

To protect global urban society, the coronavirus pandemic necessitates innovations and adaptations to cities unlike any we have seen before. Contradicting previous in-

novations condensing increasingly large populations into increasingly small areas, pandemic responses require space and distance to effectively protect individuals. The density of the urban world is challenged by public health implementations inherently contradictory to urban social norms and public life. Future pandemics and public health responses will necessitate a new understanding of what a city is, and how it can remain a vibrant, functional, essential part of the modern world. The technologies available to 21st-century society currently provide temporary “virtual” solutions, however permanent implementations of socially distanced life will determine whether cities as we know them will continue into the future. The built environment of cities will be challenged to protect and provide for its occupants, creating community without proximity, collaboration without contact, freedom without movement. While cities will be challenged, the true question may be whether the people within them, the strangers that fill them, will want to participate in these drastic changes to our urban world.



“Quarantine Rooftop Culture” Series. Source: Jeremy Cohen, *New York Magazine*.

CONNECTING COMMUNITY-BASED ORGANIZATIONS WITH RESIDENTS

Designing Community Engagement Tools for South Providence

Cyvian Chen, Malaika Franks, Ellie Koschik, Hanna Wells

The following is an abridged description of a project undertaken by a group of RISD and Brown students, accompanied by a selection showing their final toolkit.

This project began in the Fall of 2019 with the mission to understand the networks and relationships between community-based organizations and residents in the South Providence community. We wanted to learn how organizations work both with each other and residents to establish, foster, and serve the needs of the community in a changing economic environment. As students, we wanted to go beyond College Hill and learn from the community itself, rather than learn about communities from a distance. Through this process, we have recognized our position and privilege as college students who are outsiders to the community. Most importantly, our “syllabus” was determined by insights and responses from the community.

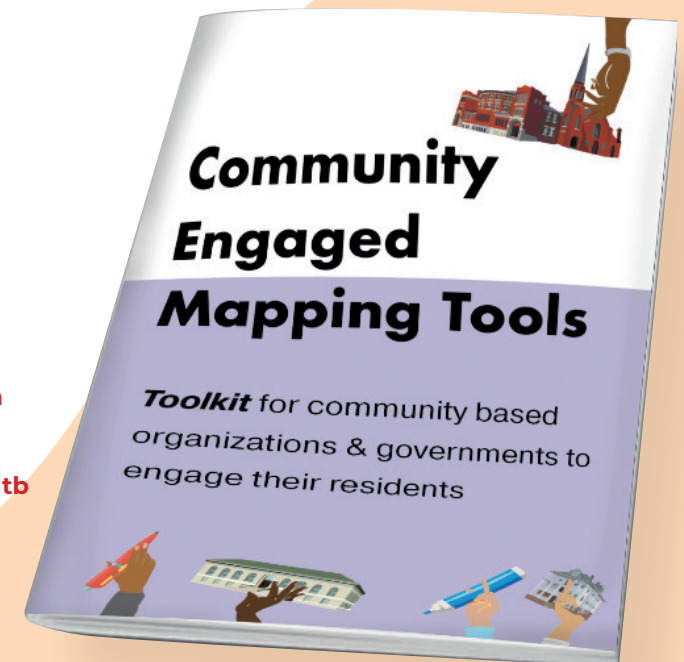
We chose to study South Providence because it is experiencing significant change and development, and has a high density of community-based organizations (CBOs). CBOs are organizations that represent the community and work at a local level to improve the wellbeing of residents. We knew from the beginning that we wanted our project to focus on CBOs, rather than residents, as much of community-based work typically does. We were interested by the high density of CBOs in South Providence, and how they define a lot of the action in the community.

The toolkit we created was transformed into a distributable guidebook for CBOs, containing the materials, instructions for construction and use, and further questions to spark discussion. Used together, these tools have the potential to paint a broader, more inclusive picture of the needs, wants, and concerns of the South Providence community. With each tool targeting a different purpose, while all using a map as the basis for engagement, the findings can easily be compared and contrasted for thorough analysis. Most importantly, the tools emphasize potential for further creative uses. They can all be modified to fit into organizations’ uses. In rethinking how a simple map can be used as a tool for problem-solving, creative brainstorming, and sparking engagement, these tools intend to strengthen and support organizations and empower residents.

Special acknowledgements are in order for our mentor, Elizabeth Dean Hermann, from the Landscape Architecture Program at RISD, as well as the Community Library of South Providence – specifically Amy VanderWeele – for enabling us to complete a successful project.

This led us to create a toolkit of Community Engaged Mapping Tools for CBOs.

This guidebook is instructive and contains the information necessary for organizations to use the tools independently. It includes diagrams and visual examples of the tools both in construction and in action. It also provides post-engagement questions to facilitate conversations based on responses.

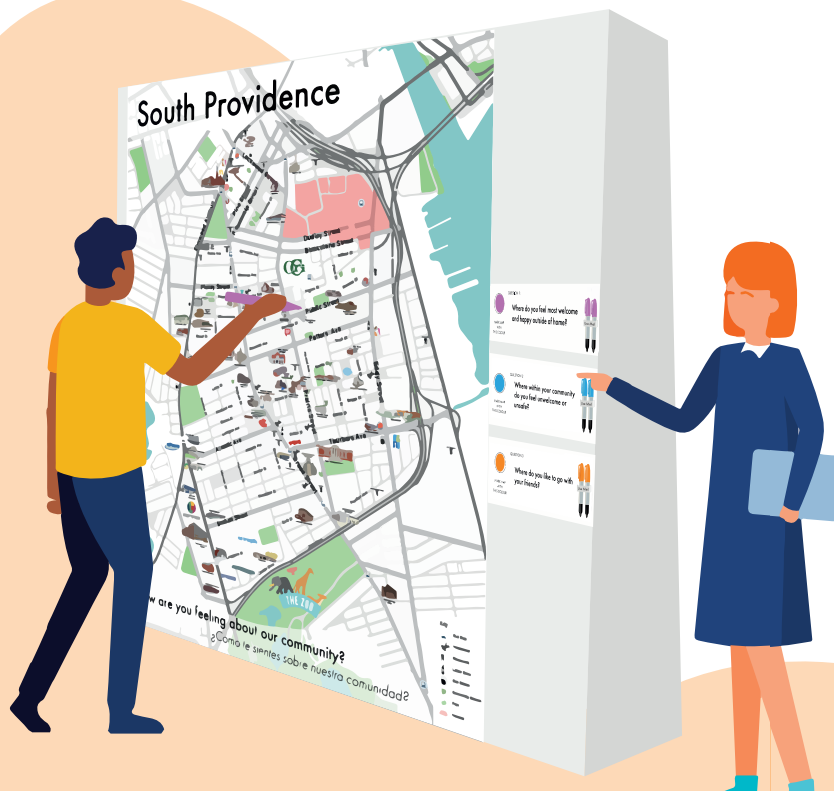


Link to instruction guidebook:

<https://bit.ly/3n521tb>

Tool 1: Feelings about the Community

A large public space installation which facilitates discussion with residents about the area they live in.



Our first tool is a modified version of our original engagement tool that we installed in the South Providence Library. It is intended to be set up by community-based organizations for community resident use. It provides community members with an opportunity to express their feelings about certain places in the South Providence neighborhood. This map can be useful to better understand a broader number of residents' opinions. Patterns and trends in responses may be useful in helping planning-related decision-making.

It is very similar to our first engagement tool: it features one large map of South Providence and Elmwood with icons of landmarks scattered around the map and shades of green indicating park space and community gardens. The tool includes a list of many potential questions, from which we encourage three questions to be chosen to be featured next to the map. Each question will be color coded, and individuals can engage with the tool by using corresponding markers or stickers to mark up the map in response to the questions. The questions are designed to collect a variety of input, targeting both positive and negative associations individuals may have about areas within the community.

What differentiates this map from our first engagement tool is that we added more landmarks, provided more questions, and formatted the tool to be easily adaptable and printable. In essence, this tool is an alterable version of our first engagement tool, allowing for the CBOs to have more influence in the direction it takes when setting it up for use.

Tool 2: Spatial Mapping

A tool for an organization to use internally to reflect on how the organization maps out in the surrounding community and how it compares to other organizations.



Designed to be workshoped in a small group setting, this tool helps CBOs see how their organization fits into the community and with other organizations/services. Mapping out spatial involvement in the community allows for them to visually see the breadth of their mission and impact.

This tool features the same map as the first tool. However, the questions directing its use are entirely different. These questions are intended to guide CBOs to consider different elements of their spatial impact on the community. Users will be inspired to come up with more questions—our provided questions are simply a starting off point for reflection.

In addition, this map is physically smaller than the first tool. Rather than being posted on a wall for prolonged public use, this tool is best used as the centerpiece of a roundtable discussion in which an organization critically examines their place and role within the community, identifying opportunities for growth and future directions.

Tool 3: Community Empowerment through Design

A large public space installation which encourages residents to express what they wish to see in their neighborhood.



This tool, meant for residents and organizations alike, has a planning focus. It allows people to map wants and desires for South Providence. Intended for public, prolonged use, it allows individuals to express their ideas for the future of the community. Individuals are encouraged to think outside the box and be creative in what they propose as additions. Once the tool has been filled out, the CBO in charge can reflect on the responses and translate them into manageable projects that have the potential to transform the community's future growth.

Ideas will be expressed through the various icons we designed. The icons represent a range of activities and community assets that individuals can place around the map. Markers and pens will also be provided so people have more flexibility to share their visions.

Like the first tool, it features one large map of South Providence and Elmwood with icons of landmarks scattered around the map and shades of green indicating park space and community gardens. Another element of this tool is additional maps showing commercial zones, parks and green spaces, and parking and paved vacant lots. These maps can help guide users as they mark certain areas for specified purposes. These additional maps, along with the activity and asset icons, provide individuals with a framework to brainstorm planning ideas.

DOWNTOWN PROVIDENCE: AN EXCESS OF PARKING

Mapping Parking’s Hold on Downtown Providence

Chris Sarli

“Forget the damned motor car and build the cities for lovers and friends.”

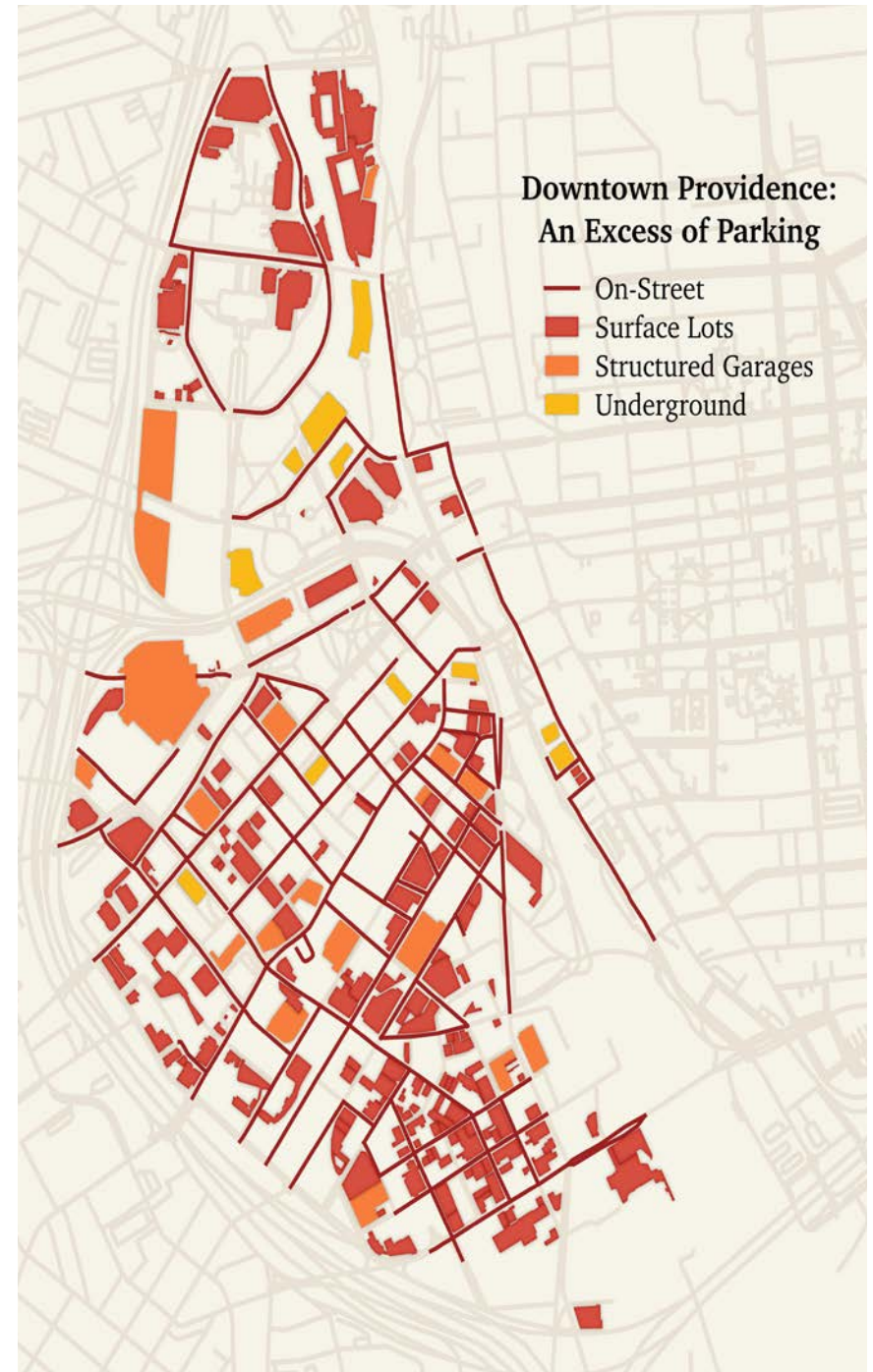
—Lewis Mumford, 1979

This map is intended to be a somewhat striking illustration of just how much parking there is in Downtown Providence. I was inspired to work on this after a conversation with an organizer of the Providence Streets Coalition (which advocates for better pedestrian/cycling infrastructure and policy), who had been trying to convince Downtown business owners that the City really needs less parking, not more. Realizing that there wasn’t any detailed inventory of parking Downtown, I set out to create one. For most lots, I was able to count spaces and cars from satellite photos, but I also ended up spending several hours calling lot owners and walking around some of the larger garages to count spaces. I recorded this data in OpenMaps (where anyone is able to modify or enhance it). Using some Python scripting, I was able to aggregate the parking counts, calculate land use, and create this and other maps (an interactive version is available online).

In total, there are more than 26,000 parking spaces in the Downtown area (more than 10,000 in surface lots or on-street), occupying almost 19% of the total Downtown land area. I’ve found the map/counts to be helpful resources when I’ve tried to convince folks that more parking is really the last thing that the City needs.

Parking Type	Facility Count	Parking Spaces	Accessible Spaces	Area	% Downtown Area
Surface	194	8,311	167	2,723,750ft ²	12.54%
Structured	19	13,904	127	1,00,244ft ²	4.63%
Under-ground	11	1,832	9	-	-
Street	-	2,220	-	339,660ft ²	1.56%
Combined	224	26,267	303	0.1459mi²	18.725%

Table 1. Parking Counts in Downtown Providence



"TO BUILD A HOME": PROVIDENCE'S WEDDING CAKE HOUSE AND ITS FOREMOTHERS

Deborah Krieger

The image of a house or home—especially the Victorian house—has a place in popular culture as a realm of female confinement, and of patriarchal control over women's lives through the separation of spheres. Paradoxically, the home during this time period was also the place where the lady of the house had a degree of influence and sway. Three artistic and community-oriented projects housed in Victorian houses that span over a century reflect the latter tradition, giving the women who created them opportunities to shape their own lives and careers as well as the world around them.

Chicago's Hull-House (1889–2012) (fig. 1), the first settlement house in the United States, was established as a site for women to support one another's intellectual and professional passions; to highlight the importance of handicraft, labor, and different immigrant artistic traditions; and to improve the lives of local immigrant communities through material efforts and political advocacy. Los Angeles' Womanhouse (1972) (fig. 2) was created for women artists and art students to explore the artistic contradictions and opportunities of the domestic space; to gain confidence in their own skills to succeed in the male-dominated art world; and to build a generation of women artists influenced by the feminist struggle. Since 2017, Providence's Wedding Cake House (fig. 3) has continued the work of Hull-House and Womanhouse, synthesizing these preceding houses' ideas about community, education, and artistic practice, aiming to support women and non-binary artists in the state of Rhode Island as well as the inhabitants of local environs and the state's economy.

The parallels among Hull-House, Womanhouse, and the Wedding Cake House are striking: groups of women thinkers and activists taking possession of a deteriorating Victorian house and turning it into a space that reflects the spirit of the times, houses artistic expression, and stimulates forms of connection and outreach. Like Hull-House, the Wedding Cake House's philosophy is grounded in a sense of place and reflection of its local environs, aiming to become knit into the fabric of its city as an essential cultural anchor; like Womanhouse, the Wedding Cake House is shaped in both a literal and figurative sense by the women artists who have claimed it as their space to express themselves. Each project is primarily affiliated with a pair of women leaders, and are the result of the efforts of groups of women working in collaboration with one another. Jane Addams and Ellen Gates Starr shepherded the creation and development of Hull-House; Judy Chicago and Miriam Schapiro worked with their art students to craft Womanhouse; The Wedding Cake House Project—an extension of the Dirt Palace, a collective of women and non-binary artists—is itself led by two women: Xander Marro and Pippi Zornoza.

The Wedding Cake House, and its similarities with these preceding projects, indicates a pattern of successful feminist community-building entwined with artistic exploration that takes place in what once was a locus of confinement and exile for women. Each project reflects various feminist tenets of its time. For the activists of Hull-

House, women could model a self-governing, democratic way of living that would demonstrate the possibility of a "feminine version of civic housekeeping" for the city at large.¹ For Chicago and Schapiro of Womanhouse, "female subjectivity"—and the concept of womanhood itself—was socially constructed by patriarchy, and therefore possible to overcome through artistic consciousness-raising wholly apart from male influence.² The Wedding Cake House's approach to feminism reflects contemporary ideals in its inclusivity of different expressions of gender as well as its entrepreneurial spirit and business savvy.³

Synthesizing elements reminiscent of both Hull-House and Womanhouse, the Wedding Cake House project represents an evolution of material feminist and artistic community-building practices. Géraldine Gourbe positions Hull-House and Womanhouse as linked in this precise way, writing: "Hull-House prefigured the free spaces later set up by feminist consciousness-raising collectives, used notably as the aesthetic and political paradigms behind Womanhouse."⁴ Hull-House and Womanhouse no longer exist; the Wedding Cake House is significant and noteworthy because it keeps the traditions and praxis begun by these two organizations alive in a sustainable, twenty-first-century framework.

Hull-House pioneered the settlement house movement in the United States. Inspired by the British example of Toynbee Hall and observing the effects of industrialization and the mechanization of labor on immigrant populations in Chicago, Jane Addams and Ellen Gates Starr opened Hull-House in an "Italianate Victorian" mansion on Halsted Street in the Nineteenth Ward in 1889.⁵ It would, over the years, become a large complex of thirteen buildings, including apartments, meeting rooms, a library, exhibition spaces, a theater, and numerous other public and private spaces.⁶

Hull-House was meant to be "a socially responsible community in contrast to mainstream society—i.e., industrialized, bourgeois, paternalistic, and nationalistic."⁷ It was emphatically a women's space that was owned and designed by and for the women who occupied it, counting twenty women in residence as soon as the middle of the following decade.⁸ During the time of Hull-House's development, young educated women of means in the United States often found themselves adrift: dissatisfied with being confined to the role of wife and mother, but with few outlets to apply their knowledge and intellect toward the cause of improving society.⁹ Hull-House and its ilk offered opportunities for the women reformers, workers, professionals, and intellectuals involved in its operations to materially support women both within and outside its walls, with particular attention given to aiding immigrant women in the Nineteenth Ward. Towards that end, Hull-House operated communal kitchens, provided child care and job training, and offered social activities for its residents and the inhabitants of the larger neighborhood.¹⁰ Beyond the Nineteenth Ward, Hull-House "lobbied effectively for industrial health and safety, the limitation of child labor, and the legal recognition of trade unions."¹¹

A crucial part of Hull-House's work was its focus on the arts. In her autobiography, Addams specifically noted that "from the first a studio was maintained at Hull-House [...] under the direction of Miss [Enella] Benedict, one of the residents who is a member of the faculty in the Art Institute."¹² Ellen Gates Starr was also committed to the

arts as an important aspect of Hull-House's development; Addams recalled that "Miss Starr always insisted that the arts should receive adequate recognition at Hull-House and urged that one must always remember 'the hungry individual soul which without art will have passed unsolaced [sic] and unfed, followed by other souls who lack the impulse his should have given.'" ¹³ As Hull-House grew in scope, individual artist studios were established, aiming to recreate the density and collegial "spirit" of artists' communities in European cities. ¹⁴ Also on offer as Hull-House continued its work were art history classes, an art reproductions lending program, public lectures by prominent figures in the arts such as Frank Lloyd Wright, and art workshops in a variety of disciplines, including bookbinding lessons taught by Starr. ¹⁵ The Hull-House Butler Art Gallery, planned in 1890 and unveiled in 1891, was also one of Starr's particular projects, and aimed to "raise" and "purify" the urban poor and youth through exhibiting reproductions of famous artworks. ¹⁶

While Hull-House's arts programs served both men and women, women artists and crafters would receive particular focus in many cases, specifically in the Hull-House Labor Museum. ¹⁷ Founded in November of 1900, the Labor Museum was influenced by the British Arts and Crafts Movement's advocacy of handicraft and the work of the skilled artisan in an economy that increasingly mechanized both labor and goods at lower cost and quality. ¹⁸ Addams and Starr were adherents of this philosophy; ¹⁹ the Labor Museum therefore exemplified the relationship among women's work, traditional forms of craft, and artistry, "[showing] process, product, and producer [...] to illustrate the value of handwork." ²⁰ In this vein, an early exhibit at the Labor Museum focused on textiles, "[showcasing] techniques by immigrant women," giving a concrete example of Hull-House's work in "[providing] continuity with handicrafts traditional to neighborhood ethnic groups and [reaching] out to children as well as to recent immigrants." ²¹



Figure 1. Hull-House, exterior view, circa 1910. Source: <https://www.yesmagazine.org/social-justice/2020/03/27/women-welcomed-immigrants/>

For the reformers at Hull-House, the promotion of the arts was a significant aspect of their critical work. Jane Addams herself used an appropriately artistic and musically-inspired metaphor to describe the work she hoped to accomplish:

"The Settlement [...] is an experimental effort to aid in the solution of the social and industrial problems which are engendered by the modern conditions of life in a great city. [...] It aims, in a measure, to develop whatever of social life its neighborhood may afford, to focus and give form to that life, to bring to bear upon it the results of cultivation and training; but it receives in exchange for the music of isolated voices the volume and strength of the chorus." ²²

The Womanhouse was a week-long art installation created by the Feminist Art Program at the California Institute of the Arts (CalArts) in 1972. Lacking a proper building for the avant-garde, fledgling program, artists and teachers Judy Chicago and Miriam Schapiro turned to a run-down Victorian house on Mariposa Avenue as the perfect place for them and their students to build a woman's art space—in a literal as well as a figurative sense. ²³

Led by Chicago and Schapiro, the twenty-two students in the program refurbished this crumbling mansion near East Hollywood over six weeks, each taking over a specific area of the house to create a unique artwork exploring some aspect of the female experience. ²⁴ Chicago herself created Menstruation Bathroom, which examined the shame surrounding menstruation and its ephemera; Schapiro and student Sherry Brody created Dollhouse, which "[combined] the beauty, charm and supposed safety of the home with the unnameable terrors existing within its walls." ²⁵ Kathy Huberland deconstructed the fantasy of a "dreamy white wedding day" with Bridal Staircase, a staircase that leads the female mannequin bride from the vision into a less desirable reality, while Faith Wilding celebrated female traditions of textiles and shelter construction in Crocheted Environment. ²⁶ Womanhouse also incorporated performances that took place throughout the duration of its existence, most notably Cock and Cunt, also created by Chicago, in which Wilding and Janice Lester mocked traditional gender roles and gendered labor while dressed as a penis and vagina. ²⁷

Chicago and Schapiro "saw [Womanhouse's] potential as twofold, both as an educational experience and as an artistic creation." ²⁸ Chicago wanted no less than to create a "Female Art" that would "for the first time, authentically grapple with the reality that women live in." ²⁹ The Feminist Art Program, then, was envisioned as an education that would develop the kind of women artists who would address those themes in their bodies of work, using consciousness-raising exercises and discussions to open their students' eyes. "What would later be called 'deconstruction' was in 1971 known as the 'click' of consciousness that could instantly transform a passive female zombie into a radical feminist." ³⁰

In service of this goal, Chicago and Schapiro sought to teach their students to be more assertive, ambitious, confident, and unafraid of the possibility of success. ³¹ Standing in their way was not only the traditional canon of art history, but also the contemporary art world, in which massive disparities in success and acclaim between male and female artists were easily observed. ³² In 1972, for example, only nine percent of

the works in the the Museum of Modern Art were created by women artists, and the National Gallery of Art held only 33 paintings by 12 women (out of over 2,500 paintings in total) and held no works by women sculptors.³³ Meanwhile, in 1971, women earned 63.3 percent of studio art BFA degrees and 43 percent of MFA degrees, demonstrating a massive gap between the women artists who were being formally trained and those who found wide success.³⁴ In 1971, the infamous Art and Technology exhibition curated by Maurice Tuchman at the Los Angeles County Museum of Art included no women artists (or artists of color).³⁵ It was only the threat of legal action by women artists that forced LACMA to rethink its exhibition practices.³⁶

The Womanhouse, and the CalArts Feminist Art Program in general, reflected a desire to create more successful women artists—by serving as living examples and by shaping their personalities and behaviors in order to prosper in a male-dominated art world. In the catalog for Womanhouse, Chicago and Schapiro expressed this goal in no uncertain terms: “the aim of the Feminist Art Program is to help women restructure their personalities to be more consistent with their desires to be artists and to help them build their artmaking out of their experiences as women.”³⁷ Despite its week-long physical existence, Womanhouse and its influence on Chicago and Schapiro’s students, as well as on the development of feminist artistic practice, has continued to endure and inspire generations of artists even to this day.³⁸



Figure 2. Womanhouse Building, exterior view, 1971. Source: <https://www.nancyoudelman.com/new-page-1>

Hull-House presented the house and home as a space for local community-building, activism, and artistic fulfillment and education aimed at particularly women and immigrants. Womanhouse refashioned the house as both a complex site of female experience and as a catapult for a new generation of feminist artists. The present-day

project of the Wedding Cake House, begun 2017, combines aspects of both Hull-House and Womanhouse, synthesizing these preceding constructions’ ideas about community, education, and artistic practice with an entrepreneurial spirit reflecting the self-sufficiency ethos of fourth-wave feminism.³⁹

Significantly, the Wedding Cake House is housed in a space that was literally and symbolically the realm of women. Marro and Zornoza’s project continues the legacy of the physical building as a place where women creatives once supported themselves through their work. Before it was known as the Wedding Cake House, it was the Tirocchi House, where Italian immigrants Anne and Laura Tirocchi operated a custom dressmaking business from 1915–1947.⁴⁰ A Dirt Palace-produced pamphlet outlining the ideological grounding for the Wedding Cake House restoration project specifically points to the history of the Tirocchi sisters as inspiration for the renovation of that particular building: “Our organization shares the connection of female leadership/entrepreneurship with the Tirocchi legacy of the building. The location and history of the building as the famous site of a woman owned design business makes it an ideal project to complement our current facility, mission and program.”⁴¹

The Womanhouse was a temporary structure, thus the community it built is more ephemeral than physical. In contrast, the Wedding Cake House, much like Hull-House was until its closing in 2012, is designed to be a permanent fixture in its landscape that will directly serve the local community.⁴² Marro and Zornoza previously established the Dirt Palace, an art collective based in Olneyville Square, as a space for artist studios and residency programs. More specifically, the goals of the ever-changing Dirt Palace are to “maintain a self-organized residency component with a communal structure, present public exhibits, think and talk about feminism and identity, maintain studio/project space and a library, host occasional community events, and connect to a DIY sensibility.”⁴³ Aware of the dangers of gentrification and displacement brought on by waves of artists occupying future prime real estate, Marro and Zornoza describe their investment in local grassroots work and ethical redevelopment practices in their pamphlet outlining the proposal for the Wedding Cake House, writing “developing a residency program at this site, that connects to the public and is focused on our mission of gender and cultural equity, encourages the arts community to grow in ways that address historical and structural social inequities.”⁴⁴

Seventeen years of the Dirt Palace’s operations have, in their own words, “demonstrated [their] commitment to comprehensive neighborhood development through longstanding involvement in community organizations and planning efforts that strive to improve neighborhood services and the built environment while ensuring low-income and long-term residents are not displaced.”⁴⁵ Indeed, the fight to save the once-dilapidated Tirocchi house is one that was grounded in community activism from the start: it was the result of local organizing efforts among various arts and culture organizations in Providence and Rhode Island at large, including the West Broadway Neighborhood Association, the Providence Revolving Fund, and the Providence Preservation Society.⁴⁶



Figure 3. Wedding Cake House, exterior view, 2017. Source: <https://www.wbna.org/news/2017/6/6/dirt-palace-meets-wedding-cake-house>.

The Wedding Cake House also is a work of art in its own right, recalling the creativity and craft of the Womanhouse. (Also like the CalArts students and artists laboring to create Womanhouse, Marro and Zornoza are physically doing much of the refurbishing and remodeling themselves).⁴⁷ Each room and hallway in the Wedding Cake House is decorated with a unique wallpaper design and color scheme; each bathroom has its own dazzling tile arrangement. These works were commissioned by Marro and Zornoza from a variety of artists, many of them women, meaning there is hardly a space inside where their reach cannot be felt.⁴⁸

Alongside the works of art that double as permanent furnishings and decoration in the Wedding Cake House, the house is also a site of display for temporary works in a variety of media. The inaugural exhibition at the house, *Ruffles, Repair & Ritual: the Fine Art of Fixing*, opened in May 2019 and included paintings, prints, performance, and video, among other art forms, from 150 artists to celebrate the 150th anniversary of the house's construction.⁴⁹ The exhibition brief: create works "related to the title, a nod to both the renovation process and the last occupants of the home: the Tirocchi sisters."⁵⁰ Exhibition co-curator Faythe Levine noted, "the idea was hopefully to invite the artists to generate new work that was inspired by the house or the sisters."⁵¹ For example, artist Allison Nitkiewicz drew directly upon a beadwork pattern in the sisters' archives in designing her wallpaper.⁵²

Along with the Wedding Cake House project in general, and the work of the Dirt Palace more widely, the *Ruffles, Repair & Ritual* in-house exhibition also reflects contemporary developments in feminist thinking, just as Womanhouse and Hull-House ex-

emplified feminist tenets of their own times. Much of the Womanhouse was centered on the physical hallmarks of the cisgender female body, using life events like menstruation to speak to women's experiences generally. In contrast, works like Macon Reed's contribution to *Ruffles, Repair & Ritual*, a print titled "Expand the Feminine Spectrum," represent a feminine that is not grounded in the biologically female body, indicating the Dirt Palace's recognition of a broader feminism that is inclusive of trans and non-binary people — a feminism that will continue to be reflected in the house itself.⁵³ Of her work in the exhibition, Reed stated: "Expanding the notion of what feminine-spectrum people could be or what they might look like is part of it [...] the other part is making room for trans women to be part of sisterhood."⁵⁴ In a more physically permanent sense, Marro and Zornoza plan to add accessible facilities to the historic house as construction and renovation progress, signaling their acknowledgement of a feminism that does not discriminate based on ability.⁵⁵

The Wedding Cake House is designed to be an extension of the Dirt Palace's mission: it will support women-centric and feminist art projects and bolster the local economy and community. The Wedding Cake House will go arguably further in the direction of commercial business than the Dirt Palace in terms of its economic impact: when it is finished, the Wedding Cake House will contain artist studios and living quarters as well as space for a bed-and-breakfast, where "arts patrons will have the opportunity to stay in unique short term rentals alongside of resident artists, allowing for audiences exploring the area to learn about the regional culture and history while directly supporting the creation of new work by our artists in residence."⁵⁶ This particular choice by Marro, Zornoza, and the members of the Dirt Palace to use this unique artistic site as a venue for entrepreneurship and commercial transactions also reflects twenty-first-century views of the possibility of women's empowerment and achievement through success in business and participation in the economy.⁵⁷

Ruffles, Repair & Ritual artist Nitkiewicz summarized the potency of the Wedding Cake House Project in the following way: "The fact that the house was owned by two sisters, who were creative powerhouses in Providence, and now is [run] by two women who are basically sisters, again, who are total powerhouses, is just this beautiful circle."⁵⁸ Marro and Zornoza's connection as spiritual sisters also reflects the closeness shared by Addams and Starr and Chicago and Schapiro in undertaking their own projects. As the Wedding Cake House project is still in its early stages, it remains to be seen whether it will, like Hull-House, become a platform for its resident creatives and thinkers to advocate for their communities in explicitly political ways, whether it will use the art produced within its walls to inspire change and consciousness-raising, or both.

SEATTLE'S INVISIBLE BORDERS

A Photographic Examination of the Emerald City's Legacy of Redlining

Zoe Pottinger

Nestled within the Puget Sound in the Pacific Northwest, the Seattle metropolitan area is the 15th-largest in the United States, and has consistently been one of the nation's fastest-growing cities since 2010.¹ However, like all major American cities, Seattle's past is marked by an ugly history of racial segregation and organized intolerance, especially surrounding the area of housing and home-ownership. Seattle's northwesterly geographical position leaves it with a different historical relationship with systemic racism; the city's built history was less directly involved with the slave trade and civil war, (although the city has still benefitted from those industries), and is most deeply tied to a painful, violent expulsion of Native peoples from their own lands.

Of all aspects of systemic racism to interact with Seattle, the institutions surrounding housing discrimination and segregation had one of the most significant and long-lasting impacts on the city. Urban renewal projects made their way to Seattle, although at a less severe scale than in many areas in the Northeast, and restrictive housing covenants were standard throughout the city. However, some of the most severe impacts on housing come from the Home Owner's Loan Corporation's practice of redlining, the government's federally-backed zoning and coding designation program. Redlining widened racial disparities on the fronts of wealth and credit accumulation, urban and neighborhood development, building safety and health-related issues, education gaps, and more. As George Lipsitz wrote in *The Possessive Investment in Whiteness*, "this systematic destruction of individual and collective ecosystems exacted an enormous financial and emotional cost on black communities."² The lasting effects of redlining on wealth permeate to all areas of a person's life and, combined with current systems of power, makes it impossible for a black person to "catch up" to a white person in regards to livelihoods, personal safety, and opportunities. Seattle's practice of redlining in the early 20th century continues to impact the city's built environment and people today, despite being officially outlawed in 1968.³

When considering portraying the legacy of Seattle's redlining in a visual format, the focus of the project was clear to me: redlining's borders gained and maintain the majority of their power and oppression through their invisibility – so a visual project must make those borders visible to the viewer. Illuminating those borders is achieved through the use of photography and digital drawing technology.

The visual components of this project consist of a digital portfolio of six photographs, all taken by me using an iPhone camera. The photos were taken at various locations around the city of Seattle; they are just some of the areas where borders drawn by the Home Owners Loan Corporation ran during their sanctioned implementation in

the mid-twentieth century. The borders, of course, were never visible any more than lines on a map. But despite their invisibility, they had deep, far-reaching effects that continue to impact the lives of Seattle residents today.

I chose photography because I believe it is the best visual format to serve my goals for the project, which is to connect viewers with spaces they are already familiar with. A photograph is a snapshot of a real, tangible space. Adding the colored lines to the photo places a new layer over that space, first causing the viewer to think "That should not be there," but then also: "What if it were?" By making invisible, seemingly-forgotten borders visible, on a familiar landscape (using current, as opposed to archival photos), the visual format of drawing red, yellow, blue, and green lines over the photographs illuminates the issue of losing an important history simply because it is unseen.

Redlining, implemented at a time when federal programming might have been a defining moment towards property and housing equity, systematically kept African Americans and other people of racial minorities from being allowed loans to purchase homes. The lines harshly, (and before 1968, lawfully) drawn by HOLC officials sent many of Seattle's neighborhoods into states of urban decay. For instance, South Seattle, divided by the Lake Washington Ship Canal, is historically where African Americans and other people of color, especially Asian Americans, were forced to live through a number of structural forces. Impacts of the HOLC's zoning still guide many of the ways Seattle's communities form and interact with one another; the same is true for many of the country's other cities.

For most, zoning, and redlining in particular are never institutions that rarely appear to be worth pondering. My hopes for this project are to change that notion. To see your neighborhood with a jagged red line cutting through it is to reexamine how you ended up where you are, how your levels of privilege have brought you to a new place or kept you in an old one. Regardless of whether or not we would like to acknowledge it, people live, work, and operate the majority of their lives in the built environment. That environment is governed and regulated, and operates each day with both governmental oversight and input from the millions of residents moving throughout it. Housing and shelter are one of the most fundamental human rights – and when people are able to visualize their relationship to housing under systems of structural racism, I believe it will only further discussions surrounding other institutions of oppression and their impacts on day to day life.



Interstate 5 Cut

The Interstate 5 cut is perhaps the most obvious border in the city, as it follows directly along the path the interstate, a project of the urban renewal era, cuts through the city. To the east, on the “Still Desirable” side are single family homes, now a very expensive area as the homes have views looking out over Lake Union. To the west is a sharp drop into “Hazardous” graded area, which is the highway, a few run-down homes, and an industrial waterfront area.



E. Madison St.

E. Madison St. is one of the city’s main thoroughfares, and follows quite consistently a yellow/red border, cutting the more affluent Capitol Hill neighborhood with the “hazardous” rated Central District. On the yellow side of the street are many newly-constructed apartment buildings, luxury grocery stores, cafes, and workout studios. On the red side of the street are several industrial buildings, gas stations, two primarily African-American Baptist churches, and three tall cell towers.



Broadmoor Intersection

Broadmoor is Seattle’s oldest gated community and has a long history of restrictive covenants. This border was particularly obvious because Broadmoor is surrounded by a tall fence and manicured hedge, specifically placed to separate it from other neighborhoods. This was one of a few areas I photographed where the old redlining borders were actually quite obvious.



Boyer Ave.

The border on Boyer Ave was slightly less obvious as a blue/green border, but I chose to photograph it as there was a sharp divide with a older Greek Orthodox Church falling on the “Still Desirable” side and large stately homes with well-groomed lawns falling on the “Best” side. This church was not the only religious center I found right on redlining borders, so it is quite interesting to consider how HOLC zoning plays into locations and practices of worship.



E. Harrison St.

The border I photographed on E. Harrison St. is a blue/yellow border, which means west of the borders was labeled "Definitely Declining" and east of the border was labeled "Still Desirable." This junction is particularly interesting because there are two elementary school buildings next to each other. In the "Still Desirable" section is a recently-renovated private school, and in the "Definitely Declining" section is an old elementary school building that sat abandoned for nearly a decade before being turned into a community center; the physical differences between them are dramatic.



Interstate 90 Tunnel

Seattle is home to two of the world's longest floating bridges, one of which serves Interstate 90 across Lake Washington. To access the bridge from Seattle, drivers must enter the highway from an on-ramp in the "hazardous" labeled central district (left), and then move through a tunnel that opens onto the bridge in the expensive, "still desirable" Mt. Baker neighborhood (right). As the tunnel is not pedestrian, I was unable to photograph the exact spot where the red/blue border exists, but photographs at each end of the tunnel show a stark difference between the landscapes.

THE "JUST CITY" IN CRISIS

How Connecticut's Child Welfare System Adapted to the COVID-19 Pandemic

Alicia Mies

This is an excerpt from my thesis, which focuses on the Department of Children and Families (DCF), Connecticut's child welfare agency and how it adapted to the pandemic; this research is an extension of my summer internship at a private child and youth law firm in Torrington, Connecticut. Throughout the thesis, I argue that DCF's long-standing bureaucratic structure and top-down procedures were exacerbated in the context of a crisis like the COVID-19 pandemic, resulting in negative impacts on the parents and children involved in the child welfare system. This section details the story of Ashley and her infant daughter Mia whose case I read during my internship as well as the story of Betty, a woman I interviewed during the research process.

The bureaucratic structure of Connecticut's child welfare agency, the Department of Children and Families (DCF), has been a major source of criticism for years. In 2011, former Connecticut Senate Majority Leader Martin Looney told the *Connecticut Mirror* that "DCF is often identified as the most hierarchal agency."¹ In the same year, newly appointed commissioner Joette Katz announced that one of her major goals for reform was reducing bureaucracy. In an interview with *Connecticut Magazine*, Katz reflected on the bureaucratic nature of DCF, saying "any big bureaucracy is heavily laden with process, and there is value to process, obviously, but I would sit at meetings... and everything gets committed and piloted and that's just not my nature... I'm not going to say it's [DCF] 'too big,' but it is certainly big and complex... I don't know if it has to be so complex."² At the time Katz took helm of DCF, she also said that staffers needed five to seven signatures to approve many actions.³ In order to combat the agency's bureaucracy, Katz laid off 37 people (who rallied for their jobs back in response) and gave more executive power to regional offices.⁴

However, despite Katz's efforts to cut down bureaucracy, there continues to be deeper discourse about the nature of DCF's structure and whether or not it can be reformed. In 2014, Jack Horak, chair of the Nonprofit Organizations Practice Area at Connecticut law firm Reid and Riege, published an essay in which he questioned "Is there such a fundamental misfit between the DCF (square peg) and the mission (a round hole) that the DCF (as a state agency) is doomed to dysfunction regardless of the skills of the Commissioner of the ingenuity of the programs?"⁵ One of Horak's main arguments is that in a bureaucratic government agency, tiers are hierarchically layered from bottom to top with each tier restricted to its own tasks, procedures, and rules. Consequently, those at lower tiers and those at higher tiers rarely communicate with each other in honest or productive ways and both management and staff have "little (if any) personal accountability," according to Horak.⁶

Kelley Fong, a professor at the School of History and Sociology at Georgia Tech, wrote a paper entitled “Getting Eyes in the Home: Child Protective Services Investigations and State Surveillance of Family Life,” in which she primarily argues that educational, medical, and other professionals’ referrals of child maltreatment to Connecticut child protective services and DCF open up families to an “entity with coercive power, fosters apprehension among families, and thwarts their institutional engagement.”⁷ In response to DCF’s bureaucratic structure, Fong would suggest that the agency’s bureaucracy allows for closer visibility to and interactions with other service-oriented bureaucracies, making intimate surveillance more possible. Like how police call medical or psychiatric services or schools and community centers channel youth to juvenile and criminal justice system, DCF receives child maltreatment referrals from adjacent entities like hospitals, schools, childcare centers, therapy clinics, and police. The connections across these systems form, what Fong refers to as a “surveillant assemblage.”⁸ DCF calls on its linked bureaucratic systems to monitor and surveil parents for signs of child maltreatment.

Fong also cites Michael Lipsky’s concept of the “street-level bureaucrat.” “Street-level bureaucrats,” such as police officers, teachers, and hospital social workers, generally want to protect children and improve people’s lives. However, “amid resource constraints, conflicting demands, and clients’ complex needs, ‘the very nature of this work prevents them from coming even close to the ideal conception of their jobs.’”⁹ Thus, in this context, street-level bureaucrats call upon another linked bureaucratic agency – one they deem more suitable to assess families’ intimate lives and distribute assistance. As Fong writes, “child maltreatment investigations thus emerge not so much from professionals sounding the alarm about children in imminent danger, but from constrained street-level bureaucrats hoping to rehabilitate families in need by shuttling them to a multifaceted surveilling agency.”¹⁰ Whether as a function or an outcome of its structure, DCF’s bureaucracy allows it closer connection to adjacent entities and depends upon “street-level bureaucrats” for referrals.

Ashley and Mia

The first case I read through during my internship especially demonstrated how DCF’s bureaucracy both serves and relies on the hospital, another adjoining organization with hospital social workers as “street-level bureaucrats.” Ashley gave birth to her daughter Mia in 2019. Both of their names have been changed to protect their privacy. At the time of her delivery, Ashley tested positive for marijuana, which apparently helped her with her morning sickness, and methadone, a substance used to treat narcotic drug addiction. Infant Mia tested negative for both drugs. Regardless, a nurse at the hospital called DCF and alleged physical neglect of Mia. Thus, Ashley’s first involvement with DCF and the larger child welfare system began. According to her case files, Ashley was “hostile and argumentative” and initially refused to meet with a DCF employee who called following the hospital social worker’s referral. Nevertheless, upon discharge after Mia was born, Mia’s parents agreed to a safety plan in which they had to complete classes about “age-appropriate parenting issues,” safe sleep, and weekly family activities in order to prove their parenting capabilities to DCF.

However, months later, Ashley entered the same hospital again for stomach pains. Ashley admitted to someone at the hospital that she had been drinking alcohol daily and, in response, the hospital social worker called DCF again alleging physical neglect of Mia by her mother. It is not clear from her case files whether or not Ashley was aware that she had been referred to DCF by her hospital staff. A couple of weeks after, DCF received another call alleging the physical neglect of Mia by both parents due to their substance abuse and domestic violence issues. Another week after that, DCF took Mia from Ashley for 96 hours, citing Ashley not feeding Mia “age-appropriate meals,” not treating Mia’s rash with prescribed medications, and not utilizing safe sleep practices as reasons for their action. Ashley denied these allegations, saying that she put prescribed cream on Mia’s rash and always had her in her line of sight while Mia was sleeping. However, two days after, an Order of Temporary Custody (OTC) was granted by the court, and neglect petitions were filed. Mia was taken out of physical custody of her mother and father and placed with her grandmother.

Evidently, DCF and the hospital form a “surveillant assemblage” in which both bureaucracies rely on each other. DCF depends on the hospital social workers for referrals and information about potential child maltreatment cases while the hospital looks towards DCF to help rehabilitate troubled patients. DCF’s bureaucratic structure is what allows for this powerful connection between DCF and the hospital and, ultimately, is what facilitated Mia being taken away from Ashley. Fong also describes how other mothers like Ashley similarly felt when referred to DCF by healthcare workers. One mother in Fong’s study recalled child protective services visiting the hospital after she gave birth; she told Fong, “I was panicking, like, ‘Oh, they’re going to take my baby.’... I was trying to stay calm. I wanted to cry.”¹¹ Like Ashley, another mother Fong interviewed was tested positive for marijuana during her pregnancy and referred to DCF by a hospital social worker. This mother told Fong: “I was like, ‘Oh [the prenatal clinic] snitched on me.’ That was my first reaction.”¹² As Fong writes, “Believing the prenatal clinic and delivery hospital should have notified her in advance of the need to report, she felt set up, saying she could not trust them anymore.”¹³ Ashley’s story coupled with Fong’s reports of other similarly situated mothers again paints a picture of the intertwined relationship between DCF and healthcare.

Additionally, Fong labels DCF as an entity that couples “care and coercion” as its “goal of supporting families stands alongside its power to separate them.”¹⁴ Indeed, DCF’s coupling of care and coercion shows up in Ashley’s case files, particularly through the files’ delineation of its “reasonable efforts” to reunify Ashley and Mia. DCF clearly lays out the numerous administrative meetings and support services made available to Ashley to help rehabilitate her; in this sense, DCF acts with the goal of assisting and caring for families in need. However, if parents do not attend these meetings and complete these support programs, DCF will wield its power of separating parent and child. In this regard, DCF combines care and coercion – a dual power that is on display in Ashley and Mia’s case files.

Betty

Betty, a mother whose name has been changed to protect her privacy, contacted me after seeing my IRB-approved recruitment poster. Betty’s story encapsulates the top-down procedure of DCF and shows how DCF left her feeling without agency throughout its process. Like Ashley, Betty’s child neglect investigation started at the hospital. In 2019, Betty was prescribed a medication for a stress-induced facial tic. One night, she took two doses of this medication and it made her fall asleep. She awoke shortly after and in a groggy state reached for what she thought was melatonin, which she takes daily to help her sleep. However, she accidentally took more of the prescribed medication for her tic instead of melatonin. She told me, “this medication caused a really severe, bad reaction in me such that I could not wake up in the morning. It was a school day, and [my children] could not get me up.” Because Betty could not wake up, her two children called an ambulance. Betty says that, because she had prior cases with DCF and she had been recovering from alcohol abuse disorder for two years, the fact that an ambulance was called gave DCF immediate reason to open up a child neglect investigation on her. Indeed, Betty was admitted to the hospital and, the day before she was discharged, a DCF investigator told her that she was being investigated for child maltreatment and that her ex-husband had filed for immediate, full custody of her children.

During DCF’s investigation, Betty said she felt like she had no voice. DCF looked at Betty’s previous files with DCF and communicated with Betty’s “adversarial” ex-husband and hospital staff, but did not speak with Betty or her therapist, who she believed could vouch for her love and care for her children. She told me:

“The beginning part is the investigation and in that part of it, nobody was communicating with me. Everybody was formulating their own thoughts, pulling files, talking to people other than me, it was awful... [During the process,] there is no navigating the system. You don’t have control. You have no say... We don’t like to use the world alcoholism anymore. We say instead alcohol abuse disorder, because alcoholic is sort of punitive, right? I know that I have an issue with alcohol. I cannot drink in my life or my life will no longer be my own. But, because that is in my life and that is part of the fabric of who I am, it is automatically assumed that no matter what I do, it is because of my alcoholism. So, they make these assumptions. They tell the story. They create the narrative. You don’t have control... [One week after I was discharged from the hospital,] I had a meeting at DCF, but it literally was an exercise in futility in the sense that it gave me a time, a room, a space to be able to express myself without anybody listening. By that time, it was already done. The decision was made to keep my file open. I was going to be referred to services and I had lost my children.”

Evidently, while DCF was pulling together a neglect petition and Betty’s previous case files, Betty was not properly heard by the agency. Her truth about what happened with her medication was not heard by and seen as legitimate by DCF. Although she was given a space to air her grievances, Betty’s meeting at DCF was simply a part of the agency’s bureaucratic procedure. It was clear by that point to Betty that no matter what she said, DCF had already made an absolute decision to take her children away from her without her side of the story.

Part of what made the investigation so hard for Betty was the DCF worker assigned to her case. About her investigator, Betty said, “she was horrible. Everybody that came in contact with her, felt that way. She had no social skills, she was angry, and I felt like she already had it out for me before she even met me.” After a 45-day investigative period, DCF successfully filed a neglect petition and decided that her case would go to the Superior Court of Juvenile Matters in Torrington and would be litigated there for a potential termination of parental rights. Betty was not really referred to any services but was instead told to continue seeing her therapist weekly. While DCF does help rehabilitate parents, in Betty’s case, they did little to nothing to provide her service programs and track her progress. DCF never called her therapist to check in about Betty’s emotional and mental state. Betty said, “my therapist would say to me, they’re just punishing you. They’re not doing anything on their own to help you.” While other parents like Ashley received both care and coercion from DCF, Betty only saw her experience navigating the DCF procedure as punishment. The fact that DCF had not contacted or followed up with Betty’s sole form of rehabilitation – her therapist – only confirmed that for her.

Betty also had supervised visitation with her children twice a week and was assigned to a different caseworker who she had to meet once every two weeks. At first, because of her negative experience with the previous DCF investigator, Betty did not trust her assigned social worker. She said she saw this new caseworker as an “extension of the investigator” and, although Betty was compliant, she did not act “warm and fuzzy” with her. But, as Betty and her caseworker spent more time together, Betty said that she started to see her as a non-threat. She told me, “I started to see her as someone just doing her job. And then my children said that they liked her and that they felt like she had their best interests in mind. If you’re good to my kids, then you’ve won me over.” Betty began trusting her caseworker and although she did not redeem DCF in Betty’s eyes, she did make the process more tolerable. Betty believes that her new caseworker treated her more fairly than the previous investigator because she did not “come to the table with preconceived notions” about her alcohol abuse disorder and previous cases with DCF. She said, “she saw me as a human being. She saw me as somebody who wanted her kids back and would do anything it took to get her kids back.”

As Betty continued to attend administrative meetings with DCF and her referred services, Betty’s caseworker saw Betty’s commitment to getting her kids back. She looked on track to regaining parental custody from DCF and the courts. However, at the end of the process, DCF forced Betty to sign a statement of acknowledgement for the negligence of her children. Essentially, in order to get her children back, Betty had to officially admit to DCF that she had put her children in danger on purpose. She told me, “I felt I could not do that, because I did not intend to be negligent. I did not intend to harm my children by not waking up that day. I did not intend to take my life. And so, I could not put pen to paper and there was a delay in the process, because I needed to sit with it.” After consulting with her lawyer and family, Betty realized that signing the acknowledgement of negligence was just a part of DCF’s process. At the end of the

day, Betty knew that her children knew her truth. Her case was opened in May of 2019 and by January of 2020, Betty regained parental rights to her two children. Because of her “good behavior” and positive relationship with her caseworker, Betty had finished her experience with DCF months earlier than in a usual case.

Betty’s incident with signing the acknowledgment of negligence exemplifies DCF’s coercive top-down procedure. If Betty did not follow procedure and sign the letter of acknowledgement, she would be punished by way of Termination of Parental Rights (TPR). Ultimately, Betty submitted to DCF procedure but only because it was her only avenue to having her children back in her care. This process of forcing parents to sign a letter of acknowledgment of negligence points to structural issues with how DCF views and treats its parental clients. Rather than hearing Betty’s reasons for why she did not want to sign the paper and trying to have an open discussion with her and reach a mutual understanding and conclusion, DCF simply required Betty to sign the paper in order to get her children back.

By the end of her experience with DCF, Betty had felt that the agency did more harm than good for her family. Barring her from seeing her children for a total of nine months and the agency’s “services” did nothing to change Betty’s behavior or sobriety. While Betty said that she does not feel threatened or intimidated by DCF anymore, she has wondered what would happen if she had a stroke or a heart attack. She believes that DCF would “swoop in,” immediately relinquish her parental rights again, and tell her children that her medical condition was caused by alcohol or substance abuse. In the end, Betty lost all respect for DCF. She believes that DCF operates by “checking the boxes, punitive actions that don’t bring families together but rip families apart.” However, although her children were traumatized by their interactions with DCF, Betty does feel like the experience brought her family unit closer together. Her children are now incredibly protective of and communicative with her. She said, “I feel like you have to make lemonade out of lemons and that’s exactly what we did. You know, we’re survivors. We’re resilient. We persevere together. I’m not going to let DCF ruin our lives, you know?”

Mia and Ashley’s case and Betty’s case, as well as the cases of the women quoted in Fong’s paper, exemplify how DCF’s structure and procedure work to surveil and control parents involved in the child welfare system. DCF’s complex and extensive bureaucratic structure allows it to be interlinked with other bureaucratic entities like the hospital, a place where Ashley and other mothers often get reported on to DCF, and “street-level bureaucrats” like hospital social workers. Ashley and the other mothers quoted in Fong’s paper expressed a feeling of betrayal and anger at having been reported at the hospital. Like DCF’s structure, DCF’s procedure couples care and coercion. Through top-down decisions, DCF provides rehabilitative services to clients while also holding the power and threat of separating families. Again, in order to regain custody of Mia back, Ashley had to complete several programs. Unlike Ashley, Betty did not have access to DCF’s rehabilitative services, but instead reported feeling constantly coerced by the agency. She told me that she felt powerless against DCF’s

procedure and bureaucratic process of “checking the boxes.” Of course, Ashley and Betty’s experience with DCF are two of many thousands of experiences. However, the agency’s complex structure and procedure, as well as its relationship to other adjacent entities and “street-level bureaucrats,” ability to make clients hyper-visible to the state, and coupling of care and coercion are all fundamental aspects of DCF. These features are all ingrained within DCF’s structure and procedure and, as Ashley, Betty and the mothers Fong interviewed can attest to, these facets can bring unjust outcomes for some parents. Because these aspects are deeply entrenched within the agency’s structure, they could only be further exacerbated in an emergency situation like the COVID-19 pandemic.

EXPLORING THE PUBLIC AND PRIVATE SPACES OF ZOOM

A Field Report on Urban Anthropology in the Pandemic's Online Age

Julianne Kim

Introduction

September 2019. I'm standing in front of my Caswell North Dorm that stands between Thayer St. and Ruth J. Simmons Quad on a beautiful day, with clear skies. Parents are shuffling boxes into dorms, returning students are excitedly reuniting with friends, and confused freshmen are exploring the campus with their lanyards on and map in hand. The rush and excitement in the air of reminiscence and anticipation radiate across the Main Green where groups of students lounge together.

September 2020. I open my laptop, still in my PJs, with coffee in one hand and tablet in the other. It's the first day of classes after the COVID-19 pandemic launched students all across the world into a virtual space of Zoom. Throughout shopping period, I click into random classes but I remain anonymous with my camera and microphone off. However, it's not my first time using this 2-D platform because I've already attended birthday parties, re-connected with some childhood friends, and even attended church service through Zoom.

Known for its simplicity, high-quality, and easy-to-use functionality, Zoom is a cloud-based video conferencing platform that also allows conferencing, webinars, live chats, and other collaborative capabilities. After the closing of universities across the US in March 2020 due to the COVID-19 pandemic, universities and other institutions began using Zoom for gathering, teaching, and meeting. The platform promised to allow the resumption of education with some degree of normalcy. The rapid uptake of Zoom, however, revealed Zoom's shortcomings with privacy and security issues that have since been scrutinized under the public eye.¹ The transition to online education puts Zoom on display to show the flow of students navigating and entering in and out of Zoom as both public and private spaces. Students can take on multiple and varying roles within the same virtual platform while interacting, engaging, and viewing each other. Simultaneously, maintaining anonymity within Zoom and preserving personal security and privacy is a continuing concern. Finally, as more urban anthropologists continue to study how technology shapes urban life, particularly in "the intersection of offline and online worlds," we can preview the potential of and prevent possible dangers in technologies directing urban education and mobilization and permanently affecting "urban networking and solidarity."²

Methods

As a student utilizing Zoom for both public and private purposes, including classes, clubs and extracurricular activities, personal and religious settings with friends and family, I situated myself as both a participant and observer of these online engagements. In observing Zoom calls with students zooming in from different time zones,

counties, states, and countries, I analyze the different ways in which students navigate and interact in this virtual space. My own biases and experiences contribute to my observations and the subtleties that I am able to record. To supplement my observations, I use articles that evaluate and articulate the experience of Zoom, online education, communication via technology, and personal privacy and information.

With the different options of asynchronous and synchronous class, I chose to observe a synchronous 23-person seminar in which students are much more visible and engaged within the Zoom space. This experience is contrasted with an asynchronous class where I am 1 of 318 students – my invisibility and anonymity within the class are perpetual. In the seminar setting, my peers and I discuss the week's readings that revolve around heavy topics of the ethics of care and treatment for people with disabilities. I observe the communication and etiquette in an online classroom setting and how the experience of participation and discussion differs from the conversational nuances of a personal call with close friends.

While Zoom functions as both a semi-public platform for class (I use semi-public because there is still a sense of camaraderie built over time between classmates meeting online weekly) and a fully public platform for talks, forums, and the like, virtual hangout spaces or personal calls with friends from college have also evolved the platform into a private one. As we inhabit the small, boxed windows on our screens on a casual Sunday night, two friends and I reach out to others, checking for their availability to join us in an online game called Among Us. Among Us is another cultural product that has attracted millions of players during the COVID-19 pandemic. It allows for 8-10 players in an interactive multi-player online game that labels whether you are an innocent crew member or an imposter at the beginning of the game. Crew members scramble to finish a set of tasks throughout the space ship, avoiding the imposter, disguised amongst the crew members, whose aim is to kill the crew members. While we interact (silently) through the game, we utilize Zoom to communicate during the designated "emergency meetings" in which members can accuse one another or report any suspicious behavior. In a setting of Brown students mixed in a strange combination of both friends and strangers, I observe and also participate in the absurd yet endearing space of creating activity through Zoom.

Findings

On a Thursday at 4 p.m. EST, I stare at a gallery view of black screens (with the exception of the windows of my professor and TAs). Other students slowly enter with cameras off and speakers muted which remain even as the professor starts her mini-lecture of the week. With a PowerPoint screen-shared, I don't see the necessity in turning on my camera – neither do my classmates who are similarly represented by a black square box with a red microphone sign on the left corner. As she wraps up her lecture, the professor calls out into the void, "Does anyone have any questions?" Silence and black screens respond. "Alright, then we can take our break and come back to have discussions in our breakout rooms. See you in five." We go off our separate ways even though I have no idea what my classmates might be doing behind their cameras. I assume some stay put in their seats while others have gone to take a bath-

room break or a sip of water. I, personally, leave my seat and go out to play with my dog for a couple of minutes. When we return, there are 11 of us situated in a breakout room and our TA calls us to turn on our cameras.

As the discussion leader of this week begins, I notice the gazes of my classmates. While some stare directly at the screen or down below as they write down notes, others look to the side and their eyes dart back and forth across their screens. It's easy for me to see the walls behind my classmates that are plastered with photos, paintings, and posters, but I have no idea what my classmates are doing within their screens. Their backgrounds are recognizable and almost provide an endearing constant that I can associate with each of my classmates and their perceived identities. One girl has a soccer ball on top of her dorm room bed; the guy in the next window has a pair of headphones hung up on his wall. I notice that several other classmates have nicely decorated lights hung up on their walls while cats and other pets make casual cameos. There is a peculiarity about glimpsing into bits of my classmates' homes which calls to question how much control we have in choosing which parts of our personal lives come into public view.

Even with the option of virtual backgrounds, issues of privacy and security on a larger scale have been brought to attention with the surge of Zoom. In a *New York Times* article on the weak security architecture of Zoom, Brian Chen states that the problem of "focusing on the convenience of easy-to-use tech products over issues like data security and privacy" is not new.³ Because of its simplistic design and easy access, Zoom chooses easier methods of installing the app (sign in to a Zoom meeting is possible through a web browser and not necessarily through the App or Play Store) but loses hold on basic security features that have led to several "Zoom bombing" incidents in which strangers inappropriately crashed video meetings. As a result of repeated security and privacy issues, some companies such as "Elon Musk's SpaceX banned employees from using Zoom while the entire New York City's school district banned Zoom for online learning", reversing the ban only after the company made changes by including passwords and waiting rooms.⁴

Through Zoom, while more parts of our identities are disclosed, our actions, movements, and subtle communicative signs of my classmates are lost. In this sense, we may have more privacy as no one sees what we are looking at. We have control over what we choose to put our attention to or who we choose to stare at. The loss of hand gestures and other body language makes it harder for us to derive meaning from non-verbal cues that we constantly use in our everyday communication, giving us the liberty to go against social norms. But even while I observe and listen to my students commenting, I often find myself catching my own square. As I stare at myself to make sure I don't look out of place or awkward, I am also constantly facing my reflection, something I'm not used to. In addition to the "blocking, freezing, blurring, jerkiness and out-of-sync audio," psychologists also say that multi-person screens "challenges the brain's central vision, forcing it to decode so many people at once that no one comes through meaningfully" and calls this "continuous partial attention".⁵ The dis-

junction of being on the same platform but not being able to communicate meaningfully puts online spaces into question because of the lack of obvious social cues and the extra subconscious required to read people's responses.

Zoom, however, is also a cultural phenomenon. It's used not only for educational purposes, but for people to host parties, concerts, art shows, and church services. During a time when people are restricted from gathering physically and may feel isolated, Zoom serves to produce spaces of belonging.

When I sign into the Zoom link on a late Sunday night, I am greeted by two of my closest friends. Unlike my seminar class, everyone's cameras and mics are on. Freezing windows and background noises still fill the space but no one pays attention to them. Meanwhile, in my classes the signs to unmute/mute and raise/lower hand are unclear, and there isn't an apology when people talk over each other or are interrupted. The communicative signs that we physically embody as humans are signaled clearer.⁶ Because *Among Us* is a game that requires multiple players, the three of us invite more people onto the Zoom call. Surprisingly, there are a total of ten Brown students, six of whom I do not know. We don't introduce ourselves and dive right into the game on our phones with some of us having our cameras on and others not. "Where'd you find the body?" someone calls out for the first time through Zoom in our first "emergency meeting." People talk over one another, claiming innocence and report on their whereabouts. "Hm... I don't know... that sounds a little suspicious," says a girl whose camera is off. As a crew member of the game, I agree with her and we all continue to banter back and forth about what tasks we completed and form alliances. As a social deduction game in which personalities are read in order to detect lying or suspicious behavior, more natural conversations occur as imposters sneak around through air ducts and crew members use security cameras to observe the ongoing on the ship. With tensions rising, the barrier of communication through Zoom lowers even in a setting of Brown students who have met virtually for the first time. The heightened emotions and excitement as more and more players are eliminated only increases the conversation and establishes a sense of camaraderie as we bond over guessing the right identities of the members.

Through *Among Us* and Zoom, the ten of us have replicated some sense of normalcy, which may have played out very differently if we had met for the first time in person as a group. The comfortability in reporting other people and placing blame on strangers through a game reveals the bonds that are formed through online private spaces that may be harder to do in more public online spaces. Nonetheless, the etiquette and social norms of this virtual world are constantly evolving as we grow more comfortable within the platform of Zoom.

Conclusion

While Zoom continues to address privacy and security issues in addition to concerns about the sharing and selling of data, students are developing new online etiquette for various virtual settings and growing more comfortable in communicating in both

public and private online settings. The “forms of sociability and belonging are forged” through Zoom during a time in which societal norms are dismantled. This is a form of place-making by students whose mobilities are physically blocked ever since the start of the COVID-19 pandemic.⁷ While the mobilities of students on Brown’s campus as an urban space may have been “shaped by physical ability, financial resources, and existing transport infrastructures,” Zoom may allow for more access to public and private mobility with an increase in access to education, work, leisure opportunities, and political participation.⁸ Still, there must be caution and alertness to the power that Brown as an institution holds over students in terms of the information they hold in surveilling and managing students and their information flowing in and out of the online classroom. In discussing anonymity, the security and surveillance of students, and the varying roles that students can play through their small screens on Zoom, it is evident that this online platform is “a spectacle [representing an] intensification of networks and flows” in which students of diverse backgrounds navigate a nebulous space and build a “space of recreation.”⁹

SINGAPORE CHANGI AIRPORT’S JEWEL: SPARKLING AGAIN?

Experiencing Commercial Space during the COVID-19 Pandemic

Hai Ning Ng

Singapore’s Changi Airport, the only commercial airport in the small island country, has established itself as a transport hub within Asia and as one of the highest-rated airports in the world. 2019 saw the opening of Jewel Changi Airport, a large entertainment and retail complex linked to the passenger terminals, marking the airport’s latest attempt to position itself as its own destination rather than just a transit point. Changi Airport and the Jewel mall are accessible via Singapore’s public transportation system (the subway and multiple bus routes), with ample parking space for those arriving by private vehicles. Even before Jewel’s opening, it was not uncommon for Singapore residents, especially those living in the east of the city where Changi is located, to treat the airport as another leisure spot and visit to shop or dine.

Jewel has nearly 300 stores, many of them offering something unique (e.g. a brand’s only store in Singapore, their largest or flagship store, or a concept store with experiential elements). The complex also houses attractions like the world’s largest indoor waterfall, a canopy park, topiary walk, hedge maze, and sky nets. According to official press releases, Changi Airport handled over 68 million passengers in 2019, whereas Jewel drew around 50 million visitors in its first six months. With the COVID-19 pandemic affecting air travel and retail worldwide, I am interested in studying how Jewel is experienced and situated now, especially in comparison with pre-pandemic activities. This intersects with questions of mobility, place-making, and the “global city”.

In order to understand what the experience of being at Jewel was like now, I hopped on Bus 24 to the airport on a Friday evening and a Sunday afternoon. I walked around the stores and attractions inside the mall, as well as the arrival and departure halls of one passenger terminal, making general observations about the number of people at each location and what activities they seemed to be engaged in, what was open and what was closed, etc. I also searched for and analyzed media sources that were available online to find out how Jewel was described and discursively situated around its opening, versus how it was being situated now during the pandemic. This meant thinking about, for instance, what attractions and offerings it had, who the target audience was, or how those offerings were marketed. There was no difficulty in physical access as I was, in some senses, the target demographic that Jewel needed to attract to stay afloat during this time: a middle-class Singapore resident. While it was more common to see people with suitcases shopping or dining in various establishments in the past, the separation between “traveller” and “consumer” now meant that I was part of the much larger latter category, forming the majority of people present on the premises.



Figure 1 – Rain Vortex Waterfall in Jewel Changi Airport.

We must first examine how Jewel was situated, pre-COVID; “As we give names to these bounded places and use them [...] they become imbued with positive or negative emotional associations, memories or aspirations.”¹ With the full name of the complex being “Jewel Changi Airport”, the mall becomes inextricably linked to the airport and its connotations of connection and movement. Its name “Jewel” also brings to mind a shining, glowing attraction, most epitomized by its centerpiece – the large Rain Vortex waterfall (Fig. 1). Additionally, “spectacular skylines, buildings or monuments” can “project a city’s identity, in deliberate processes of city-branding”; “built structures designed by famous architects (or “starchitects”) [...] can imbue cities with the type of cachet that attracts tourists and investors.”² Jewel was designed by award-winning architect Moshe Safdie, who also designed the Marina Bay Sands hotel that has become a highly recognizable fixture in Singapore’s skyline. Safdie has predicted that Jewel would similarly “become a powerful icon for Singapore.”³ It is clear what kind of place the designers and officials behind Jewel initially envisioned it to be: a glitzy, modern architectural feat that would promote Brand Singapore to the world.

During my observations on both Friday evening and Sunday afternoon, however, Jewel was fairly crowded while the passenger Terminal 1 linked to it was much quieter. Parts of the mall directly associated with travel, such as the early check-in and baggage counters, were likewise relatively empty (Fig. 2). Some of the stores in Jewel that were observed to have particularly long lines included Shake Shack (the burger chain’s earliest store in Singapore), the Pokémon Center (first permanent store in Asia outside of Japan), and familiar global brands like Apple and Nike (Fig. 3). Given the pandemic’s severe impact on air travel, there were few “travellers” checking in for flights departing Singapore, nor were there the usual groups of tourists disembarking at Changi. The result was that the most popular stores were those that could cater to Singaporean consumers’ desires for novel experiences within the geographical limits of the country. In other words, the pandemic had temporarily diminished Jewel’s role



Figure 2 – Empty Airline Check-in and Bagging Kiosks.

as the world’s gateway to Singapore, while simultaneously bringing to the forefront its place as Singapore’s gateway to the world.

We can also view this through the lens of mobility. Physical movements “constitute the ‘raw material’ from which mobilities are produced”, while representations of movement “can include official representations that distinguish ‘good’ and ‘bad’ ways of moving.”⁴ In this case, the physical experience of movement through Jewel has been shaped by public health concerns; digital notice boards within the building display current regulations such as wearing a mask and maintaining a distance of one meter from others (Fig. 4). That said, not everyone is able to perform this movement in the first place. Short-term visitors from almost every country are not allowed entry into Singapore currently, and a vast majority of those admitted are subject to mandatory quarantines, restricting their freedom of movement. Considering that all new coronavirus cases in Singapore in the past two weeks (at the time of writing) were “imported” from abroad, inbound travel is further characterized as “bad” or undesirable movement, and something to be contained. On the other hand, the lounge in Jewel is now open to Singapore residents, offering WiFi and drinks (among other amenities) for a conducive remote working environment. Repurposing a space originally intended for travellers to one meant for consumers shows how movement to or within Jewel is encouraged (“good” movement), but only for certain groups based on their geographical location or travel history.

During the pandemic, then, Changi Airport and its Jewel have come to serve and rely on the needs of Singapore residents much more, and represent the city-state’s “gateway to the world” more so than the other way around. If displaying the “latest statements of global modernity [...] signals that a country matters on the world stage”, and the “resultant nationalist urbanism [...] represent[s] national ambitions,” then the role of Jewel as an “icon” of Singapore has also given it new meaning as a representation for

the “life of the nation.”⁵ When Singapore reopened retail and dining establishments in June after a lockdown, the Ministry of Trade and Industry sponsored an article in the national daily newspaper headlined “Jewel Sparkles Again” interviewing Jewel staff on the safety measures taken and mall patrons on their experiences returning.⁶ With only two of Changi Airport’s four passenger terminals operating, and flag carrier Singapore Airlines’ passenger carriage still down 98.1% year-on-year in October, social and economic activity within Jewel has become a much-needed beacon of hope for the country’s gradual recovery from COVID-19, a signifier that the situation is under the authorities’ control – if only strictly within its borders.

The concepts of mobility and the “global city” take on new dimensions amidst the COVID-19 pandemic. They offer rich sites of inquiry for urban anthropology: how do public health measures affect experiences and representations of mobility? Do these measures ameliorate or exacerbate existing inequalities of class, gender, race, national origin, etc.? In the (relative) absence of tourists, what does city branding mean to other stakeholders? At the same time, the pandemic has made the in-person, on-the-ground fieldwork typically so central to urban anthropology now risky, if not sometimes impossible. Since so much of social and economic life is now conducted online, employing archival and media sources could be a less dangerous but no less valuable alternative to examine place-making and more broadly meaning-making. Indeed, social media sites may be the best tool we have to get a better sense of how “regular” residents and/or travellers experience the airport, rather than relying mostly on government sources and news outlets which would likely only carry the most official, sanitized version of a story.

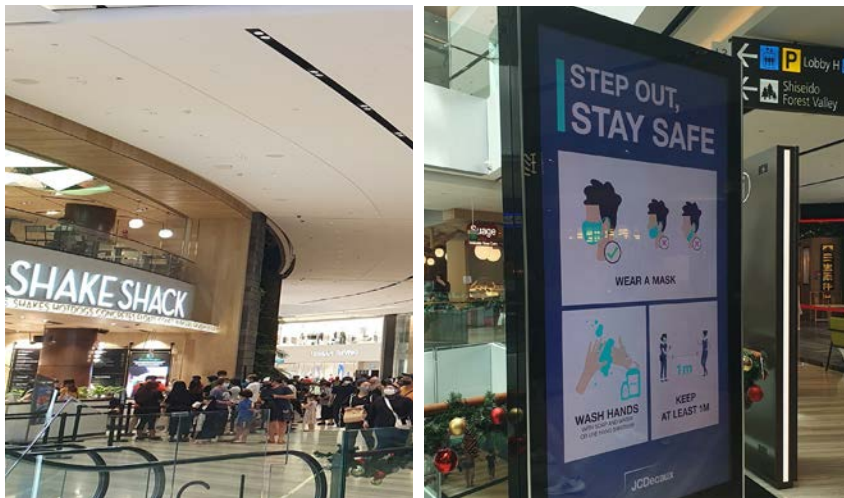


Figure 3/4 – Crowded Shakeshack in Jewel Airport/COVID-19 Related Safety Notice.

NEW TOWNS AND FOREIGN WORKER DORMITORIES: Understanding Unequal Development and COVID-19 Responses in Singapore's Peripheral Communities

Thomas Wilson

Introduction

Singapore, a nation on its own small South Asian island, is well known for having a 100% urban population.¹ While this may invoke imagery of a ubiquitously dense island of skyscrapers, a significant portion of Singapore’s residential development actually occurs on the periphery of its immediate urban core. Peripheral urban development in Singapore has coalesced into two main forms: new towns and foreign worker dormitories. Amongst the country’s population of nearly 5.5 million, over 80% of residents live in flats run by the national government’s Housing and Development Board (HDB) in communities outside of the downtown area, known as new towns.² Because Singapore is such a small country, it relies on a huge migrant population to enrich its workforce. By last count, nearly 29.3% of the country’s total population were foreign-born non-residents.³ These migrants are classified into two general groups by most literature: foreign “talent” and foreign “workers.”⁴ Much of the foreign talent lives in new towns, but over 325,000 foreign workers of specific professions and ethnicities are housed in purpose-built dormitories and repurposed factories spread around the island’s edges.⁵ Exploring and comparing these two types of state-involved residential communities is essential in better understanding Singapore’s peripheral urban development.

Almost all urban development outside of Singapore’s urban core has come in the form of new towns. These communities, which follow the example of the British, are all pre-planned and have a housing stock that is primarily government-provided (there is some private housing, but it is rare).⁶ Each new town is self-sufficient, with grocery stores, shopping centers, and opportunities for social activity and entertainment.⁷ Essentially, new towns function as suburb-like nodes on the periphery of Singapore in that they house workers who commute to the downtown core, but Brian Field notes that these developments “are not idyllic residential suburbs, but are essentially intense urban concentrations.”⁸ Interestingly, HDB-run homes in these communities are limited to Singapore’s permanent residents, with only citizens and foreign talent allowed to apply for these homes.⁹ The foreign talent population consists of those in fields like banking, technology, or entrepreneurship, who the government actively fights for in the “global war for talent.”¹⁰ These workers are able to come to Singapore on a variety of pass types, which are intended to allow them to eventually become permanent residents of the island. Singapore’s new towns exist in stark contrast to their peripheral counterparts.

Outside of downtown Singapore, large dormitories house the temporary migrant workers brought in to buoy the city’s domestic and manual labor markets. Singapore’s economic prosperity has transformed it into a market for transmigrants from the

region who are willing to temporarily stay in the country to earn money for their families at home. These migrants, whose involvement in the Singaporean labor market is best known as a “use-and-discard” program, are not allowed to marry into the country and are forced to leave after their work stint.¹¹ Nearly all of these workers are in the country on visas known as work passes, which define their limits in Singaporean housing and society. However, because this labor market is so crowded, it has made migrant workers “increasingly exchangeable, replaceable, and most vitally, cheapened.”¹² This is well-reflected in the state-run dormitories that about two-thirds of non-Malay transmigrant workers call home, where residents are only given 4.5 square meters of their own space (and only about half of dorms succeed in providing even this).¹³ The spatial distribution of these dorms is shown in Figure 1 – they are located well outside of the southern urban core of the island, and their isolation is furthered because they are not well-integrated into the new towns around them.¹⁴ Beyond these licensed dorms, over 100,000 migrant workers live in repurposed factories and other less-desirable housing options.¹⁵



Figure 1 – Spatial Distribution of Foreign Worker Dormitories in Singapore, relative to downtown, which is at the central bottom portion of the island.

The development of the two types of peripheral communities has led to varied life outcomes for their respective residents. For example, by June 1st, the nation of Singapore had totaled over 35,000 documented cases of COVID-19, making its caseload proportionally the highest in all of Asia up to that point.¹⁶ At the start of the month, over 500 daily cases were confirmed in foreign worker dorms.¹⁷ There were zero daily cases outside of these dorms. Beyond living conditions, issues of spatial inequality are exemplified by issues like transit. Because a large majority of work occurs in the urban core, many workers on the periphery must commute daily – this is more achievable for well-paid workers in new towns, who make larger wages and can afford daily transit fees.¹⁸ Each of these instances of inequality, as well as several others discussed later in this paper, are attributable to the characteristics of the spaces that are provided to residents by the state, or state-sponsored companies.

The goal of this paper is to examine the development of Singapore's two primary peripheral communities. This will allow us to better understand how overall political and

urban development goals have led such stark inequalities between them. This paper is will not necessarily explain why Singapore has chosen to place development in its periphery, but rather it will describe how peripheral developments have been impacted by various motivations of the state. In order to accomplish this new towns and foreign worker dorms will be separately analyzed. Each discussion will focus on the historical context, political influences, and modern-day living conditions and demographics of the respective communities. Throughout examination of each of these features, the overall political or developmental purpose served by the community will be analyzed. After both peripheral communities are discussed, a direct comparison between the two will explain what has led to disparity between them. There are clear inequalities between Singapore's well-planned new towns, inhabited by permanent residents, and its crowded dormitories, meant for some temporary foreign workers; the contrasting living outcomes in these two communities are demonstrative of the role of state motivations in the development of the country's immediate urban periphery.

New Towns

Historical Context

The development of thoroughly planned new towns is a key part of Singapore's urban history. The movement towards new towns began in the late 1950s when Singapore, having newly secured self-governance, was facing a massive housing shortage due to limited residential development in its downtown core.¹⁹ To address this, Singapore established the Housing and Development Board (HDB) in 1960, which immediately set in place a five-year development plan, which largely drew from an earlier UN plan known as “Ring City Singapore.”²⁰ Soon after, the HDB began to construct pre-planned residential communities outside of the southern core of the island.²¹ The first of Singapore's new towns was Queenstown, built five miles from of the city center. Queenstown (seen in Figure 2) was meant to house up to 160,000 residents in two to three-bedroom flats, across seven neighborhoods.²² While Queenstown was connected to the rest of the island through bus services, it lacked some of the self-contained aspects, like shopping and industrial development, that later new towns would have.²³ In 1966, construction on Toa Payoh began, alongside the implementation of a new five-year plan. Toa Payoh was conceived as a much more self-sufficient group of neighborhoods, each of which would have shopping centers, as well as sporting facilities and other communal amenities.²⁴ Toa Payoh would become the model for Singapore's upcoming wave of new town development.

As Singapore underwent substantial societal changes during the late 20th century, new towns became more commonplace across the country. Because Queenstown and Toa Payoh showed success in alleviating housing shortages, similarly-designed new towns were quickly placed around the island in accordance with new urban development plans from various government agencies.²⁵ This “second generation” of new towns was developed with the intention of creating a “unique identity and character” for each community.²⁶ By 1983, seven new towns had been completed, the largest of which housed nearly 240,000 people, while five more were under construction.²⁷ One contributing factor to this rapid implementation of new towns was the increase in



Figure 2 - Bird's Eye View of Queenstown, Singapore. Source: "First Decade in Public Housing, 1960-69." Singapore Housing and Development Board. 1970.

transport infrastructure, like highways and buses, which allowed for the placement of communities further from the southern core.²⁸ Interestingly, the plans for new towns during this period were informed by the success and failures of previous new towns. This responsive "progression of continuous improvements" is proven by the adoption of the self-containment features from Toa Payoh in 1970/80s new towns.²⁹ One of the key features produced during this period of responsive development was the neighborhood structure within new towns.³⁰ New towns began to use neighborhoods, which were centered around market-like hubs, as base units; these neighborhoods would then collectively constitute the entire new town.³¹

The current and future development of new towns in Singapore has shifted away from the rapid construction of the late 20th century. As of 2010, there were 23 completed new towns, with over one million housing units and 4.4 million residents.³² While Singapore has mostly kept quiet about any planned future developments, they have widely publicized the innovative Tengah New Town. Tengah is meant to be a "green" new town with up to 40,000 homes and a heavy focus on communal sustainability and environmental integration.³³ Ultimately, it remains to be seen whether or not future new towns will follow Tengah's lead, but this development reveals the state's willingness to use peripheral nodes as a laboratory for other goals, such as environmental performance. Similarly, redevelopment of "matured" new towns is becoming a key issue, as the housing stock has aged by nearly 60 years in some communities.³⁴ This process involves renovating deteriorating structures and adding new amenities to older communities. New towns are also removing former industrial plants, as the state generally deindustrializes. Singapore's recent redevelopment shows a clear willingness of the state to respond to poor living conditions as they arise in new towns.

Political Influence/Purpose

Today's new towns offer a form of representation that results in mildly responsive development. As discussed in the previous section, urban development in Singapore's

new towns is informed by previous developments. While this is true, until the late 1990's this feedback cycle was not citizen-informed, as almost all planning was done in a top-down fashion.³⁵ Today, the primary voice of those living in these developments is the town councils. Town councils are chaired by elected members of parliament (MPs), who are chosen for council work based on their political party association. All town councils "control, manage, maintain and improve the common areas of the residential and commercial property in the housing estates," while some of them are granted the power to regulate industrial facilities as well.³⁶ In performing these functions, town councils are responsive to the needs of their constituencies, which can consist of multiple new towns at once (there are 16 town councils for 23 new towns). In 2007, Neighborhood Renewal Programs (NRPs) were implemented as an arm of town councils meant to gather planning feedback.³⁷ NRPs facilitate this participation by bringing in residents to comment on government proposals through town halls and surveys, but the program doesn't allow for residents to bring up unrelated concerns.³⁸ This limit on participation is accentuated by "a lack of knowledge about and exposure to participatory planning" amongst community members.³⁹

New towns are only somewhat useful tools for political participation, but they are extremely effective in maintaining party control in Singapore. Because town councils are run by political party members, the actions they undertake often reinforce their control. The People's Action Party (PAP) is the dominant political force in the country, which means their MPs are in charge of most town councils - this effect ingrains the party in two key ways. First, because they are partially funded by party money, town councils allow the PAP to give their constituents preferential housing and material benefits, which reflects well on them during elections.⁴⁰ Second, it is difficult for weaker opposition parties to provide their constituents with comparable advantages. Opposition MPs are far fewer in number and have a smaller pool of party funds to rely on, making their day-to-day management of new towns more problematic, therefore lowering their ability to please those living in their towns.⁴¹ Through the town council system, the PAP is able to box out opposition parties while also suppressing any popular participation that could interfere with their development plans. Town council chairs are able to appoint other councilors when necessary, meaning that the PAP can easily co-opt any grassroots movements by bringing on local leaders to become town councilors.⁴² The NRP process, which is supposed to allow for resident participation, is completely controlled by the partisan town council. This allows the party to maintain final say over implementation, and also decide which residents are eligible to provide feedback.⁴³ Furthermore, the residential nature of new towns adheres citizens to the state. Housing flats, which are meant to create homeowners, are intended to provide a "sense of belonging and stakeholdership in the country" for those living in them.⁴⁴

Beyond being used as a tool for the reinforcement of state power, the characteristics of housing in new towns help achieve several other state-desired goals. Housing in new towns is state-provided, which allows the state to control both the availability and form of housing. For example, many new town flats have two to three bedrooms, which facilitates a more classic "heterosexual stable family," and as of 2007 the Prime

Minister believed “the vast majority of Singaporeans want to keep it this way.”⁴⁵ Additionally, singles and homosexual couples can only access flats on the resale market, which is much more difficult to access, navigate, and finance.⁴⁶ The state also uses housing restrictions to divide its migrant population. Only migrants with permanent passes, or those whose temporary passes place them in a middle-income bracket, are allowed to rent HDB flats.⁴⁷ This limitation restricts most temporary workers from living in new towns, thus establishing a two-tier residential system for migrants in Singapore. The affordability of housing can also price out those with lower incomes, segregating the communities by class and profession – this effect will be discussed further during the following section. The state actively controls the proportion of ethnic groups in new towns to maintain a balance between them. The Ethnic Integration Policy, which began in 1989, allows the government to restrict housing applications by ethnicity to ensure each new town will “resemble the national proportion.”⁴⁸ While this ethnic breakdown will be analyzed in the next section, it is important to understand new town demographics are controlled by the state’s preferences. New towns are often used to attract foreign talent in the hopes that upscale neighborhoods will convince the foreign workers to stay and help grow the nation’s finance, education, and other globalizing industries.

Current Residential Characteristics

Housing conditions within Singapore’s new towns tend to be clean, affordable, and accessible. The housing market in new towns consists almost entirely of HDB flats, which are simple apartments in large high-rises that consist of anywhere from one to five rooms. These flats are primarily sold by the state, but some homeowners can sell their property on a small resale market.⁴⁹ One of the state’s main goals with these flats is to promote homeownership, with nearly 79% of them being privately owned – this means flats are very stable in terms of living tenure.⁵⁰ Living conditions in these flats are safe and sanitary, although there is variation in building quality between communities. Aging HDB complexes, which do tend to be cheaper, are somewhat run-down, while the government’s “upgrade-scheme” enables private developers to build higher-end flats, which are then sold by the state.⁵¹ The variability of these conditions is well-documented in Miyauchi’s “HDB: Homes of Singapore”, which surveyed over 100 HDB flats – two examples of interior conditions are seen in Figures 3 and 4.⁵² Despite some differences in aesthetic living quality, this system of housing has allowed for “a universal elevation of living standards” across Singapore.⁵³

Communal amenities and infrastructure are integral to the new town experience. New towns, developed to be highly self-contained, are places of education, employment, and entertainment. New towns each have schools, although the quality of this education can vary based on the wealth of the neighborhoods.⁵⁴ Because many new town residents still work in the inner-city core, where finance and other white-collar industries are located, there is significant transport infrastructure to connect the two areas.⁵⁵ Each new town has a bevy of shopping options as well, with some towns having up to three shopping malls.⁵⁶ Town centers are also culinary centers, with some featuring “at least a hundred food stalls” of diverse ethnic backgrounds.⁵⁷ En-



Figure 3/4 – Divergent Conditions in HDB Flats, Singapore. *Source:* Miyauchi, Tomohisa. HDB: Homes of Singapore. 2017.

tertainment is also a major amenity in new towns, as sporting courts and fields, parks, theaters, and other common recreational spaces are commonplace.⁵⁸ Clearly, residents of new towns are the recipients of well-intentioned urban planning.

State development has impacted the both ethnic and socioeconomic demographics of new towns. As previously mentioned, the state limits applications to new towns based on national ethnic proportions. This means, ideally, each new town would have populations that are 75% Chinese, 13% Malay, 9% Indian, and 3% “other”.⁵⁹ However, because ethnic groups tend to clump together because of familial ties and other pull factors, the state has to actively tend to these proportions. For example, Bedok New Town had a higher proportion of Malays than the national average, so the government prevented non-Malay groups from selling to Malays on the resale market.⁶⁰ The economic stratification of new towns is correspondingly heterogeneous. Most Singaporeans live in new towns, which means that workers from multiple classes are dispersed throughout. The HDB constructs its housing estates with a mix of flat styles to maintain a “mix of socio-economic groups.”⁶¹ Ultimately, while new towns are accessible across ethnic and economic groups, their accessibility is contested for Singapore’s temporary migrant workers. HDB flats do house some migrant workers, but a sizeable portion, whose demographics will be discussed during a later section, are relegated to the second-tier of Singapore’s periphery: foreign worker dormitories.

Foreign Worker Dormitories

Historical Context

The history of peripheral communities meant specifically for transmigrants is less than extensive, but it has continuously moved these residents further from Singapore’s permanent population. The living situations for work-pass holders before the 1990s is somewhat obscure. There seems to have been no law restricting these migrants

from living in new towns, but the director of Singapore's Ministry of Manpower said that many of them actually lived in "garbage dumps or in the jungle".⁶² As the island nation began to expand in the 1990s, the government allocated land for construction companies to build dormitories to house their workers, thus beginning the movement towards dorms meant specifically for migrant workers, better known as purpose-built dormitories (PBDs).⁶³ During this time, old factories were also converted to housing centers, while some foreign workers still lived in flats. By 2006, new rules were put in place to prevent non-Malay construction workers from living in flats, which increased the need for company run PBDs.⁶⁴ As PBDs became more prevalent, new town residents fought to have them moved further into the margins of the periphery.⁶⁵ These types of tensions became especially salient after a migrant worker was killed in 2013, leading to migrant-led riots in a new town neighborhood known as Little India.⁶⁶ As a result, the state began developing PBDs in a more self-contained fashion. In 2015, the Foreign Employee Dormitories Act was passed to regulate PBDs so that they provided foreign workers with all necessary amenities for living, such as sporting facilities and markets, to prevent them from interacting with nearby new towns.⁶⁷

Today, foreign worker dormitories exist in several forms, ranging from state-sponsored PBDs to more informal settings like repurposed factories or even construction sites. While the government is not directly responsible for housing migrants, it legally requires migrant employers to provide some form of housing.⁶⁸ PBDs house the majority of migrant workers who aren't allowed to access flats, and are set up in dormitory fashion, with many migrants sharing an extremely basic living space, an example of which is seen in Figure 5. Beyond PBDs, many works are housed in repurposed factories, which is completely allowed by the state so long as they meet certain standards. Otherwise, employers have been found housing their workers on the job site, with some workers even living on buildings that they are in the process of constructing. Options like this are becoming increasingly popular methods of saving employers money on their workforce's living cost.⁶⁹ In 2015, Singapore committed to building PBDs for more than 100,000 more foreign workers to help reduce the prevalence of these informal living conditions.⁷⁰ This commitment to upgrading PBDs has been accelerated due to the COVID-19 pandemic. COVID-19 has infected thousands of those in PBDs (see section on Current Residential Conditions) which has led to the government pledging to building more dorms, guaranteeing each worker at least 6m² of space compared to the former 4.5m², and limiting occupancy per sleeping room to 10 beds where there used to be no limit.⁷¹ The government has also committed to studying the possibility of developing PBDs according to an entirely "different model."⁷² Thus, COVID-19 has provided another historical example of the impact of state motivations in the development of Singapore's periphery.

Political Influence/Purpose/Motivations

The current peripheral developments that house foreign workers are a result of state economic and political motivations. A fundamental component of the Singaporean economic system is its two-tiered migrant system. These highly replaceable transmigrants fall on the lower tier of this spectrum are not admitted into the state as



Figure 5 – Room in a Purpose Built Dormitory. Source: Sen, Ng Jun. "Migrant Worker Housing: How Singapore Got Here." TODAYonline, May 9, 2020. <https://www.todayonline.com/big-read/migrant-worker-housing-spore-how-we-got-here>.

"social or political subjects."⁷³ This lack of political accountability means employers are able to "forcefully deport" their employees at any time with little consequence.⁷⁴ Furthermore, both employers and the state offer no formal methods of negotiation for better conditions. One interviewed resident said that "Saying anything will get me into trouble. My work pass will be taken away."⁷⁵ This means that it is difficult for migrants to try to fight for better housing conditions because they are nothing more than workers subject to the will of the state due to their deportability. Simply, worker dorms were developed with poor conditions because they were allowed to be, and their residents have no way of fighting for improvements. It is important to note that while these dorms are not state-run, the state actively permits these conditions to persist in their regulation of the peripheral developments.

Growing hostility towards foreign workers from both the Singaporean state and its permanent residents has also contributed to the spatial development of peripheral dormitories. As PBDs have become more prevalent in Singapore's periphery, they have at times encroached on the social space of new towns, whose residents are politically tended to. For example, in 2008, 1400 residents of Serangoon Gardens, an upper-class neighborhood petitioned to have a proposed dorm built away from their town.⁷⁶ The petition was successful in ensuring the use of a moderate "buffer zone" between the town and the dorm.⁷⁷ These tensions, combined with the Little India Riots, led to the aforementioned Foreign Employee Dormitories Act, which attempted to seclude migrants from new towns. Said the National Development Minister at the time, "We will try to put them in places that are not close to housing estates, but it's not easy to do so."⁷⁸ Thus, working migrants have had their housing developed in a way reflective of their label as "the other."⁷⁹ Interestingly, Malaysian temporary migrants do not face these same tensions, as they often live in new town flats. It is unclear why the state makes this exception, but the 2006 law allowing their rental of flats attributed it to "their close cultural and historical similarities with Singaporeans."⁸⁰

Current Residential Characteristics

Depending on what form they take on, foreign worker dorms have, at best, poor living conditions. As early as 2015, international organizations were calling attention to the “slum-like” conditions of PBDs, alleging that they were overcrowded, poorly ventilated, and breeding-grounds for pests like cockroaches and bedbugs.⁸¹ One high-ranking government official even acknowledged that some workers forwent PBDs to live in the bin rooms, or trash centers, of other housing complexes because “In the bin center, they also have more freedom to cook and do as they please.”⁸² More recently, the COVID-19 pandemic has forced the state to deal with the consequences of how cramped these dorms can be. Throughout the pandemic, confirmed cases were astronomically higher in foreign worker dorms than elsewhere in the country. By August, cases in foreign worker dorms made up 94.6% of the national total.⁸³ Since these outbreaks, academic research has begun to explore just how poor the conditions in dorms are. Such a high incidence of COVID isn’t surprising according to Mohan Dutta, who found that those in PBDs lack access to appropriate space, toilets, soap, sanitizing supplies, healthcare, and food.⁸⁴ At the start of the pandemic, nearly half of all licensed migrant housing facilities were in breach of necessary regulations, but were still allowed to run.⁸⁵

Access to public spaces is a complex facet of life in foreign worker dormitories. There are communal amenities in many PBDs, like smaller versions of the markets and sporting facilities found in new towns, but they exist to ensure that migrants have no need to enter new towns.⁸⁶ The state has worked hard after the Little India Riots to segregate dorm-livers from new towns, but migrants still occasionally utilize parks and public pedestrian spaces on their time off to socialize and congregate.⁸⁷ Another feature of life in a dormitory is 24/7 state surveillance, as all residents are fingerprinted for tracking, with some dorms having over 250 closed-circuit cameras for constant monitoring.⁸⁸ These measures were included as an integral part of both housing and state development, as the monitors ensure that migrants are following state laws, or be quickly deported due to their replaceability. Living conditions in less formal housing, like construction sites, may be less crowded and surveilled, but these settings here are much less safe than even PBDs and feature nearly no amenities.

Singapore’s peripheral migrant housing is meant for specific populations and demographics. Because PBDs and other dorm-like housing options are built by migrant-employers, they house only foreign workers whose time in Singapore is limited. No permanent residents of the nation are subject to the uncomfortable conditions that characterize PBDs. Interestingly, these dorms only house non-Malay temporary workers, as laws have historically allowed Malay transmigrants to rent flats in new towns. This is noteworthy because there are over 800,000 total impermanent workers in Singapore, but as of 2013 over 50% of them originated from Malaysia.⁸⁹ Even amongst non-Malaysians, those from certain professions are allowed to rent flats, further narrowing the groups forced into dorms and other temporary housing situations. Domestic workers, such as maids, can rent whole flats, while those working in manufacturing are allowed to rent individual bedrooms within flats.⁹⁰ Essentially, this

leaves non-Malay construction and shipyard workers to live in PBDs, repurposed factories, and other informal housing spaces. By relegating specific demographic limits to dormitory-type living, Singapore demonstrates the importance of exception in its spatial exclusion of transmigrants.

Comparison/Discussion

When directly compared, the historical context of new towns and foreign worker dorms illuminates the impact of the former on the latter. New towns have a much more extensive history in Singapore than dormitories, having first begun in 1960, versus about 1990. This means that the state has spent more time developing these communities, but it also means that the establishment and early development of new towns was not impacted by the existence of dormitories. The development of worker dorms, on the other hand, is explicitly linked to the existence of new towns due to their shared peripheral location. There is no law stating that migrants have to live in dorms – the laws that force them into these spaces are actually the ones that prohibit their rental of HDB flats, such as the 2006 rule change. For the past 15 years, residents in new towns have consistently fought to push dorms to the margins of the periphery, as demonstrated by the 2008 Serangoon Gardens petition and the Foreign Employees Dormitories Act. Thus, the intertwined history of new towns and foreign worker dorms has resulted in dorms that are further from public spaces and include more amenities to contain transmigrant residents.

Disparate community conditions in Singapore’s periphery can be attributed to parallel political goals of the state. The chief goal of the PAP is to ingrain itself by serving its constituents. By setting up town councils, the PAP reduces the political capabilities of opposition parties while simultaneously convincing new town residents that they are capable of serving constituent needs. This capability is demonstrated by the movement of dormitories away from new towns. Together, these effects help the PAP maintain their one-party rule in Singapore. Even while the state is extremely paternal to new town residents, they still offer cursorily participatory outlets through NRPs. By being the direct provider of housing, the PAP also hopes to politically bind flat residents to the party. Furthermore, no political challenges arise from migrant workers facing poor conditions, as their voice in opposition is essentially quashed. This unresponsive governance of migrants is also attributable to the state’s indirect involvement in dormitories; employers are given land to build and are theoretically regulated by the state, but ultimately, they are tasked with direct control of migrant housing. Admittedly, the government has been at least superficially responsive to PBD quality since the COVID-19 pandemic, but it is fair to assume this is to both calm the spread of the virus and to reduce international pressures.

Economically, the state’s two-tier migrant system contributes to unequal peripheral development. New towns cater to the states’ goal of attracting foreign talent, as they offer reliable and clean housing with numerous amenities to migrants with high-end jobs. This commitment is made clear by the government’s current efforts to redevelop matured new towns, as well as the creation of innovative communities like Tengah,

which are potentially appealing to foreign talent. Similarly, because foreign workers are replaceable and temporary, the state invests less money in their well-being, leading to the observed conditions in dorms. The COVID-19 pandemic has made it clear that the state is insistent on using foreigners for its manual labor positions, as it is planning on developing new PBDs, rather than reducing its intake of temporary migrants on work passes. The state has developed its peripheral communities to attract and retain a talented workforce, whose homes are built by those in a transient, poorly-housed workforce.

Living conditions in these two types of communities are incredibly dissimilar. Housing in new towns is safe, clean, and sanitary, even though there is variation depending on the age of the structures. Meanwhile, dorms are extremely crowded and unhygienic, which has been exemplified by the spread of COVID-19 throughout them. In fact, dorms have a COVID prevalence rate of “16.3% compared with 0.04%” in the general population, who generally reside in new towns. In new towns, markets and recreational facilities are meant to offer convenient areas to residents and ensure they don’t need to travel all the way into the downtown core for shopping or entertainment. Even while dorms may offer some amenities, their purpose is much more restricting than comparable features in new towns. Shopping and sporting facilities are convenient for workers who live in PBDs, but their basic intent is to keep migrants out of new towns due to the aforementioned political pressures to do so.

Throughout researching this topic, another major difference between these communities became clear: the information available about them. Material about the development of Singapore’s new towns was easily found across academic journals and books. The state is also very willing to advertise new towns and their living situations on its websites, often keeping detailed records of their developmental history. On the other hand, state-published information about dormitories is negligible outside of charts showing which types housing are available to each level of work-pass-holder. Almost all information about dormitories was journalistic, with a large uptick in interest appearing during the pandemic. Because of the drastic difference in positive COVID cases between residents of PBDs and other Singaporeans, a renewed interest has been taken in foreign worker dorms. Even academic research into foreign worker dorms concerns the spread of the coronavirus, with nearly none being done on their early development. Peripheral development in Singapore is well-covered for new towns that the state would like to flaunt, but it is scant for dormitories whose conditions are frankly embarrassing for a government that claims to regulate them.

Conclusion

This study of the development of Singapore’s peripheral communities has shown that the state and its motivations have played an active role in deciding communal outcomes. After analyzing the historical and political context, as well as current residential conditions in both new towns and foreign worker dormitories, several trends have become clear. New towns have been consistently developed to ensure politically important residents are adhered to the state. This same desire for political favorability

has driven PBDs and other migrant housing options further into the margins of the periphery. The state’s two-tiered migrancy scheme has also contributed to this polarized peripheral development. In terms of living conditions, these motivations have led to radically contrasting outcomes in favor of new towns – this has become even more obvious throughout the COVID-19 pandemic. This study is useful in contributing to the overall understanding of peripheral urban development, but because of Singapore’s exceptional nature, there is limited applicability for these lessons. Singapore exercises huge amounts of state control, which is rare for such a highly urbanized country. Furthermore, the city’s periphery is much less expansive than that of other urban areas due to its geographic situation.⁹¹ Regardless, the fate of Singapore’s peripheral communities is closely intertwined with the motives of its state. The development of Singapore’s new towns and foreign worker dormitories is unequal in outcome but alike in origin.

THE POWER OF ORNAMENTATION IN SHAPING CULTURAL IDENTITY

Yunni Cho

I am a Dual Degree student, and throughout my time at RISD and Brown, presenting my work and collaborating on a global stage had a profound impact on my perception of art and design as well as its intersection with the field of data science. Working in different cultures and languages, I learned new ways to think, process, and communicate information. I do not underestimate the value of embracing open-minded learning and sharing. This allowed me to develop a strong interest in the history of ornament and pattern, which developed into my five year-long investigation into the power of ornamentation in shaping cultural identity.

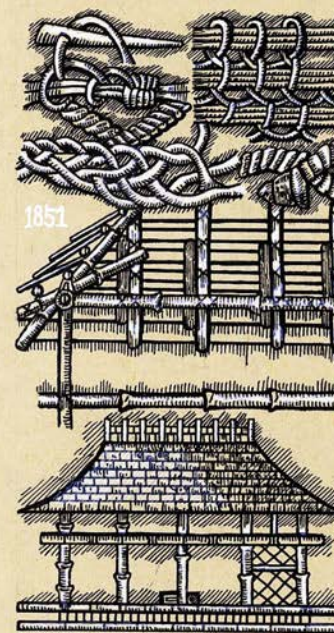
This project is about expanding the logic of ornamentation by asserting that the patterns of city fabric and urban planning can be viewed as ornaments, evoking how the space was, could be, or should be. As the Situationists' mapping practice indicates, I believe that ornament now can exist in the larger urban scale as a symbolic means to indicate the political and functional usage of the space. Through this new way of viewing ornamentation, my project describes mapping as an ornamentation practice, as a language of communication, and as a way of thinking about the non-neutrality of contemporary space.

In a way I wanted my documentation of thought process as well as reading notes to become an ornament in itself. This is why all my research stems from my travel sketchbooks and is composed of entirely handwritten and hand drawn pages without the help from digital technology. I truly believe that this book is a culmination of my experience as a dual degree student, which shows how I think, process, and make things as a designer.

III. NECESSITIES OF ORNAMENTATION IN ARCHITECTURAL PRACTICE

Rediscovery of the potential of ornamentation, model of the classical ideal in the study of architecture, its necessities. Reference to <Four Elements of Architecture> by Gottfried Semper (1851) and <Style in the Technical and Tectonic Arts, Practical Aesthetics> by Gottfried Semper (1860-1862).

FOUR ELEMENTS OF ARCHITECTURE (1851)



1851

Gottfried Semper

Rediscovery and recording of monuments - model of the classical ideal, classical philology (order, symmetry, decorum, proportions), prerequisite for taste

- Definition of beauty based on pure form exclusive of color... elegance should be added through the decoration and embellishment of the essential parts of a building, serving as adornment
- "In all formative arts, the design is what is essential"

Treating color as an attribute that becomes more extensive in each succeeding stage - color associated with periods and places of artistic infancy, provincial decadence

- Color applied broadly to surfaces without the purpose of creating illustration
- Color can be used to create sculptural effects through light and shadow
- Color used to enrich sculpture and unite it with the architecture
- Orders in Greek Architecture (simple yet changing) - colors become a medium through which the building's importance and meaning get articulated (symbolic)

"When I observed this variety of nature in its simplicity, I often thought by myself that it may be possible to reduce the creations of man, and especially the works of architecture, to certain normal and elementary forms, which in a comparing method of contemplating them, analogous to that of Courcier for natural history, will enable us to find out the elementary forms and the principles, of which, all million appearances in art are but as much different modifications. It may be of consequence to search out these fundamental forms of architecture, and to follow them from the simplest to their highest expressions and even to their state of misinformation." - materials and techniques, art and manufacture, meaning of art

- ... "architecture to be defined in its essence as an ornamental activity"
- ... "architecture as cosmic art" - active system, lawful, decorative, rhythmic
- ... "culture demands art of making - science, industry, and arts."
- ... "style gives artistic meaning to an idea" - historical, cultural, technical progress

Practical aesthetics - mimicry of nature (technical and material), true simplicity

- Natural polychromy for embellishment: art of dressing, creation of styles is making denial of reality (spirituality in ornament, conditioned by material)
- "Ambition was the father of Roman Art" - common origin of painting and sculpture is to provide meaning through optical effects (polychromy)
- "Ambiguity of technical expression" - vision of antiquity and fragments
- Color dressing, illusion - color disappearing and changing over time

Architecture: apply its materials according to laws governed by nature - science, industry, and Art (raw materials, machinery, manufacture, and fine art)

Doctrine of style (technical theory - products of industry)

STYLE IN THE TECHNICAL AND TECTONIC ARTS, PRACTICAL AESTHETICS (1860 - 1862)



Investigation into the origin of art: inner laws of artistic forms, organic life of their becoming, the process of their symbolic development, their significance for contemporary practice (defense of color, polychrome views ... Genesis of style in its technicalities)

- architectural textbook, a comparative study of building types "theory of buildings" (use, climate, cultural and social context, predominant materials ... more general work of aesthetics (conceptual evolution) based on forms of nature)
- Four building motifs with four artistic techniques = matrix: heath making with ceramics, mounding with the development of masonry, roof making with scaffolding/carpentry, walling with textiles (original spatial dividers)

Conceptual scheme: a practical aesthetics/empirical theory of art ... not an abstract theory of beauty but a concrete theory on style (an examination of the material, technical, and ideal preconditions of style): "style" defined as giving emphasis and artistic significance to the basic theme and to all intrinsic and extrinsic coefficients that modify the embodiment of the theme in a work of art (modification from local and personal influences, climate, topography, politics, religion)

- not an abstract theory of beauty but a concrete theory of style, an examination of the material, technical, ideal preconditions of style ... within the idealist bounds of late German romanticism ... antisemitic interpretation of architectural form, possibility of a collective psychology of art (significantly affected later developments - archaeology)
- Mind's objectification: architecture as an animate system of load and support in conflict (art-form to express symbolically the mechanical functions of this structural dynamic) ... visible pure form ... poetry of space, soul of building
- Interior structural system: material (ground floor), cultural-historical (main floor), ideal (roof-statuary) zones, pictorial and sculptural themes of the facade depicts this evolutionary chronology ... art thus emerges out of the material and formative influences of certain technical arts and achieves its cultural and historical unfolding in the main story ... the metaphorical conception of a building as a vital organism (spatial art)
- principles both from aesthetic - in that they related to the formal articulation, detailing, and composition of parts - and symbolic, in that signs or emblems developed in the language of ceramics were equally appropriate to architecture
- the law of nature dominates over mathematical formula ... form-making and letting tensions dominate
- the dressing as a physical masking of the material beneath the pain but also a symbolic or allegorical masking of the work's thematic content (theatrical vision of monumental architecture - a place to view, to behold)

Response to Darwin's theory of evolution and the survival of the fittest ... artistic freedom and the autonomy of the artist ... "whenever such an idea would really take the lead, one or the other of our young colleagues will prove himself capable of endowing it with a suitable architectural dress. Until that time comes, however, we must reinvent ourselves to make do as best as we can with the old" ... preconditions of form = idea, force, material, and the means ourselves

- "art is infinite, but anyone who heeds the symbols will understand everything, though not entirely."
- Task is to explore within individual cases the regularity and order that become apparent in artistic phenomena during the creative process of becoming and to deduce from that the general principles, the fundamentals of an empirical theory of art ... Beauty as the combination of individual forms to achieve an overall effect that pleases and satisfies our aesthetic sense, beauty as unity, a product or result (collective nature of harmony, rhythm, proportion, and symmetry in accordance with the laws of nature)
- Technology of the arts, science of art = the materialists, historians, schematists/purists ... multiplicity of form arranged threshold into a unity; three necessary conditions of beauty then emerge (symmetry, proportionality, and direction, whether it is omnidirectional or nondirectional ... unity of movement)
- Nature has its own evolutionary history, within which old motifs are discernible in every new form. In just the same way, art is based on a few standards (forms/types) that derive from the most ancient traditions; they appear constantly yet offer infinite variety, and like nature's types, they have their own history conditioned by relations



The cover: closed, protected, enclosed, enveloped, covered (symmetry) unified, as a collective (whereas everything bound reveals itself as articulated, plurality)

- top and bottom, right and left, general-formal factors
- horizontal spatial termination above = relation of ceiling to floor and walls, direction of themes represented on ceilings, on surface configuration, floor dressings, the coloring of floors, different methods of combining colors, direction of ornamental motifs

The seam: structural and artistic significance of the seam invented to join pieces of a homogeneous nature (surfaces into a whole)

The band: joins parts that do not belong to it, connects them as it frames them - related to religion and usual customs (contrasting direction to seam)

The hem: a mean between the seam and band

Style as dependent on raw materials: simple natural products used in a completely neutral/natural state/after being treated with a technical process that does not fundamentally change the structural and formal properties of the material

- the product should be visibly consistent with the material
- Flax and related plant materials, cotton, wool, silk
- style as conditioned by the treatment of materials: straps, spun yarn, twisted yarn (braid, rope), the knot (netting), the knit (knitting), the plate (board, press, seam, canework, mat), felt, the weave (turning, weaving, garment, wall), the stitch/embroidery (flat stitch, cross stitch), dyeing, printing
- How style in the dressing of different people became specialized and transformed over the course of cultural history: style in clothing, the principle of dressing has greatly influenced style in architecture and all other arts at all times and among all people (making reality in the arts based on the concept of space)

Volume 1 - Textile art (in itself and in relation to architecture)

Every technical produce is a result of purpose and material

- the work as a result of the material service or use that is intended, whether actual or only presumed, and taken in a higher-symbolic sense; the work as a result of the material used to produce it, as well as of the tools and procedures applied

Four categories of raw materials:

- (1) Pliable, tough, highly resistant to tearing, of great absolute strength (eg. tensile materials)
- (2) Soft, malleable (plastic), capable of being hardened, easily shaped and formed, and retaining a given form when hardened (eg. liquid glass - hardened glass)
- (3) Stick-shaped, elastic, principally of relative strength, that is, resistant to forces working vertically along the length (steel, wood, metal)
- (4) Strong, densely aggregated, resistant to crushing and compression, thus of significant reactive strength. It is thus suited to being worked into any required form by removing parts of the mass or by inserting regular pieces in strong systems, constructed on principles of reactive strength (structural material)

Four classes: textile, ceramics, technicals, stereotomy (masonry)

- interrelations inherent to these processes - structural and stylistic (dressing) combinations, composite processes, tech.

Textile as the primeval art from which all other arts, including ceramics - borrowed their types and symbols (borrowed directly from nature) → objective is to string and bind, to cover, to protect, to enclose ... learned to recognize the essence / purpose of natural covers / began to use them for their own ends. (linear and planimetric forms)



Volume 2 - Ceramics, Tectonics, Stereotomy, Metallurgy in rel.
 Potter's clay as the material basis / primeval material = giving form and shape to a plastic soft paste and then fixing it by hardening (for figurative presentation) + "pottery" = functional and industrial making of pots, practical material purpose
 → ceramics: objects stylistically treated to the art of vessel making thanks to their material and treatment, not defined by the purpose for which they were formed
 Art of making vessels, including vessels made of other materials as metal, wood, ivory, glass, and stone ... direct influence to architecture (directly: construction, ornamental outfitting to monuments, indirectly: principles of beauty and style, even complete forms, that had been established in pre-architectural times by ceramic works and fine-art potters taken up by arch.)
 → earliest / most general application: safety / satisfy needs (eating, drinking, washing) and acquired religious / symbolic meanings
 → Symbols of faith and objects of high art: eg. funeral rites (remains of the dead interred in earthenware cinerary urns, vessels placed in tombs as pledges of a continuing cult of the dead, as favorite possessions of the deceased, as mementos of important moments of his life)
 → First signs of higher culture = reasoning - except for its brittleness, fired clay is the least perishable of materials (why often associated for the history of art and humanity)
 history of style - interrelation b/w the sediments of the Earth's crust and the history of pottery
 → Influenced by forms of nature = cucurbits, eggs
 conditioned by the purpose = its intended (usage): vessels for containing (reservoir), scooping, filling (funnel), and pouring



Fundamental design motives = the base support (stand), the grip (handle), the lid / plug ... each part has its own role in which its design depends on either material or symbolically (differences create classes)
 (1) The container (reservoir) = amphora, urns, kraters, the bowl / tub
 (2) Scooping vessels: the spoon (most original and characteristic), the funnel (combined with portable reservoir)
 (3) pouring vessels: in specific directions and quantities = lamps, saucers, pitcher, flask, drinking vessels
 Ceramics to tectonics (carpentry): material - technical, general character and form, decoration, and historic style
 → Hellenic, polychrome Hellenic, Roman, Southern Italic, the middle ages and recent times, fine faience, and earthenware
 → The formal language of tectonics was fixed before its use in monumental architecture (the art of assembling stiff, plank-like elements into a rigid system (framing) and furnishing, assemblage, and formation)
 The main purposes of tectonics = the frame (with the corresponding filling), the lattice (a complicated frame), the supports, the structure (an integration of the supports with the frame)
 → materials = plank construction in wood and metal, hollow and lattice construction in wood and metal, stone carpentry
 Stereotomy (stone construction) = a monumental technique with the greatest possible guarantee of durability as it offers a means for the creation of large works, especially large and spacious buildings = the hearth and stone masonry
 → compressive strength, cohesion: relative strength or resistance to vertical forces directed at a right angle to the longitudinal axis of the structural elements
 → the law of eurhythmia = structural parts and elements considered in themselves, in the relation of these parts to one another and to the whole, and in the principles of their bonding, and in the general shape of the foundation
 Metallurgy: metal as a durable material and as a ductile material ... weapons - importance for maintaining / disseminating correct principles of design and decoration

VIII. MAPPING AS A WAY OF THINKING

Maps and culture as instruments of power - maps as a language of communication, providing altered perception, logics, and mnemonics. Reference to <Toward a Cultural History of Cartography> by Christian Jacob (1996), <The Agency of Mapping> by James Corner (1999), <Mapping Meaning> by Denis Cosgrove (1999), <An Introduction to Critical Cartography> by Jeremy W. Crampton and John Krygiel (2005), <Carto Credo> by Denis Cosgrove (2006), <MapQuest> by Walsh (2005), <Thinking about Maps: Rethinking Maps> by Martin Dodge, Chris Perkins, and Rob Kitchin (2009), and <Cartographic Grounds> by Desimiani and Waltheim (2016).

I. TOWARD A CULTURAL HISTORY OF CARTOGRAPHY (1996)

"Transparent maps" carry images of the external reality of the world. They are archival devices for objective knowledge and reality and vanish behind the information displayed. In contrast, "opaque maps" filter and translate reality through a hierarchical and taxonomic organization of the data. Opaque maps incorporate political, or even commercial perspectives in their display.
 "Sociology of the map" = map makers, institutions, and the public which constitutes as social artifacts. Together, provides purpose of the maps as common displays of geographical or topographical data, giving orientation and distances, providing a view of territory with a natural and objective appearance. Through different forms and contextual approach, maps provide complex interactions between readers and map-makers. Therefore, a map is a cultural way of looking that has its own unique visual culture like codes that are either geometric, chromatic, figurative, or aesthetic.



TIERRA... TIERRA... EN PRENTE DE MAR... COMO CRISTOPOL... LAS PLUMAS DE LAS... LAS SEDAS DE LAS... LAS PALMIERAS... LUCCES digno que se eriguen como monumentos de los Annos de guerra y de gloria... conquistador
 EI Adriático azul de tu cálido mar lleno de luz... an example of a opaque map

A map is a view or a model of geographical, cosmographical, metaphorical, conceptual, physical, and ontological space. It suggests or imposes an empirical or abstract positioning of the viewer. As an abstraction of a human mind and knowledge, map involves viewers' own space, identity, and reality. Through ways of using, archiving, and exhibiting them, maps provide layers of significance in context to meaning.
 Mapping is a way of reasoning. It is a cognitive tool for making statements about the world's nature. As a dialectic device, map conveys shared collective values and contextualizes culture and memory. Through its power to visualize the society's hierarchical organization, map can be used with socio-political intent to construct territory, cultural ideology, and social fitting. Thus, mapping is a part of Semantics of art.

II. THE AGENCY OF MAPPING (1999)



"Speculation, critique, and invention" - Mapping is a fantastic cultural object that creates and builds the world. It is instrumental in the constructing and constraining of lived space. Maps have a hidden potential as a collective enabling enterprise. It is not a mere tracing but a performative practice. Map reshapes the world in which people live by constructing the unconscious, projecting the power of knowledge.

Once maps actualize their potential, mapping becomes a natural process. Within the abstraction in the process of selection, omission, isolation, distancing, and codification, maps unfold future. Mapping devices, such as framing, scale, orientation, projection, indexing, and naming, shows only one version of the Earth's surface. In this way, a map becomes a strategic fiction constructed from factual observation.

"Every map is someone's way of getting you to think at the world his or her way." Maps are qualitative and dialogic with the usage of spatial and statistical data. Maps are rationally developed and evaluated. However, by definition, maps are invention and a fictive. Acts of mapping are creative processes; maps are active agents of cultural invention. Map discloses and then stages the conditions for the emergence of new realities. To sustain meaning and veracity, maps by necessity are abstract representation of reality. Through layering, maps superimpose, hybridize, and merge different forms of reality to create complex surfaces. Through extraction, maps evolve into future forms out of specific and unique local histories.

New sets of possibilities for maps include: plan (narratives of architecture), game board structures, rhizome (multiple inclusive syntheses), and diastase (mapping as a spatio-temporal practice).

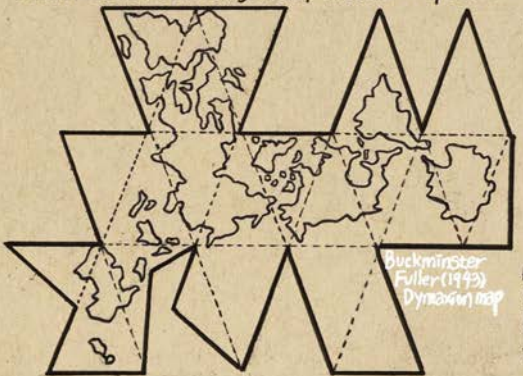
Joaquin Torres Garcia America Invertida (1943)

III. MAPPING MEANING (1999)

Imaginative scope and projective power of mapping - importance is given towards acts of mapping (processes) rather than maps as finished objects. Measuring the world through visualization, recording, representation, and graphical creations. (A graphic register of correspondence between two spaces whose explicit outcome is a space of representation.)

The information is communicated between people, places, and times - "remembered, imagined, and contemplated." A map is a spatial embodiment of knowledge that is familiar and naturalized, but never natural. "Material vs. immaterial, actual vs. desired, whole vs. part, experienced vs. remembered vs. projected." Through complexities and uncertainties, map signifies process across historical time and develops visual architecture. (e.g. contemporary revisiting and rethinking of maps)

Experience and meaning of space - classification, order, control, and purification. Maps act as tool, providing context and content by taking authority of the knowledge. "Connectivity, network linkage, marginality, liminality, transgression of linear boundaries, hermetic categories, spatial flow or representation."



Le Corbusier Maps and sections of South America (1930)

Information Technology - Satellites: Mapping has become an installation art. It is an imaginative art with determined cultural outcome and element of material culture.

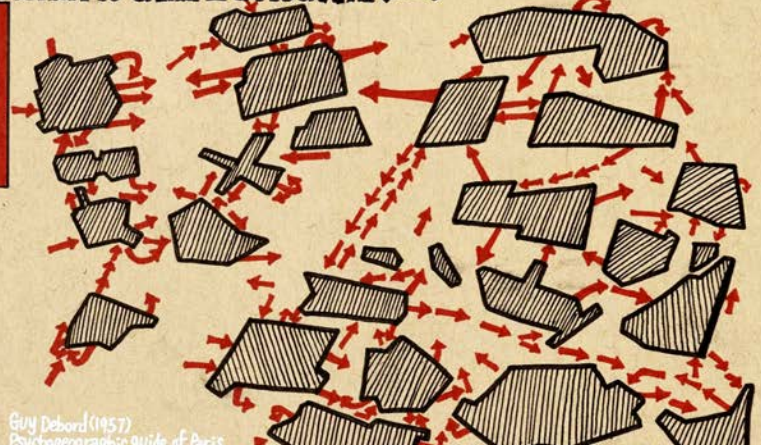
- (1) Scale: enlarging and reducing forms and significance (select and manipulate) patterns and harmonies get revealed
- (2) Framing: Separates inside and outside and produces and organizes unity and clarity (symbolized territorialization)
- (3) Records: Field observations, notes, sketches, territorial surveys, statistical collections, imaginative doodles, contemplative icons, reworking

Modern consciousness: locality and blurred sense of territory. Seeing and knowing through creative probing (imaginative projection of a surface through revision and updating - 2D staging of actuality and desire, mass culture, and citizenship)

IV. AN INTRODUCTION TO CRITICAL CARTOGRAPHY (2005)



par G. DEBORD DISCOURS SUR LES PAYSANDES L'AMOR points psychogéographiques de la ville et les sections d'unités d'habitation



Guy Debord (1957) Psychogeographic guide of Paris

Mapping is political as it links geographical knowledge with power, and it is becoming increasingly prevalent and vital. "Cartography undisciplined" - slipping from the control of the powerful elites that have exercised dominance over cartography for several hundred years. The ability to make a map, even a stunning interactive 3D map, is now available to anyone with a home software and an internet connection. (technological transition - GIS, geotagging, mobile mapping applications, open source collaborative tools) Putting maps into more people's hands freed from the confines of the academics.

"Politics of truth" - alternatives to the categories of knowledge, both explicit and implicit forms of critique. Not to say knowledge is not true but that the truth of knowledge is established under conditions that have a lot to do with power. (Power is not a negative force that must be dispelled - it is a more subtle diffuse horizontally in a highly differentiated and fragmented fashion) Provides a false consciousness of ideology.

"Critique" - an investigation which involves laying out and describing precisely the claims being made, and then evaluating such claims in terms of their original meanings (challenging authority), dispels harmful and illusory ideologies by providing an emancipatory philosophy that challenges existing power structures. Critique is not a question of accumulating a body of knowledge but is rather an attitude, an ethos, a philosophical life in which the critique of what we are is at one and the same time the historical analysis of the limits that are imposed upon us and an experiment with the possibility of going beyond them.

"Critical mapping practices" - theoretical cartography: changing structure of map production and labor. Mapping is an active construction of knowledge that represents and makes reality simultaneously. Maps become powerful means of social change by producing space, geography, place, territory, and political identities who inhabit and make up these spaces.

- (1) 1950s and 1960s: Psychogeographers, Situationists, Surrealists - subverting cartography as a project of political resistance. (1967 - The Society of Spectacle by Guy Debord), map as a locative, performative act, awakening perceptual responses not necessarily beauty and control, discomfort with technology (geospatial technology with photorealistic detail), which abstractify concrete reality designed and motivated by practical concerns. Open-source maps "people's cartography" "map hacking"
- (2) Postwar: Sensibility of internal empiricism (critique on social relevance), academic expertise and control, discomfort with technology (geospatial technology with photorealistic detail), which abstractify concrete reality designed and motivated by practical concerns. Open-source maps "people's cartography" "map hacking"
- (3) AAG (Association of American Geographers): established in 1904, formalized and structured knowledge served as a reason for government and management (control, interference). "Mapping efforts were political without explicitly articulating politics."
- (4) Mapping possibilities: geovisualization expanded the emphasis on the delivery of information to also encompass its exploration (data-mining, pattern seeking, counter-mapping, participatory GIS). Everyday mappings - performative, ludic, indigenous, affective, experimental, narrative

"Map artists" - rich and varied appropriation of mapping, achievement of goals other than the social reproduction of the status quo, maps can reject authority claimed by normative maps uniquely to portray the reality as it is with dispersion and objectivity, open source capabilities provide alternative of space mapping not represented by official state agencies.

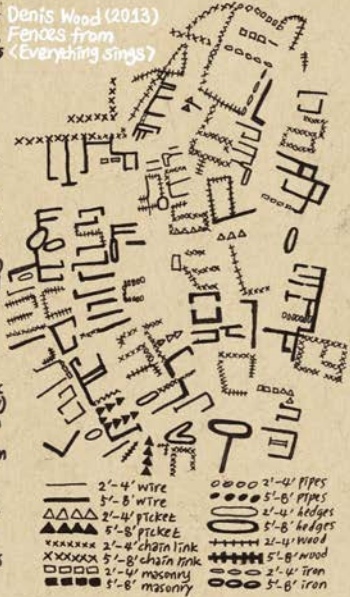
"Ethics of experimentation" - challenge received notions of space, knowledge, and power; represent particular territory in a specific way to reach unforeseen destinations. (illuminate the role of space in people's lives)

V. MAPQUEST (2005), CARTOCITY (2006)

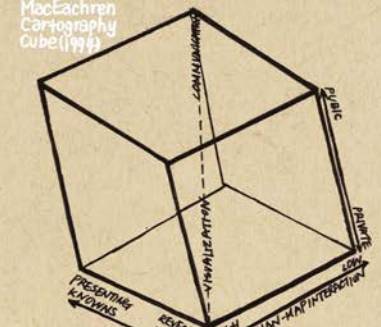
Urban space and cartographic space are inseparable. "Never-innocent guides, city maps have always shaped the experience of urban life, serving both as scientific instruments and aesthetic representation of the city." Cartography is a creative intervention in urban space: mapping the stratigraphy of material deposits stretched across former urban space. (Dimension of urban life and form)

Urban archaeology reconstructs urban places through peeling back successive surfaces, revealing social, political, commercial, and religious city life. Map precedes the physical presence of the city or serves to regulate and coordinate its continued existence by recording and determining countless aspects of urban life and citizenship (maps of disease, morbidity, social or ethnic status). Map becomes the territory. (zoning ordinances, zip codes, myriad territorial regulations that shape urban daily life—shape physical spaces and land use) "Repetitive grid of major streets, curvilinear geometry of residential roads and house lots, rectangularity of office, production, storage or retail distribution spaces" (Problem of legibility in the constant and repetitive/competitive presence)

Urban legibility—standard set of geometrical rules and surveying principles, immediately legible as a coherent community (UNITY, CIVIC ORDER, SYNTHETIC RATHER THAN ANALYTIC, WORKING DIAGRAM OF MODERNITY)
 (1) Radial axts and the grid: practical and symbolic efficacy through surface equalizing, privileges no single point by reducing each to a unique coordinate, generates the simplest and most ubiquitous form of urban plan and location fixing device. (urban democracy)
 (2) MapQuest: instant digital image at any scale using standard colors and cartographic signs (a continuously coded space with the same format), control purposes (instrument of urban policy)
 (3) New Legibility: "City as performative art"—Legibility from the contemporary city not as a means of reworking its material spaces but as a way of enhancing the experience of everyday urban life.



VI. RETHINKING MAPS (2009)



"Rhetorical power"—algorithmic efficacy, visualization technology, human interaction (production and consumption), Maps as a social construction that actively creates knowledge and seeks to communicate power, subjugation, oppression, control, inequality, economic relations, legal evidence, governance (social practice)

"Critical cartography"—no right way of representation, post-representational cartography (ontic knowledge, foundational ontology), methods of questioning, searching for alternatives. A certain horizon of possibilities, contextualization and propositions (unified spatial ontology, passing information onto a map). Ethnography emerges from the context—the action of unfolding: ontology to ontogenesis is embedded, dynamic process with epistemological challenges.

"Cartography cube"—mind/body relations, structure-agency, empirical-theoretical, process-form, absolute-relative, text-context, production-consumption, nomothetic-ideographic, representation-practice, static-belonging, immutable-fluid, functional-symbolic, map-territory, essence-immanence, ideologial-material

"Dimensions" across which map theory is constituted: "Art as science" theorization (cognitive science), laying the foundations through scientific information to know the world, "Tool Box" concept—exploratory data analysis for communication

New Frontiers in cartography through rhetorical power. Dynamic and living entity, celebratory and regulatory urban maps.

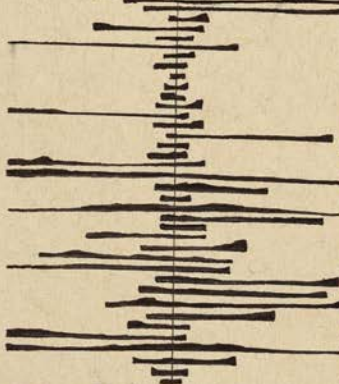
MIND	BODY	STRUCTURE	AGENCY
EMPIRICAL	THEORETICAL	PROCESS	FORM
ABSOLUTE	RELATIVE	PRODUCTION	CONSUMPTION
NOMOTHETIC	IDEOGRAPHIC	REPRESENTATION	PRACTICE
IDEOLOGICAL	MATERIAL	FUNCTIONAL	SYMBOLIC
SUBJECTIVE	OBJECTIVE	IMMUTABLE	FLUID
ESSENCE	IMMINENCE	TEXT	CONTEXT
STATIC	BECOMING	MAP	TERRITORY

RULES FOR KNOWING THE WORLD = BINARY OPPOSITE



VII. CARTOGRAPHIC GROUNDS (2016)

Vogt landscape architects (2007) Shape of a walk



"Projecting the landscape imaginary"—The drawing of a parallel between cartography and architecture is intrusive. Each lies in the field of the practical arts, each is older than history and each, since its beginnings, has been more or less under the control of its consumers."

"Grounding is necessary"—the conceptual framework and representation surrounding the spatial representation must match the intricacy and deliberation of the systemic thinking (greater dedication to the means of drawing as well as a return to visual perception, legibility, and the veracity of the work)

"Advanced systems or projections and symbolization"—speculation, drawing in planar projection at the scale of the map. "Topographic map"—a flattened representation coded with information (lines, colors, textures, and conventional design—constructed depiction) Information is compressed, edited, filtered, and codified to promote legibility—requires legend for reading, which provides explanation and amplification of the symbols and conventions used. The choice of symbolic language defines the character of the representation, bringing subjective character to the drawing and landscape and translating projective potential through a notational systems that ground data.

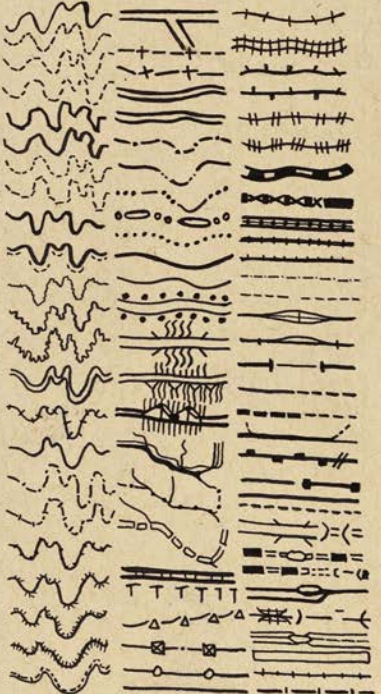
"Notes on scale"—Set the tone, precise quantification and qualification of the landscape through scale, providing relations

"Different forms of mapping"

- (1) Plan-generator to envision and make space, tool to project, speculate, imagine, and propose what is possible (temporal and dynamic), abstraction that favors geographic and geometric coherence but can be embedded with human perception / experience.
- (2) Diagram—autonomy at the cost of detail, a way to express and capture ideas, defined by visual accessibility, not restricted by convention, free from typological or representational bounds
- (3) Aerial image—modern tool of instrumentality, surveillance, and control, express hidden relationships between cultural and environmental processes while establishing new frames for future projects, set the range of visible spectrum, framed view

"Different tools for mapping" "Conventional signs"

- (1) Sounding, spot elevation—triangulation, print clouds, coordinates
- (2) Iso bath, contour—line joining points of equal vertical distance above or below datum (horizontal slice, abstraction of altitude)
- (3) Hachure, Hatch—surveying tool to indicate texture, shadow, relief
- (4) Shaded Relief—a continuous tone that represents changes in elevation and landform by simulating a cast shadow thrown upon a raised relief map or model (complete picture of landscape)
- (5) Land classification—the taxonomic model of describing the spatial distribution of vegetation and occupation of the land (alludes to colonialization, commodification, cultural control)
- (6) Figure-ground—classification, hierarchy, differentiation, binary division, gradations and nuance (tradeoff between wealth of information and clarity of intention)
- (7) Stratification—a simplified columnar diagram relating to a succession of named lithostratigraphic units from a particular area to the subdivisions of geologic time (time implied)
- (8) Cross-section—two orthographic views into one image, merge structural, temporal, material qualities below and above ground, describe internal organization
- (9) Line symbol—any elongated continuous mark / discontinuous series of marks as a line of dots on a map that serves as a sign for some geographical phenomenon or a concept, relational element to indicate routes for navigation, transit, and travel, variance in its thickness, continuity, layers
- (10) Pictographic, ideographic, iconic, figurative, indexical, legibility depends in graphic integrity (translation)



Jill Desimini (2019) Line Typologies Figure 9-1

ARCHITECTURAL TRANSITION AND HISTORICAL REVISIONISM IN INTERWAR BERLIN

Patrick Nasta

Throughout its long and turbulent history, Germany has experienced a diverse series of architectural styles, from Classicism to Gothic to Postmodern and beyond. Located in the center of Europe, Germany combined stylistic influences from every other major power going back to the Middle Ages. Ancient Roman and Romanesque vernacular architecture built the foundation for diverse cities up to the 13th century, detailed ornamentation decorated soaring Gothic cathedrals in the 17th century, French Rococo took hold in the 18th century, and Italian Neoclassicism began to dominate German design with the dawn of 19th-century imperialism.¹ In 1870, Prussian military dominance and Otto von Bismarck's successful German unification led to the near 50-year reign of the Wilhelmine emperors. Imperial Germany was a booming industrial country with vast military and economic power, but it lacked something that every other European superpower had: an imperial capital.²

The Kaiser set out to create a city that could rival the power and cultural sophistication of London or Paris, and he did so through architecture. Tearing down the remnants of its divided and weak history, Kaiser Wilhelm used a Neo-baroque architectural style to build Berlin into a capital city of beautiful monuments, classical fountains, and huge statues that would convey the technological advancements and imperial power to their European competitors. Turn of the century Berlin, as the capital of the German Empire, was a city built from a clean slate in order to directly challenge the hegemony of the English and French.³ By using architecture as a political weapon, the Kaiser rewrote the history of Berlin and unknowingly set a dangerous precedent that would haunt Germany for the next century. Whether it was Wilhelmine Gothic, Weimar Modernism, or Nazi Classicism, architecture has been used by countless German governments as a tool to legitimize their ideologies. Throughout the interwar period from 1919-1939, architecture was used as a political weapon to change the past and craft Berlin's identity in a new image, often with divisive effects on the national unity of the German people.

With Berlin heavily industrialized in preparation for World War I, the stage was set for the fall of the imperial monarchy and the rise of the democratic republic. Before the war, Germany was quickly surpassing the industrial capabilities of other European countries, including the mighty British Empire. The German Werkbund, championed by Hermann Muthesius and Peter Behrens, strove to develop the most aesthetically pleasing, yet industrially efficient, machine-produced goods. However, all of these technological advancements and industrial capabilities were transitioned with the outbreak of the war, as Kaiser Wilhelm II initiated the complete militarization of Germany and her people. In 1916, the Hindenburg program called for church bells and metal roofs to be melted down into artillery shells, and machine guns.⁴ In the most literal sense, the architecture of Berlin was being repurposed in order to contribute to

the Kaiser's imperialist ideology and war. Wilhelm II built the city into a true classical imperial capital, but the shortage of materials, labor, and credit caused by World War I put an end to any hope of retaining that prosperity. Not only did the severe economic situation and housing shortage set the stage for the rise of the Weimar Republic, but it also prepared Berlin for its first major architectural transition of the interwar period.⁵ The war exposed the corruption, class divisions, and urban conditions that lurked underneath the gleaming imperial facade (Fig. 1). As the fighting in Europe came trickling to a halt, the tensions inside Germany were just beginning to bubble to the surface.

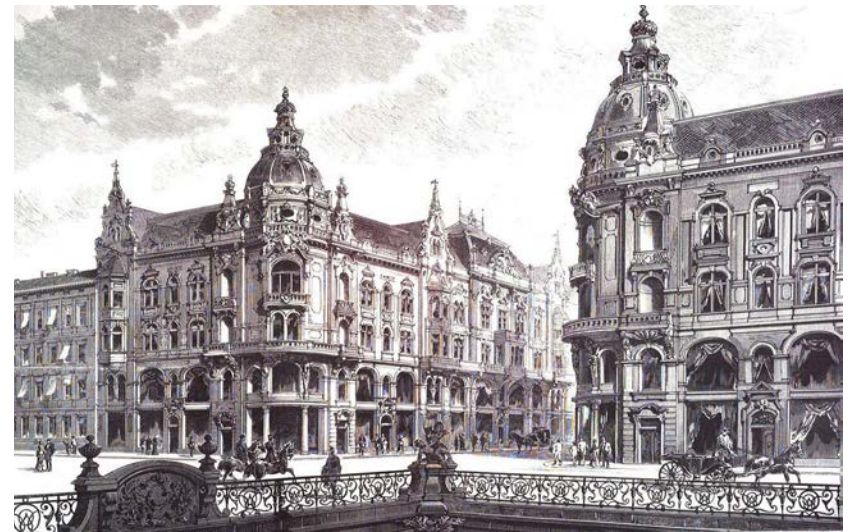


Figure 1. *Wilhelmine Neo-Baroque Architecture*, Berlin, Germany, 1890

From November 1918 to August 1919, German Revolutionaries fought on the streets of Berlin, using architecture to support their political ideologies and gain control over the government. Importantly, the revolutionary period wasn't just Weimar parliamentarians fighting against Wilhelmine royalists. On November 9th, Karl Liebknecht declared the formation of the Free Socialist Republic from the balcony of the Berlin Stadtschloss, just two hours after Phillip Scheidemann proclaimed the establishment of the German Republic from a balcony of the Reichstag (Fig. 2). At this point, regardless of the political party, it is clear that both sides were using vestiges of the old empire to legitimize and give power to their new governments. Nonetheless, the parliamentarians controlled the military, and on January 13th, 1919 Liebknecht and his partner Rosa Luxemburg were captured, tortured at one of the finest upper-class hotels in Berlin, unceremoniously executed, and discarded with no identification.⁶ Today, the revolutionary leaders of the socialist uprising are commemorated in numerous places around the city, but these memorials were added under a much friendlier government; when the Weimar Republic took power after the overthrow of the monarchy, they would use the architecture of Berlin to support their revolutionary movement.



Figure 2. *Liebknecht Balcony, Berlin Stadtschloss, Berlin, Germany, Schlüter & Schinkel, 1845.*

Following the flight of the Kaiser, the Weimar Republic began its reign with an attempt to bury and forget any remnants of their imperial past. In the first four years since its inception, this was made extremely difficult by the absolutely devastating effects of the Versailles Treaty and World War I reparation payments on their economy. However, in 1924 financial aid from the Americans allowed Berlin to regain its status as an industrial world capital and gave the Republic the resources it needed to begin its architectural transition.⁷ The policies of the empire that caused the war combined with the economic disaster that followed it led to the complete rejection of all Wilhelmine imperial architecture, including the Reichstag, churches, and other visible symbols of the old power structure. This provided a clean slate for the new architects of postwar Berlin to work with. In 1927, a Baedeker travel guide remarked that, “the overall image of Berlin is that of a young world city filled with an ardor for work... [that] lacks the attractions of the organically developed, artistic cityscape characteristic of older big cities.”⁸ The government needed to tear down the old and usher in the new values and goals of the modern, democratic city they were trying to make. Berlin may not have had the history or the culture or the beauty of the other European capitals, but the Weimar Republic was determined to make it the most efficient, industrial, and modern capital. The transition from the traditional to the modern under the Weimar government was an attempted form of historical erasure that employed a new and innovative architectural style to convey the egalitarian ideologies that the Republic wanted their city and people to represent.

The implementation of Weimar Modernism in Berlin not only sought to bury the Germany of the past but also tried to find a new national identity that the German people could accept and move forward with. As Bruno Taut stated in 1929, “it was not possible for anyone to make use of any pre-war traditions, for that period was perceived as the cause of the misfortunes of the past.”⁹ The Wilhelmine period would be forever shadowed by the tragedies of World War I, leaving Weimar architects to define modernism in their own terms and reshape the identity of Berlin. Historian

Barbara Miller Lane asserts that “the distinction between the new architecture and other buildings was . . . most clearly apparent in dwelling design,” but the question of housing served only to divide modern architects.¹⁰ For example, functionalist Hugo Häring believed that a house should be designed with every detail of the actual living process in mind, while the objectivist Mies van der Rohe declared, “just build a large enough shed and let them do inside what they want to!”¹¹ Ultimately, while Weimar modernism exploded across Berlin, traditionalists protested the betrayal of German national identity. The architecture embodied the democratic ideology of a republic, but it failed to generate unity and national pride (Fig. 3). However, when using architecture as a political and ideological tool like the Republic did, there can be no reluctance to abandon the past. Berlin moved forward with the full transition into the modern world, and those clinging to the debris of the old empire were left behind.



Figure 3. *Weimar Modern Architecture, Essen, Germany, Walter Peterhans, 1930.*

The most definitive feature of Weimar’s transition from traditional to modern architecture was the city-wide removal of ornamentation from Berlin’s buildings. Weimar Modernism is characterized by an adherence to structure and function: no frills, no material deception, and no unnecessary elements. In interwar Berlin, the philosophical analyses of architecture presented by the champions of modernism—Gropius, Mies van der Rohe, Le Corbusier—did not capture the true essence or purpose of the movement. World War I made it perfectly clear to the people of Berlin that ornamentation was a left-over from a bygone era in which the poor were brutally oppressed and the ideas of social equality were non-existent. Adolf Behne described the abandonment of imperial architecture best with three words: “no more facade.”¹² The ‘20s and ‘30s saw the widespread rise of *Entstuckung*, or the deliberate removal of ornamental stucco, figures, and symbols from buildings all over Berlin (Fig. 4). Ornament wasn’t just seen as dishonest, but as a veil covering up the suffering that occurred amongst the lower classes each day.¹³ For the Weimar Republic, removing imperial ornament was



Figure 4. *Stucco Facades, Example of Weimar Entstickung, Prenzlauer Berg, Germany, 2009.*

an extraordinarily noticeable commitment to honesty, social equality, and democracy. Furthermore, ornament was by no means industrially or economically efficient, and thus went against all the foundational principles of a modern Berlin.¹⁴ New-found architectural purity was complemented by the arrival of new building materials like glass and steel; Berlin was being cleansed and the Wilhelmine period was fading into the background. In 1929, the satirical journal *Der Querschnitt* wrote, “these flat surfaces [facades] don’t spare and cover anything up anymore, they are . . . a truth-bound affirmation of a soberly thinking and calculating people, without any pale ideals.”¹⁵ The Republic’s facadism didn’t just change the face of Berlin, it began to change the identity of the people as a whole and give them a sense of separation from the trauma of the past (Fig. 5).

Just like the buildings, peoples’ attitudes, habits, and lifestyles changed to become more modern, presenting only function, purity, and efficiency... no more, no less. The Weimar Republic used the modern removal of ornamentation as a political tool to spread their social ideas. However, Aldo Rossi argued that “a city must be studied and valued as something constructed over time... [believing] that architecture and its history create a soul for a city.”¹⁶ This facadism not only erased the history of Berlin before the war but ultimately destroyed the collective memory and identity of the city. It is true the government did so to forget the past and achieve pure, efficient modernity, but it is impossible to move forward without acknowledging the past. The Weimar Republic intentionally erased any signs of Wilhelmine architecture in order to rewrite the history of Berlin, reshape the identity of the German people, and enforce modernism in the country as a whole.

The most prominent way in which the government used architecture to erase the past and promote their modern ideals was through city-wide housing development. In the pre-Weimar industrial city of Berlin, working conditions and ineffectual urban plan-

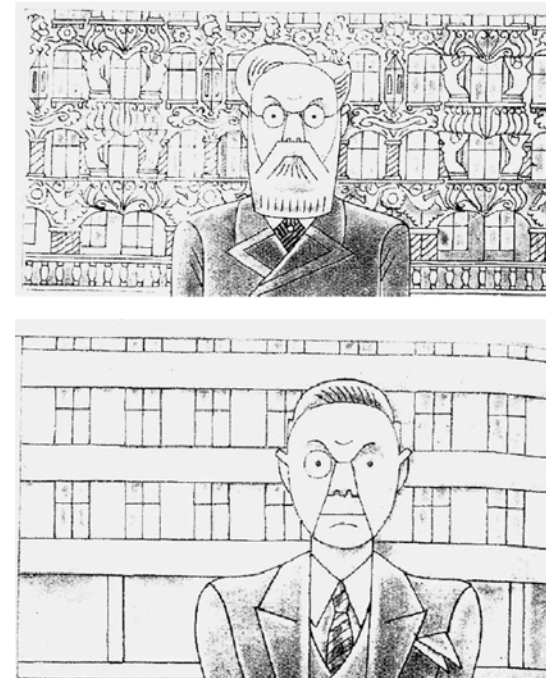


Figure 5. “*Modernization: The House-Owner Gieselmann Before and After the Renovation of his Façade,*” Berlin, Germany, H. Abeking, 1929.

ning resulted in the *Mietskaserne*: mass housing blocks where poor laborers lived in squalor. With the fall of the monarchy, these rental barracks were an unacceptable reminder of the connections between industrialized housing and the unjust class structure that dominated the Wilhelmine period.¹⁷ On the other hand, upper-class housing that survived through the revolutionary period proudly displayed the Neo-Baroque imperial style, provoking the link between modernist housing developments and class equality under the Weimar regime. The Republic rose to power on a promise of social reforms, but as Adolf Rading said, “the visible form must change as soon as the invisible processes are changing.”¹⁸ Ushering in a new age of class equality meant a complete overhaul of Berlin’s housing and the destruction of the divided upper- and lower-class housing districts left over from before the war. However, the government found themselves caught trying to balance their capitalistic need for industrial labor and their socialist promise for equitable housing. The result was a societal shift from the old industrial ways to a new, more modern technological economy that showed commitments to both functionalism and democracy, proving the government’s use of architecture as a means of societal transition.

This compromise between social housing projects and the need for industrial progress allowed the wealthy upper class to maintain power by controlling the patronage of Weimar’s modern architects. For instance, many modern social housing blocks for

low-income workers simply did not receive the proper resources from the government as the concept of Existenzminimum took hold and led to inadequate living scenarios for the industrial poor. Meanwhile, the upper class could afford to buy out rising architects like Gropius and Mendelsohn and commission them for their modern, richly austere villas and estates in the suburbs outside Berlin.¹⁹ Ultimately, Weimar Modernism was used as a political tool to break down the traditional class structure of the imperial past through historical revisionism and architectural erasure. However, the need for continued industrial advancement and the government's adherence to capitalism paved the way for the rise of a new and equally divided class system that modern architecture played a large role in propagating, leaving the Republic's egalitarian promises to fade into the backdrop. In 1929, economic disaster struck, freezing all modern construction projects and marking the beginning of the Great Depression. The financial hardship was blamed on the Weimar Republic and its democratic policies, ultimately leading to the takeover of the National-Socialist Party.

The National-Socialists not only used architecture to gain power in the first place, but they continued to use it to cement their megalomaniacal ideologies and rewrite the history of Berlin with a massive architectural transition. On February 27th, 1933, Nazi conspirators are believed to have set fire to the Reichstag and blamed it on a radical left-wing terrorist.²⁰ Just like the declaration of the Weimar Republic, the Nazis used the inherent perceived power of the Reichstag in a perfectly executed false flag attack. The left was discredited, and Adolf Hitler set aside the constitution and took over full emergency power as Chancellor of Germany. With the rise of Nazism also came complete government control over the architecture and architects of Berlin. Hitler's hatred of modern architecture was well known, and although his persecution may have allowed Modernism to flourish internationally, that was not the case inside the capital. The Bauhaus school of modernism was shuttered, Bruno Taut was forced to flee due to his socialist leanings, Erich Mendelsohn was pushed out because he was Jewish, and the Luckhardt brothers were professionally disqualified for failing to meet the stylistic requirements of the new order.²¹ The result was a complete denouncement of anything modern and a reversion to the styles of the imperial past, erasing the last 20 years of history and seeking a new nationalist identity for Berlin and the Third Reich.

In the coming years, Hitler and his architect Albert Speer would make plans for the complete transition from Berlin to Germania: a world city of gigantic proportions that would far surpass any city ever constructed. The architectural style that the Nazis chose was a call back to the Wilhelmine era, with a combination of alpine vernacular architecture, white Neoclassicism, and military Utilitarianism (Fig. 6).²² The goal of Nazi Stripped Classicism was to invoke the nationalist spirit of the imperial age while at the same time referencing the modern technological power that Germany possessed by stylistically matching France, America, and other modern superpowers. Hitler's megalomaniacal plans to reinvent Berlin was a testament to the power that the city's architecture had in enforcing and legitimizing the government and their policies. Although Germania was never fully built, it remains true that remnants of both nineteenth-century architecture and Weimar Modernism were torn down to make room

for monumental Nazi architecture like the Ministry of Aviation, the Tempelhof Airport, and the Olympic Stadium. Additionally, Speer designed the new Reichskanzlei to feature a 300-meter gallery that was twice as long as Versailles' Hall of Mirrors, where Germany suffered their greatest defeat.²³ Hitler's Nazi Classicism was both a new beginning and a reminder of the past. The plain, uniform social housing projects of Weimar Modernism were vastly overshadowed by massive, state-glorifying Nazi architecture, minimizing the democratic past and asserting the power of the Reich. On the other hand, Adolf Hitler proved countless times that his architecture had symbolic historical meaning; he was obsessed with recreating the glory of Germany—past and he did so by using history as an effective political weapon.



Figure 6. *Plan for Hitler's Germania*, Berlin, Germany, Albert Speer, 1938–1943

From his ascension to power until his death at the end of World War II, Hitler used the architecture of memorialization to express his political ideas across Berlin and the rest of Europe. At the end of the first world war, the economic instability and political turmoil that the Weimar Republic inherited prevented the construction of most memorials to the Germans who lost their lives in the conflict. However, when the Nazis came to power, well-funded construction programs promptly erected WWI memorials all over the country.²⁴ This architecture served to promote Hitler's nationalist, war-mongering agenda of revenge against the Allies more so than it did to commemorate the soldiers' sacrifice. Additionally, any existing memorials that didn't fit the newly altered history of World War I that Hitler wanted to develop were consequently removed and melted down to make more bullets. Historical revisionism through memorial architecture played a key role in the Nazi Regime's ability to dominate and control the ideology of

the people. An August 12th, 1940 directive from Field Marshal Wilhelm Keitel found in the Freiburg im Breisgau Military Archives details an order from Hitler's German High Command to destroy all World War I monuments in occupied Belgium and France. The monuments in question commemorated the thousands of innocent lives lost to German aggression; Hitler could not control the occupied territories with these "hate memorials" defaming his empire and inciting rebellion.²⁵ The Nazis understood the influence that this architecture could have, and they understood that its destruction would be an effective form of psychological warfare (Fig. 8). Hitler's regime employed both the creation and destruction of memorial architecture in a form of historical revisionism that served to avenge the injustices of Germany's World War I defeat and pave the way for a proud imperial future.

The end of World War II and the fall of the Nazi's supposed "thousand-year empire" would by no means mark the end of the violence, political unrest, or architectural transition in Berlin. Ironically, the same thing the Wilhelmine, Weimar, and Nazi regimes did to the architecture of their predecessors would be done unto them by the governments of East and West Berlin, continuing the cycle of historical revision. Mark Twain is reported to have said, "history doesn't repeat, but it often rhymes." Throughout the two world wars and the 20-year period between, architecture was used by three successive governments as a political tool to legitimize their regimes. They attempted to erase all remnants of the past regime, create a new, unified identity for the people of Germany, and write a new history that would favor their ideologies and the future they hoped to create.

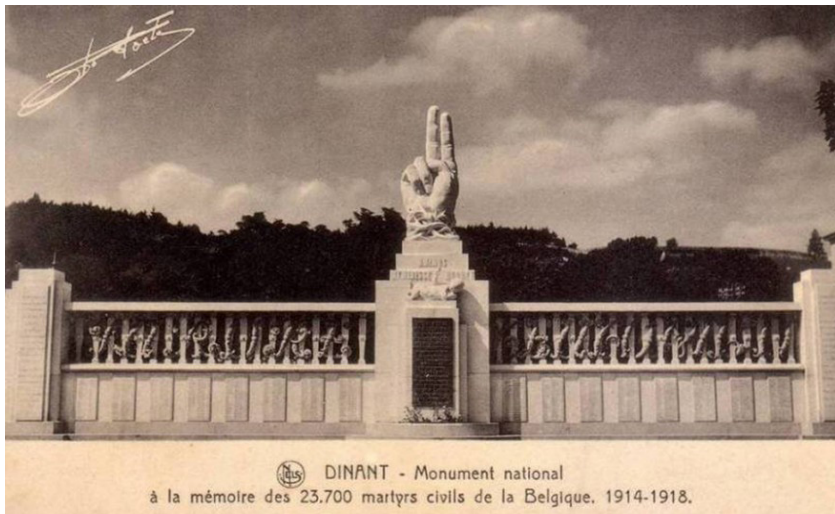


Figure 7. "Furore Teutonico", Dinant National Monument, Dinant, Belgium, 1936.

EMBODIED CARBON IN HIDDEN HILLS HOUSE

Designing a Home with a Decreased Environmental Footprint

Alexa Dannis

Increasing concern about climate change puts more focus on the environmental impacts of buildings. Until recently, all the attention has been on their operations – the greenhouse gas (GHG) emissions associated with their heating, ventilation, cooling, and lighting—which globally comprise 28% of GHG.¹ Embodied carbon is "carbon that is emitted in the production of materials."² In the case of a building, that should be the embodied carbon of all the material used, plus the carbon emitted during the construction process. However, analyses to date deal with materials only, and do not typically include excavation, special equipment like cranes and lifts or worker travel.³ The concept was largely ignored before 2013, although it accounts for 11% of global GHG.⁴ This is significant by itself, but punches above its weight because all the emissions occur immediately, before the building is even put into use, while the operational emissions are spread out over the building's lifetime. It can take over 20 years for the operating emissions of a new building to equal the emissions embodied in its construction, so embodied carbon is critical to meeting 2050 climate goals.⁵

Despite its importance, embodied carbon still seems to be a fringe idea for many architects and builders, at least in the residential market. Embodied carbon was not even considered in LEED certification before 2013 and had little impact until the standards were improved in LEED v4.1 in 2019.⁶ If even those on the forefront of environmental buildings are just beginning to think about embodied carbon, it is not surprising that many architects, contractors, and owners are far behind. Communication about embodied carbon is fragmented and oriented to "green insiders" with little penetration to a wider audience.

This project attempts to illustrate the tradeoffs and consequences of material selection through analysis of a specific house, "Hidden Hills" currently under construction in Columbia County, NY (a rendering can be seen in Appendix I). Though the home was designed to be "green" and net zero in operations – thermally efficient, heated with biomass, cooled with a ground-source heat pump and powered by photovoltaics – but the architect/owners had never heard of or thought about embodied carbon until after the design was mostly completed. Interviews with the contractors – selected for their expertise and focus on sustainable buildings – showed a similar lack of awareness. The house was designed in accordance with many principles of sustainable design—sited on a south facing slope, earth-sheltered on the north side, oriented on an east-west axis, large windows on the south side (shaded from the summer and east/west sun) with high thermal mass in the floors and north wall—but minimizing embodied carbon was not initially given high priority due to lack of awareness. Thus, the overall goal of this project was to intervene during the design process to help minimize the embodied carbon associated with final construction.

In order to demonstrate the environmental impact of the Hidden Hills Home, an embodied carbon analysis was undertaken. The embodied carbon analysis includes site work associated with construction and the materials comprising the structural and thermal envelope, which involves insulating materials. This process was completed by accounting for the embodied carbon involved in each material used during the process; the concrete in the foundation embodied 77,000 kilograms of CO2 equivalent emissions – the largest single contributor and over 50% of the total. It was shocking to the architect to learn that the concrete used had the same impact as driving 235,000 miles – about 17 years of driving for the average driver – or about 7 years of heating oil for a leaky house. Other portions of the project were relatively less impactful on the overall global warming potential (GWP, measured as measured as “kilograms CO2 equivalents per kilogram of material”) of the home. Organic materials, like wood actually have a negative emissions contribution, because of the carbon it sequesters during its lifetime. The building’s insulation fell under this category, as it dense pack cellulose accounted for over half the total insulation and has negative GWP. Overall, insulation only accounted for 9% of Hidden Hill’s GWP.

Table 2 shows the embodied carbon by material, sorted by building assembly. The positive-, negative-, and net-GWP totals for each assembly are shown separately, followed by the embodied carbon in kgCO2e and Equivalent Miles for each material. This analysis helps to understand which major components of the building create the most GHG emissions. As expected, the foundation and slab floors are the biggest contributors, because of the concrete. Framed floors account for only a small area but the size does not matter – the framed floors are carbon sinks. The exterior walls and the roof each account for about 4.5% of the gross embodied carbon. In each case, the non-cellulose insulation is the biggest source. This hints that although insulation accounts for only 6% of gross embodied carbon, it could be much higher with other design choices. Most of the long north wall is concrete, as the house is set into the hill, and is counted as foundation rather than exterior wall.

As awareness of embodied carbon grew, the design of the home was significantly impacted. During the design stage, the architect was wrestling with how far east to extend the lower level; extending it all the way to the eastern end would give space for large mechanical room, wood storage for the wood gasification boiler, a workshop and plenty of extra storage, but at the cost of more excavation and more concrete. At an early meeting with the contractor, it was decided to build the full lower level to avoid the complexity of having adjacent slabs-on grade at different elevations. When the design was mostly complete, the architect attended a Chris Magwood presentation on embodied carbon, and the full lower level was soon history (as reflected on the right side of Appendix II, and head on in Appendix III). Similarly, the architect had worked with the structural engineer to reduce the thickness of the long, high north wall to 8 inches from 10 inches. With this project’s building carbon model, the impact of that decision could be easily quantified: reducing the north wall thickness by 2 inches saved 6 cubic yards of concrete and prevented 2,660 kgCO2e emissions, equivalent to 6,600 miles.

The design changes listed here are just the beginning. Embodied carbon is not mainstream yet in small residential construction, and although awareness is growing, the information and tools to make the best decisions are not readily available. But the issue is too important to wait for people to catch up; thus a few high-level generalizations are helpful to use, with a materials guide seen in Table 1:

- Build smaller or rebuild what exists.
- Minimize concrete as much as possible.
- Use plant-based materials when feasible.
- When outside the known rules, pay close attention to product-specific Global Warming Potential (GWP) factors for materials like insulation.
- Part of doing the math is to pay attention to the lifespan of materials with finite lives.
- There are multiple design goals besides minimizing embodied carbon. It is ok to use higher GWP materials sparingly for “good” design purposes.
- Push for materials manufacturers to put certified GWP data on their products.
- Incorporate embodied-carbon standards into building codes and the permitting process.
- Talk about the importance of embodied carbon to everyone you meet.
- Support a carbon tax (so prices will do more of the work of drawing attention to embodied carbon.)

	Worst	Typical	Best Conventional	Best
Foundation	Concrete	Concrete	Slag Concrete/ Best Rebar	Rammed Earth
Exterior	Cement Brick	Vinyl Siding	FSC Softwood	FSC Softwood
Insulation	XPS/CCSF	EPS	Cellulose	Straw Bales
Framing	Steel	Wood	Wood	Wood/Straw Bale
Interior	Metal studs/ Drywall	Wood/ Drywall	More Wood/ Less Drywall	Strawboard Panels
Roofing	Clay Tiles/ Steel Joists	Asphalt shingles/ Wood joists	Steel Roof/ Wood Joists	FSC Cedar Shingles
Tons CO2	207	110	-10	-125

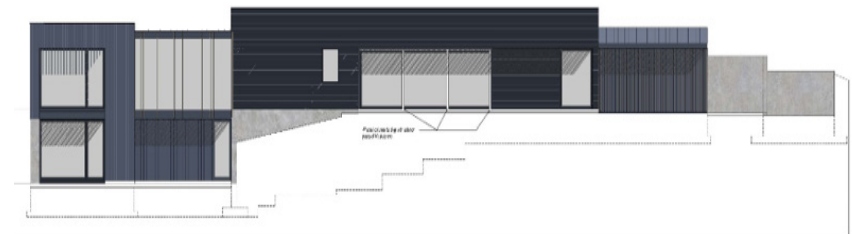
Table 1. Material Impacts on Embodied Carbon. *Source:* Magwood, Chris. “Buildings as a Climate Change Solution.”

	Embodied Carbon (kgCO2e)			Detail	Equiv. Miles
	Gross	Offset	Net		
21.9% Excavation (Site Work)	34,015		34,015		
Diesel Fuel			17,075		42,269
Aggregate (stone)			16,940		41,935
50.3% Foundation	78,051		78,051		
Concrete			77,002		190,621
Steel (rebar)			10		25
Asphalt Waterproofing			450		1,113
Delta MS Drain Board			138		342
6" Sch 20 Drain Pipe insulation			299		741
			151		374
14.9% Floors – Slab	23,152	(144)	23,007		
5" concrete slab			18,112		44,836
Non-Cellulose Insulation			2,372		5,873
Wire Mesh			1,316		3,259
Qdeck (steel support)			340		843
Structural steel			744		1,843
15 mil poly vapor barrier			267		660
Cellulose Insulation			(144)		(358)
0.0% Floors – Framed					
Wood		(3,250)	(3,250)	(3,250)	(8,045)
6.3% Exterior Walls	9,838	(15,546)	(5,708)		
Non- Cellulose Insulation			3,804		9,417
Triple Glazed Windows			3,705		9,172
Drywall			1,702		4,213
Steel			524		1,298
Housewrap & Paint			103		255
Wood			(10,931)		(27,060)
Cellulose Insulation			(4,153)		(10,280)
Wood Doors			(462)		(1,144)
6.4% Roof & Ceiling	9997	(17,546)	(7,549)		
Non- Cellulose Insulation			6959		17,228
Standing Seam (metal)			1,658		4,104
EPDM (synthetic rubber)			1,380		3,417
Wood			(12,562)		(31,098)
Cellulose Insulation			(4,984)		(12,338)
Total	155,053	(36,487)	118,566		293,514

Table 2. Embodied Carbon by Building Assembly.



Appendix I. Computer Rendering of Hidden Hills Home.



Appendix II. Southern Elevation of Hidden Hills Home.



Appendix III. Eastern Elevation of Hidden Hills Home.

THE OMNIPRESENT OFFICE

How Contemporary Office Form Finally Caught Up with its Knowledge Fostering Function

Christopher Chiah

It has become fashionable in recent years to talk about the “knowledge economy,” and the integral – even existential – role of innovation and entrepreneurship in ensuring the vitality of advanced industrialized economies. As we shall see, the idea of a knowledge worker has in fact existed since the second industrial revolution. What is novel in our contemporary discourse is the overwhelming belief in the validity of the “Silicon Valley consensus;”¹ manifested both culturally in the “cult of the entrepreneur” and mystic surrounding disruptive start-ups, as well as in the income premium afforded to workers in knowledge intensive sectors. At present, the fact that this consensus exists, and has been extremely influential in shaping public, commercial, and educational perceptions of what constitutes value-creating and desirable jobs is sufficient. These perceptions in turn, have significantly influenced the form of commercial buildings, as architects attempt to respond to the foregrounding of knowledge creation as the overarching function of the contemporary office. These responses, and the way that design has shifted to incorporate changing ideas of knowledge, will be the focus of the essay.

This relationship will be drawn out through a series of parallels, depicting how the linear evolution of the office to its current form as an incubator for office workers to produce knowledge was not matched by a similarly linear direction in office form. Indeed, the form of the office will be shown to have vacillated between two equally fundamental but contradictory ideas of flexible autonomy and structured interaction over the course of successive designs. Through this tracing of historic transitions, an analysis of contemporary design, and a horizon-scanning of cutting-edge conceptions of the office, I hope to demonstrate: First, that the best designs are those that have been able to provide both the autonomy needed for workers to process information individually, and the enforced interaction needed to churn that information into usable knowledge. Secondly, that office design throughout the modern and postmodern periods tended to choose one or the other. And thirdly, that achieving both was only possible in very recent years, where the redefining of the office’s boundaries turned everywhere into the office.

The Evolving Function of the Office

The office as a general concept grew organically in the developed world through the first industrial revolution with the introduction of clerical positions into merchant-houses, before exponentially gaining importance during the second industrial revolution as specialization became increasingly possible, and rising to its preeminence in contemporary society during the third industrial revolution as computerization concentrated economic value in the hands of an increasingly educated middle class.² Its function has deepened and broadened over time. With the office ascending in importance from

a mere administrative processing center serving manufacturing needs, to its position as the epicenter of value creation in advanced industrial economies. This shift in importance closely parallels the changing nature of the office worker. Indeed, it has been suggested that the importance of the office was due in no small part to the aspirations of the office worker, who with a college education:

“was prepared to do, and indeed desired, different kinds of work from before. It remained for the workplace ... to adjust accordingly. This meant managing knowledge workers in order to elicit better performance: they would answer to the demands of knowledge, not to the demands of arbitrary authority, like a boss. Excellence, not output, would be the measure of productivity. This in turn suggested that the workplace had to become more performance based, less hierarchical, and more open to the ideas of its employees. It had to change shape, too.”³

This quote encapsulates a critical thread in the dynamic between office design and knowledge creation – office workers are the hinge upon which ideas flow, and the office should be designed to keep these conduits well lubricated. To fully understand the function of the office then, we must turn toward an understanding of the office worker.

The Rise and Rise of the “Knowledge Worker”

The office worker in an advanced industrialized economy has come far from their humble origins as a self-aggrandizing paper pusher. With each successive wave of technical development and economic growth, office workers have risen in importance. The first industrial revolution and the advent of mass production made clerks necessary to handle new volumes of administrative work.⁴ Similarly, the second industrial revolution followed by the rise of Taylorism and its every increasing division of labor, office workers became integral, if not necessarily valuable, parts of the industrial landscape.⁵ It was during this period, where office jobs were paradoxically becoming more important to the economy by taking on specialized (and therefore a greater number) of administrative roles, yet losing prestige due to the repetitiveness demanded by such specialization, that aspirations of autonomy began to ferment. Finally, the third industrial revolution and the proliferation of computers resulted in office jobs reaching a hitherto unprecedented importance to the economy; it now became necessary for corporations to rely on educated workers to harness the power of computing. Together with the post-war economic boom, the offshoring of manufacturing due to globalization, and the concurrent onshoring of global capital and business; office jobs in the developed world became the key drivers of the post-industrial economy.⁶

The Silicon Valley Consensus

Regardless, of the relative importance of the office worker, it is evident that their function has always been as producers of knowledge. Whether the explicitly codified knowledge of paperwork in the early industrial eras, or the plethora of implicit knowledge available for purchase in the form of services (accounting, financial, legal, business management) during the computer era. More recently, a pedigreed body of literature has accumulated in response to the importance of the office worker in the

post-industrialized world. Some are pseudo-scientific self-help books for the aspirational worker, some are professionally written by academics and reputed management theorists.⁷ Perhaps the most infamous of these is Clayton Christensen's *The Innovator's Dilemma*, which took the managerial world by storm with its prophetic "disrupt or be disrupted" message. His theory was simple: firms that gain dominance in an industry become bloated and unable to pivot, which leaves smaller competitors free to unleash innovation that disrupts the status quo and usurps the incumbents.⁸ His method and conclusions have been contested, but the simplicity of Christensen's message has ensured that its appeal has endured.⁹ And indeed the cult of the entrepreneur, complete with worship of "entrepreneurs" like Steve Jobs then and Elon Musk now, remains well and alive today.

More insidiously perhaps, this idea that disruption is the only driver of economic growth left to a post-industrial economy has been imbibed and encouraged by tech companies and start-ups eager to capitalize on the talent attraction, venture capital, governmental aid, and societal forbearance of inequality or instability that such a paradigm demands.¹⁰ They have refined and updated Christensen's ideas in preparation for a fourth industrial revolution – Industry 4.0 (the digital revolution). A revolution of course, that they intend to lead. This reflects a co-opting of Christensen's theories, namely that companies are "disruption machines" that must relentlessly pursue newer and newer forms of innovation to remain relevant – to say nothing of profit or more communitarian duties toward environmental or social sustainability¹¹. The effect of such a consensus has been to catapult the role of the office worker to astronomical heights. If innovation is not merely a means of development, but a method of survival then the knowledge worker is not a mere asset of production, but a heroic savior of post-industrial economies. Moreover, it suggests that the type of knowledge that the office worker produces has changed. It is no longer administrative, but inventive; the measure of an office worker should no longer be the volume of his work, but the strength of his ideas.

Thus, the Silicon Valley consensus is the logical culmination of three waves of industrial revolution. A particular reading of industrial history that has incrementally and exponentially turned the proud aspirations of middle-class office workers into self-fulfilling prophets poised to cement their position as the aristocratic elite of the coming digital revolution. Upon this reductionistic and rather esoteric view of the knowledge worker – if worker is even an apt description for the wispy tacit knowledge that contemporary knowledge worker seeks to germinate – sits a few unstable theories of office design. Critically, if innovation and entrepreneurship is the dominant profit-driver of the contemporary high-performing firm, and if such knowledge intensive production can only stem from the minds of workers; then it follows that the function of the office must be to enhance the creativity of office workers. Hence, the design of the office should in theory avoid mathematical metrics like square foot maximization or energy efficiency, focusing instead on creating the conditions for workers to generate novel ideas.

The Changing Form of the Office in Relation to Key Theories of Design

While the function of an office worker has moved inexorably toward the generation of increasingly abstract knowledge, the form of the office has had a more meandering path. Initially, architecture was significantly constrained by prosaic needs for lighting, utilities, and ventilation.¹² While subsequent technical development allowed for electrical lighting, it also forced considerations of electrical provision and bulky HVAC systems.¹³ The capabilities of architecture thus lagged behind the creation of the knowledge worker until the invention of the suspended technical ceiling, which "provided a uniform supply of energy and replaced the building envelope as a basic component of typological structure."¹⁴ The ability to incorporate Kahn's serving space into a parallel ceiling above the served space effectively shattered the "clearly defined relationship between building envelope and core, and between frame and usable space."¹⁵ It was here then, that the open-office took its first breaths. From this initial democratization of interior space however, a tumultuous history of contradictory and reactionary movements follows. These may be roughly demarcated into organic design, modular design, open-office design, and contemporary design.

The Workflow Oriented Office

For a while, the seminal organization of the interior was the Bürolandschaft, an attempt to design an office that matched the organic circulation of the codified knowledge of the 1950s.¹⁶ This quickly became irrelevant with the spread of the personal computer, but the idea of designing an office in a more organic fashion rather than the soul-sapping repetitiveness of a Taylorist factory-like office continued to resonate through interior design theories. Indeed, for a while, computers merely shifted the flow of work from printer, paper, and filing cabinet to computer, cables, and server rooms.¹⁷ The critical contribution of the Bürolandschaft was that it began to break design free of the mold that had carried over from the factory floor, where office workers were viewed as exchangeable assets on a production line of paperwork. The organic design reflected an acknowledgement that the work done in an office was a system of symbiotic clusters working in asymmetric ways rather than something that could be done in a linear and easily readable pattern. The idea that networks of people are the foundation for innovation is now supported by academic research that has proven that discovery and invention, requires "great groups" not simply individuals.¹⁸ The Bürolandschaft was therefore groundbreaking in its recognition that office workers should work as units rather than as individuals in a mechanistic whole. This seems trite today, but represents a prescient step at that time.

The Modular Office

The popularity of the Bürolandschaft was soon surpassed however, as the ability afforded by info-communications to separate workflows from physical connections sparked a shift toward another theory of design – modularity. In this wave, designers like Robert Propst attempted to create modular workspaces that could be customized according to changing needs.¹⁹ This marked a sea change in the way the worker was construed, as Propst was one of the first to design for "mental work", claiming that "mental effort was tied to environmental enhancement... to change a desk, then, was

to change one's entire way of being in the world."²⁰ The flexibility afforded by modular interiors was a recognition that knowledge work required a degree of nimbleness – and that a flexible physical environment was correlated to a more mentally flexible worker. This led to Propst designing what he called an “action office.”

Interestingly, the modular office was somewhat of a pushback against the open office design typical of the Bürolandschaft, which combined “no closed doors in sight, no one boxed in, no executives enjoying commanding views in snug corners” with a flexible “break room,” where employees could retreat for conversation and coffee at their leisure.²¹ This open plan had the effect of producing an unmitigable volume of noise, revealing a very important trade-off where “introspection and concentration were sidelined.²² Propst therefore, was incredibly astute in his identification of problems that still cripple contemporary office design by arguing that the ideal office should make room for “meaningful traffic” between knowledge workers and lights upon the constant battle between privacy and openness in the office.²³ The modular office was therefore significant for its inclusion of principles intended to address the drawbacks of the noisy Bürolandschaft while still retaining the vibrancy and team dynamic it fostered. In fact, Propst's theories of what design is best for inspiring knowledge creation are almost identical to contemporary notions of how knowledge is codified and what kind of social interactions foster it.²⁴ To wit, the idea that “meaningful traffic” requires curated social networking yet must be distinguished from noisy and distracting interaction is now supported by management theorists.²⁵

Unfortunately, the principles of Propst's action office and its clones were rapidly undone by unenlightened management teams who used the potential for modularity to cram as many workers together as possible.²⁶ This, Propst noted, was due in large part to managers' preoccupation with “the productivity of organizations.”²⁷ In other words, the form of the modular office was too far ahead of its function; office workers had not yet been elevated to the heights of heroic knowledge artists. As a result, the infamous cubicle offices were born, and knowledge inspiring design lay dormant for years.

Neo-Bürolandschaft & Neo-Modular Offices

The contemporary office started its journey during the tech boom, and has continued evolving in diverse and unexpected directions since then. As such, it is almost impossible to identify one typology with which to classify it. Naturally, the obvious depiction of the contemporary office is that it is a direct reaction against the cubicles that preceded it. Such a reading derives its legitimacy from the avant-garde designs of leading companies during the dot-com bubble. Chiat/Day, for example, became notorious for its experiments in office design.²⁸ It attempted to remove private desks – a concept known as “hot-desking” or “hoteling” – in order to literally force physical movement and interaction with new colleagues every day. In this way, its form was much like an extreme version of the Bürolandschaft, with a significant difference being the lack of an intentional organic team structure. This turned out to have been a mistake, as teams continued to sit in proximity, now without the benefits of private space.²⁹

Around the same time, companies like Apple begin to adopt the “cave and commons” approach espoused by MIT, a design whereby common spaces for interaction were interspersed between private working areas.³⁰ This then, was more of a reinterpretation of Propst's modular office than it was a reversion to the open plan of the Bürolandschaft. Indeed, ever more contemporaneous trends like standing desks point to the direct line between the “action office” and the offices of today. The mix of private and public space highlights an attempt to recreate the mix of customized seclusion mixed with group interaction that Propst intended. Importantly, such an approach dovetails with recent theories suggesting a critical difference between information and knowledge. Information as it turns out, is just meaningless data unless it is processed from indecipherable datum and converted into usable knowledge.³¹ Similarly, it has been noted that “innovation requires taking both scientific discovery and invention and piling applications on a breakthrough.”³² Taken together, the implication is that innovation requires allowing individuals to interact so information is shared, giving them autonomous space to process the gathered data, then coming back together in a group so that the processed information can be codified into canonical knowledge in the office network.

Although issues remained such as the common spaces having too many people passing through them to be viable for productive discussions, the cave and commons approach would have been a perfectly valid position for office architecture to plateau.³³ However, the contemporary office form did not stop with the neo-open plan or neo-modular office. The stratospheric rise of the knowledge worker and the reification of catering to their knowledge producing needs as the singular office function has led to continued experiments with its form.

The Contemporary Porous Office

As the tech giants of today reached their positions of dominance, completely novel forms of office architecture have begun to emerge. First and most famously, the fun office. A typical tech campus springs to mind, with an interior that more closely resembles a college campus than the offices of yesteryear.³⁴ This was a dramatic development toward knowledge generating design on two fronts. From a qualitative perspective, happy employees are productive employees. They are intrinsically motivated individually, and interact better with peers due to the increased sociability that follows happiness. Snacks and gyms also boost health, which correlates to mental capacity and creativity. More subtly, caffeine is of course, a stimulant. Beyond the free snacks, sleep pods, and endless nitro coffee however, lies the true innovation in office design – an intentional conflation of the workplace and the home.³⁵ By layering the workplace with the trappings of home, employers were able to keep employees at the workplace for much longer than had been previously possible; significantly, not through coercion but willing cooperation on the worker's part. This meant that even as workers remained happy, they were spending longer hours in the office than ever before. Such a quantity of time spent at the office, while not directly proportional to the amount of knowledge produced, certainly increases the probability of a good idea being sparked.

The “live-work-play” environment curated by big tech firms was soon followed by an illegitimate progeny catered to the wave of start-ups riding hard on their coattails – the co-working space. The co-working space, as popularized by WeWork, aimed to replicate the campus culture of the big tech firms for startups. By providing amenities and close contact with other start-ups in a central location, it sold much of the same benefits of interaction that the Bürolandschaft and action office promised. And like the action office, the supposed benefits were soon swept beneath a rent maximizing logic, cramming workers so near each other that it reanimated the travails of the Bürolandschaft, noise and lack of privacy.³⁶

Even as these experiments at mixing the use of an office with the amenities of a home or café were occurring, homes and cafes were also beginning to be turned into offices with the rise of remote working.³⁷ This made the comforting designs of the home or neighborhood café the office architecture, and is arguably an effective way to achieve the information processing half of good office design; this is especially true if the employees actual office is a poorly designed open-office without room for introspection. If that is the case, then the processing portion of work may be done remotely, while the office remains the place for collaborative knowledge creation. However, this system is still significantly disadvantaged since it does not allow for the spontaneous sharing of ideas that can result from frictional office interactions; for example, during mealtimes in the cafeteria.

A noteworthy hybrid of the fun campus office and the remote working environment is the situation of the office in a larger mixed-use district. The typical live-work-play environment in the US has been a self-contained campus, due in part to the existing urban fabric that prevented more in-depth urban planning. In other parts of the world however, different urban political contexts have allowed mixed-uses to extend across building boundaries. This creates an exciting array of possibilities since it has all the advantages of the big tech campus office – entertainment, refreshments, interaction – combined with the greater flexibility of more diverse cafes, restaurants, and bars. At the same time, it allows offices to pass on the burden of these socializing spaces to the surrounding districts, such that the actual office space may be configured for optimum private work or small group collaboration. For example, an employee could work in the solitude of the office in the morning, meet his co-workers for lunch, work with them in a private meeting room in the afternoon, and share their ideas with another team over dinner. Furthermore, the proximity of other offices would allow the team to meet their contemporaries at a bar after work for the kind of cross-company collaboration co-working spaces were supposed to encourage.

In some sense then, contemporary offices have broken the mold. Instead of attempting to balance the interaction of an open plan with the privacy of a modular plan, they have opted to pursue a unique porosity that redefines the boundaries of the office. First, the fun office has blurred the lines between work and leisure. While the amenity rich designs of big tech firms might run the risk of being a jack of all trades but not particularly good at fostering collaboration or insight, the blurring of work

and leisure such that employees spend long hours together at the office has allowed management smooth over any flaws. Secondly, the remote office has blurred the line between work and the home, allowing offices to remain the sites of interaction while the home functions as the site for private work. Thirdly, the mixed-use district has made the office itself porous, allowing workers to work, play, and interact across the entirety of the district the office is situated in. The contemporary office architecture has made a discernable contribution to the field by reimagining the office as a physically and conceptually permeable structure that eliminates the trade-off between information-processing isolation and knowledge-creating interaction. The physical form of the office has in fact not changed drastically since the Bürolandschaft or the modular office, rather it is the definition and boundaries of the office that have been radically reimagined.

Conclusion – An Infinitely Vast Office

The function of the office has always been to produce knowledge. And as countries get wealthier and more post-industrial, the type of knowledge produced becomes more and more ephemeral and less quantifiable. Similarly, as we race toward the fourth industrial revolution, innovation and entrepreneurship have become the dominant *raison d’être* of corporations in the post-industrial world. This has catalyzed the rise of the office workers to their preeminent position as the “knowledge workers” of today, engendering waves of offices designed for the singular function of generating knowledge from its inhabitants.

These designs have historically vacillated between two extremes: open-plans like the Bürolandschaft that have strived to foster interaction amongst teams; and partitioned plans like Propst’s action office that leaned more towards providing spaces for individual employees to work in seclusion. The former type is backed by literature that indicates social networks are essential to codifying indecipherable information into usable knowledge; the latter type is backed by studies indicating privacy is good for employee productivity. The most recent trends in contemporary office design hold forth a new paradigm in design. By shattering the geographical boundaries of the office, the contemporary office has been able to achieve the demands of privacy and the demands of interaction simultaneously and with little trading-off between the two. This has been achieved by redefining the office as anywhere the employee has access to a laptop – everywhere – and the physical office as the hub where teams congregate to collaborate and exchange ideas.

More insidiously, if the office is porous, then the office is also all encompassing. There is no longer a separation of work, leisure, and rest for the knowledge worker – only distinctions between periods of introspective research and periods of interactive work. Whether this is a sustainable method of channeling the energy of office workers into usable knowledge remains to be seen, but the fact remains that by shattering the formal typology of the office in this way, the contemporary porous office has come closest to fulfilling its function of knowledge generation than any design before it.

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To the Class of 2021:

Brown's Urban Studies community will miss you profoundly, but we cannot wait to see what your contributions to the cities of the world will be.

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