CAN OUR CITIES SURVIVE?

Produced by students in:
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TABLE OF CONTENTS

INTRODUCTION

Samantha Prentiss & Jared Fells

Throughout history, cities have evolved in ways that are greatly influenced by their layout and design. Until the 1950's, the practice of "urban design" was rooted primarily in the fields of architecture and planning. In fact, few people could define what urban design truly consisted of before then.

Our book, "How Can Cities Survive, 2023", provides an update of the orginal book of the same name created by C.I.A.M. (International Congresses for Modern Architecture) conceived by José Luis Sert, in 1942. At the time of its publication, Sert's book proposed architectural and design approaches to address the concerns facing contemporary cities: namely overcrowding, disease, lack of open spaces and the need for fresh air.

Compared to the 1942 book, today's approaches to urban design prioritize social and environmental needs. The mid-century type of urban design, characterized mainly by changes to the physical environment has evolved today into a more diverse field that concerns itself with the social, economic, and the environmental aspects of urban development.
Today's approach to urban design must address huge challenges that were not recognized (or were ignored) when the original "How Can Cities Survive" book was written. In that book, topics such as equity, race, climate change, and sustainable design were left out.
In the pages that follow, you will see essays that showcase examples of contemporary urban topics related to the housing crisis and the need to provide accessible, affordable, and mixed use housing in city centers. Other essays describe the implementation of air quality

regulations and improved efficiency of public transit. Others highlight ways that social connectivity and communal inclusion can revitalize declining urban areas. And others show how cities can undergo economic transformation through the implementation of collaborative business incentives and redesigning cityscapes to include walkable streets and interactive storefronts to increase business opportunities for the city. We have strived to show examples of topics that are diverse and interesting.
What defines a "city" may not always be clear. Every city and situation is different. At the same time the needs of cities continue to evolve and change. We know that more people live in increasingly urbanized locations. And so, the need to create healthy, sustainable cities is more critical than ever. With the ideas presented in this book we hope to stimulate a discussion about new ways to envision cities. What will our future cities look like? And, most importantly, "Can our Cities Survive?

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What was C.I.A.M?

Libby and Tara

In postwar Europe, the International Congress of Modern Architecture, CIAM, developed a new school of urban design thought led by ideas of Le Corbusier and Bauhaus. Between 1928 and 1959, eleven congresses were held discussing the future of urban planning for a specific category, such as "Minimum Dwelling" and "Heart of the City". The organization grew to include Britain and then North America, although very few projects were developed by the members outside of Europe. The group's official declaration stated that cities could no longer be designed separately from the governmental and social structures because the planning itself had vast implications in both areas. It also asserted that cities must be planned in conjunction with the general school of thought for the time so that they are standardized across the world. It emphasized that functionality should be above all else, and that aestheticism should not come before that.

In the 1933 Athens Charter, CIAM released a publication that suggested the rigid functionality of cities to be highly important and effective, regardless of the character or aesthetic of the region. It recommended green belts separating zones and high rise apartment towers in order to house people more efficiently. This document eventually led to the end of CIAM because it was met with so much opposition. Those against it believed that the neighborliness, identity, and emotional needs of a place were equally important to the functionality, and CIAM's rigid concepts were no longer used as a framework for urban design.
José Luis Sert, "Can Our Cities Survive? An ABC of Urban Problems, Their Analysis, Their Solutions" was produced to face the planning needs in 1942. After two World Wars and the severe destruction of countless towns and cities, there was a "fresh start" with replanning cities and improving them for the benefit of community members. Suburbanization was running rampant during this time period and CIAM wanted to find ways of revitalizing cities. For example, they wanted to tackle the increased congestion, spread of blight, and chaos in the cities.
The solution produced from the research that CIAM and Sert did was the compartmentalization of uses in the city and the distribution of the city's population in tall, skyscraper buildings. CIAM thought this compartmentalization would create an organization and improve city revitalization. Furthermore, CIAM thought placing the city residents in skyscrapers would lessen the congestion on the streets. There were aspects of the book that can still be related to today's problems. However, CIAM went about the revitalization of cities based on separation, throughout this book, we will be delving into how to better plan cities through creating more sustainable, walkable, and culturally significant cities. We will also cover aspects of the goals of CIAM, for example, mitigating diseases and decreasing congestion. The authors of this book will describe solutions that not only benefit all communities but also revitalize our cities and prepare them for the future.

STUDENT ESSAYS

Building Community with Social Infrastructure

Paisley Gavin

Abstract: Ray Oldenberg was the sociologist who first introduced the third place theory; which refers to the places where people spend time between their home, the "First Place", and work, the "Second Place". He determined that these "Third Places" were where the community gathers and experiences the daily social interaction needed, whether it be at a coffee shop, the park, etc. Third places help develop connections between one another; through friendships, conversation, regular interaction and more. They ultimately cultivate feelings of cohesion, social identities, and psychological support within communities. Ray Oldenberg's "The Problem of Place in America '' was released in 1989, and a lot has changed since then. Between 1989 and present day, the Chicago Heat Wave of 1995 and the Covid-19 pandemic occurred. The heat wave showed the flaws of social infrastructure in Chicago, and the pandemic has now altered the way most people live their day to day lives. Both of these are important to look at as they each had dire effects on social infrastructure. Eric Klinenberg, a modern sociologist, released "Heat Wave: A Social Autopsy of Disaster in Chicago", which goes into detail about the heat wave and why it resulted in so many deaths. He also released "Places for the People: How Social Infrastructure Can Help Fight Inequality, Polarization, and the Decline of Civic Life" which provides many modern solutions to the lack of social infrastructure in the United States. Using Oldenberg's original ideas, Klininberg has been able to modernize the third place and come up with solutions on how to assist and protect third places. Although, now that Covid-19 has changed everyone's lifestyle, how can social infrastructure be encouraged when no one wants to be social?

What is the Problem?

In 1989, Ray Oldenberg released "The Problem of Place in America" from his book The Great Good Place. He formalizes the third place theory where he describes the importance of social places outside of home and work. He goes into great detail about third places and how they are critical to mental health.

Since the Covid-19 Pandemic, cities have lost their "Third Places", the informal urban "hang out" spaces to gather and meet people (Oldenburg, 1989). This situation has resulted in a severe decline in direct social interaction, creating a variety of negative impacts on people's lives including: mental health and wellbeing, sense of community, lackluster downtowns, and fewer opportunities for people to enjoy the benefits of urban living.

Description of the Challenges

Within the United States, social infrastructure has been shrinking for quite awhile now. The great migration of people from cities to suburbs in the 1960s led people and their families to centralize their lives mainly in their homes, secluded from others. With this, public outings have declined as people have become more comfortable staying at home.

Over decades, researchers have noticed the decline in social interactions between people due to the lack of social infrastructure, or what Oldenburg calls "Third Places" (Oldenburg, 1989). The first place is the home, the second place is the workplace, and the third place is an informal, public gathering space. The third place could be as simple as a coffee shop, a bookstore, or the park. Basically any space where people can interact with one another. Third places are important because they are able to foster social interaction and a feeling of community for everyone. Sadly, many third places were wiped out in 2020.

The Importance of Social Infrastructure, Eric Klinenberg and the Chicago Heat Wave in 1995

Covid-19 has left an impact on us, but this is not the first time society has faced challenges due to a lack of social infrastructure. Eric Klinenberg, an American sociologist and scholar of urban studies, has done extensive research into the background of social infrastructure or as he puts it, "the physical conditions that determine whether social capital develops," and the history behind its losses over the last few decades (Klinenberg, 2018).

In July of 1995, the City of Chicago experienced five sweltering days where the temperatures reached over 106 degrees, which led to it feeling as hot as 120 degrees due to humidity. Through the span of the five days, over 500 people died due to the extreme heat; the most deaths attributed to weather-related events in the city's history (Bellwar, 2023). Eric Klinenbergs first book, "Heat Wave: A Social Autopsy of Disaster in Chicago", dives deep into discussing social infrastructure and how it played a critical role in the death of 500 citizens. Klingenberg's research examines different neighborhoods in Chicago trying to answer the question of why so many people died at home

Building Community with Social Infrastructure

Paisley Gavin

alone. Through investigation, he found specific areas right next to each other that had completely different mortality rates from the heat wave. He also discovered a complete social breakdown of certain areas in Chicago showing "social isolation of seniors, the institutional abandonment of poor neighborhoods, and the retrenchment of public assistance programs." (Klinenberg, 2002). Towns right next to one another reflected their differences due to the heat wave, revealing how one was a socially interactive place where it was common for neighbors to be with one another and meet outside their living spaces, yet the other area lived in solitude and it was a rare occurrence for those residents to leave their homes on a regular basis. The drastic difference in social capital was put on display. Faced with an urban disaster, Chicago's social infrastructure caved and fell through, leaving hundreds of vulnerable community members dead.

The lack of social Infrastructure has an incredible impact on society in more ways than imagined. The Chicago Heat Wave of 1995 deeply affected the communities public health and showed the absence of community itself. It is just one example of how the inadequacy of social infrastructure can hurt society. 25 years later, the absence has been put in the limelight once again.

Covid-19: How it Changed the Third Place

Covid-19 had a significant impact on society; everything shut down, families and friends were cooped up at home, the list could go on. All these changes led to the year feeling like isolation and loneliness. Everybody faced an immediate dramatic change in their everyday life, and each person was affected in their own unique way. Business owners had to shut down and lose their dream, families dealt with having to work from home and also take care of a child that would normally be in school, and some dealt with the death of a loved one. A future that was once so clear for some soon became so uncertain. One similarity between us all though, was the intense loss of social interaction from direct contact with one another.

Even to this day, many effects of the pandemic linger around us and impact how we continue to live. We see the remnants of closed business fronts with for rent signs, office spaces vacant with lack of workers returning in person, and instead people choosing to work from home, merging their first and second places into one. Not only was there a loss of our third place, but the loss of the second happened as well. The ability to work from home has greatly altered the conventional lifestyle everyone followed before, and so now, where does this leave in person social interaction?

Planning For the Future

Moving forward, Klinenberg published another book in 2018 focusing on ways to bring back social infrastructure and ideas consisting of how we can use it to address "inequality, polarization, and the decline of civic life." Keep in mind, his book was written before Covid-19. Yet, Klinenberg's book seems to anticipate the situation we now find ourselves in, and provides suggestions that are very relevant to today.

In Palaces For the People, Klinenberg gives one main place that can provide the social infrastructure he considers so important; public libraries. When thinking about a socially rich community place, the idea of a library may not be the first thing anyone thinks about. What Klinenberg explains is that libraries hold so much variation and opportunity for social connections; between older and younger generations, people with diverse backgrounds, etc.

In addition to libraries, grade schools, college campuses, public/private housing, coffee shops, sidewalks, parks, churches, and more can provide social infrastructure. As cities and towns continue to come back, planners need to be thinking about all of the common places that can be helpful in creating social spaces. Using all of these common places should be utilized to the best of their abilities, especially when most of these examples will be created either way. A crucial feature of these examples is the unlimited variation of demographics that run through them; there's no boundaries to who uses the supplied amenities in their community, so why not value them for social use. When these types of social infrastructure (especially public spaces such as libraries) are invested in, the community receives a plethora of perks, including the provision of equal opportunities and benefits for all the residents.

Public spaces should be thought of as having no boundaries to who can use them. Public spaces, like other public amenities in the community, are shared by everyone, in ways that can promote diversity and equity.

Over the almost twenty years between the two books, a lot has impacted how we all can think about social infrastructure. There are always new things to learn. In Palaces For the People, he talks about the many ways social infrastructure has been impacted by things like technology and social media. There are a plethora of new lifestyles that continue to impact the way cities function (not pertaining to Covid-19) that Klinenberg addresses in a broader context very well.

Final Conclusion

The changes to cities brought about by Covid-19 and all the other challenges facing today's cities, makes one wonder if Klinenberg's ideas are enough. There has been such an incredible change in the last three years, cities have to look at new innovative options to bring people out of their houses again. Not only have there been contemporary changes upon generational differences, but there was the drastic change due to Covid-19 as well, furthering the reasoning to look to the future for solutions rather than trying to fix and reuse our past ways.

Building Community with Social Infrastructure

Paisley Gavin

Now more than ever, people want to be in nature, away from their work desk, and living the life they want to. Supporting green walkways around cities, quick public transportation to outside of the city green areas, converting unused office spaces into new uses; all of these options can try to convert the busy trash filled sidewalks to places people want to walk on or condense people into trains and buses with one another, etc. Paying attention to human trends and catering to the future needs will enhance future social infrastructure and ensure it is as timeless as possible.

As stated before, Klininberg wants to focus on libraries, which could open up a whole new space for social interaction among many varying groups of people. Although, when thinking about the future, what's most important is to build on incorporating these new values in the streets. There has to be an increase in drawing people out of their apartment buildings and condo safe havens in order to even get them anywhere at all.

Overtime, the overarching connecting factor between everyone is the want and need to be entertained. Within cities, there needs to be more affordable and exciting forms of entertainment. In 2016, the City of Boston implemented the idea to shut down its infamous Newbury Street to cars, and ever since they have kept doing it. This past year, it shut down almost every Sunday during the summertime for the first time since 2016 (Boston Government, 2023). The busy and crazy car driven street quickly became an area where people can easily walk around and enjoy being outside. During the summertime in Montreal, the same thing occurred, where its famous areas shut down to car traffic and pedestrians rule the roads. "Hundreds of bars, restaurants and shops will spill out onto the sidewalks, creating an outdoor space, colorful restaurant terrasses and much more," said the official Travel Montreal website (Dohey, 23). Modern and renovated entertainment is a large key to bringing cities back to life and back together again. Ideas like these have helped combine the new found appreciation people in cities have for being outside in greener spaces, as well as everyone's love to be entertained in social settings.

Everyone has become so comfortable with not knowing who they live next to; which decreases our sense of belonging and leaves us with less community than ever. Not only that, but knowing who lives around you can impact safety and create safer neighborhoods, giving everyone peace of mind in their own home. Whether it's the family in the unit next to you, or the person you see at the local coffee shop everyday, having that social connection is good for everyone in more ways than one. People need to be reminded of how great it is to be outside and make this network; and how all of the benefits that come with, produce a safer, happier, and healthier community for everyone.

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Cool Cities: Reducing Urban Heat Island Effect

Jared Fells and Elsbeth Wendell

Abstract: As cities grow and become more dense, the urban heat island (UHI) effect will become more severe. An urban heat island is the phenomenon where densely developed areas that have a lot of gray infrastructure (concrete and asphalt) are hotter than surrounding less dense, green areas. In some cases, the average city temperature can be up to 20 degrees hotter than neighboring green areas (Druckenmiller, 2023). Albedo, the amount of light that is reflected back into the atmosphere, is generally low in cities meaning the heat is being absorbed rather than reflected back. Traditional gray infrastructure, that has a low albedo, retains warmth through the night which does not allow people a respite from the heat and causes many heat related illnesses specifically in vulnerable populations. The lack of cooling influences like vegetation and bodies of water, increases the heat trapped within gray infrastructure.

The Need to Increase Green Infrastructure

Increasing the amount of green infrastructure helps reduce heat. Methods that provide more green infrastructure including green roofs, pocket parks, and lining streets with trees are effective to cool cities and reduce the urban heat island effect (Stone, 2014). As good as many of these ideas are, every city is different. While these solutions may work in some areas, they cannot be copied and pasted just anywhere.

It is very tempting for designers to observe successful examples of urban greening and want to implement that in their own city. However, green infrastructure requires an understanding of the local community and the existing natural environment. Using existing infrastructure and systems that neighborhoods already have to introduce greening tactics makes the changes more appropriate and therefore more suited to their environments and respective needs. "Environments" in this context does not strictly include the natural environment, but also systems that humans have created and become accustomed to. For example, automobile dependent infrastructure is a leading cause of urban heat islands because automobiles make up the majority of transportation globally. In the United States around 85% of commutes to and from work are done by car, with less than 10% of car commutes involving multiple passengers (Tomer, 2017). Some countries are far less reliant on cars for transportation. For example Denmark is renowned for its biking infrastructure, and in Copenhagen, only around 29% of households own cars. This means that we can look at land use and biking infrastructure in Denmark as a model for places in the United States. Still, it would be unrealistic to assume that design elements work equally well in such different cultures.

Challenges to Implementing Green Infrastructure

It is vital to understand people's attitudes toward their level of support for green infrastructure in order to successfully implement it. A study conducted in Syracuse, NY found that there were patterns in one's willingness to support implementation of stormwater infrastructure, according to the "lived experience of residents" (Baptiste, 2015). Thus, differences in living conditions such as a personal reliance on cars and gray infrastructure that is associated with them may contribute towards resistance against green infrastructure, whether or not it mitigates a serious issue such as urban heat islands.

Experience can impact not only the implementation of green infrastructure, but also the type of design the community prefers. A study performed in Liberec, Czech Republic found that while people tended to support the idea of nature-based (or semi-natural) parks, preferences differed widely across the community and "there is clearly no best combination of elements that people can reach a consensus on" (Machac & Brabac, 2022). With no clear route to designing green infrastructure, preferences are often chosen based on willingness-to-pay. Unsurprisingly, this study also found that people are far more likely to favor designs incorporating their personal preferences. Wealth and class also play a role in what type of designs people like. Aesthetics and other subjective concerns notwithstanding, it's important that any design be done properly, by designers who are familiar with mitigating heat island effect.

Singapore is an outstanding example of a government that uses green infrastructure, landscape architecture and building design to address climate change. According to Peter Newman, the Professor of Sustainability at Curtin University in Australia, Singapore is well underway toward achieving each of his seven global features of green urbanism and has "shown leadership in the Asian region" for every category (Newman, 2010). Yet, even Singapore falls victim to some level of attractive but unoptimized sustainable design. Singapore draws attention to its vibrant facades and walkways full of decorative vegetation. Still, some of the prettiest projects are potentially harmful as well. A study focusing on criteria for green sustainable outcomes of urban precincts (Cgreensoup as they shorten it), found that Singapore's (as well as many other places) designs are "beautiful and clean but not providing as sustainable outcomes as possible" (Radhakrishnan, 2019). Of the

Cool Cities: Reducing Urban Heat Island Effect

Jared Fells and Elsbeth Wendel

51 specified plant species to be used in Singapore, 18 of the plants are considered to be "environmental weeds", and negative to the ecosystem.

Case Studies

As complex as mitigating the heat island effect is, we offer the following case studies as successful examples that American cities can learn from. San Francisco California is one of the greenest cities in the United states and has set a good example for implementing green infrastructure. California is subject to very intense wildfires that will only increase as our world gets hotter. The fires impact not only the health of the environment but also the health of the residents (SF.gov, 2023). Many of the current projects include rain water gardens along sidewalks that provide the co-benefits of storm-water drainage and reducing gray infrastructure that contributes to the UHI (San Francisco Water Power Sewer). While it might seem counterintuitive to need rain gardens in a city that is so vulnerable to wildfires, the increased vegetation offers a respite from the intense heat within the city (Nolte, 2022).

Many of the rain gardens in San Francisco are maintained by the residents of adjacent buildings (Rain Guardians, 2019). This means that residents have to be engaged and knowledgeable about their community environment in order to maintain and protect these gardens. As of 2022, there are 151 rain gardens scattered around the city (Nolte, 2022) There is an organization, Rain Guardians, dedicated to protecting and cultivating these neighborhood green spaces. In order to build this green infrastructure, organizations have to work with the community and the natural environment to ensure its efficacy. In a presentation by the City of Palo Alto, a city neighboring SF with a similar climate, they mention qualities that plants in these rain gardens must have: "plants that grow in the winter and early spring then go summer dormant, plants that naturally like wet winters and dry summers etc" (City of Palo Alto). The presentation then goes on to list a variety of plants that fit these criteria, all of which being native to Northern California.. By encouraging residents to plant native species the city is supporting the natural environment, mitigating the UHI, and sustaining the social benefits the gardens provide.

Projects in New York City can also provide insight into building solutions that have a range of benefits. As one of the biggest cities in the world, New York has many people suffering due to the increase in global warming (EH Data Portal). These temperatures are being intensified by the high density of gray infrastructure around the city. Many of the neighborhoods most severely impacted are those populated by low income families (EH Data Portal). Given this, NYC has to consider a wide range of impacts when designing GI to mitigate the UHI. The Big U is one of the city's most current GI initiatives. The project is trying to manage the UHI as well as benefit the wide array of neighborhoods that the park will impact. Not only will the "Big U" mitigate storm surge and provide cooling for lower Manhattan, it will also create a social space where people can escape from the concrete jungle and enjoy nature (Ingels, 2020). In this example the planning of green infrastructure is taking into account the social environment of NYC. They are responding to specific community needs in a way that also respects and restores the natural environment.

Conclusion

Climate change has a variety of consequences for cities, and the urban heat island effect is only one of the issues that need to be addressed. Luckily, many of the efforts to mitigate environmental impacts account for multiple factors. Infrastructure adaptations to combat climate change are soon to be commonplace in city planning. Cities across the world are actively engaging with climate planning already. It is promising to see commitment within cities, but important to recognize that techniques vary widely both in design and effectiveness. Strategies to mitigate damage often require a unique understanding of the city and its environment. A productive measure to increase city resilience is to engage the community in climate planning. Few people understand the complete story of a city better than its own community, and implementing change in accordance with community goals is a great way to promote a healthy environment for the entire city. In turn, understanding the bias of community perception should not overshadow the professional opinions backed by research. Every stakeholder involved should be vocal with their concerns and transparent about their suggestions. The urban heat island effect is complicated, but solutions are much easier to implement when the community can determine equitable resolutions supported by the community and its professionals within several fields. Together, communities can accomplish great adaptations for a sustainable future.

Cool Cities: Reducing Urban Heat Island Effect

Jared Fells and Elsbeth Wendell

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Improving Access to Clean Air and Healthy Food in Cities

Claudia Cunningham & Raquel Gaba

(Ron Finley Project, 2022)

Abstract: Access to clean air and adequate food are human rights deemed by the United Nations. However, research shows that many urban residents, specifically marginalized communities, live in places with poor air quality and limited access to nutritious food. To understand why these inequities are disproportionately experienced by certain communities, this piece explores the historic and systemic contributors, such as redlining, lack of green spaces, and insufficient funding. The significance of this research is the public health crisis experienced by the urban poor, driven by poor air quality and unhealthy foods. To combat both issues, simultaneously, neighborhoods have implemented community gardens to both create an accessible green space, and improve access to local, fresh produce.

The Challenge Facing Cities

Historically cities have been hotspots for concentrated pollution, having significant impacts on human health and wildlife. Research shows that greenspace is essential to having and maintaining cleaner air as well as overall improved human health (Nguyen et al. 2021). Unfortunately, wealthier inhabitants have a greater access to green space and cleaner energy than poorer inhabitants and people of color. This leaves low-income or otherwise disadvantaged communities with poor air quality and overall living conditions (Ai et al, 2023).

The economic and social systems and cycles in the United States unfortunately perpetuate this disparity. In addition, food deserts are a pressing issue for minority and low-income city residents, exacerbating the already prevalent problem of food insecurity. These areas, often characterized by a lack of accessible grocery stores and fresh food options, force vulnerable communities to rely on convenience stores and fast food outlets. The result is a diet disproportionately high in processed, unhealthy foods, which have devastating impacts on health. Food insecurity, closely intertwined with food deserts, means that many families in these communities struggle to consistently access nutritious meals. Addressing this problem requires a multi-faceted approach, including increased access to affordable fresh produce, education on nutrition, and policies that promote equitable distribution of food resources, in order to ensure that all city residents, regardless of their income or ethnicity, have the opportunity to lead healthier lives.

The Role of Race and Segregation

The urban poor have been trapped in a perpetual state of poverty due to the economic and social systems and cycles implemented by American cities and cities around the world. Due to the interconnectedness of these systems and cycles, it is nearly impossible to pinpoint the primary reason for urban poverty. Still there is evidence that certain factors are responsible. Redlining is a discriminatory practice that has been used in the United States since the 1950s to deny financial services to residents of certain neighborhoods based on their racial or ethnic composition. While redlining was illegalized by the Fair Housing Act of 1968 and the Equal Credit Opportunity Act of 1974, its legacy has continued to impact communities of color through ongoing disparities in housing, wealth, and economic opportunity.

Places that were historically redlined continue to be segregated with high concentrations of people of color who experience disparities in wealth and access to clean and healthy environments. Over the years, racial integration of segregated neighborhoods was limited out of fear of decreasing property values. This kind of discrimination contributed to marginalized communities remaining in these disinvested areas (Lathan 2023). Lack of investment in revitalization efforts have resulted in neighborhoods with large areas of impervious surfaces and fewer trees for shade. This results in many residents not experiencing the benefits that come with greens-

Improving Access to Clean Air and Healthy Food in Cities

Claudia Cunningham & Raquel Gaba

pace, which includes stress alleviation, reduced noise pollution, decreased overall temperature, and improved air quality.

Creating Healthy, Equitable Communities

The addition of green space would significantly decrease air pollutants. This is why it is so important to provide green spaces and tree canopy in urban environments, especially those with traditionally marginalized populations. However, we cannot simply green the spaces within said marginalized communities. While investment in green infrastructure and urban greening would be beneficial to the public health of these environments, it would cause the area to gentrify, and inevitably displace existing residents. Thus, it is critical to implement green infrastructure that will increase the quality of life for current residents without attracting new, wealthier populations and increasing property values.

Air quality in marginalized communities has also been historically impacted by the highways and factories that were intentionally located near low-income communities or previously redlined areas. This infrastructure supports the urban lifestyle, despite being extremely undesirable to live next to, which further impacts property values of surrounding neighborhoods, perpetuating the cycle of housing inequity and systemic racism. It's also important to note that the people who experience the health impacts of major pollutants often aren't the ones most heavily contributing to the emissions. For example, the highways that are built next to or through low-income neighborhoods are often not utilized by those living near them, because local residents are less likely to have a car and are reliant on public transportation. It is all the middle/upper class living outside the city that contribute most to transportation emissions. Public transportation, or lack of sufficient public transportation, is another factor contributing to inequity in these areas.

Ways to improve access to healthy food and clean air

Insufficient connectivity in public transit systems in previously redlined areas contributes to the lack of access to healthy food. For the majority of residents of these marginalized communities, cars are uncommon, so commutes to work, school, or to the grocery store are dependent on alternative modes of transportation. Thus, commute times are significantly longer for these residents, especially with city traffic taken into account. Due to the commute time, parents have less time at home with their children, which significantly decreases the likelihood of having home cooked meals (Dondi, 2020). Additionally, because parents are away from their households for so many hours, they are often forced to spend another portion of their income on childcare, reducing their budget for groceries. As a result of parental figures being away from home, the majority of the food in these households are snacks and quick microwavable meals, which has led to a diet disproportionately high in processed, unhealthy foods, which have devastating impacts on health (Dondi, 2020). Due to the accessibility of fast food chains in these lower income communities, which is entirely intentional (James, 2014), families and young children are more inclined to purchase fast food meals out of affordability and convenience.

Disinvestment and underinvestment are also major drivers of the limited access to fresh food among marginalized communities. Due to the lower tax-brackets of these neighborhoods, many residents are reliant on social services, which are limited by the economy of the areas they reside in. For instance, food stamps and similar services are provided to many low income families. However, the stores that accept these services are often miles away from where the residents live. With an understanding that the majority of these residents do not have access to cars, this makes the attainment of said groceries nearly impossible. In order for these services to effectively serve these communities, funding needs to be allocated towards these communities to implement affordable grocery stores in low income neighborhoods, or enable the snap benefits so that they are accepted by the already existing local businesses.

Transit systems within these communities would also have to be updated with more connective and efficient routes, as it is ridiculous to expect a parent working full time to commute another great distance via public transportation to feed their children. Another issue regarding insufficient funds within marginalized communities lies within the education system that exists in their areas. These schools do not receive funding like their counterparts in better funded areas which may provide afterschool programs that teach students about nutrition or gardening. The same goes for afterschool programs that serve as childcare, which would alleviate some of the financial burden on the parents of these communities.

Potential solutions

Having suffered from a "food prison" and poor air quality for many years, Ron Finley of South Central Los Angeles decided that enough was enough. Ron, known as the "Gangsta Gardener", decided to start growing produce in the plot of grass in front of his home, located between the street and the sidewalk so that he would have access to fresh foods. Over the course of a few months, he quickly realized that this could be done throughout his entire neighborhood, and that his community, mainly composed of Black and Latino residents, could take matters into their own hands, and stop relying on their scant grocery stores (Finley, 2022). This initiative turned into a major project throughout Oakland, and Ron was able to open a number of community gardens along parkways and throughout the vacant lots of LA to increase food access to marginalized communities, and incorporate green spaces. His tagline reads: "Cities that grow to-

Improving Access to Clean Air and Healthy Food in Cities

Claudia Cunningham & Raquel Gaba

gether, grow together".

Cities often blame issues surrounding food deserts and greenspace on insufficient undeveloped land, when the reality is that cities are using their land inefficiently. According to Finley, Oakland has 12,000 acres of undeveloped, arid public space, which could potentially provide 5-10% of the city's vegetables, if utilized efficiently (Ring, 2023). By building community gardens in vacant spaces within marginalized neighborhoods, access to both fresh foods and clean air can be increased without threatening the displacement of existing residents. In situations like these where social, political, environmental and economic issues are heavily intertwined, it is imperative that planners get creative in their solutions. Historically, planners have generally addressed food deserts and air quality as separate issues. However, they are incredibly intertwined, and can be solved simultaneously. There is no reason why urban greenspace cannot double as edible vegetation. Why plant Oaks and Elms along streets when fruit trees can provide the same aesthetics, carbon sequestration, tree canopy, and, additionally, food?

In order to adequately address and improve access to fresh air and food within these marginalized communities, a major cultural shift is needed. The colonial ideologies reflected in the built environment have kept people segregated by race, ethnicity, and socio-economic status. The example of Ron Finley and his reutilization of the greening and vegetation of vacant lots is a step in the right direction. If cities take on this role of implementing infrastructure that supports the communities that have notoriously been neglected, they will significantly improve the quality of life for their residents, and indubitably increase the cities ability to survive.

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The Benefits of Preservation: Looking to the Past for Answers to a Revitalized Future

Zeke Cochin and Gavin Defina

Abstract: The trend of Americans moving back to cities may be coming to an end. After the COVID-19 pandemic, many U.S. cities have been characterized by loss of population, poorly maintained public spaces disorder, and expensive housing. These negative feelings towards cities lead many people to believe that our cities are failing. This paper suggests that despite the precarious situation faced by many cities, existing tools and strategies are already in place that can be used to save them. The paper examines how historic preservation and the revitalization of existing buildings can attract more people to cities.

Although many American cities are struggling, all is not lost. For once, there is something we can do. Since March of 2020, the United States has seen an increase in people moving out of cities. Why are our cities failing? What does population decline tell us about long term challenges cities face? And, in fact was there ever a time when our cities were not failing?

After presenting an overview of the situation facing cities, we show specific ways cities can be saved. Finally, we explore the possible benefits of our research by showing comparisons to cities around the country. The essay demonstrates ways that revitalization techniques can be used to save our cities, and to ensure their success long into the future.

In order to understand how we can save our cities, it is first crucial to understand what we're saving them from. At the start of the pandemic in 2020, people began leaving big cities and moving out to suburban areas (Parker, 2021). This trend, however, is not new to the U.S. Starting in the 1940s, people began to move out of dense cities to more suburban areas due to a range of factors, including "white flight" and less expensive, more modern houses. This trend was exacerbated by the creation of the Federal Highway Act in 1956, and the commercial success of the automobile industry, which allowed people to live further away from their workplaces (ushistory.org, 2022). Jumping forward to the present time, current U.S. cities are once again increasingly seen as crowded, dirty, un-sustainable places, yet still having high costs of living, leaving very little to be desired.

Figuring out what the issues are with our cities, is perhaps the easiest part of our research. The hard part lies in finding ways to address these problems. What will become clear in this section is that some of the answers have been there the whole time. Humans are not docile creatures. "Belonging to a community, being able to engage with others, and forging authentic relationships are all critical parts of being human" (Warne). That is to say, people gravitate towards areas that have a high sense of community. If more people are to move back into cities, they must have a reason to do so, we need to create a reason for them to do so. That is where the traditional American Main Street comes into play. As the New York Times puts it,

"Small town or big city; weekly Rotary and Chamber of Commerce brown-gravy lunches at the local hotel. Hanging out; the last picture show. The street-corner ennui of vacuous saturday nights and long summer afternoons from which millions have fled; the illusion of a simpler, better world to which millions have returned. Main Street is the American way of life" (Huxtable, 1976).

However, Main Street is not the American way of life. At least, not right now. Main streets are often overshadowed by things like larger suburban-lifestyle centers and strip malls, and E-commerce, both of which lack the ability to create a sense of community. In order to strengthen our cities, we must begin by strengthening our downtowns. "Downtown is important because it's the heart and soul of any community. If you don't have a healthy downtown, you simply don't have a healthy town" (Ed McMahon, 2023).

If the answer lies in our cities' downtowns, then why don't cities simply spruce up their Main Street and call it a day? The reason is because finding a sense of community isn't the only issue in America's cities. Another difficulty emerges when people and businesses attempt to move into cities only to realize that there is either no space for them to live, or the spaces that exist are too expensive. This statement is only partially true. It may be the case that the options to live or start a business are too expensive. It is rare, however, that there is not enough space to move. According to The Center on Urban and Metropolitan Policy, an average of fifteen percent of a city's land is deemed vacant and among cities with the lowest number of vacant space, there tended to be high numbers of abandoned structures (Pagano and Bowman, 2000). Should cities begin offering incentives to redevelop these abandoned, historic buildings, not only would this create more housing opportunities for people to move into cities, but it would also ensure the preservation of a cities character and cultural identity.

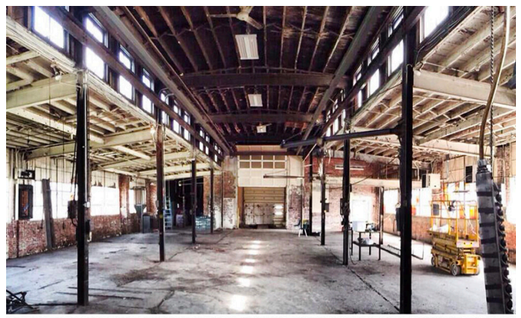
Focusing on the individual level, cities and towns need to create visually pleasing, economically supportive and exciting downtown regions to repopularize living in cities. Many American cities already have the infrastructure in place to help make their centers and streets attractive. The strategy of historic preservation and reuse of structures and buildings can ignite the community in urban areas. There are several organizations, like Main Street America who are determined in sparking a movement "for preservation-based economic development and community revitalization across the [United States]" (Main Street America, 2023c). One branch of revitalization is the method of adaptive reuse. Frew writes about the cruciality of how adaptive reuse can "rescue discarded, disheveled buildings from a destructive fate and bestow in them a new purpose and a new life" (Frew, 2022). Seemingly a flexible fix, Lee states that governmental budgets and the potential high costs of this development weaken the chance for success, however these projects can ultimately exponentiate commercial development, bring about unique residential uses and showcase a neighborhood/city's cultural impact (Lee, 2023). Adaptive reuse, the influence of pedestrian streets and looking back to the past to see the strengths of when cities had their "peak"

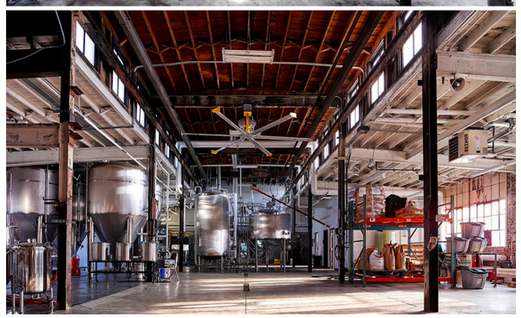
The Benefits of Preservation: Looking to the Past for Answers to a Revitalized Future

Zeke Cochin and Gavin Defina

will support reversing the trend and consequently bring back people and businesses to the urban core.

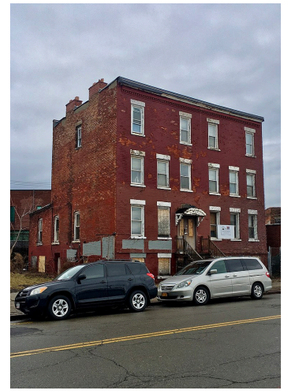
To adapt downtown areas and Main Streets, there is a constant question of whether to destroy the structures already built or try to utilize the historical and cultural components to benefit future residential, economical and social development. To help preserve past decades of urban life, cities need to utilize and plan for adaptive reuse. This strategy can allow old city centers keep their external and designated landmarks, but allow for new use to spearhead and incentivize a future boom of activity. If adaptive reuse is used effectively it can "save money, fuel vital city centers, discourage urban sprawl and help retain a city's signature character and history" (Lee, 2023). With many abandoned buildings in economically troubled and low populated urban cities, the transformation of those structures into new residential amenities and commercial ventures will entirely transform the struggling social atmosphere of the neighborhood (Lee, 2023). Adaptive reuse takes advantage of community character, pursues the best form of sustainable construction with the reduction of waste and carbon emission, and allows for the use of tax incentives for developers to be fiscally responsible in their progress (Kent, 2022). However, there are still many hurdles to overcome as the structures might not be up to code and will require extensive energy (Kent, 2022).



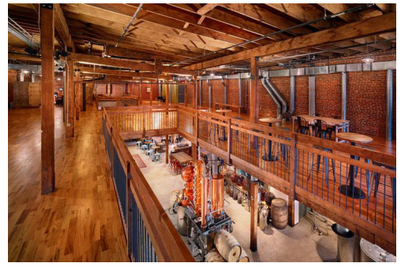


In addition to the successes of adaptive reuse, there are many local, regional and national governments and organizations pursuing historic preservation to allude to a past of successes in downtown. One example is the National Trust for Historic Preservation, a nonprofit leader of the national preservation movement, which lists goals like saving history for future generations, supporting equitable revitalization, preserving personal connections to place and protecting cultural practices and intangible heritage within historical locations and sites (National Trust for Historic Preservation, 2023a). To further historic revitalization and preservation in cities National Trust for Historic Preservation created Main Street America to formalize the process of strengthening the vitality of downtown urban centers (National Trust for Historic Preservation, 2023b). Although not always labeled as "main streets" most communities have a center downtown district with a hub of commercial, residential and social life. In the modern era, urban areas and planning departments need to be wary of technological innovations, remote working capabilities and the "digitally dominated marketplace" (Orwell, 2017). To combat this issue, Main Street America pursues a mission to prove "that downtowns are the heart of our communities, and that a community is only as strong as its core" (Main Street America, 2023a). One main project of Main Street USA is the revitalization of H Street Main Street of Washington DC, which led to the presence of 423 more businesses present and 5,300 more jobs spurring high economic growth in this reclaimed area (Main Street America, 2023b). The presence of pedestrian-focused, sustainably driven and mixed-use residential/commercial qualities perfect Main Street initiatives to help redesign post-pandemic areas of city life. Even though Main Streets have "died a thousand deaths", they still persist, and become new again (Orwell, 2017l).

Another prime example of successful revitalization projects took place in Buffalo, NY, a city that experienced a successful past, but since the aftermath of their industrial boom has seen a decline in population, economic development and culture. Organizations, like Preservation Buffalo Niagara "is the region's only full-service, professionally staffed preservation organization, empowering Western New York communities to champion historic preservation as a means of creating a more culturally rich, vibrant, affordable, and sustainable community" (Preservation Buffalo Niagara, 2023). This organization is currently leading programs like preserving civil war historically significant sites like the Eliza Quick House, and helping preserve culture for the LGBTQ+ community with the Gay Places Initiative (Preservation Buffalo Niagara, 2022) The New York State government is implementing eleven transformational projects to the city within the Broadway-Fillmore district to revitalize the neighborhood like enhancing the Broadway Market and creating a better and more resilient pedestrian experience (New York State, 2022).



Another Rust Belt city, Pittsburgh, has had recent struggles with maintaining population, however, due to one organization, hope is not lost. Preservation Pittsburgh is consistently saving points of historical interests from demolition like the Pennsylvania Railroad Fruit Action & Sales Building and preserving historic greenspaces through the Pittsburgh Parks Initiative (Preservation Pittsburgh, 2018). The local government, economic development agencies and planners are focusing on an increase in residential development within old office skyscrapers, like the Gulf Tower and the



The Benefits of Preservation: Looking to the Past for Answers to a Revitalized Future

Zeke Cochin and Gavin Defina

former GNC headquarters to shift demographics and protect the Pittsburgh skyline (Ionescu, 2022). To honor the Pittsburgh industrial history, former warehouses in the Strip District are potential structures looking for reuse like the Kingfly Spirits building that was converted into a modern craft distillery (Daninhirsch, 2023).

Our research and case study examples provide useful conclusions. Looking to the past and using adaptive reuse strategies can be part of a larger array of revitalization strategies to revitalize U.S. cities. Since the worldwide pandemic, municipalities have managed to increase social connection in their downtown streets with outdoor seating, increased outdoor activities, outdoor shopping options, and higher use of natural settings like public parks. Despite the many challenges associated with adaptive reuse (impractical zoning regulations, the high costs of changing the interior of buildings versus total destruction, and the culture of development with emphasis on entire change), if cities properly invest in revitalization strategies, pedestrian-first infrastructure, and prioritize historical-cultural importance of the area, the decline of cities can be stopped.

Increased use of national, state and local organizations focused on historical preservation, downtown revitalization and more creative use of abandoned structures can jump start urban revitalization. In addition, by leveraging several existing qualities, like transportation networks, efficient infrastructure, rich culture, and connections to the expanding metropolitan areas, cities are well positioned to leverage existing components to succeed as a destination of choice for diverse populations. As we move past the restrictions posed by COVID-19, and a culture of isolation that has now subsided, there are once again a plethora of opportunities that cities have to better compete with suburbs. Cities are well-situated to become stronger, with revitalized downtowns serving as the starting point of widespread-revitalization.

In-Text Image Citations:
1st Image (Lefkowitz, 2020)
2nd Image (Compton Construction, 2016)
3rd Image (Washington DC, 2023)
4th Image (Carrotflower , 2020)
5th Image (Sinichak, 2019)
6th Image (Sinichak, 2019)

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Zeke Cochin and Gavin Defina

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Comeback Cities: the Revitalization of Downtown Greenville

Samantha Prentiss and Joanna D'Attilio

Abstract: The topic that this paper will examine is the revitalization of downtown spaces, in order to re-establish cities as vibrant urban hubs. Specific areas of interest include the effects of the COVID-19 Pandemic on downtown districts and the remodeling of a promising downtown in Greenville, South Carolina. Downtown spaces are in need of revitalization specifically after the pandemic due to the decrease in population, driven by remote workers moving to suburban residential areas. The goal of this paper is to provide hope that other faltering cities still have the ability to revitalize their own downtown neighborhoods and provide opportunities for people to experience connectivity with their communities and surroundings. Greenville excels in this particularly because of its long efforts in reconstructing the city to be better suited for pedestrian life; this inevitably also led to an increase in sustainability awareness.

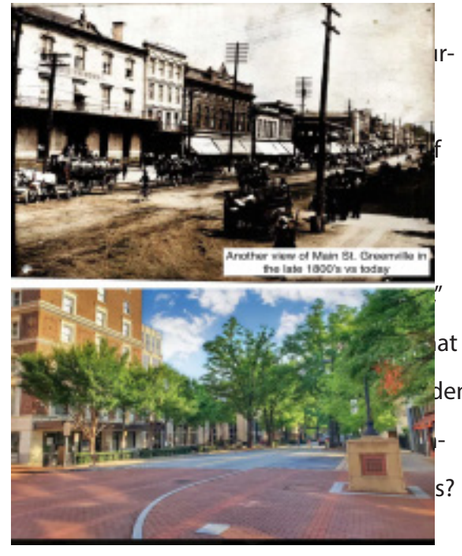
(Downtown Alive in NOMA Square, a reoccurring free outdoor music concert that provides an opportunity for residents to engage with each other and their neighborhood)

Research Question:

How can the revitalization of downtown spaces effectively re-establish cities as vibrant urban hubs?

In recent, post-pandemic times, downtown areas have encountered and undergone profound transformation which can be attributed to a culmination of pre-existing urban challenges that were exacerbated and made worse by the onset of the COVID-19 pandemic. Not only did the onset of a global health crisis highlight and draw attention to the existing issues such as housing affordability, limited living space, density and associated health concerns, but also as a reevaluation of the significance of urban amenities. As a consequence of the awareness brought to this by the effects of the pandemic, significant migration out of city centers and downtown urban hubs, prompting a widespread re-examination of the dynamics of urban spaces and how we live, work and interact within them. In order to better understand how to face these challenges head on we must explore how these challenges have renewed a focus for revitalization of urban centers to create and maintain adaptable, sustainable and constantly evolving cities that can continue to thrive in our new and rapidly changing post-pandemic world. Greenville, South Carolina will be used throughout this report as a model for a city that has undergone immense revitalization and redevelopment of their downtown space after COVID-19 and how it helped to reestablish Greenville as a vibrant urban hub of diversity, inclusivity, sustainability and connectivity. While it is important to note that the revitalization efforts in Greenville have been

ongoing for the past four decades and is not simply a post-covid revitalization project, the progress made and developments implemented over the past 40 years helped Greenville be able to rebound so quickly and effectively after covid restrictions were lifted.



Comeback Cities: the Revitalization of Downtown Greenville

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Beginning in 1968, citizen and community leaders together created a downtown development plan to help directly identify key efforts in the redevelopment of Main Street, a pedestrian friendly environment. The implementation of this plan did not begin until 1979 when the narrowing of Main Street began, slimming it from four lanes to two lanes as well as implementing free street side parking that was intended to draw people to the downtown attractions without a fee for parking. In addition, the streetscape was transformed with planted vegetation and decorative lighting, and the sidewalk widened 18 feet, increasing possible space for outdoor dining as well as heavier foot traffic; this project was completed two years later in 1981. Two projects that began in 1980, the Greenville Commons and the Peace Center projects were implemented on either side of Main Street, and became a huge draw for Greenvilles central business district. These projects utilized public-private partnerships and became a key catalyst for continued revitalization. Greenville Commons was completed in 1982 and opened to the public, more recently it was renovated again in 2013 and now houses the NOMA Tower which is one of the largest spaces in the area and hosts numerous festivals, events and activities for the community and residents. Other projects like the Peace Center for the Performing Arts have been added over the past few decades, which revitalized a historic coach factory and textile plant which held historic value and sentiment to the character of the city itself, have been implemented and completed, furthering the revitalization of this city. Further renovations to the Peace Center for the Performing Arts in 2012, reconnected the site to the local waterway, the Reedy River.

The Downtown Development Strategy identified key areas for future development.

The Land Design Research Plan (LDR) for Greenville recommends focusing on the Reedy River and Reedy River Falls. This means the natural features of the Reedy River and Reedy River Falls were being seen as an asset to the city, and potential for future developments along the natural waterfront. Removal of the Camperdown Bridge located on the Reedy River and the construction of the Liberty Bridge, a 355 foot curved suspension pedestrian footbridge that allows visitors a beautiful view of Reedy River Falls and the gardens that have been implemented into the area surrounding Reedy River by the Carolina Foothills Garden Club, has made this area a recreational hub and restorative environment for the users. Additionally, the implementation of the Bon Secours Wellness Arena was a project that replaced the outdated Greenville Memorial Auditorium that was 43% financed by the public through Tax Increment Financing (TIF) which allows Greenville to, "utilize property tax revenue increases within a defined district for redevelopment and revitalization efforts specifically within that district," [1]. TIF was also responsible for the opening of Falls Park, surrounding Reedy River Falls in 2004. Falls Park had grossed $100 million in private investments within two years of opening and had only spent $13 million on the construction and design of the park itself. Among many other developments, 2008 saw the construction of Flour Field, a baseball field and event arena modeled after Fenway Park, that hosts sporting events and community engagement activities. These massive projects increase the attractiveness of the city to other potential investors, homeowners, and business owners alike.

In 2010, Greenville South Carolina the Downtown Streetscape Master Plan was published with details on how to better accommodate the new development, transit, pedestrians, cyclists, parking and landscape features. First, "Five Corners," of key development were located. Secondly, the economic development initiatives were identified, those were determined to be:

1.) Housing: Increase the number of housing units and the Downtown and offer a mix of housing types.

2.) Offices: Strengthen and diversify Downtowns office supply and demand.

3.) Institutional: Positional Greenville as the urban campus for Clemson University.

4.) Retail: Target, recruit and incentive anchor retail uses to locate and establish in the Downtown.

5.) Government: Preserve and attract government uses in Downtown.

The city also pursued a number of infrastructure initiatives that were intended to set the stage for private development. The infrastructure initiatives included:

1.) Streetscapes: Investing in the streetscape and intersection improvements that will alter pedestrian experience.

2.) Green Necklace and District Parks: Focusing on interconnected open space systems that are visible and identifiable as landmarks of the downtown identity as well as parks.

3.) Transit: Establishing funding for bus rapid transit, seek corporate and public funding and expansion of trolley routes. Also advocated for Greenville's position on the High Speed Rail.

Comeback Cities: the Revitalization of Downtown Greenville

Samantha Prentiss and Joanna D'Attilio

4.) Parking: Create shared parking in key locations to facilitate infill and appropriately scaled downtown development.

Cities have long been pre established as centers for culture, social activity and interconnectedness. Areas like downtown Greenville hold tremendous importance in the lives of the people who interact with that space because it can help bring comfort, safety and a sense of community. If the downtown area had never gone under revision, people would lose out on the ability to have a designated space that prioritizes pedestrians. It's most likely that, like many cities, it would be entirely dominated by car-centric facilities. That type of environment does not usually inspire people to feel proud of their communities or encouraged to stay for extended periods of time. An important sense of culture could've been lost if the city hadn't taken the opportunity to better the downtown district for its residents. As previously aforementioned, Greenville has provided its residents with numerous opportunities and ways to interact with the community; from its pedestrian friendly sidewalks to the Greenville Commons and NOMA Square. Outdoor activities are highly encouraged in each of these spaces, helping to also connect residents to the natural environment that they might not otherwise be able to experience so readily. Cities typically have less greenspace than other living areas, this can lead to effects on the mental health of the citizens. By providing outdoor activities, people are able to not only experience nature but also connectivity with their community.

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Cooperative Businesses as a Catalyst for Community Engagement in Urban Centers

Anya Steele

Abstract: A cooperative is an organization that is owned and operated by its workers to meet economic, social, and cultural needs; cooperatives function non-hierarchically through consensus based decision making and joint democratic control of the enterprise. They have risen in popularity in the United States as an alternative to top-down capitalist businesses, with over 40,000 official cooperatives in the United States and roughly a third of all Americans belonging to a cooperative. They can be divided into five categories: retail cooperatives, worker cooperatives, producer cooperatives, service cooperatives, and housing cooperatives, with each filling its own niche and operating to serve a specific purpose in society. The key questions I will seek to answer are…what are the key reasons for worker cooperatives gaining traction in recent years? How do cooperatives bring people together and empower residents of communities to generate positive change? What are the advantages and disadvantages of consensus based decision making? What role have cooperatives played in the workers rights movement? In what ways do worker cooperatives promote economies of solidarity? These questions will guide me through the examination of source material to gauge the importance of cooperatives in the survival of cities in the 21st century.

Cooperatives came into being in the United States as a response to the upheavals characterized by the Industrial Revolution between 1750 and 1850. The period brought about the dissolution of many small, home-based businesses, which forced workers to move to cities where they faced harsh working conditions and low wages. Progressive reformists Robert Owens and Charles Fourier articulated the efficacy of cooperatives in paving the way for a more utopian society while William King advocated for the development of consumer cooperatives to address the plight of the working class. The Rochdale Society of Equitable Pioneers, established in 1844, was a precursor to the modern cooperative association and "codified a set of principles for successful cooperative business operations" (Pitman, 2018). Following the turn of the century and the grim reality of free-market capitalism becoming increasingly difficult to ignore, The Cooperative League of the United States of America was established in 1917 to promote an overarching cooperative agenda. It is important to note that cooperatives have had the most significant impact on the U.S. economy in the agricultural sector; while I could devote the entire paper to the history and impacts of cooperatives in agriculture, I will instead focus on cooperatives in an urban context.

Membership in Credit Unions (basic financial cooperatives) have gone up in recent years; Unlike banks, credit unions are owned and operated by their members and exist to provide members with affordable and convenient financial services; credit unions are not for profit and revenues benefit members in the form of higher savings rates, lower lending rates, and lower and fewer fees. If credit unions function as they are supposed to, they can foster greater individual financial agency and stability, and can counteract the greed of for-profit banks in shackling customers with cripplingly high interest rates and fees that make it incredibly difficult to emerge from the cycle of debt. In the following paragraphs, I will examine three cooperative associations working to expand resources for cooperatives in U.S cities.

Due to the location of our institution, I thought it pertinent to highlight the Valley Alliance of Worker Cooperatives (VAWC), a Western Massachusetts worker-cooperative alliance that is "rooted in the ideals of cooperation, mutuality, and solidarity" (VAWC, 2021). It is a "co-op of worker co-ops…." including Pedal People, Collective Copies, Flat Iron Cooperative, and Oxbow Design Build Cooperative. Pedal People is a worker cooperative operating in Northampton, MA since 2007 that collects trash, recycling, and compost and hauls to receptacles via bicycle; Pedal People operates as a 100% human-powered collective. Collective Copies has two locations in the Valley - one in Amherst and one in Florence - that provide residents, colleges, and organizations with copying and printing services and are a proud example of cooperative innovation and resilience. The Flat Iron Cooperative is a worker and consumer owned cooperative in Bellows Falls, VT with the mission of bringing people together over good food and drink to share ideas and get organized. The Oxbow Design Build Cooperative is a "full-service design and construction company in Western Massachusetts" that operates in each phase of the construction process - from design to finish carpentry; the organization upholds the cooperative values of voluntary membership, democratic member control, member economic participation, autonomy and independence, education, training and information, cooperation among cooperatives, and concern for community. The Wellspring Cooperative, in Springfield, MA

I also wanted to highlight the cooperative movement in Greater Boston. WORC'N (Worker Owned Cooperative Network of Greater Boston) is "a network of worker owned cooperatives, co-op developers, and those seeking support to start worker cooperatives." The Alliance includes A Yard and a Half, Broadway Bike School, Community Builders Cooperative, and Restoring Roots Permaculture Co-op. I will not go into detail about all of these organizations but will highlight the Broadway Bike School as an example of a worker-led co-op doing great things in its community. Broadway Bike School is a worker cooperative that repairs and sells bicycles in Cambridge, MA since 1972; in addition to repairs and sales, they offer classes in bike mechanics so that cyclists can learn the skills they need to do their own maintenance and repair. It is important to note that cost is a factor and may be prohibitive.

The NYC Network for Worker Co-ops, founded in 2009, is a trade association for worker-owned businesses in the NYC metropolitan area. Its mission is to "share and cultivate the educational, financial, and technical resources of its members and support the growth of worker cooperatives for social and economic

Cooperative Businesses as a Catalyst for Community Engagement in Urban Centers

Anya Steele

justice." A key focus of the organization is allocating funding to BIPOC led worker cooperatives in NYC; In 2022 alone, the Network moved $22,504 to 14 NYC based BIPOC led cooperatives.

Worker cooperatives across the country are working to strengthen workers' rights and promote egalitarian business practices. As income inequalities driven by late stage capitalism continue to get worse, worker cooperatives will prove more and more vital in fair and equitable economic distribution and worker autonomy and ownership. What is the lived experience of those who work in cooperatives? A new study published by the Democracy at Work Institute (DAWI) "documents the real-world experiences of workers in worker cooperatives across the United States" (Scharf, 2021). The study is the first of its kind and includes 1,147 survey participants in 82 cooperatives across the country. Cooperatives run the gamut in terms of pay, benefits, and treatment of worker-owners; the survey sought to interpret and document the varied experiences of worker-owners in multiple sectors of the economy. "The report suggests that working in a cooperative is associated with increased civic engagement" (Scharff, 2021). "Affiliation with membership associations leads members to expand their networks (Putnam, 1993), generate trust in others (Glanville, 2016), and acquire more resources, such as knowledge of attending public meetings, for further civic participation beyond their organizational boundaries" (Tak, 2017).

While any gathering place can foster community, cooperatives have the unique ability to bring people together through shared agency and revolutionary zest. Home to one of the oldest mountain ranges in the world, Southern Appalachia has an incredibly robust co-op driven solidarity economy. For Sara Cheter, co-executive director and founder of The Industrial Commons, "in a solidarity economy, workers are appreciated not just for their labor but for their ideas, insights, and innovations. Workers are not just a piece of the business, they are the reason the business exists" (Howard, 2022). The scarcity of resources and isolation of communities in Southern Appalachia have created a deep history of cooperation and resource sharing. Firestorm Books, "a radical bookstore co-operative and community event space" in Asheville, North Carolina. I visited Firestorm a number of times when living in Asheville, and felt the potency of connectivity through the imagination of a just and equitable world. Pockets of liberation are vital to subvert oppressive power structures and the actors therein.

So…do cooperatives play a role in the survival of cities? Absolutely, they do. Urban income inequality in the United States is at an all time high; the federal minimum wage of $7.25 an hour is a third of the living wage needed to support a family of four (with two working parents). Cooperatives subvert the dominant paradigm of capitalism, in which private owners control the means of production and accumulate the lion's share of worker driven profits while workers barely make enough to live. Cooperative foster solidarity and community-driven change, and actually promote equity through the equal distribution of profits among worker-owners. While the cooperative model is not perfect, it offers an alternative economic system to capitalism, a model that is making a handful of people very rich by exploiting working people across the globe.

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Gentrification and Place

Christian Guerra and Ella McGeady

Gentrification is an issue that should be part of any discussion of contemporary development. The phrase is used to describe the process in which current or former residents of an area are displaced due to an influx of more expensive new development. In addition to forcing migration out of homes, gentrification can visually change the character of a community. As wealthy residents migrate to an area, new developments will be constructed or retrofitted to acclimate their needs. This drastically changes existing culture and results in a decrease in diversity and complexity.

Since geographic boundaries are invisible to the human eye, communities tend to demarcate places by a variety of traits, often only appreciated by the people who live there. While traits such as topography and weather immediately come to mind, residents will almost always attribute things such as history, people and social structures when describing a place. The resulting feeling of "place" is something that is authentic and helps delineate an area's unique characteristics from many others.

At this time in the United States, our communities become remarkably economically divided. With a shrinking middle class who have little access to once vital manufacturing jobs, not to mention jobs of the new economy conducting work exclusively online, we may find many communities highly susceptible to gentrification and the destruction of an authentic sense of place.

If gentrification leads to the destruction of the sense of place, we can more thoroughly describe it as 'placelessness', a term defined by cultural anthropologist Edward Relph in his book "Place and Placelessness", published in 1976. Relph's citation of placelessness is particularly self-explanatory: [placelessness] is the condition of an environment lacking significant places and the associated attitude of a lack of attachment to place caused by the homogenizing effects of modernity. Gentrification is not far off from this definition, although being a much later-recognized phenomenon - homogeneity is the common denominator between the two phrases. Gentrification is of course inextricably tied to wealth, which means in contemporary western society it is of course inextricably tied to capital. With the average medium of commerce being the global corporation, these companies are bound to appear with the 'new neighbors' eventually. We can see these corporations manifest themselves in storefronts, replacing what was established and likely had a great deal of history. This manufactures 'placelessness' - a lack of diversity.

We can look at West Hartford, Connecticut as an example of an area that has been gentrified and therefore lacks a sense of place. Like a majority of towns throughout New England, West Hartford began as an agricultural settlement in the early 1900s. However, as small-scale agriculture dwindled while commerce flourished, West Hartford, alongside countless other American municipalities, underwent a change in its primary exports. A prime example of this recent modernization would be the construction of Blue Back Square. Blue Back Square is a series of buildings marketed as 'a unique shopping, living, dining, and entertainment destination. The massive 445,661-square-foot development recently sold for 40.5 million dollars following its completion in 2008 and boasts the residency of many high-end companies such as Barnes & Noble, West Elm, Crate & Barrel, Cineopolis Luxury Cinema and more. There was little circularity throughout its development - most pre-existing structures were destroyed and new ones created as opposed to the more sustainable process of repurposing old buildings, which would

Gentrification and Place

Christian Guerra and Ella McGeady

retain a great deal of the original character and place of West Hartford.

With this gentrification comes homogeneity, which also contributes to the 'placelessness'. From the 2020 census, we can see that West Hartford is 76.7% white and the median household income is 112k. This is far and well above the national median household income of $74,580. The 2020 census also reports that the United States are 56% white, meaning that West Hartford is far less diverse comparatively to other places across the states. The West Hartford Historical Society maintains that "Today, West Hartford epitomizes much of modern America. Walk through the town's many neighborhoods and you will experience a range of architectural styles that document the development of the community". The town has a modern, commercialized feel to it, without that needed sense of place - in truth, it feels like West Hartford could be anywhere across contemporary America.

West Hartford is just one example of gentrification ruining a city's sense of place, but unfortunately, this can be found all over the country. Cities and towns are becoming less and less unique. That 'sense of place' that lots of cities used to have attracted people, not only tourists, but residents. By gentrifying cities and towns, we are going to run people out of their homes and ruin the culture of cities.

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How We Fight for Housing

Kahlil Cooper

Abstract: With the rise of prices in owning or renting a home, and a depletion of our current housing stock throughout many major North American cities, residents are left with little time to decide how to live within their means. Local governments, zoning ordinances, and politicians haven't been able to keep up with creating new housing in order to stabilize the market and retain their residents from fleeing city limits. Without proper stabilization or readily available units, residents must find ways to take it upon themselves to advocate for better housing conditions. Through the usage of Community land trusts, non profit organizations creating non-market rate housing, and the legislation of tenant unions, this essay examines the ways in which individuals come together to bring about change in their local communities.

Most Expensive

One Bedroom Rents as of July 2022

City	Rent
New York City, NY	$3,780
San Francisco, CA	$3,100
San Jose, CA	$2,710
Boston, MA	$2,600
Miami, FL	$2,500
San Diego, CA	$2,430
Washington DC	$2,410
Los Angeles, CA	$2,400
Oakland, CA	$2,200
Santa Ana, CA	$2,070

Source: Zumper Inc.

- Taken from Bloomberg

Affordability. Housing. Inflation. These are the central themes that play a role in our "post"-pandemic climate throughout the country. From coast to coast the United States top cities face an egregiously high cost of living no matter if you rent out an apartment or try to become a homeowner. According to a Bloomberg article from July of 2022, renting out a 1 bedroom 1 bathroom apartment can cost $2,600 in Boston, $3,780 in New York City, and $3,100 in San Francisco. Even when you look out from the microscope of our international metropolitan areas, finding a place to call home will be more daunting than rewarding as prices seem to infinitely climb.

Massachusetts, like many other states, is in an affordability and housing crisis. Vacancy rates are considered unstable. The state's population faces a decline. The rise of inflation and a shortening supply of housing stock in both rental units and home ownership has skyrocketed, leaving many with very little options and opportunities to secure a place to live. According to The Boston Foundation, an organization geared towards providing the region with a better means of equitable and sustainable service, their annual "Greater Boston Housing Report Card" detailed that the city and its neighboring communities received a failing grade of housing based on their metrics of accessibility, equity, and availability. Katherine Levine Einstein, a Boston University professor and contributor to this The Boston Foundation report says that, "We've underbuilt housing for decades, relative to job growth, and now we're reaping the consequences of that… We're seeing huge increases in housing prices because we haven't kept up with demand".

- Taken from Greater Boston Housing Report Card

These disparities are felt and are especially concentrated in marginalized communities that host people of color and those that earn less than the median average in Greater Boston. Both the article and report cites how segregated the region still is, making homeownership and rental usage extremely cost burdened for Black and Latino families, for example: "Black and Latino households experienced disproportional harm in almost every measure related to housing… They are cost-burdened at greater rates, they have lower rates of homeownership, and they are faced with eviction proceedings at higher rates". But how did we get here? What type of housing have we limited, and how do we respond?

There are different types of housing stock that make up the market and how people buy or rent units, pay a mortgage, or pursue homeownership in any capacity. The two most common types found within the U.S housing market come down to market rate hous-

How We Fight for Housing

Kahlil Cooper

ing and non-market rate housing. Market rate housing refers to housing that is priced and set by the highest bidder. This housing stock is based on the existing area market's values through location, amenities, building condition, demand, and many other factors. Prices are usually determined by the Area Median Income (also known as AMI): the midpoint of an area's income distribution calculated on an annual basis by the Department of Housing and Urban Development (DHUD). However, AMI is not always used as landlords instead look at the current market and its averages to determine their "starting" price.

Non-market housing, conversely, is set by how much it costs to provide the housing. This type of housing isn't based on profit but based on the building's operating cost (electricity, water, heat, maintenance, etc), meaning it doesn't necessarily make a profit off of its renters. Non-market housing is made to keep a fixed price that might rise or fall not because of the desire of the landlord, but by its means to survive. Non-market housing might be created by non-profit organizations, community land trusts, government agencies (this kind of housing is called Public housing), non-profit cooperatives, etc. Sometimes government assistance or subsidies are used to cover costs. The bottom line is that as market-rate housing prices spike, non-market housing is stuck at one price, stabilizing the market and establishing ways for groups to afford a place to live.

However, non-market or public housing face a myriad of challenges. Waitlists, applications, qualifications through income, age, occupation and other qualifiers make this housing stock sparse and specific, with grueling wait times that many community members simply don't have. Other buildings, especially under public housing, are old and aren't properly maintained. Take Boston's public housing stock for example: "Massachusetts' public housing is deteriorating. The cost to fix it could be billions", an article posted by the Boston Globe, examines that the over 43,000 units of public housing created since the 1940s, need billions of dollars to repair and maintain the buildings to a "livable" condition. How has the state government responded to the campaign of public housing being infested with rats, broken staircases, lead-ridden water supplies, and the vast number of units needing repair after repair? A proposal of $107 million worth of funding, which one public housing advocate described as "spare change".

If the government, planning officials, and the zoning code of municipalities has "failed" us, in what ways have community members, organizations, and other individuals stepped up to provide an equitable and affordable means to our right of housing? Through petitioning for better legislation, tactical urbanism, and exercising property rights, many residents across North American cities have taken it upon themselves to fight for housing.

With a myriad of cities and states under a housing crisis, many people look towards amending current zoning ordinances and building new housing. However, just like the public housing units in Boston, it is just as urgent to protect our current housing stock from dilapidation. An example of maintaining this belief is through the enactment of tenant unions. Tenant unions use the collective bargaining power of renters from buildings, units, and other spaces put out by landlords for better living conditions, fair rent prices, and other concerns. Abolition notes, a volunteer-run education project, has compiled a list of over 33 states with cities and municipalities that currently have tenant unions. A new edition of the list is the city of New Haven in Connecticut. As of September 2022, New Haven became the first city in the state of Connecticut to legalize tenant unions. Through the collaboration of the city's Fair Rent Commission, the Board of Alders, and Mayor Justin Elicker, the law was signed into the city's ordinance. It allows for tenants of properties with 10 or more rental units that share a common location and/or ownership to engage with the city, landlord, and Fair Rent Commission to petition against rent increases, living conditions, maintenance, and other residential related issues while also recognizing the right the landlord has in due process.

Controversy in an urban and planning sense is fueled by public disagreement and community engagement. Since the legalization of tenant unions, two tenant unions have formed and have used protests and other forms of community engagement to voice their concerns of the quality of life landlords provide through their properties.

The residents of 311 Blake St, for example, were the first in the city to become a legal union in December of 2022, with over 31 signatures from tenants living there. With concerns over safety issues, disruptive construction, and rodents in the complex, along with a lack of response and accountability from their landlord (which is an affiliate of Ocean Management), the residents have taken it upon themselves to secure better living conditions.

In June of 2023, the residents of 1476 Chapel St, had also successfully registered as a tenant union, with over 8 resident members. Their landlord, which is also an affiliate with Ocean Management, has been deemed as unresponsive, by their tenants. Citing an infestation of rodents, exposed electrical wiring, and other safety issues, these tenants have also used their voice to signal their distress. Both unions even came together to protest and sit in with Ocean Management to come to a collective bargaining agreement.

- Tenant Union Protestors taken from Connecticut Public Radio

Since the law's inception, the city and the Fair Rent Commission have seen complaints from tenants

How We Fight for Housing

Kahlil Cooper

triple in just one year, much to their delight. "This is exactly the kind of thing we want to do more of and we as a city need to do more to help ensure people are living in healthy environments too," remarked Mayor Elicker. Wildaliz Bermudez, the Fair Rent Commission's Executive Director, said that "As more tenants become involved in tenants' unions it can provide us with a better picture regarding the housing stock that is available…". New Haven understands that they must build new housing in order for their communities to flourish, but they also realize that our current housing stock needs to be handled with the same care, time, and attention that many so desperately need. The creation of tenant unions isn't to attack landlords and property owners, but to level the playing field and allow for more collaborative agreements and engagements. The creation of these two unions paints a larger picture of the future residents, government officials, and representatives look for: collaboration and community empowerment.

This next example takes us to Kensington Market in Toronto, Ontario, Canada. Kensington Market is a vibrant neighborhood located right near downtown that shares a rich history in both diversity and innovation. As an open air and food marketplace, this ethnically rich neighborhood has been the place to find vintage clothes, fresh produce, baked goods, and more since the early 1900s. The market neighborhood was first from

- Taken from Heritage Matte

the result of Eastern European immigrants of Italian and Jewish heritage fleeing their countries in fear of discrimination to what was once one of the poorest parts of Toronto. Residents would convert the first floor of their homes into shops which would eventually encroach onto their front lawns with stalls full of goods. Since its inception, Kensington Market has also been home to Portuguese, Chinese, Korean, Filipino, and Caribbean immigrants, which is just a small sample size of this cosmopolitan corner of Toronto.

Because of it's unique mixed-use style, more businesses and more people have come to interact and live in the neighborhood, causing new high end businesses to kick out long standing community owned sites and wealthier residents to displace families who have lived here for centuries, creating gentrification and destroying the very fabric that made this community so special. With property values soaring, and the tourism and real estate industries wanting more leverage within the market, this area has faced pressures of both redevelopment and upzoning. However, Kensington Market has recently found a new organization within its neighborhood: The Kensington Market Community Land Trust (KMCLT). Community Land Trusts (CLT), are non-profit organizations created by and for a board of residents, public representatives and other community members. Members fund money to buy certain spaces whether it be agricultural, commercial, or residential, and provide other spaces for community based needs. Community Land Trusts might buy properties like homes and repackage them as non-market rate housing or buy properties to maintain their presence and fend off gentrification. For Kensington Market, it's about both in order to preserve the neighborhood's characteristics, and the people that live in them.

Since 2017, KMCLTs mission has been to "acquire and provide for the management of land" within the neighborhood limits. By removing properties off

How We Fight for Housing

Kahlil Cooper

the market for developers who wish to change the area, KMCLT hopes to alleviate "pressure of the commercial real estate market, with the overarching goal of land use for local community benefit". Their initiatives include providing the provision of affordable housing, maintaining the historical built environment, and to ensure the continued presence of the different ethnic, socio-economic, and cultural backgrounds found in homes, businesses, and other community spaces. One way they have kept their word is through buying properties.

In 2021, KMCLT purchased 54/56 Kensington Avenue and transformed the building into their base of operations. Since then, the land trust has been working with the city of Toronto and various organizations throughout the community to purchase other properties, like 25 Bellevue Ave, which currently sits as a parking lot that they hope to redevelop. As KMCLT adds more properties, they add a sense of local power in terms of providing better advocacy for what the direction of the neighborhood will take in the coming future. By educating residents, holding community gatherings, and providing general space for families, the trust begins to build a rapport with their neighbors, build legitimacy to talk to local and city government, dissuade developers from gentrifying, and most importantly create stability for current and future homes. KMCLT isn't just made up of members from different communities, cities, or even countries, but of residents, local investors and politicians, and renters that democratically elect a board of representatives.

Both tenant unions and community land trusts are two excellent ways that people have used to put the power in collective unity to secure safe and affordable housing. In spite of their success, CLTs and tenant unions still face a myriad of problems. For one, in order for tenant unions to succeed, many of them need to be protected by law either through legislation or the creation and allowance of special organizations. There have been at least 33 states that have some sort of tenant union creation and or protection within various municipalities. What does that say for the millions of U.S citizens in the remaining 16 states or the territories that the U.S occupies? For CLTs like Kensington Market, buying properties and land can come at a staggering cost. In order to buy 54/56 Kensington Ave, KMCLT had a $3.2 million mortgage that is being paid by the help of donations, forgivable and private loans, affordable housing grants, and other miscellaneous streams of money. If the solution is to buy everything in the area, it'll take time and energy that people can't just wait around for but desperately need now.

Unfortunately, whatever solution cities make will have to be done with time. But how much more can residents and renters take before they are displaced or financed out of the current situation that they see themselves in? It's evident that cities like Boston need a collective approach as the remedy for our housing crisis. On top of waiting for new zoning, approval for multi-family housing sites, and a scrutiny of current zoning ordinances and codes, we must also come together to advocate accountability on politicians, developers, and everyone in between or on the margins. How we fight for housing is determined by unity in our communities, nonprofits creating public housing or finding land trusts, and by our power to persevere.

- Taken from CTV News Toronto

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Unlocking Vibrancy Through Better Transportation

Alex Auclair & Evan Kashinsky

Abstract: Our cities are currently facing some of the hardest issues they have ever faced, and accessibility seems to be at the top of the list. Car ownership rates are some of the highest in history, and with a rising cost of living and climate crisis, other means of transportation need to become available. Examining other countries as they move towards a greener future, transportation and accessibility top that list of projects, with much tangible success. Additionally, looking at a typical American city, Kansas City reveals that making larger overall improvements is necessary, and simply making transportation free needs to work in tandem with creating more efficient and frequent networks. Simply making transportation more accessible, makes people more likely to use it, with benefits of vibrancy and social health. Building cities with better access, efficiency, and cost of transportation in mind can be possible even in car centric cities, and are the key to the livelihood of our cities.

Asking the question "can our cities survive?", can pose a difficult question to answer. There are many economic, political, and social factors that play into a city's vitality, but we would argue that accessibility to every destination within a city is key in building a strong foundation for a city to thrive. Before the invention of the automobile, every American city relied on an extensive network of different means of transportation: walkability, biking, trains, streetcars. Since its conception and passing of the Federal Highway Act of 1956, our country has forced almost every resident into private automobiles to access their housing, work space, and commercial areas. With the increased cost of living, how is the average American supposed to afford an expensive mode of transportation just to get to the other side of town? Looking at current forms of transportation, the skeleton of our former public transportation does not operate as efficiently and extensively as it once did. This almost always makes owning a personal vehicle the better, or only option in many cases.

The disparity between car accessibility and public transportation is an incredibly large barrier to making cities vibrant. While infrastructure could be made less accessible for personal vehicles by creating bus lanes and making car infrastructure not as dominant, we want to optimize transportation by making it the most accessible economically speaking. To many people, the financial cost is simply unaffordable, with maintenance costs, rising fuel prices, and increased commute times, that are becoming insurmountable obstacles. Even to the middle class, having to own more than one vehicle per household is becoming increasingly unrealistic. In order to combat this, we need to make public transportation look more attractive to a larger scope of backgrounds and perspectives. In order to achieve this goal, we would like to argue that making public transportation better through more efficiency, frequency, and free cost is the way to make cities more attractive for a variety of economic status, and return to their historic livable.

To grasp a better understanding of how much transportation costs we will look across the commonwealth of Massachusetts for a starting reference. Using data from the sixteen transit authorities we can compare cost and revenue while simultaneously looking more closely at how public transportation is paid for. Culminating data from government and agency websites at first glance public transit comes with a high price tag. Fifteen of the sixteen transit authorities across the

Unlocking Vibrancy Through Better Transportation

Alex Auclair & Evan Kashinsky

commonwealth operate at a deficit, usually totalling in the millions of dollars. The MBTA, which is the state's largest transit authority, continually operates at a loss of almost two billion dollars, even after revenues from passengers and additional sources. Therefore many transit authorities have to be heavily subsidized by local, state and federal governments. PVTA or the Pioneer Valley Transit Authority which is our local transit authority here in western Massachusetts, has many contracts with local schools and businesses to offset the costs of operation. Analyzing the budget from 2019 we can see that much of the costs are provided by state and member communities, totaling around 33 million dollars. In addition PVTA enjoys a variety of local contracts with local universities and schools which provide the company with revenue to compensate for a variety of routes.

Table 16. Operating Contract Revenue (FY 2019)

Organization Contracted With	Annual Contract Revenue	Contract Purpose
Westfield State College	$67,893.00	R10
Holyoke Community College (HCC)	$86,346.50	UPass for students
Five Colleges	$91,323.00	Routes B43, 39, 38, 39E
Hampden County Sheriff	$92,573.04	Route B12
Westfield State College Owl Shuttle	$92,893.00	OWL
Springfield Technical Community College	$97,019.20	UPass for students
MGM Springfield	$171,078.00	The Loop route
UMass Amherst	$500,000.00	Covers portion of UMass Transit operating costs
Springfield Public Schools	$576,073.00	Student passes good for Springfield routes during select times when school is in session

Source: Email correspondence with PVTA

When we look at Europe, many of us think of largely walkable places where people take public transit, walk, and bike to their destinations. While this is true in many cases, car ownership, and usage still remains very high in several countries. Looking at Luxembourg, in the year 2020, the country saw some of the highest car usage and dependency rates on the continent as a whole (Symons, 2023). A small country, with a small population, Luxembourg needed to find a way to curb car usage because of the lack of space to sprawl with limited resources and area to grow. The solution, to make public transportation the easier, cheaper, and more efficient option. With the rising cost of living, not only did this serve as an immediate relief to the population of lower income Luxembourgians, but the country additionally saw an almost quadrupling in ridership with Trams between 2018 and 2022. Although free transport was not completely the answer in Luxembourg's case, other factors in combination such as creating more routes, increasing frequency, advertising and the free fare worked in tandem to change public perception around transport in general. In the case of Germany, with the rising cost of living, during the pandemic, the country's government took the steps to subsidize the transportation cost even more and lower the cost of fares across the country (Connolly, 2022).

It is now possible to get a countrywide train ticket for only 9 Euros and a monthly use ticket for 49 Euros. Compared to an American experience, a typical ticket between Philadelphia and New York costs the average American 35 dollars for a roundtrip ticket. This drastic difference between the two nations explains why German Transportation is far more utilized compared to the United States. In fact, Germany was overwhelmed with ridership, proving when substantial changes are made, theory of change would suggest that people are more likely to use public transportation. As a consequence of more accessible transportation Germany cities are able to enjoy much more vibrant city centers that are made for people. Additionally, with the forced interaction of public transportation, not only are interactions more meaningful and plentiful, they create a sense of community car-centric communities cannot have. With all of these combining factors of efficiency, frequency, and lower cost, all contribute to sustainable and more desirable city environments.

Kansas City, Missouri was the first large metropolitan area in the United States to provide fare free transportation. Kansas City provides a unique case study and an in depth look at the challenges and achievements of fare free public transit. Since 2019 Kansas City's transit system has been operating fare free for three years and the city once again must decide whether to continue fare free or reintroduce fares. Since going fare free, the KCATA (Kansas City Area Transportation Authority), has seen an overall increase in transit equity and a benefit for many low income residents across the metropolitan area. In a survey conducted by the Urban League of Greater Kansas City, ninety percent of riders who were surveyed reported that fare free transit had an overall impact on them using the bus system more. (Smith, 2022) Additionally eighty-two percent of surveyors reported that the fare free program allowed them the opportunity to keep or obtain work in the city. For the city of Kansas City, public transit has been seen as a direct energiser of the local economy and an economic driver.

In order to fully understand the results of going fare free we also must look at the background for which this program was going on. Implemented right before the Covid-19 pandemic and continuing through its entirety, fare free was seen as a way for transit operators and the public to socially distance themselves. During this period as more individuals were working from home, the KCATA saw an overall decrease in ridership and revenue. With a return to normalcy in 2023 however ridership has resumed to pre pandemic levels

Unlocking Vibrancy Through Better Transportation

Alex Auclair & Evan Kashinsky

while revenues still fall behind. NPR gives us revenue data from the KCATA over the period from 2010-2019, which has shown before going fare free passenger revenue had barely made up ten percent of the agency's total operating revenue. (Calacal, 2023) As passengers report monthly savings thanks to the fare free program, the underlying issues many passengers still face do not have to do with fare pricing. In an article published by NPR, many issues that KCATA, like many other transit authorities across the U.S center around, staffing shortages, infrequent service, delays and limited network. Many passengers report that one ride can take anywhere from thirty minutes to an hour and is often a major difficulty for those heading to work.

Sustainability is defined as making a city for the future without compromising the needs and resources for future generations. This is the key to understanding how our cities will succeed in the future, and to keep them lively. By making these improvements to frequency, efficiency, and cost of transportation as a whole, our cities will be able to overcome many of the accessibility issues that they have today. In doing so, our cities will become places that are extraordinarily accessible to everyone, and accessibility may be the only way to ensure that our cities survive and thrive in the future.

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Designing Equitable Cities

Eileen Helck and Miguel Gomba

When thinking about resilient cities in the United States, designers should be mindful of historical biases in urban design and how the profession can change and move forward. Sustainability initiatives can be challenging, and some have had unintended consequences, especially for minority and other marginalized communities. Yet, we know that successful sustainability initiatives have drastically improved the conditions in which historically neglected communities live, and the opportunities available for residents. Building inclusive and endurant urban spaces requires active community engagement and the ability to design heterogeneously.

One way to build more inclusive and equitable urban projects is to include active community engagement. Yet, for different reasons, inclusive design processes are often the exception and not the rule. What follows is a comparison of three projects, the South Park neighborhood of Seattle, Washington, Melbourne AU, and Crenshaw, LA.

South Park, a predominantly minority community has been overlooked by the city for many years. It is challenged by environmental hazards and lacks basic infrastructure, relatively little park space, and insufficient public funding.

South Park is separated from downtown Seattle by an industrial zone and has been negatively impacted by its proximity to factories built along the Duwamish River in the 20th century. These factories have caused air and water pollution to permeate into the nearby neighborhood of South Park, affecting residents' health. The five-mile stretch of the river, where South Park is located, has been designated as a "superfund site" by the Environmental Protection Agency, meaning it has dangerously high levels of toxic waste or pollutants (Anguelovski).

Over the years, South Park community members, who are primarily of Latinx, Vietnamese, and East African descent (Anguelovski) tried to get the city to ameliorate its pollution, infrastructure, and economic issues for years, to no avail. In the early 2000s, several local non-profit leaders organized South Park citizens, and the residents built two parks on private property without funding from the town. Despite neglect from the city, the citizens of South Park were driven to create more sustainable spaces and fulfill the community's needs independently.

The situation began to change when Seattle finally began to focus its attention on South Park beginning in the mid-2010s. The city began to invest in increased police presence, a new bridge connecting the community to downtown Seattle, a plaza under that bridge, improved pedestrian and traffic infrastructure, and renovated pump stations and stormwater collection systems. While these projects answered some of the demands South Park residents had, they began to worry about how their neighborhood might change, as these projects began shortly after an influx of wealthier, white residents began to move into South Park seeking a small-town feel amid Seattle's urban sprawl.

Many minority South Park residents saw these changes and feared that gentrification was inevitable. One long-time South Park resident stated, "Once the city finally paid enough attention to the neighborhood, the residents really started saying, well it's great that now you're paying attention but at the same time we don't want you to, we don't want this to create more displacement" (Anguelovski). Family-owned businesses that had been standing for years were torn down to create the new bridge and plaza, which deeply hurt many residents, who felt their cultures were being erased.

When Seattle attempted to address South Park's challenges, ostensibly promoting sustainability and progress, the solutions implemented tended to reflect the preferences of the wealthier, white newcomers, rather than the preferences of the racially diverse, low-income residents. Seattle instated projects aimed at creating a veneer of sustainability, such as upscale plazas and environmentally conscious urban planning, but did not address the decades-long, persistent problem South Park residents had been asking to have fixed: the pollution caused by the industries upriver. Seattle's emphasis on creating sustainable solutions overlooked the nuanced and deeply rooted problems that the residents had endured for years.

Rather than fixing environmental and economic issues, these projects underscored critical tensions within Seattle and within the urban design profession. Seattle's misjudgment lay within its decision to provide homogenous solutions that had likely worked in other parts of the city but were not fully thought out in the context of South Park. The city had also failed to engage with South Park residents in a meaningful way in the planning stage. The city intended to revitalize and improve, but ultimately sidelined minorities and exacerbated existing issues. South Park is a clear example of a homogenized approach to design, in which the city used textbook sustainability practices, and did not adequately engage with the community or address the issues that mattered to residents. In this instance, Seattle did not succeed in designing equitably.

This disconnect between residents and local municipalities is common within development initiatives, yet still often overlooked. By working with the community and letting them play a role in the design process, locals can feel represented, not ignored. Melbourne, Australia, is an example of a place that, unlike Seattle, has successfully used community engagement to make their city more equitable. WSP, an engineering and design firm in Melbourne, is involving Aboriginal Australian communities in the planning process of a rail development project. Traditional knowledge-holders are included in co-design sessions to identify routes and sites that need to be protected, and how best to preserve cultural heritage. Participating residents are paid as consultants and indigenous artists can win commis-

Designing Equitable Cities

Eileen Helck and Miguel Gomba

sions for their designs as a way to incentivize involvement and give back to the community. The building of a yarning circle, an amphitheater for the community to congregate and place for local elders to give cultural tours, is one outcome of the collaborative process. (Wordmule) During its opening in 2019, a local member of parliament, Minister for Aboriginal Affairs, and WSP joined Uncle Shane from the Bunurong Land Council for a smoking ceremony at the yarning circle (Building Cultural).

"There's a lot of politics and emotion in it. But what we do is follow a set of principles - that are Aboriginal-led and community-involved - to navigate that, to ultimately get the right design and hopefully address that inequality," Michael Hromek, executive for indigenous design, says (Wordmule). Indigenous Australians have a culture rooted in connection to the land, and new developments have often left them "invisible in space." (Wordmule) Through proper consultation and cooperation, their culture can be acknowledged and supported by, instead of erased by, the built environment.

Another success story is the Crenshaw neighborhood of Los Angeles. A light rail development there is in a similarly culturally significant area. The Crenshaw-LAX connector would be an important North-South connection to the airport, but some of the residents were hesitant. Crenshaw is considered the cultural and commercial spine of Black LA. Since the rail passes through a few Black neighborhoods, there have been concerns it would negatively impact local businesses and divide the community (Davis). To address this, planners have partnered with a non-profit, Destination Crenshaw, who is leading an artistic redesign of the streetscape along the light rail corridor.

Since infrastructure projects are informed by and initiated at the highest levels of privilege, "typically, communities of color don't have the opportunity to make decisions about their future," Jason Foster says, president of Destination Crenshaw (Davis). The team in charge of design is led by Black architects from Perkins and Will, a firm partnering with Destination Crenshaw. An advisory group of 40 community members was consulted and given design agency in order to keep the project Black and "specific to this community." (Davis) The plan involves six community spaces, six prominent crosswalks, and shade structures. About 100 artworks and seven monumental sculptures by local Black artists will be showcased (Destination Crenshaw). Deep-rooting giant star grass is utilized in the designs, which was used by captive Africans as bedding on slave ships, symbolizing African resilience and recognizing cultural history. (Destination Crenshaw) This is an example of 'cultural infrastructure' or a way of embedding the existing community into the design, which Foster argues every infrastructure project should have (Davis).

Having a lasting positive impact carried on through future generations is a large priority. Foster describes that equity is "not just about making up for generational disinvestment; it's also about compensating for it for an equal amount of time." (Davis) There are plans to reforest the boulevard, planting 800 trees and developing 30,000 square feet of sustainable landscaping. Furthermore, there is a 70% local hiring requirement in the construction contract and technical support to small businesses along the corridor will be provided. The non-profit's DC Thrive program involves partnering with local entrepreneurs and establishments to help with things such as social media marketing and generating funding sources and applying for grants (Destination Crenshaw). Through these initiatives, the neighborhood hopes to see long-term aesthetic, environmental, and economic benefits.

Crenshaw and Melbourne exemplify a few principles where South Park might've fallen short. One thing to note is the varying levels of community engagement efforts. South Park's residents felt disconnected from the city's plans for them. Although Seattle may have had sustainability in mind from a textbook environmental and economic perspective, they disregarded the longevity of neighborhood character upon the site they're developing. Development was primarily informed by the wealthy and minority groups weren't represented well enough in the decision making process. In comparison, the development in Crenshaw and Melbourne was co-opted with the community and community led organizations, and projects were led by diverse teams, resulting in design that could properly reflect them. Diverse perspectives are important, but won't be heard unless an active effort is being made to hear them. These efforts invited more site-specific design as opposed to the homogenized solutions which are supposed to work for everyone but really serve no one in particular.

Planners and designers should take note of Melbourne and Crenshaw's efforts and learn from Seattle's shortcomings. Purposeful community engagement is tedious and expensive, but is essential in order to properly serve these neighborhoods. Design that is specific and advised by local residents is necessary for preserving the site's character. By keeping these principles in mind, cities can be more equitable and serve their residents in creating spaces people feel safe, welcome, and represented by.

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Designing Equitable Cities

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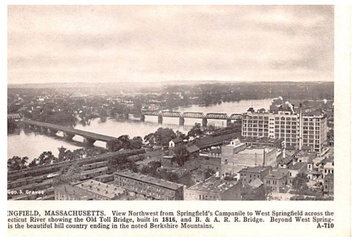
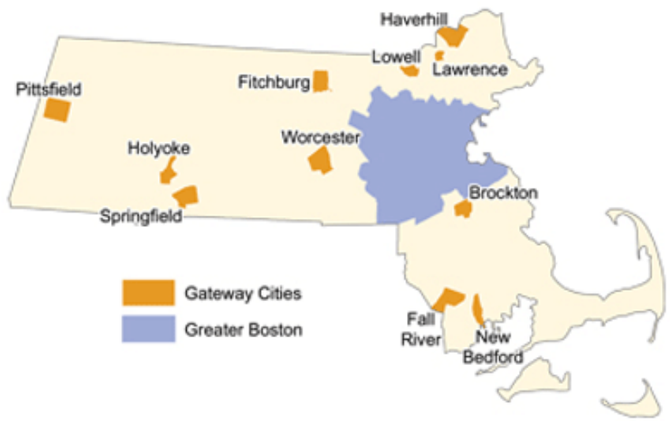
A Look at Massachusetts Gateway Cities; Comparing: Worcester, Springfield, and Lawrence.

Anna Brittan and Latoya Smith

Abstract: The Massachusetts Gateway Cities program began in 2007, with the goal of addressing the needs of the state's older manufacturing centers. These communities were home to industry that offered residents good jobs and a "gateway" to what became known as the American Dream of achieving success and prosperity through hard work and determination. These cities face social and economic challenges. Even so, because of the historic architecture, hospitals, universities, transportation networks, and the "authentic urban fabric" woven throughout the cities, they contain the ingredients to once again thrive. There are currently a total of 26 gateway cities in Massachusetts.





By overexploiting resources societies will compromise their ability to meet the essential needs of its people (WCED, 1987), which deflects from the major objective for sustainable development; meeting the basic needs of all while increasing productive potential and ensuring equitable opportunities for all. However, due to the narrow pursuit of prosperity there are many environmental failures that arose, which still need to be corrected. This led to the overuse of environmental resources by poor people in order to survive, in other words, "impoverishment of the environment has further impoverished them". Many environmental stresses resulted from the growing demand on scarce resources and pollution generated by the rising living standards of the wealthy. Poverty pollutes the environment and creates environmental stress in different ways, in this way the poor and hungry destroy their immediate environment to survive. There is irreversible damage to the human environment that threatens the basis of human progress.

Like most American cities and towns, the Gateway Cities have been negatively impacted by the Covid pandemic and other trends that cause people to move out of cities. One such trend is the rise in geographic inequality across the country that overcasts a growing divide between rich and poor residents. Taking a look at the current conditions in three gateway cities in the Commonwealth of Massachusetts; Lawrence, Worcester, and Springfield, our research seeks to understand how well these cities are doing, what support they need, and what their futures looks like?

This paper focuses on attempting to answer the following questions: What role does geographic location play in how well each city is doing? What are the current economic trends for each city? What advantages does each city have (or doesn't have)? What is holding these cities back? What help do they need? What does the future look like for these cities? In order to address these questions the paper compares the population, demographics, average income, education, and poverty rates along with plans for future infrastructure including green infrastructure to determine if and how these cities are surviving.

This article discusses if any of the three gateway cities in this study, Lawrence, Worcester, or Springfield, are able to combat geographic inequality, the post pandemic shock, population decrease, previously diminished resources, and fleeting industries due to the greater economic opportunities available elsewhere. Economic opportunities should be prevalent in the cities located a shorter distance from Boston, Massachusetts, this paper researches if this is the case.

Boston is a major commercial and social hub, therefore, the amount of access to its resources and opportunities has stark effects. Here we'll examine the demographics and socioeconomic statistics of specific gateway cities through the lens of differences in correlation to incremental distances from Boston.

Lawrence Massachusetts, known as the "City of Immigrants and Industry," is a Historic Industrial City located 29.4 miles north of Boston, outside what is considered the Greater Boston metropolitan area. It was incorporated between 1847 and 1853 as the final and most ambitious New England planned textile manufacturing city and the nation's first planned industrial city (Lawrence History Center, n.d.). This industrial city was developed by the same entrepreneurs that launched the American Industrial Revolution, the Essex Company, formed by Abbott Lawrence and other prominent families that were also influential in the development of the railroad in New England. They were also responsible for the growth of the major institutions and cityscape of Boston. After reaching a peak of 94,270 in 1920 the population bottomed out at 64,000 in 1980, currently there are 87,485 residents which is the lowest and only declining population of the three cities studied. After the wool processing industry declined in the 1950s, the population inherently followed.

Originally planned and laid out as a commercial

A Look at Massachusetts Gateway Cities; Comparing: Worcester, Springfield, and Lawrence.

Anna Brittan and Latoya Smith

and industrial center. In the mid-19th century Lawrence was the world's largest dam and mill complex and the leading producer of textiles. The river was dammed and land purchased on either side of it in order to gain control of the water power rights. As a tribute to their industrial heritage one can still see mill buildings along the Merrimack River, clock and bell towers, as well as the Great Stone Dam, which is still in good condition because of innovative engineering at the time. The industrial infrastructure and street layout was built by the Essex Company, many of the imposed restricted use deeds are still in force today. The restrictive deeds ensured that the buildings were of sufficient quality. They also micromanaged the development of the local government, schools, and churches.

Geographic inequality and social injustices were evident from Lawrences' inception as catholic churches were located outside the heart of the city as this was Protestant New England. Irish laborers that lived in crowded shanties on the other side of the river also rented from the Essex Company. Lawrence is a multicultural and multi ethnic gateway city with a large percentage of its residents being born in foreign countries and previously a world leader in production. Today Dominican and Puerto Rican communities with small entrepreneurial businesses are remaking the city's demographics and history. Being that the current population is mainly hispanic, the local economy and culture have shifted. Now Lawrence is a diversified industrial city with economic and manufacturing pursuits.

Worcester Massachusetts is located 47 miles west of Boston and is New England's second largest city, it is also the second most populated city in Massachusetts. First settled in 1673 as a plantation, named in 1722 as a town, and then in 1848 as a city. Worcester is known as the "Heart of the Commonwealth" due to its central location. Centrally located between Boston, Springfield, and Providence. Boasting high class colleges and universities, today there is new growth and development because of aspects like affordable housing, new infrastructure, transportation connections, green infrastructure, and its close proximity to Boston.

In the 19th century it was developed as an industrial city, manufacturing tools, wire products, and powerlooms, where European immigrants made up the city's population. The construction of the Blackstone Canal (1828) and rail transport (1835) by Irish immigrants set the city on a new path of becoming an industrial hub. Although there were plenty of textile mills there was very limited water power, which meant that investors were not interested in the area. But soon manufacturing machines used to turn cotton and wool into cloth made the industry boom. By the 1850s Worcester was considered the hub of the regional rail system, which turned it from a farming community into the industrial town that it became. By the turn of the century Worcester was at its height as a manufacturing center, becoming an ideal industrial city; a city of prosperity.

Just 100 years later the population reached its peak in 1950 with 203,486 residents from a mere 2,400 residents at the beginning of the 19th century. In 1990 Worcester had a population of 169,636 and it has been on the incline ever since, having the highest growth rate in New England. The city is completed by a variety of ethnicities due to immigrant workers that came to this city for a "gateway to the American Dream."

Post WWII Worcester saw long term economic and population decline up until the 1990s, as its manufacturing base declined like other similar sized industrial cities. In the 1960s the industrial base declined even further because some firms closed while others moved away. Starting in the 1990s higher education, medicine, biotechnology, and new immigrants helped the city begin to come back from previous decline. Over the three hundred years of Worcester's existence the city evolved, ushering new economies with each evolution. From revolutionary beginnings, to a manufacturing center, and now being a center for world class colleges, universities, medical facilities, and teaching hospitals. Worcester has long been and continues to be an incubator of different industries producing a variety of goods and services.

Springfield Massachusetts is known as the "City of Firsts" and is the biggest city in Western Massachusetts, the third most populated city in Massachusetts, while also being the 4th most populated city in New England behind Boston, Worcester, and Providence, respectively. Springfield was once known as the Silicon Valley of its day. Metropolitan Springfield is the second metropolitan area in Massachusetts, the other being Greater Boston. Founded in 1636 and named in 1641 after William Pynchon's home town in England. Springfield became a city in May 1852. Reaching its peak in the 1960s with a population of 174,463, in the 1990s the population declined to 156,983 residents, growing only about 2% since the year 2000.

The industries that dominated Springfield range from fur trading to agriculture, as well as being the regional center for banking and finance. This led Springfield to grow into a bustling industrial city. The Connecticut River, railroads, and highways connecting Western Massachusetts to other important regions in New England were the "assets" that made Springfield what it is today. This city's location is the most significant reason for its progress and continued economic success. Springfield is located midway between New York and Boston, furthermore, it's on the road between New York and Canada. This shows that the city is ideally located for travel in any direction. Due to its location there is potential for development of high-technology communications that will lead to further growth in the 21st century.

Worcester has over twice the population as Lawrence, but they have comparable poverty rates. Even though the median household income in Worcester is $10,000 greater than in Lawrence, the median property value of Lawrence is 20% greater than Worcester, which could contribute to the 45% lower rate of home ownership in Lawrence. Additionally, the large majority of Lawrence is made up of marginalized groups who face historic and systemic obstacles to fair home ownership. These demographics, compacted with increased housing costs, lower average household incomes which are increasing, and increasing property values, show signs of gentrification and a rapidly growing need for affordable housing.

Springfield has the lowest median property value and the highest rate of home ownership with nearly half the population owning their homes, even though the city has the lowest median household income and the highest poverty rate in comparison with over a quarter of the population living in poverty. Increased home ownership could be because of a less dense metropolitan area and more land devoted to single-family residences. Furthermore, Springfield has a median property value 50% less and a monthly rent that's 20% less than Worcester has a median property value 85% less and a monthly rent that's 35% less than Lawrence.

As the distance between a gateway city and Boston increases, the cost of living decreases but the cost of renting becomes disproportionately high. This illuminates a major deficit in affordable housing. In terms of access, Worcester has the highest rates of education, due to the high class education available. Lawrence has the lowest rate of education which can be explained by a demographic lack of access to academic opportunities, and could contribute to its struggling economy. (Above information represented in chart below)

A Look at Massachusetts Gateway Cities;

Comparing: Worcester, Springfield, and Lawrence.

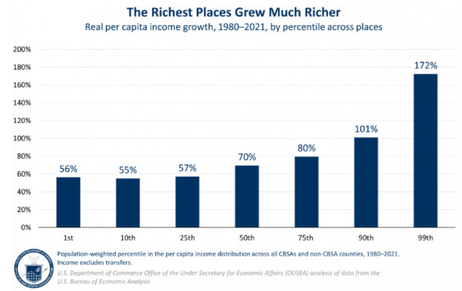
Anna Brittan and Latoya Smith

Data analysis:

City:	Boston	Lawrence	Worcester	Springfield
Distance from Boston:		29.4 mi	47.9 mi	91.6 mi
Population:	672,814 (2.4% 1yr decline)	87,798 (9.72% 1yr growth)	203,867 (10.1% 1yr growth)	155,770 (1.36% 1yr growth)
Race/Ethnicity (5 largest):	White (Non-His) - 44% Black (Non-His) - 21.7% Asian (Non-His) - 9.59% White (Hispanic) - 6.13% Other (Hispanic) - 5.92%	Other (Hispanic) - 41.5% White (Hispanic) - 24.7% White (Non-His) - 13.2% Two+ (Hispanic) - 12.3% Black (Hispanic) - 3.37%	White (Non-His) - 53.6% Black (Non-His) - 11.6% White (Hispanic) - 11.1% Asian (Non-His) - 6.76% Two+ (Hispanic) - 6.48%	White (Non-His) - 28.9% White (Hispanic) - 24% Black (Non-His) - 18.2% Two+ (Hispanic) - 10.7% Other (Hispanic) - 9.7%
Poverty Rate:	17.6% (1.92% 1yr decline)	19.2% (8.48% 1yr decline)	19.3% (2.11% 1yr decline)	26.3% (3.27% 1yr decline)
Median Household Income:	$81,744 (7.14% 1yr growth)	$47,542 (5.54% 1yr growth)	$56,746 (9.87% 1yr growth)	$43,308 (4.18% 1yr growth)
Home Ownership:	34.8%	29.1%	42.4%	47.3%
Median Property Value:	$610,400 (5.02% 1yr growth)	$311,500 (10.9% 1yr growth)	$259,800 (7.44% 1yr growth)	$168,700 (3.56% 1yr growth)
Median Rent:	$1,783	$1,303	$1,179	$964
Households With High Speed Internet:	88.4%	77.1%	85.9%	78.0%
High School Graduate:	88.2%	69.7%	85.8%	79.1%
Bachelor's Degree or Higher:	52.1%	13.5%	32.2%	19.5%
Persons Without Health Insurance:	3.7%	7.1%	3.4%	3.9%
Retail Sales Per Capita:	$17,552	$6,908	$10,983	$8,971

(Data USA & "QuickFacts").

Geographic income inequality has risen more than 40% between 1980 and 2021, therefore, local incomes have become more unequal overtime (Kolko, 2023). Geographic inequality increased more because the richests places got richer than the poorer places fell further behind, meaning that incomes grow slowly in lower-income places and faster in higher income places. Large metropolitan areas have higher incomes than smaller places, even after adjusting for the cost of living. Bigger metropolitan areas are more successful than smaller places at recovering from economic shocks, which is evident in the cases of Lawrence, Worcester, and Springfield. Economic transitions work against smaller America, because they can be dangerous places for working people - Mark Muro (Brookings Institution Metropolitan Policy Program), as in the case of Lawrence. Small cities are not surviving after the pandemic/recession because they are not suited to survive transformations presented by globalization and the information economy. (see graph below)



But how does geographic inequality affect gentrification? One implication of larger places having higher incomes and income inequality rising is that American economic activity has become more concentrated in a small number of places. Economic activity has become more concentrated even though some large cities have gained population slowly or even lost population in recent years, which is evident in Springfield's slow growth rate. Geographic inequality has increased while economic opportunities become more concentrated in the largest local economies.

From our research analysis we learn that location plays a major role in a city's ability to not only bounce back from a recession or a depressed state but also thrive in Massachusetts. The three gateway cities of Worcester, Springfield, and Lawrence proximity to Boston and the metropolitan hub of the greater Boston area have significantly impacted their growth rate, household income, per capita income and other demographics like ethnic mix and poverty rates. Worcester is growing exponentially with the highest growth rate amongst the 10 largest New England cities (Worcester Massachusetts, n.d.), however, it has a similar poverty rate to Lawrence which has a higher median household income, higher per capita income, is closer to Boston, but is the only city amongst the three with a declining population and inverse growth rate. Adversely, Springfield has the highest poverty rate with the lowest median household income and lowest per capita income of the three cities. Even though Springfield's growth rate is far below the nation's average, it is still increasing in comparison to Lawrence's decline. This growth can also be correlated to Metropolitan Springfield being the other metropolitan area in Massachusetts, however, Lawrence falls within close proximity to Boston and should be seeing growth that corresponds to being adjacent to the Greater Boston area.

When the numbers are compared to Massachesetts as a whole, with Massachusetts being the second wealthiest state in the U.S and most of the wealthiest towns in the state located in the Boston suburbs, we see that the poverty rates almost double in Lawrence and Worcester, while almost tripling in Springfield. Comparatively, the median household income of Worcester and Springfield are half of that recorded for the state. When comparing education rates we see that Worcester and Springfield's are higher, respectively, than Lawrence. However, does this correlate to the higher median and per capita income values seen in Lawrence versus those in Worcester and Springfield? Again, here

A Look at Massachusetts Gateway Cities; Comparing: Worcester, Springfield, and Lawrence.

Anna Brittan and Latoya Smith

we can infer that Lawrence's seemingly higher income rates are due to their location in relation to Boston being just about 30 miles outside, where in contrast Springfield is 93 miles away from Boston.

On average, from our research, Worcester is doing the best when comparing geographic inequality, population growth, education rates, incomes, and poverty level. We can also infer that Lawrence is having difficulty bouncing back in terms of growth because of its small size. This is because small metropolitan areas do not adapt well to economic transitions. According to Mark Muro of the Brookings Institution Metropolitan Policy Program, economic transitions work against smaller America.

"The thickness of a labor market is crucial in the innovation industries that are drivers of economic success today. . . this applies to the biotech engineer but not to the welder, who has more replaceable skills." (Enrico Moretti. University of California, Berkeley)

Springfield and Worcester in comparison to Lawrence have a greater variety of employers giving way to more job opportunities in a range of industries. Worcester is trending towards more innovation, more productivity, faster growth, diverse mix of industries, that all draw in better educated workers accompanied with higher wages.

Can we make other inferences? Of course, but looking at the data and all that Worcester has been doing since the 1990s in terms of technology, infrastructure, high class education, housing, health, and green infrastructure they are in a strong lead amongst the three cities studied. Aiding in Worcester's success is the transformation of industries from energy and retail to healthcare and transportation, in part because bigger metropolitan areas are more successful at overcoming economic transitions because on average bigger areas get out of recessions faster than smaller ones (Porter, 2017). Worcester has been gathering human talent which in turn spurs investment and drives innovations, similar to other successful large cities. However, this was not always the case, during a different economy after World War II jobs in metropolitan areas saw a decline because employment growth was spreading to smaller cities.

Currently, economic opportunities have congregated in dense urban areas like Boston, but also Worcester, as high-tech businesses seek to find skilled and creative people. Despite Lawrence's close location to Boston and higher income rates it is not in the Greater Boston area and when comparing it to Springfield and Worcester, its smaller size may be contributing to its failure in other areas, in terms of economic growth and opportunities as indicated by Moretti's quote above.

A few aspects that might harm the rise of these bigger cities, Worcester and Springfield, could be any type of rise in poverty and crime or housing restrictions that impede economic growth and opportunities by slowing down the influx of human talent, as well as lack of accessible transportation. These three smaller metropolitan areas have locked into the economic orbit of Boston due to their relative location from the Greater Boston area.

Physical sustainability changes the access to resources and distribution of costs and benefits, this enables social equity between generations and within generations (WCED, 1987). At a minimum sustainable development shouldn't endanger the natural systems like, the atmosphere, waters, soils, and living beings, which support life on earth. For something to be equitable there needs to be access for all, to constrained resources.

"Sprawl and consumption are still rampant and taking over valuable landscapes," this has led to the city landscapes and design shifting from sustainability to resilience (Fleming, 2016). There are various costs of sprawl ranging from greenhouse gas emissions, dependence on foreign oil, and even obesity in some cases, however running out of space is not a factor that needs to be considered, furthermore, we see that there is a link between compact areas and reduced vehicle miles traveled, which leads to reduced energy consumption (Ewing et al., 2014). As ideas from landscape design are used to shape urbanization they also offer a different perspective into what urbanism means; In terms of green infrastructure and green spaces around cities, we know that recreation is necessary to the well-being of humans and to the successful functioning of a modern urban city, but more importantly how recreation is provided for shapes the social life of a city. Social equity needs to be created in terms of public space and public green spaces.

Sustainability is not just a status symbol so even though we all need to care about the future and environment, we all don't get the opportunity to do so. If a city is beautiful, the citizens are well cared for while their needs are met, and the development works with natural systems and not against it, then there is absolutely no reason to argue that a sustainable future is not possible when so many people live in cities. Designing the city based on the city itself and fundamentally understanding what it means to be a city enables us to consider how and what makes a city sustainable. Ensuring that development works in accordance with the natural systems and provide benefits of public park landscapes and benefits of infrastructure that a city needs to continue to grow and be helpful to its citizens can also lead to a city becoming sustainable, no matter the size.

Thinking about land use differently can also lead to a sustainable future by paying attention to ecosystems instead of just thinking about the land as something to divide and be developed on. There has to be consideration towards protecting land and striving toward a sustainable future, reflecting on what it means to be living in relation to the land, natural resources, and the environment. Showing ecological and engineering resilience, with respect to how the natural systems are treated and the tools used to do so. By employing ecosystem-based management systems and an approach that manages resources, municipalities are able to manage change and biodiversity within an ecosystem, emphasizing the idea that "sustainability can be made but resilience happens" (Fleming, 2016). Since 100% renewable energy is "politically neutral" and beneficial to the community, it can also provide benefits of resilience and energy self-sufficiency, where communities have to commit to energy efficiency and energy renewables, this will drive social change, innovate policies, and transform economies (Worldwatch Institute, 2016) leading to sustainable and resilient cities..

These cities need support of a collective goal and policy towards integrative land use and transit-oriented development. A key factor in these cities' struggles is a disparity in mobility and economic participation. Since the deindustrialization of these cities, they have faced persistent socio-economic division, community degradation, and gentrification. The Gateway Cities Innovation Institute found that "increasing property values threaten to destabilize households and neighborhoods, strip cities of their cultural vibrancy, and put vulnerable residents at risk of displacement and homelessness" (Corley et al. 1). In order to support the health of these cities, it is essential to implement policies that bolster affordable housing as well as to address the historic socio-economic exclusion, particularly in racist housing and zoning policies.

A Look at Massachusetts Gateway Cities; Comparing: Worcester, Springfield, and Lawrence.

Anna Brittan and Latoya Smith

Integrative land use and transit-oriented development ensures access to places and resources that support quality of life. This initiative centers "people (not vehicles or systems)" to "maximize their mobility, accessibility, and connectivity" (Corley et al. 2). Mixed-use development can be utilized "to expand investment in cities with inclusive zoning policies and practices, address the distinct housing challenges in regional cities, plan for diverse community and commercial activities (not just coffee shops), and expand open and public spaces that are welcoming to everyone" (Corley et al. 2). Equitable transportation removes barriers to be affordable and accessible to all by providing a "well-planned mix of transportation options that minimize environmental and public health impacts, enhance geographic connectivity," and "foster physical and social activity" (Corley et al. 3). These initiatives would have an enormous impact on the social and economic resilience of gateway cities.

If the urban metabolism of a city is managed by its municipality and treated as a common jurisdiction, then we can start to see real change happening (Fleming, 2016). Municipalities also need to consider the energy, materials, and waste that are produced and consumed as under their purview in order for the city to be set on the path of sustainable and resilient (Fleming, 2016). Cities can approach urban design and management by employing small interventions and minimizing impacts because there are only specific kinds of landscape that can best handle new developments. We often question if cities should be planned by communities or corporations but we know that when municipalities and communities make decisions instead of big businesses, there are substantially more benefits that are awarded to the community. The benefits vary, ranging from jobs, reduction of fossil fuel use, lower greenhouse gas emissions, to cheaper and more stable energy costs. There has to be some sort of balance between environmental protection and economic growth in order for a city to be sustainable. And when that balance is reached, we can truly say that a city is sustainable. If factors like waste production and resource use are used to calculate a city's ecological footprint, then why can't these same measures be employed to calculate a cities future sustainability, no matter the size? No matter the size of the population in a city, that city has the potential to become sustainable if the right measures, like the ones listed above, are taken into account.

Through this research and analysis, it's obvious that gateway cities have historically declined to have major struggles with economic viability and social mobility. Today they are facing obstacles such as gentrification, lack of affordable housing and mixed-use development, community disconnection, and increasing environmental effects of climate change. But these cities are resilient. With increasing initiatives like green infrastructure, integrative land use, regional connectivity, transit-oriented development, etc. These communities are valuable and vibrant, and with policy support and development strategies, gateway cities will survive.

In order for a gateway city to survive and be sustainable despite its location in relation to the greater Boston area, its development must work with the natural systems and not against them. Development that works with systems like hydrology, topography, and vegetation to create a more sustainable footprint of humanity on earth. Placing an emphasis on using landscapes rather than heavy engineering for sustainable urban design in cities can surely lead us to a sustainable future.

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Digging Deep: Restoring Communities and Brownfields

Lauren Graham and Liana Rice

Abstract: Brownfields and vacant lots plague cities across the country, both visually and below the surface. These sites hold pollutants from previous uses for years, creating obstacles for those who wish to repurpose the land. The revitalization of brownfields is costly and often involves intensive cleanup, which can be subsidized by the local or federal government in the form of grants. Vacant lots and underutilized land present cities with the unique opportunity for revitalization both in the built environment and economically.

Brownfields, as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) are "real properties whose expansion, redevelopment, or reuse may be complicated by the presence of hazardous substances, pollutants, or contaminants (US Department of Labor). The decision of whether a site may qualify as a brownfield is made by the federal Environmental Protection Agency (EPA), state governmental agency, or both. A distinctive characteristic of potential brownfields sites that helps the EPA determine their status is their potential for redevelopment. This focus on redevelopment has led to the establishment of brownfield revitalization programs by various federal agencies and recently, most states have initiated brownfield programs in order to foster economic revitalization (US Department of Labor). All of these programs and agencies play a crucial role in assessing the potential impacts of hazardous substances, pollutants or contaminants on a site, influencing the decisions made regarding its redevelopment.

While brownfields are not defined as active threats to people who live or work near the sites, they may still have concerning impacts on employees who work on cleanup efforts and it is important for agencies to address them as soon as possible (US Department of Labor). Contaminants associated with brownfields can be present in various forms such as surface soil, groundwater aquifers, buildings, containers, and subsurface soil. Addressing these contamination issues may involve incredibly invasive methods of removal such as excavating or even demolishing buildings in order to consolidate environmentally contaminated material for treatment or disposal (US Department of Labor). Some of the materials once removed are able to be cleaned or repurposed, while others have to be disposed of off site.

Revitalizing brownfields can become expensive, but there are several grants available to help support these projects. Federal programs such as the Federal Environmental Protection Agency (EPA)'s Brownfields Initiative or the Department of Housing and Urban Development (HUD) Brownfields Urban Development Initiative, along with state and municipal government programs, offer financial support for these brownfields. It's important to note that none of these programs are designed to allow the groups that caused the contamination of these sites to avoid their environmental responsibilities, as they are required to pay for by the Comprehensive Environmental Response, Compensation, and Liability Act (US Department of Labor). One example at the federal level is the EPA's brownfields program. At the state level, brownfields programs often provide the site owner relief from some environmental liability when the site is determined to be clean. This incentive was strengthened by the Brownfields Revitalization and Economic Restoration Act mentioned above, which provides federal liability relief for sites addressed under a State response program that meets the criteria in the Ac and can aid in the sale and redevelopment of the property (US Department of Labor).

For nearly one hundred years, the Uniroyal Tire plant occupied a 72 acre lot off West Main and Oak Street in Chicopee, Massachusetts (DeForge, 2016). Among the twenty three buildings of the property, nearly 3,000 employees worked, contributing greatly to the economy of the once industrial city (DeForge, 2016). Once abandoned, the property gained a new identity, as one of the state's largest environmental and legal responsibilities. From 1980 to 2010, the land sat unused, with asbestos and lead paint coating its walls and hazardous materials such as solvents and acids seeping into the surrounding soil (DeForge, 2016). For thirteen years, $40 million dollars of state, federal, and local funds were used to rid the site of surface and subsurface toxins that designated the property as a brownfield (DeForge, 2023). Federal grants were supplied by agencies such as the Environmental Protection Agency, MassDevelopment, Community Development Block Grants, and the U.S. Department of Housing and Urban Development (DeForge 2016). These groups support the excavation and cleaning of hazardous sites with the intent of revitalizing a community by redeveloping underutilized sites. In 2023, 9.58 acres of the land was listed as eligible for development, although three out of four of the listed buildings will require significant redevelopment to be used once again (DeForge, 2023).

Another example of a brownfield redevelopment that targeted economic success is Polar Park in Worcester, MA. This site was formerly used as a parking lot and a manufacturing facility that sat there for two decades until redevelopment began in 2016. It has now

Digging Deep: Restoring Communities and Brownfields

Lauren Graham and Liana Rice

become a popular baseball park seating 10,000 people and home to the Worcester Red Sox. The revitalization of Polar Park faced challenges involving the presence of hazardous building materials and soil contamination such as petroleum, lead, and arsenic(EPA 2021). Fortunately, with a $2 million grant from Mass Development's Brownfields Redevelopment Fund, $7,300 from EPA Brownfields Assessment grant, and a $500,000 subgrant from EPA Brownfields Revolving Loan Fund, 150,000 tons of soil was excavated, managed, and taken off site. This cleanup and construction began in July 2019 and by May of 2021, the first home game was hosted(EPA 2021.

This addition of an innovative ballpark and relocation of the Worcester Red Sox has made this brownfield come alive in the city's actively developing neighborhood. The presence of this team has been welcomed into this growing district with lots of support from the city and community. This is reflected in the postcard campaign launched by the Worcester community where residents mailed the team almost 10,000 postcards voicing their support for the relocation. Polar Park contributes significantly to the well-being and economic success for Worcester as it has brought ideas for a parking garage, hotel, residences, and other businesses in the area. Polar Park was even recognized by the Environmental Business Council of New England and was presented with the Nicholas Humber Award for Outstanding Collaboration in recognition of partnership between public and private entities to complete a challenging urban renewal project in two years (EPA 2021).

Pelletier, K. (2020, March 9) - left, Maclaughlin, William (2021, May 17) - right

The restoration of brownfields is a crucial catalyst for both environmental benefits and economic growth. Defined by the presence of hazardous substances and pollutants that complicate redevelopment, brownfields demand attention to save communities and ecosystems. Federal and state programs, exemplified by initiatives such as the EPA's Brownfields Initiative and MassDevelopment's Brownfields Redevelopment Fund, play pivotal roles in providing the financial support necessary to make these projects possible. The transformative success of sites like the Uniroyal Tire Plant in Chicopee and Polar Park in Worcester directly show the major benefits of such initiatives. Cleaner environments, economic growth, and community development are just a few of the outcomes from these projects. Brownfield revitalization not only addresses environmental challenges but also serves as a blueprint for fostering sustainable urban development and creating resilient communities.

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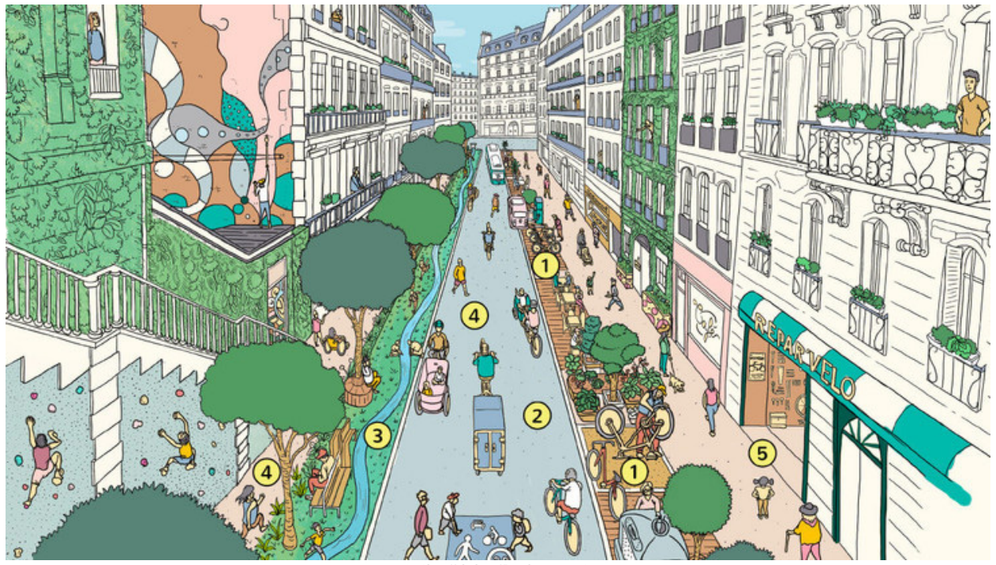
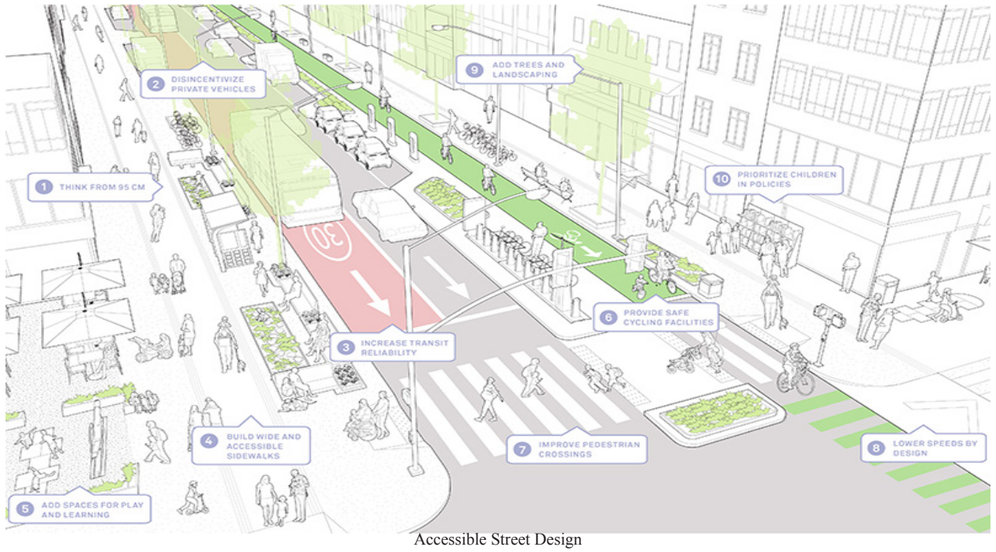
Creating a Walkable City

Grace Welsh and Bea Wig

Abstract: Tourists, locals and workers alike, all receive a first impression of a municipality or city while walking around their commerce and residential centers. By witnessing a city from such a humanistic level, key details of the area's structure and culture can be uncovered. However, there are complications that interrupt this natural living within cities as things modernize and change. Cars push pedestrians toward the side leaving streets more dangerous and polluted. Urban sprawl reduced the number of mixed use residential and storefronts, eliminating the use for in person interaction. The lack of green spaces and community spaces dissipates foot traffic and neighborly interactions on street blocks. And the overall desire to live within a particular city neighborhood is thrown out the window. However, with access to knowledge and history, urban development can incorporate more prevalent walkability to bring back accessibility and the character to follow.



Active Living Environments



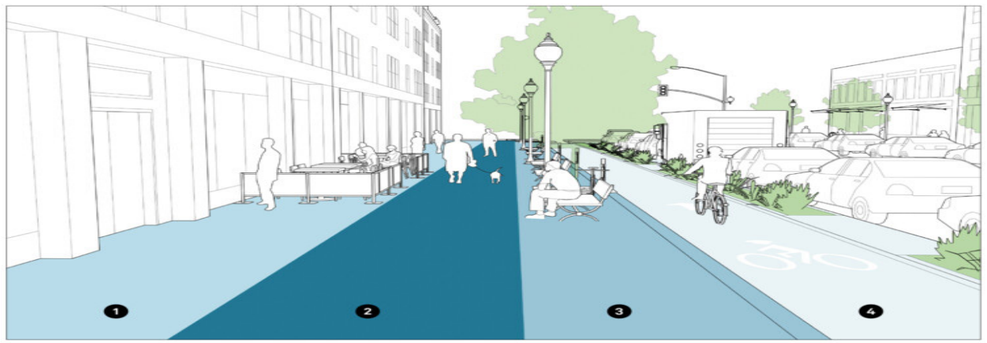
Accessible Street Design

Research Issue:

Cars have not only influenced our city design, they affect our access to community, nature, food, school, and work, which in turn negatively impacts our physical and mental health. Creating walkable cities that do not depend on cars leaves space for new parks, edible gardens, health services, and social gatherings which improve our connection to each other and the Earth. What is a walkable city though? Depending on one's priorities and background, it may be defined differently. However, the term "Active Living Environment" has recently been coined as it covers a broader range of factors which influence our physical activity in urban environments (Tobin, Melissa). Prioritizing city designs focusing on ALE's (Active Living Environments) is vital to mitigate our urban accessibility crisis.

Background Information:

Walkability is a common term used to describe the overlap between our built and social environments. Our built environment influences our social behavior and overall culture. Many of our cities have lost their interconnectedness due to the technological boom. We have become more accustomed to doing things individually: driving, working from home, cooking, and eating in smaller groups, living in sprawl. On top of that, resources have become less accessible to certain communities due to this isolation. Along with redlining, this unwalkable city structure adds an additional barrier that only money can solve. In St. Louis, Missouri, more than one third of the census tracts qualified as a food desert. These statistics display how racism has disproportion-



The Sidewalk: A Community Space

Creating a Walkable City

Grace Welsh and Bea Wig

Non-Human Scale

ately affected these communities (Access to Healthy Food Choices, 2022). Examples like these highlight the importance of taking an equitable approach to design. When city planners and developers implement edible garden landscape paths throughout a neighborhood, or build wider sidewalks, the housing costs should not be increased. This cycle of gentrification is counterintuitive as it displaces lower income communities and favors the wealthy. We all deserve equal accessibility to environments that promote physical activity and healthy living. Comparatively, Amsterdam, Netherlands, is a city that is based around bike routes and has a healthy balance of green space and built infrastructure. The biggest difference between Amsterdam and St. Louis is the mode of transportation. In Missouri it is vital to have a car to get to most grocery stores and in the Netherlands, cars are just considered "guests". Some bullet points below further contrast the city structures of Missouri and Amsterdam.

Why is this important?

Many cities have moved away from a more traditional plan and design making them uncomfortable for their inhabitants. By removing humans as the focus for a city you destroy their connectivity. However, cities have been and still be created or redesigned to a human scale.

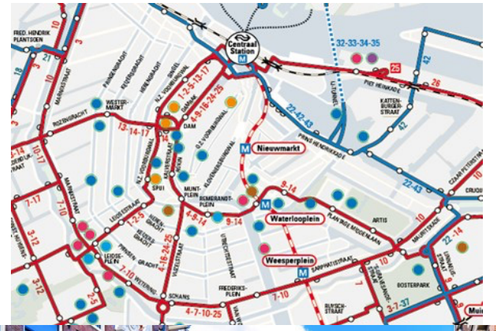
This is related to the future of cities and towns sustainability because with accessibility planning in mind when it comes to the creation of future municipalities many issues seen in failing cities can be mitigated. We have seen what works and what does not. And although not all techniques apply to all areas there are certain aspects that do carry over. For example, all areas need forms of transportation, so implementing other types of transportation other than cars such as trams and incentivizing biking can easily start to stir the conversation on re-centralizing and making cities more accessible for the community. The accessibility of areas affects the lives of every person every day. Whether that is from economic, social engagement, health and safety or any other aspect.

Comparison between a walkable city and a city that needs improvement:

Amsterdam, Netherlands

Above there was a little bit mentioned about the differences between diverse types of cities and developments, including this city. Overall, Amsterdam has a remarkably high quality of life, the 13th best in the world to be exact. And this type of standing was not earned by being the most luxurious or modern city. Amsterdam is an incredibly old fishing village sprawled out on an old canal network. And most of that original infrastructure and design has remained. That mixed use village feel is why people love Amsterdam, and the great accessibility you have while visiting. To begin, cars are nothing but seen as just within this city. So, there is little traffic, clean and safe roads, and walkways more geared to pedestrians to gauge community integration and exercise.

Instead, there is a central tram system throughout the city and 35k miles of bike trails. Bikes are utilized so much that about 40% of all intercity journeys



are on bikes. There are few 2-lane roads in Amsterdam. And no large highways that intrude into the city limits. There is a highway that goes around the outskirts of the city and to neighboring cities. But the centralized area of the city has little interruption from non-human scale infrastructure.

However, like any other city nowadays there is copious amounts of sprawl in city suburbs. Which may disperse the need for localized amenities, which in turn affects the economy. Amsterdam is a big tourist destination, so the likelihood of economic despair is a little far-fetched. However, if trends change, they may run into issues if things are not mitigated now. This is where the 2040 Structural Vision Amsterdam Master Plan. Which included a series of values that would work as a comprehensive plan to better the future of the city in all aspects. Plans to densify existing communities, work on public transportation, build up and not out and redevelop existing areas into mixed use areas are all included and all work to mitigate the sprawl of these cities.

Full of history, green space, and mixed used areas, Amsterdam could be used as a model city when it comes to accessibility and walkability. By keeping things simple that may just be better.

St. Louis

On the other side of the world lies St. Louis. This Missouri city got its roots in the 18th century as a frontier town. Now it is a city of about 300,000 people making it the 70th largest American city. However, these areas have a rapidly declining population and a sprawl that is growing in troves and is the largest metro area of a city the size of St. Louis with a population of almost 3 million people. The urban sprawl of the city has left it decentralized, and with little culture or sense of place. The city is overrun with worn down roads, abandoned buildings and unused public spaces. There are many people who do work in St. Louis, but they commute by car. There is poor public transportation, unwalkable streets and unsafe neighborhoods. Overall, the quality of life here is not great, and the finger may be pointed to the lack of aesthetic urban design to create an allure of the city. With redesigning, the city can be made more appealing and creating walkable mixed-use streets may be the first step that needs to be taken.

North Broadway - Street Possible Redesign

Creating a Walkable City

Grace Welsh and Bea Wig

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Designing for People

Tara Lecamwasam, Libby Groulx

Abstract: In recent years, many communities have used green space as an intervention for crime and mental health, and recognize it as necessary for childhood development. These practices have had many positive impacts and are backed by research for their positive effects. We will explore what those effects are and how they are produced through urban green spaces.

In our current time, people's lives have become stressful and busy. The mental health crisis has increased exponentially (Ducharme, 2023), safety in public areas has become a priority, and children's social development has been stunted because of the COVID-19 pandemic. Addressing these issues has become a priority for politicians, researchers, and the general public. One approach, backed by substantive research, is the design of people-focused green spaces. Well-designed green spaces have many benefits. They can promote greater mental well-being and can be designed in ways to promote public safety. They can also provide opportunities for children to learn and develop as they interact with nature and others who are occupying the space (CNR Web, 2022).

It is reported that 55% of the world's population lives in urban areas. This is expected to increase to 68% by 2050 (United Nations, 2018). This increase in population will increase the social challenges that cities already face, making green spaces an even bigger necessity. Throughout this chapter, we delve into how green spaces promote mental well-being, safety, and development and why it is vital for cities to increase the amount of green spaces they have.

(*Tokyo, Japan*)

(Grant Park, Chicago)

Mental health has become a disease at the forefront of everyone's mind as the years have gone by. There has been more of an emphasis in schools and the workplace to make sure that people understand how to limit stress and take care of their mental well-being. One way people have tackled the mental health crisis has been by creating well-designed green spaces. Green spaces provide a great way to address the ongoing crisis. Research has shown that "individuals have less mental distress, less anxiety and depression, greater well-being and healthier cortisol profiles when living in urban areas with more green space compared with less green space" (Barton & Rogerson, 2017). Case studies show that access to green spaces lowers stress. For example, a Japanese study found that a forest environment reduces cortisol, pulse rates, and blood pressure compared to cities (Park et al., 2010). Other research done by Ana Riberio showed that people who had access to and views of natural environments during the COVID pandemic lockdown had lower levels of stress and psychological distress (Riberio 2021). Green spaces become restorative environments because they allow people to have a brief moment of "escape" from their current environment. Especially if public participation in these environments produces a sense of responsibility for the space, people start to enjoy, understand, and relate to the natural environment. As cities become more populated as time goes on, investing in green spaces is the best way to combat the negative well-being of their citizens.

In recent years, non-police forms of calming potential violence in higher-risk areas have been made a priority to avoid needless interaction between civilians and police. One way of doing this has been to engage the community, especially through green spaces and community gardens. On a very small scale, prisons across the country have implemented community gardens to help inmates feel a sense of peace and stewardship while they are working, and as a result of the success this has had, more police departments are considering and implementing community green spaces and gardens to foster peaceful interactions in the community and a feeling of care for the area. Because of their lower fiscal and physical requirements for implementation, community gardens have been used as a form of intervention in areas affected by violence using vacant lots available to cities, and they showed promise in reducing crime rates. According to a study conducted by NIH, green spaces, defined as explicitly

Designing for People

Tara Lecamwasam, Libby Groulx

urban vegetation and synonymous with nature, have greatly reduced violence in high-crime areas. The main form of greenery that has shown promise as a replacement for surveillance and policing are vegetated streets and walkways. Correlational studies showed that green spaces and gun violence showed an inverse relationship, meaning that green spaces made communities safer on the whole. The study also refers to "visual guardianship", meaning that when an area appears better cared for, both residents and non-residents alike are more likely to treat that space with more respect and not engage in violent crime in the vicinity. A variety of studies referenced in the NIH literature review focused on using GIS mapping to survey areas for tree and ground cover, looking for correlations between higher levels of greenery and lower levels of crime. The vast majority of these studies showed a relationship between decreased crime and greater volumes of ground and tree cover, with only one study dissenting, stating that greater cover led to an uptick in violence due to the ability to hide in the brush better (NIH, 2019).

Finally, increased access to green spaces in communities, especially urban areas, has proved to be extremely beneficial to childhood development, specifically cognitively and socially. According to UNICEF, it is considered one of the rights of children to have access to the outdoors as part of their rights to play and develop adequately. In many cities, access to parks and green spaces is much more of a privilege than a right due to the compounded effects of density and economic development. In a study of kindergarteners, balance and coordination has been found to be higher in children with access to outdoor spaces to play and interact. Physical benefits include better eyesight and motor skills. Cognitively, green spaces around homes and schools have been linked to greater concentration, creativity, and academic achievement. Green spaces reduce stress and the impacts of potential mental health disorders, allowing children to grow and perform better mentally overall. Greenery has also been shown to decrease behavioral and social issues among children because they are given the space to expend energy outside so they are less likely to act out in class or with

(*A community garden in the Bronx intended to bring new life to a vacant lot.*)

otherchildren.Inneighborhoodswithaccessiblegreen space,thereisgenerallygreatersocialcohesion,exemplifyingchildren'sacceptablebehaviorandrelationships among peers and reducing social isolation and anxiety (UNICEF, 2021).

Green spaces play a vital role in our everyday lives. Yet cities are only now beginning to deploy this approach to better address the needs of their citizens. Despite the evidence of widespread benefits, cities need to invest more in the design of green spaces. It is important that the research regarding the benefits of adding more green space, including the connection to mental health, is shared widely with others. Adding more green spaces provides important benefits to our cities. As climate change continues to impact our environment,itisespeciallyimportantthatcitiesimplement plans to protect their citizens instead of their municipal wallets.Especially,withevidenceshowingthatthebenefits of adding green spaces are priceless.

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Shamayim Harris, Who Turned Blight to Beauty thru Avalon Village

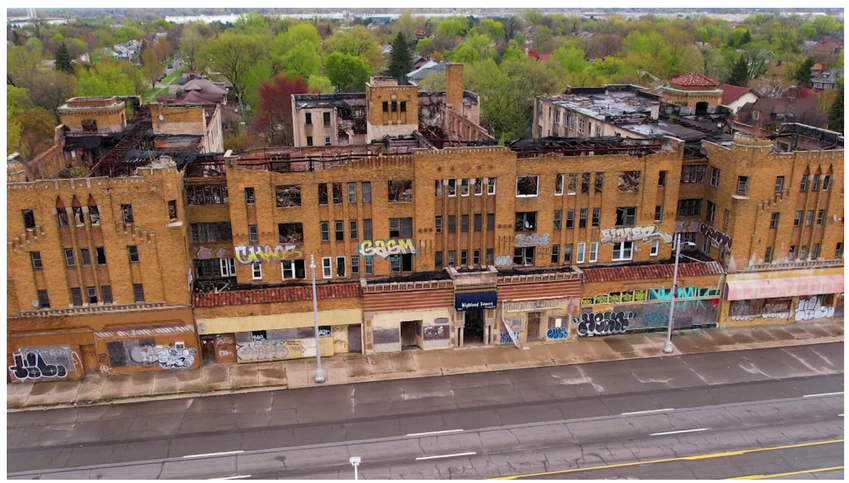
Conor J. Carlson

Abstract In this paper, we will explore issues that are faced all around the United States through the story of a woman and community leader who believes everyone deserves to live in a beautiful community. Shamayim Harris, also known as Mama Shu, rebuilds her Highland Park, Michigan neighborhood into a more sustainable, healthy community called Avalon Village. With no training to complete a task like this under her belt, but a vision and determination to create a better future for the children and people of her neighborhood, she shows us that anything is possible if you have the determination and gall to change your surroundings.

For the past couple of decades, blight seems to have infiltrated every corner of the United States, its scale of how aparent differs depending on where you are. For the communities in and around Detroit MI, their neighborhoods, once a shining example of what America could be, have now become exactly what comes into people's minds when they think of blight. What is blight? A noun and referring to the urban landscape, refer to vacant lots, abandoned buildings, desolate or decaying structures, and normally embrace a visible feeling of neglect. Urban blight in the Detroit area was due to a number of issues and problems like economic changes due to deindustrialization, white flight and the expansion of the suburbs, increases of local unemployment, poverty, etc. This picture of the area is very apparent in the Michigan city of Highland Park, about six miles away from Downtown Detroit. As a standalone municipality almost completely surrounded by Detroit, neglect can be seen on almost every building in the city.

Davison Avenue at Woodward in 1932 - "The City Of Trees"

At the turn of the twentieth century, the young, at that time village of Highland Park, had a population of 427 residents, although with many automotive industries moving into the area, the population boomed to the city's peak population of 52,959 residents by the year 1930. As of the year 2021, the population has strained closer to the village size at about 8,902 people left. Decay can be seen on every street with a lot of "used to be" buildings (Dunn, 2023). Shamayim Harris, who grew up in the area, remembers a neighborhood with life, corner stores, and community, today replaced with husks of homes.



While others saw neglect, she saw opportunity.

The Beginning of Avalon Village

For many years, Shamayim Harris, also known as Mama Shu to many in her neighborhood, would drive past one street in particular that she really could let her imagination run wild on. The name of the road was Avalon St. The street is like many other streets in H.P. The homes are dedicated two stories, that stretch

Shamayim Harris, Who Turned Blight to Beauty thru Avalon Village

Conor J. Carlson

out to the road with a porch on the front. However, not all of the beautiful hundred year-old homes are still in existence, with overgrown empty lots and chain link fences still marking property lines to be the only memory of a home. Out of the structures left standing, even fewer have inhabitants. Debris from crumbling heart-break homes are on the unmaintained sidewalks and in the meadows next to the boarded buildings. This is where Harris would create her dream. She wanted to live in a beautiful city, with flowers, thriving businesses,

"I felt that that is what we deserved." We deserve a quality living experience (Dunn, 2023). Harris doesn't have any background in planning or architecture, although she did have a clear picture in her head and determination. Her story is not one without tragedy. On September 23, 2007, while crossing the street with his older brother, her son Jakobi Ra was killed by a hit and run driver at the age of 2. "Worst thing imaginable for a parent." Even though she was devastated by the death of her son, she knew she wanted to turn this new devastation into something powerful (TED, 2017).

One day, a house at the corner of Avalon st. went on to the market. Having always admired the street, she put in an offer for it. It was just that feeling that you get, you know where I just needed to get that house. The listing was at five thousand dollars, so she put in for three thousand. She didn't have the three thousand either, she just needed the house. Using her savings and borrowed money, she was able to buy the house (Dunn, 2023). Still grieving the loss of her son, Shamayim tried something different. She started to choose to transform her pain into power, grief in glory, and loss into love, using her trauma as a fuel source (TED, 2017). She started to buy up some of the other lots on Avalon St. with any money that was available. "Income tax refund checks, my work check, selling fish sandwiches for $5, getting donations." With the help of her family, she started to gather volunteers and started to fix up the block, one lot at a time. For Mama Shu, bringing the community together was not an issue. As of 2016, she worked twenty seven years in the Detroit school system and was the first woman chaplain for H.P. P.D., as well as being a reserve police officer for her area. Slowly, but surely, the trash and debris started to be cleaned up on the street, the lawns became maintained, and some of the homes started to breathe new life.

#7 "Look at all this space," she said. "We can do anything we want."

Blight to Beauty

As time went on, different parts of Harris's dream and the village started to pop into reality. Planning out projects for the block's future, Mama Shu started with cleaning up the block and fixing up the blighted properties she was able to purchase, as well as creating a community garden and a park/ community area dedicated to her son Jakobi Ra in memory. In 2011, the city of H.P. repossessed Avalon street's streetlights because the city couldn't pay for them anymore (TED, 2017). Dark streets were not in Mama Shu's visions and one of her main concerns she was trying to address is creating a safe place for children to grow up in. So in 2014, she teamed up with the community organization Soulardarity to install solar street lights to the street so there's no bills and always power. With the different properties, Harris's tactics with expanding the village consisted of a mixture of buying back the block and tactical urbanism. She used the money she got from donations to buy a lot that became available so that nothing the village built was ever threatened by land issues. With the properties she did not own, she made sure their yards were maintained and fixable decay was cleared.

Shamayim Harris, Who Turned Blight to Beauty thru Avalon Village

Conor J. Carlson

Today, the village has 45 lots, and counting. Some of the buildings include The Homework House (a safe place where kids can go after school with activities, a sound studio, library, kitchens, laundry room, and yes, homework area), The Village Hall (a house donated to the village by Ellen DeGeneres and acts like a town meeting building), The Goddess Marketplace (a shop and collective of women business owners of the community, giving them the opportunity to make a living), and The Imhotep Steam Lab (a building of learning that allows children to explore and learn about science, technology, engineering, math and art) (The Avalon Village, 2023). Many of these locations are third places that either have never existed or have not existed in this area for a long time.

Another Way

If you take away anything from this story, take away that anyone can make a difference in their community, big or small, even against impossible odds. The issues Mama Shu was trying to address in the dream of Avalon Village was to address poverty, urban blight, the loss of community and so many other sadly common issues that we see in the United States today. What Harris is able to do in Avalon Village shows us that there are so many different ways to help your community. By purchasing the properties first through the buying back the block model that she goes by she is able to redevelop the properties in her neighborhood, without causing gentrification to accrue. This way keeps communities together and strong, while also allowing people the choice to talk about and plan what they want in their neighborhood. A choice that many people don't get to have.

Another problem that is a constant is keeping materials and resources cheap, while still trying to strive for quality. This is something people face in every industry, which is why it's important to look at the ways Avalon Village goes about some of these issues. The longest standing on is reconstruction of lots. Recycling and redeveloping blighted properties on the block into resources for the community is one of Mama Shu's main goals, especially for children and the elderly. This does a number of things, like creating a strong community, keeping the historical feel of the neighborhood and sense of place, and mainly with volunteer help, keeping the cost down. When walking around Avalon Village, it's not uncommon to see shipping containers rehabilitated into eco-friendly, sustainable buildings. The Goddess Marketplace and The Imhotep Steam Lab both are constructed like such. Mama Shu on her Youtube channel points out, it's cheaper, recycles, and is a blank slate for community improvement. Many problems in Avalon Village are solved through more eco-friendly means because it is what's cheaper for the longest period of time. The solar powered street lights are a great example of this. Since they're solar powered, the street doesn't need to pay a single bill for electricity (The Avalon Village, 2023).

Challenges Faced

Many of the challenges for this project that comes up have been addressed in the previous paragraph, however some are still meant to be said, especially with planning, cost of projects, and challenges with the buy the block method. Firstly, Mama Shu is at the mercy of new lots actually becoming for sale. She is completely at the will of the market if they needed to expand. A related issue of purchasing the property

Another big challenge when planning the village is the unpredictable variable of blight. Some of the promised projects from back in 2016 that were supposed to come with the unveiling of The Homework House have not come yet. Resources like The Healing Hut and Eco-Cafe that were supposed to be built using the repurposing of an old auto mechanics garage. Today, the lot where the garage used to be is empty and sand covers the ground.

Shamayim Harris, Who Turned Blight to Beauty thru Avalon Village

Conor J. Carlson

From what could be found, the property was demolished because of a chemical leak on the premises, although it brings the issue of blight into the conversation. Since Mama Shu started this project, four homes that were bought were demolished from being too far gone and many others were slated for demolition by the city. Heartbreak is another challenge to overcome throughout this redevelopment. In 2022, on January 26, her son Chinyelu was ambushed on the street and shot. He died at the age of 24 years old. He was Mama Shu's partner and rock in the construction and development of Avalon Village (Theavalonvillage, 2022). Today, there is a micro park that is used as a shrine in his honor across the street from his younger brother's memorial park. The Village started from the fuel of trauma from losing her son and continues to fuel the community today.

Conclusion

There are ups and downs to the process of rebuilding a neighborhood, especially through the grassroots efforts of Avalon Village, but they are worth it. Mama Shu still hopes that her efforts along the block will inspire other neighborhoods and reverberate outwards throughout the region of Detroit. New projects seem to be in the works. With the demolition of the last blighted property on the street, Mama Shu has already drawn up plans for their new urban farm to expand the food production of the village and be able to teach gardening and science to the local children at a better level than what the current garden can provide. Which demonstrates some of the best aspects of the village through its adaptability. The community has the power and the ability to create whatever new resource they need for a better life.

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A TIMELINE OF THE DESIGN OF CITIES

Traditional Approaches to City Planning

Beatrice Wig

After World War II and the Federal-Aid Highway Act of 1956, cars became a staple for most American families. This car centric lifestyle greatly influenced how we use cities, shaping how they look today. Before this shift in society, people depended on public transportation more, walked more, and had safer roads. Cities were built more densely, making a majority of places walkable. This structure originates from Renaissance Europe and has been repeated and used for over a thousand years. Traditional City Design has proven to work and many people consider it the solution to our most pressing issues today.

Since traditional design does not involve cars, it's often referred to as a human scaled system. This type of structure allows for cities to have a more unique identity and sense of place, making people feel more connected to others and their environment. You're more likely to run into people or become aware of local festivities when the city structure promotes communal public spaces. Instead of having to worry about creating big enough parking lots or wider streets, attention is put towards more intimate spaces that improve quality of life. Narrow streets made of stone with plants and quaint buildings on either side creates the natural inclination to walk.

Comparatively, a massive city scape filled with traffic, fumes, and distant grocery stores, does not encourage transit by foot. It is easier for traditional cities to have character because they do not prioritize mass production. While less people may be able to fit down a narrow street, this design inspires people to walk a little slower, look around, and enjoy the present moment. Traditional cities encourage you to live in the moment and take your time.

Because of all the intended and unintended benefits that traditional architecture offers, a movement in the early 1980s called New Urbanism arose. This concept was in response to the wasted resources and inefficiency of suburban sprawl. New Urbanism approaches city planning by pulling principles from past traditional design. The main themes are: walkability, mixed use zoning, unique and quality architecture, density, sustainability, smart transportation, diversity. Planners make sure to focus on the connections between public and private spaces like the facades of buildings, sidewalks and curbs, frontages, and the positioning of windows and doors. Design choices are powerful and are put under regulations when developing a traditional city.

Certain styles encourage a walkable lifestyle and better attract jobs and housing. Small design tactics make a bigger difference than we give credit. Multiple communities have applied traditional city structures to their neighborhoods at different scales. It all starts by educating the public and government officials on the benefits in order to create regulations and policies that encourage walkability and denser neighborhoods. This includes events like charrettes where everyone in the community on all levels are involved in the design process. This holisticapproach is a great opportunity to learn a new perspective that you may not have thought of yet. Depending on the planner, style may be taken a more traditional route in order to fully embrace the traditional design like the pictures in Europe above, however, planners have also found new styles that still meet the needs of a traditional city.

New Urbanism and Traditional City Design can take many forms. While the styles of Europe and Mexico may contrast, they follow similar walkability patterns. Humans innately knew what was efficient and life enhancing, however, shiny cars got us very excited and distracted us from the most important aspect of life: connection. This human connection leads to convenient and equitable accessibility which, in turn, improves mental and physical health. In our current environment with climate change, and excessive waste, aspects of New Urbanism provide promising solution to our problems.

Modern Approaches to City Planning

Evan Kashinsky

Turning our heads to the mid-20th century, the accessibility to new forms of transportation, and building materials lead to a complete overhaul of city design. As most time periods act based on a reaction of what happened decades before, the period of traditional city planning with ornate buildings and walkable environments was marked to an end. With the unchecked environment of smog, cramping, and uncleanliness created by traditional cities, many places bulldozed and destroyed what they traditionally created in favor of what we deemed to be solutions. As time went on, the approach to modern city planning tried to make cities be everything that they have traditionally not been.

One of the most important and impeding aspects of modern city planning has to involve the adoption and implementation of zoning. The style of zoning popularized during this period of time was dubbed Euclidean Zoning, which slots certain types of development to certain areas. This complete separation of districts almost completely disturbed our natural process of city building. Prior to planned city development and zoning, our communities were constructed to be places to live, work, and play, and after this sharp splitting, it fragmented the natural order of our social and life structure. This split was further exacerbated by modern architecture and designers like Le Corbusier who designed the Towers in the Park, which would have stuck people into inauthentic large skyscrapers that would be separated from the rest of the city where people work and play.

In tandem with separation of space, zoning was also used during this period as a tool for exclusion within our cities. As from where Euclidean Zoning got its namesake, the Court Case Euclid v. Amber, cemented the power of land use discriminatory zoning into our legal code. The basis of this case singlehandedly locked many communities into single-family zoning, where all of the homes were large, expensive, segregated, and in the shape of an idealized American Dream. In doing so, people who could not afford large homes and the costs that large homes come with, were essentially locked out of certain communities. The advertised "better life" provided by these sub-urban environments caused many wealthy white families to leave major cities, and caused cities to become majority minority and marginally poorer, and gain negative reputations among the wealthy.

These sentiments and negative sentiments still prevail in wealthier communities despite cities being places that potentially save us from the sustainability crisis that our resource overusing, inefficient, and sprawling environments suburbs have created. The tool of zoning inadvertently became a way to bring order to cities while also being a legal basis to segregate neighborhoods which is something that we are just now beginning to fight back against.

In an attempt to save cities from losing population, and make downtown areas more accessible to vehicle owners, much of zoning law introduced parking minimums while also building major highway infrastructure. Much of the cities' vibrant and authentically lived communities were suddenly bulldozed overnight to make space. Looking at many cities, many locations of beautiful historic buildings were turned into asphalt parking lots without forethought. Erecting physical barriers between neighborhoods with highways, and demolishing people's homes, neighborhoods lost their character while simultaneously destroying social infrastructure. Our lives and cities began to feel increasingly isolated, and more designed to look a certain way, sleek and modern. In tandem with increasing parking lots and the desire to be modern, our environments have seen the color and life drained away from them in favor of gray, white, and black concrete structures. While a lot of these major changes did bring some good to cities, a lot of the work was hastily decided and acted out without realizing potential negative consequences.

Post Modern/Green/Sustainable Approaches to City Planning

Anna Brittan

The approach to city planning has changed drastically as we moved into the 21st century. Now we face the wave of reconciling the mistakes of past planning and the urgent need to combat climate change. City planners today have the complicated job of undoing the detrimental effects of sprawling, unsustainable, disconnected development on the health and well-being of the environment and our communities, as well as addressing the systemic inequity that previous methods have exacerbated. In the most-modern world today, we've transitioned to planning techniques that center sustainability and community autonomy. This lens is known as urban design, or sustainable community development. This is an interdisciplinary approach that prioritizes mobility and connectivity through high-density and mixed-use development, robust nature spaces, renewable energy, and utilizing and mimicking natural systems for water management and ecological rehabilitation throughout every aspect of design. In postmodern planning, the process of design is also much more collaborative, as input and direction for what is needed, what works, and what doesn't from community members themselves is the most essential part of building thriving cities.

GREAT CITIES

Seoul

Joanna D'Attilio

Seldom does a city as distinctive as Seoul come along. Considering the city has a population of nearly 10 million people, the capital of South Korea still strives as the country's epicenter of culture, connectivity and innovation. Seoul is well known for its technologically driven atmosphere, complete with high rise apartments, skyscrapers, and modern applications being incorporated into everyday life. One example of how advanced technology has been utilized daily is the public transportation system. For traveling in the city, most residents have a T Card, which can be used on the subway, buses and even taxis. Subways, buses and even the light speed train rail are well advertised and serviced, allowing for a clean and quick transport. Although Seoul is renowned for being very mechanized, its cultural roots are still heavily embraced. Mixed with towering skyscrapers are historical landmarks, still open for visiting and well maintained. Gyeongbokgung Palace, which was the royal palace for hundreds of years, is one of the main attractions for visiting tourists. Seoul is also surrounded by mountains, leading nature to be one of the key focuses of the city. Forested parks and green space is commonly found throughout residential areas, allowing people to be able to maintain their ability to connect with the natural environment.

Great cities often have similar features, one of which tends to be sustainability. Seoul has committed to making the city sustainable for the future and its current citizens. Although car-centric roads have become more common, public transportation and the walkability of streets have been prioritized alongside cars. Recycling also plays a key role in promoting environmental awareness in everyday life. Seoul is known for having one of the highest recycling rates, due to adherence and knowledge of the guidelines. By having a focus on recycling education and communal effort, residents are able to take part in a functioning, effective system. However, Seoul has some challenges that are unique to the city, and some that are common in most metropolitan areas. Housing and cost of living, like most cities, can be unaffordable for many people, especially in certain class segregated neighborhoods. Air pollution in Seoul is known for being among the worst in global cities. Fine dust is a particularly substantial problem, owing to the fact that it can lead to increased health issues, such as heart disease and respiratory disorders.

In the heart of Seoul, Cheonggyecheon Park is a sustainable marvel. During Korea's industrialization, the area was turned into a high traffic road, until in 2005 it was revitalized into
its natural stream, as part of one of the city's many urban renewal and restoration projects. In the present day, the park is visited by both tourists and residents of the city, all being able to enjoy the public space and natural environment that the stream provides. The park allows for people to gather naturally, it's not unusual to see people busking or office workers cooling off in the shade by the water. By restoring this historic stream, the city was able to strengthen its connection to both environmental sustainability and its cultural heritage. For all its modern augmentations, Seoul retains its close cultural ties that allow for a unique city experience, presenting new and old Seoul with a sense of pride.

Sydney

Grace Welsh

Over in the down under Sydney, Australia is a brilliant place. This dynamic city is home to great weather, good surf, amazing architecture and is a model of sustainability for cities of similar size and caliber. Located on Australia's southeastern coast, Sydney is the capital of the state of New South Wales, as well as being the country's urban area. The central city of Sydney is about 10 square miles with over 200,000 people living there. Its corresponding metroarea is a massive 4790 square miles and is home to about 5.1 million people. This metropolitan area consists of 658 different suburbs and 33 local government areas.

At the heart of Sydney lies its iconic harbor, an emblematic nucleus intertwined with the city's neighboring districts. Infused with historical significance, pivotal maritime infrastructure, and an iconic bridge, the Sydney Harbour lends the city its distinctive character. Embraced by perennially warm weather, the harbor, complemented by an extensive array of beaches and coves, catalyzes outdoor pursuits and fosters community engagement.

Distinguished landmarks such as the Opera House, Sydney Harbour National Park, and waterfront establishments dotting Darling Harbour contribute significantly to fostering a sense of communal belonging within this remarkable city. Renowned for its welcoming ambiance and cohesive communities, Sydney offers an abundance of exploration and relaxation opportunities while boasting high safety standards. It ranks among the top ten cities globally in terms of quality of life, a testament to its allure where the sun and sand serve as antidotes to any challenges.

Yet, amid its livability, Sydney confronts limitations in walkability, evident in accessibility reports that present notable deficiencies. The planning of Sydney's roadways came from a combination of indigenous passage ways, access easy to shipping ports, and later on British urban planning. The city later saw a redesign but it was hard to start from scratch and create an efficient city layout. Sydney was ranked a 23/100 on walkability and is reported to have an overwhelming majority of pretty car dependency. Sydney even experiences traffic worse than Los Angeles and only a mere 40% of Sydney's population resides in neighborhoods deemed above average in walkability, a stark contrast to similar cities such as Sao Paulo and Mexico City, which exhibit substantially higher walkability reports(85-90% range). Most errands are done by car travel and the amount of people who rely on biking from place to place is pretty low.

However, Sydney does recognize these factors and is actively trying to mitigate change to create a more accessible city. Ongoing redesigns of tram systems across the Greater Sydney region prioritize user-friendliness and accessibility, particularly for individuals with disabilities. Ramps are being built and platform gaps are being narrowed. There also has been more innovative ways to bring some life back into the streets of Sydney. George Street, a main street in Sydney and a few surrounding streets, have been upgraded to become a pedestrian boulevard following the construction of the light rail. Which have and will continue to go up all over the city and its surrounding suburbs. The George Street project is a perfect example of how restricting through traffic, widening the footpaths and installing more trees and street furniture can create a better sense of safety and community engagement in a place that was once lacking such.

To touch on building scale, Sydeny has had a long history of rules and regulations to maintain a sense of space within the 10 mile radius. Keeping the city short was a big indicator as to what could be built within the city. This being said, many of the buildings in this Australian metropolis were comparatively shorter and more human scale than competing cities like New York at the time. In the 20th century a written agreement known as the Height of Building Act, limited the height of how tall buildings could be made, in 1912 the limit was just 150 feet. The height slowly built up over time, and after the Sydney Tower was built, nothing was allowed to pass it in height for a very long time. It was said to be a landmark, and the "heights point of the city," a focal point if you will.

However, just recently this height limit has been removed. However, the decision to resolve the act did not necessarily come from nothing. Since there are not many spaces to build up, the city has been building out. And the sprawl that has been seen from the city has expanded commute times, raised inner city rents and is decentralizing the sense of community that Sydneys knows and loves. This being said city planners are swallowing their pride and allowing buildings to touch heights that were once unreachable. Projects to build skyscrapers are creating many jobs for the community, with more affordable homes and lower rent prices which will bring in more of a young crowd that Sydney needs to truly thrive.

There needs to be energy to power the creation of all of these influence changes. And to their luck there is plenty of it. Sydney can confidently say that their city is 100% powered by renewable energy. This renewable electricity generated from wind and solar farms all over the New South Wales region. Everything is powered from locally-sourced clean energy from street lights, pools, sports fields and buildings. As of right now there are around 16 fully functioning wind farms in NSW and about 50 more projects that are on their way. These farms provide jobs, and economic success for their areas on top of powering the state and rest of the country. The steps that Sydney and Australia as a whole have been taking to become more sustainable and carbon neutral should be an inspiration to other countries.

In conclusion, no city is perfect. But there are cities that can be great. With the right combination of beauty and brains Sydney will only continue to grow into an epicenter of sustainable community development.

St. Louis

LaToya Smith

St. Louis, Missouri, named after the French Crusader King; Louis IX, is located in east-central Missouri, it's positioned on the Mississippi river below its junction with the Missouri river and currently has a population of 279,390, however, declining annually and has decreased by -7.03% since 2020, with a recorded population of 300,528. Almost since its inception St. Louis has been the crossroads of westward expansion. With the arrival of steamboats in the 19th century (1817) and the arrival of railroads in 1850, this city has been a major transportation hub.
St. Louis has a rich history that preceded its settlement in 1764. The city is located on the traditional, ancestral, and unceded territory of the Illini Confederacy. The Illini were 12-13 tribes who lived in the Mississippi River Valley in the 17th century. These tribes occupied an area that stretched from lake Michiciago (Michigan) to Iowa, Illinois, Missouri, and Arkansa. There were tens of thousands of members but the five main tribes of Cahokia, Kaskaskia, Michigamea, Peoria, and Tamoroa, were primarily nomadic. They sustained themselves through agriculture, hunting, and fishing. However, the population of the tribes declined due to infectious diseases and war that were brought on by the arrival of French colonists. Now they are known as the "Peoria Tribe of Indians" and reside in present day Oklahoma.
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Formerly a Spanish territory, the French European founding and settlement began in 1764 and lasted through 1803. Pierre Laclede Liguest received a land grant from the king of France to set up a new fur trading post. In 1763 Liguest found the land and initially was accompanied by Auguste Choteau, who later returned in February 1764 with a group of men to start clearing the land for the settlement. This was considered a great location because it was not subject to flooding like other areas and was near the confluence of the Mississippi and Missouri rivers, giving it a central location. It is located at the northernmost point on the Mississippi and remains ice free throughout the entire year.

Liguest said " I have found a situation where I am going to form a settlement which might become, hereafter, one of the finest cities in America. So many advantages are embraced in its site, by its locality and central position for forming settlements."
Liguest decided to expand the post into a village after France transferred the land east of the Mississippi to Great Britain. By the 1800s there were almost 1000 inhabitants, including, mostly Frenchmen, Spanish, Indians, slaves, and freed blacks. In 1803 St. Louis became a part of the United States with the Louisiana purchase. The settlement was also the launching point for the Louisiana Purchase Expedition of Meriwether Lewis and William Clark in 1804, on their great exploratory journey to the Pacific Northwest. Becoming the seat of government in 1812 for the Missouri territories. By 1817 the settlement had become an important riverport, with its first steamboat. St. Louis was then incorporated as a city in 1823 and remained predominantly French until well into the 19th century. The French heritage continues to this day with the Fleur-de-lis on the city's flag.

Known as the "Gateway to the West" because it was an ideal spot for tradesmen, adventurers, and traders to conduct business due to its connection to the Ohio, Mississippi, and Missouri rivers. St. Louis was the largest and most populous city of its heyday. It was the crossroads of westward expansion in the United States and an outfitting point for exploring parties, fur-trading expeditions in the U.S and pioneers traveling across the state to independence and the start of the Santa Fe and Oregon trails. The fur trade remained important until the mid 1800s. St. Louis was incorporated as a city in 1822 and divided into three wards. During the 1830s St. Louis experienced a decade of growth and prosperity, with new churches, a public school system, and a new water system. By 1840 there were approximately 17,000 residents, including a large number of German and Irish immigrants that arrived there due to the Potato Famine in their former countries. The city developed as an industrial center for brewing and manufacturing, for such items as clothes, shoes, and iron. By 1850 St. Louis had a staggering 80,000 residents, boasted the second largest port in the country and was the largest city west of Pittsburg. This is also the time that construction for railroads began, and travel to the west. Although railroads led to the death of riverboat traffic, at this point the city was also considered a major transportation hub, as railroads crossed the Mississippi with the Eads Bridge in 1874. Also during the 19th century many German and Irish immigrants settled in St. Louis. The city boundaries have remained unchanged since 1876 when St. Louis became administratively independent.

At the start of the Civil War, which started a few years after the Dred Scott Decision of 1857 that slaves living in a free state were not entitled to their freedom, the state pledged itself to the Union although Missouri was primarily in favor of slavery. Joining the war on the side of the Union created conflict amongst the citizens. There was no longer any river traffic from the south having a devastating effect on the economy and slowed the development of the city. There were 160,000 inhabitants and the city was divided where abolitionists shared the streets with slaveholders. Ethnic Germans' abolitionist sentiments were a significant factor in keeping St. Louis and Missouri in the Union during the war. The city played a major role by shipping military supplies and also caring for the sick and wounded. After the war more people fled from the south and the city saw even more expansion during this time. This period of growth led St. Louis to become a major industrial center.
In 1904 St Louis received international recognition with the World fair, where there was the first appearance of many technological devices, like the ice cream cone. St. Louis also hosted the third ever Summer Olympics that same year. During the late 19th century and early 20th century the population increased but growth grew stagnant during the Great Depression. Although the Great Depression did take a toll on St. Louis, it bounced back quickly with its wealth of industry and diversification, booming once again during World War II and by 1950 there were 850,000 inhabitants. In the 1950s African Americans were a growing proportion of the newcomers to the city. As blacks moved in, the white population moved out, in what is sometimes referred to as "white flight", and the city's population declined rapidly. The white population poured into the suburbs surrounding St. Louis, causing the suburban communities to grow in size. This "white flight" is not a new concept for the city, as most of the residents started moving to Clayton as early as 1876. Clayton was laid out with wider streets and in a more aesthetically pleasing area than St. Louis city. Clayton is currently a suburb of St Louis city and the seat of St. Louis county. By the 2000s only about of the 1950s population remained and because the number of African Americans dropped at a slower rate, they constituted more than half of the city's residents at the time.

Even though the population has been in decline for the past few years St. Louis is a great city and has the potential to be an even greater city. Downtown St. Louis has very walkable streets and many small parks, in addition to entertainment and dining options. It is the 3rd most walkable city in the United States and the most walkable in Missouri. The most walkable neighborhoods in the city are Benton Park and Soulard, where you'll find some of the city's best restaurants and bars, along with some shopping, parks, and walkable grocery options. These are the areas of the city where there is the most pedestrian and social life. This could be in part because no buildings are allowed to be taller than the Arch, which gives the city a pleasing aesthetic but conversely increases sprawl due to all the low density buildings. During the 70s-90s a lot of companies located their headquarters where employees were, which meant the suburbs. This had a racial aspect attached as well because of the "white flight" and redlining that cripled the city, as there were not

many “qualified” people to hire near the downtown. Hence low density corporate headquarters spread throughout the suburbs. Leading to even more segregation, high levels of poverty, and racial issues.
Today St. Louis boasts the county’s tallest National Monument, The Gateway Arch, built in 1965 on top of the original village plat, that was designed to commemorate the city’s historical role as the country’s “Gateway to the West” beginning as early as the 19th century. The city is one of the county’s largest rail centers and the headquarters of many major corporations. Although manufacturing of beer (Anheuser-Busch Brewery since 1806), chemicals, metal products, missiles, military aircraft, and automobiles, there are several higher education institutions in the Metropolitan area, dating as far back as 1818 with St Louis University. Healthcare, finance/ banking, telecommunications, airline operations and education are important contributors to the economy, and the cities’ comeback.

become a major industrial center

Rio de Janiero

Alex Hartwell

Rio de Janeiro is a vibrant city that resides in the Southern Hemisphere, anybody that visits Rio de Janeiro knows the natural beauty that resides there. Rio is inspirational to other cities, leading the way to a more healthy and sustainable way of life. It is sustainable because it focuses on the people and what people need to survive. The city is walkable, it has the landscapes, the nature, and the social life. Rio is a desirable place to visit and live.

Rio de Janeiro brings new life for all, being one of the most vibrant and visited cities in the southern hemisphere, it is known for its natural beauty. Located on the Atlantic Ocean, it is a flat plateau, Rio de Janeiro offers five miles of beautiful beaches, such as the Copacabana beach . Rio has plenty of walkability, according to Walk Score, Rio de Janeiro has a 98/100 walk score. Rio is working towards a healthier way of living, they want to focus on increased mobility and access to public spaces. The city focuses on people walking and not driving, to create a sustainable way of life. Stores are close by, this also slows down the carbon footprint of the city.

Although Rio de Janeiro isn’t the tallest city in the world, it is one of the tallest in South America. The tallest building in Rio is the Rio Sul Center, which serves as an office, it is 535 ft tall. Rio has many must see attractions, such as Christ the Redeemer Statue. Located on Corcovado Mountain, this religious landmark watches over Rio as it sets an example for tourists to look at the panoramic views. This statue is 98 ft tall and the arms reach out to 92 ft. The city relates to the human body, it doesn’t need a ton of skyscrapers to distract from the natural beauty that surrounds it.

Since Rio de Janeiro has so many miles of beaches, that is primarily where people gather socially. Another place you can find people is when they are playing sports, Rio is almost always sunny and the people that live there love to be outside. Most of the time you will find people only inside to eat at the bars, especially after a long day at the beach. The city also has trails in the rain forests that people are more than welcome to explore. This city is full of joy, life and people willing to be active in their community and city.

Rio de Janeiro is a great city for people to live and to visit, it is a glowing city full of vibrancy. Rio has natural beauty, it is an unforgettable journey. The food, the music, the views, the landmarks and most importantly the people, make Rio a great city. Rio can be a great lesson for other cities to show the community that has grown, it is inspirational how Rio can make a whole city come together, for example every year Rio has Carnival. It is a cultural hotspot, the energy is contagious.

Copenhagen

Gavin Defina

The capital of the European country Denmark, Copenhagen, is a prime example of how sustainable design and practices can influence the city's environment, structure, and social life.
The most known attribute of the city is its reliance on an alternative form of transportation: the bicycle. During the 1960s, the city was similar to the American way of life with a high dependence on privately owned automobiles and usage of fossil fuels; but, since the 1973 global Oil Crisis, Copenhagen switched to bicycling methods, as now 62% of city inhabitants commute via bicycles (Co). Due to the suburbanization and separation of uses throughout many American metropolitan areas, citizens cannot bike safely from their houses to destinations of interest. Conversely, Copenhagen promotes a bicycle-first transportation approach with city government funding to create helpful infrastructure like the Cykelslangen, a 22-kilometer bike tour around the city (Russell, 2021; Co, 2022). These methods ignite community connection in this aspiring city, as a robust network of bicycle paths passes urban parks and greenspaces (Souza, 2022). Even though automobiles are still in use, their popularity is lessened compared to other global cities. It would be difficult to spot an oil-fueled automobile in Copenhagen as the city wants 85% of total cars to be green (electric or hydrogen-powered) with extensive access to charging points near residential and commercial buildings (Co, 2022). The high utilization of alternative forms of transportation separates Copenhagen from capital cities similar to it. Not only helping the environment and adapting to climate change occurrences, the city allows citizens to be economically conscious in their decision-making by creating

One of the most devastating catastrophes to befall the city of London was in 1666 and would be known as the Great Fire of London. The fire, which would have devastating consequences, lasted around four days and would burn around eighty-five percent of the buildings throughout the city. The result of the fires would see around 100,000 people across London struck by homelessness. The result of the fires would cause a housing crisis across all remaining parts of the city and require a major undertaking of reconstruction.

Fast forwarding in time, there are two more noteworthy events that I would like to mention that had a significant impact on the city of London. The first which occurred in World War two, would be known as the German Blitz. Beginning in 1940, the German Luftwaffe began an intense bombing campaign of London and other British cities. The Blitz, which would last for almost eight months, had a significant impact on the city of London and its character. Throughout the entirety of the German air campaign, forty-three thousand civilians would be killed, and numerous parts of the city would be devastated and leveled. Estimates of the devastation calculate that 1.1 million homes would be destroyed and one in every six citizens across the city would become homeless.

The resilience of London is shown repeatedly throughout its history, and 1952 is no exception. More natural in its occurrence the Great Smog of London would again have significant affects on the city and call the British parliament into action. Pollution was nothing new to the city of London as it was the birthplace of the industrial revolution and would become the poster child of social and political troubles associated with rapid industrialization. While smog was frequent in years past for London, 1952 presented a deadly new consequence. Due to the settling of an anticyclone over the city, London would become so polluted that pedestrians were unable to see directly in front of them. As a result of the thick pollution, London would record fatalities of up to 4,000 and recent estimates say as many as 12,000 would die as a result of the fog. The death toll would convince the British parliament to act and four years later they would pass the Clean Air Act of 1956. Establishing both smoke free areas across the city and restricting the use of coal in domestic and industrial fires.

London, England is certainly one of the most prominent cities in the world. The resilience of the city of London shows that through any number of catastrophic events cities will remain as key centers of economic, social, and political importance. As we head farther into the 21st century it will be up to cities to cope with a rising number of natural disturbances. Climate Change and the challenge of rising seas levels, partnered with more extreme climate will test the resilience of our cities. Can London mitigate the effect of climate change, and will the city hold up to its historic resilience?

CONCLUSION

Eileen Helck and Miguel Gomba

The history of urban design in the United States examines how cities have navigated countless challenges, and how most have embraced resilience and therefore survived. There has been a notable shift towards equitable and adaptable urban environments since the publication of the 1942 CIAM article. The perspective stated by CIAM, shaped by its era, starkly contrasts with our contemporary understanding of cities as diverse and communal spaces.

Cities have faced a staggering amount of issues in the 20th and 21st centuries. Economic fluctuations, social injustices, and environmental disasters have tested the resiliency of urban communities around the world. The response from communities or governments during difficult times has not always been successful, However, despite these shortcomings, many cities have recognized their mistakes and are seeking practical ways to improve.

Sustainable practices such as affordable housing, environmental regulations, and social connectivity have emerged as blueprints for future urban success. For example, prioritizing mixed-income housing developments, implementing physically and financially accessible green spaces, and fostering community engagement in the planning process all stand out as concrete ways to improve cities. (EXAMPLE). These pragmatic steps represent a departure from CIAM's rigid approach, which compartmentalized cities and emphasized tall, cramped skyscrapers as the best solution to the problems of the 1942 urban landscape. This mindset no longer reflects the more nuanced, informed, and inclusive perspective that defines many 21st-century approaches to urban development.

The acknowledgment of CIAM's limitations serves as a crucial reminder of the necessity for adaptable design. By evaluating past mistakes or limitations, such as (EXAMPLE) cities can evolve in response to the dynamic, ever-changing needs of society. The resilience of cities hinges on a commitment to well-being, economic vitality, and diversity. Incorporating policies that address income disparities, provide equal access to public services, and promote cultural inclusivity further enhances equity.

In conclusion, cities can survive. The movement towards resilient cities is never static and is always shifting and growing. It is based on practical action and responding to the evolving circumstances within urban environments.. Cities have survived, changed, and grown since the 1942 publication of CIAM's article, and with dedication and collaboration, can continue to do so.

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