

# Resilience: Looking Back to the Local

The growing prevalence of resilience as a framework to drive design and measure the quality of our cities and our societies re-positions the social, economic, cultural, and political factors that drive urban decision-making.

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## INTRODUCTION

Resilience is “the capacity of individuals, communities and systems to survive, adapt and grow in the face of changes, even catastrophic incidents.”<sup>1</sup> The emergence, and growing prevalence, of resilience as a framework to drive design and measure the quality of our cities and our societies re-positions the social, economic, cultural, and political factors that drive urban decision-making—away from sheer capital accumulation to more human-centered and ecological approaches. Resilience does not drive economies, or make a location a global city, it is an inherently grounded concept; in other words, resilience is grounded in the cultural, ecological and social capital of a place.

Cities that are exhibiting the greatest resiliency are cities posed to address both the metropolitan scale with creative and innovative approaches to public design projects that boost economic competitiveness and global appeal, while simultaneously addressing the local scale with urban design projects, programmatic interventions, and policy decisions that improve equity, the quality of the everyday life of the city, and the health of residents. Between these two scales—the global landscape of meta-data and special economic zones and the local environment of bottom-up growth and community activism—is an intermediary role for design and urbanism that is too often missing.<sup>2</sup> Design can connect data and policy to experience and projects with the potential to transform spatial practices and affect transformations in space that lead to positive change. Design is the missing link, the connective tissue that can contribute to both macro and micro-level change in cities around the world.

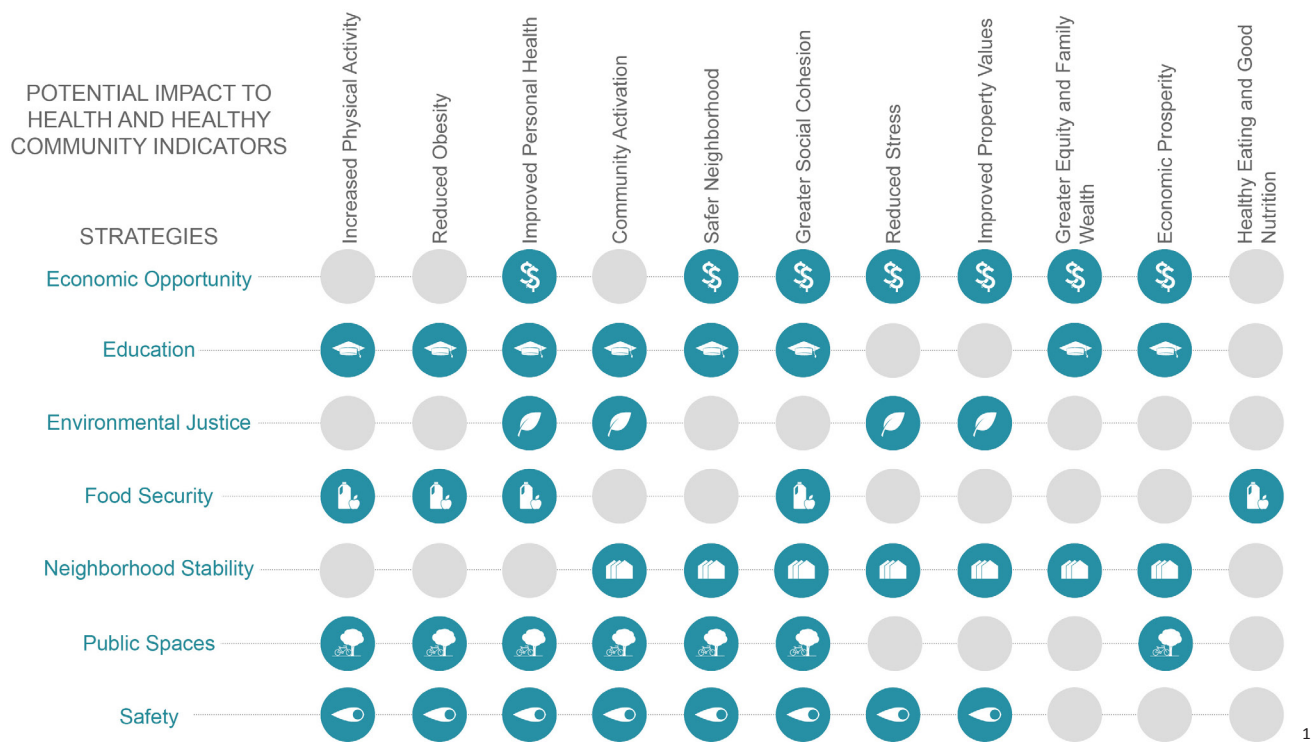
The quest for the global city is being gradually and partially eclipsed by the possibilities and potentials of a beautiful and equitable everyday city. The local is being re-positioned as a focus for investment and intervention, while not necessarily replacing the global, at least competing with it. In many ways a local approach is

by necessity a systemic approach to change, a method that focuses on the interconnectedness of conditions and most of all, process and engagement.

The local approach recognizes and celebrates that the places where we live matter, and that our lives are impacted both for the better and for the worse by these places. As a result, health and equity are two fundamental parts of resilience. In cities across the globe health has become a major priority. In Korea the “Healthy City Project” initiated in 2004 focused on Changwon City, Wonju City, Seoul and Jingu, and Busan. By 2010 55 cities were part of the project focused on building health-oriented cities.<sup>3</sup> In Korea, the United States, and across the globe the socio-economic context of place—income, housing, education, and employment—is more often than not directly correlated to the health of the people that call it home. Some places are rich and others poor, some areas have plentiful food and fresh water while others are food deserts, some places have well maintained parks while others are without even basic infrastructure, and some places thrive while others decline.

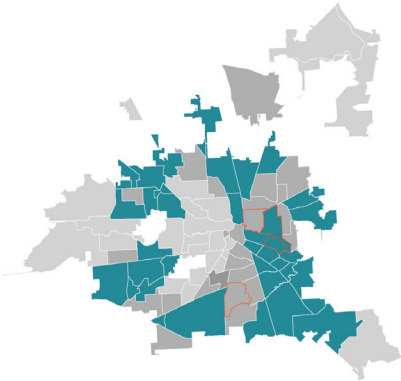
This paper presents the design research, analysis, collaborations, and interventions that were developed over the course of nearly two years of study and in partnership with the Department of Health and Human Services and over a hundred residents and stakeholders in four neighborhoods in Houston, Texas. The project had two goals, first to identify the determinants of health that can be impacted by design; and second to explore the role of small-scale, low-budget design interventions with the potential to create big change. At both scales resilience, health, and equity were end goals. The proposals range from re-positioning and re-programming infrastructure systems to meet community needs, to re-thinking the uses of public facilities, to creating food networks. The proposals fit within a framework of seven broader strategies, which overlap and create synergy. The strategies—education, economic opportunity, environmental justice, food security, neighborhood stability, public space and amenities—directly link the quality of the built

Figure 1: Health Goals and Impacts.

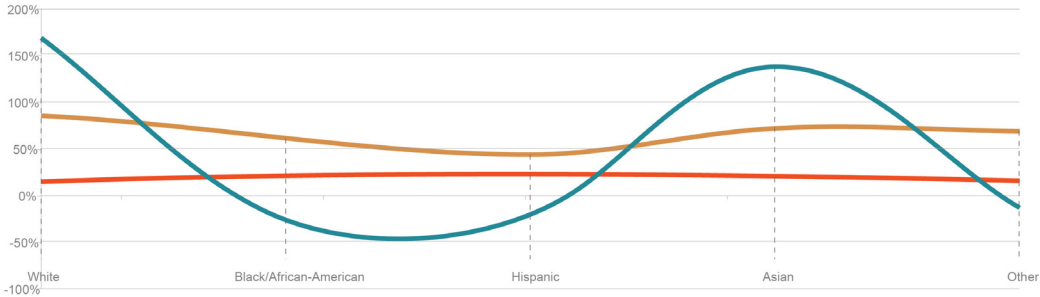


**48% of Houston residents reported experiencing economic hardship in 2010. More Black (62%) and Hispanic (57%) residents experienced hardship compared to other groups."**

*Health of Houston Survey 2010*



LEFT: Ethnic Majority by Super Neighborhood (2012)  
 White  
 Black/African-American  
 Hispanic/Latino  
 Asian



ABOVE: Health and Socio-Economic Factors by Race/Ethnicity 2010, for Houston  
 Income  
 Health Insurance  
 Reported Fair or Poor Health  
 Source: Health of Houston Survey 2010

2

environment to health. The strategies are based on a “thick” investigation of the conditions in the studied neighborhoods—for example the understanding of the relationship between educational attainment, median household income, and obesity rates—and a further analysis of systemic connections.

We found that parks and open spaces, pedestrian infrastructure, and community centers were important indicators of health. Access to healthy food, or food security, is equally important. We looked at new single family housing permits to understand locations of, and constraints to, new development in our four neighborhoods and across the city. We proposed joint-use schools as a means to expand services for children and families, increase opportunities for physical activity and healthy living, and provide additional educational, cultural, and civic uses by capitalizing on existing built environments. We created a networked plan for public space utilizing existing utility easements and right-of-ways to connect all of the primary destinations in the neighborhoods, increase neighborhood stability and physical activity. Overall, we looked at the interconnectedness of both the existing conditions and opportunities for neighborhood transformation, working to develop synergies between the seven strategies, and across the interventions. In concrete design terms, connecting programmatic interventions and local projects to broader infrastructure and landscape interventions creates a network of hybridized buildings and infrastructural systems that generate greater resiliency and health.

**RE-LOCALIZATION: FROM GLOBAL CAPITAL TO LOCAL MARKETS**

Healthy communities depend on healthy economies, equity, and opportunities to succeed. UNHabitat notes that “high levels of inequality do not just hamper poverty reduction and economic growth—they impact all aspects of human development.”<sup>44</sup> In 2012 the World Economic Forum identified rising inequality as one of

Figure 2: Health and Demographics.

the top global risks.<sup>5</sup> Too often opportunity is unevenly distributed across space and therefore people are penalized for where they live.

While large-scale urban design strategies and projects that look to improve global competitiveness have transformed conditions in the centers and tourist districts of cities around the world, there is increasing interest in grounded and participatory approaches to improve economic opportunity in the everyday city, and for everyday people, as a means to create greater equity and transform opportunities for all residents.

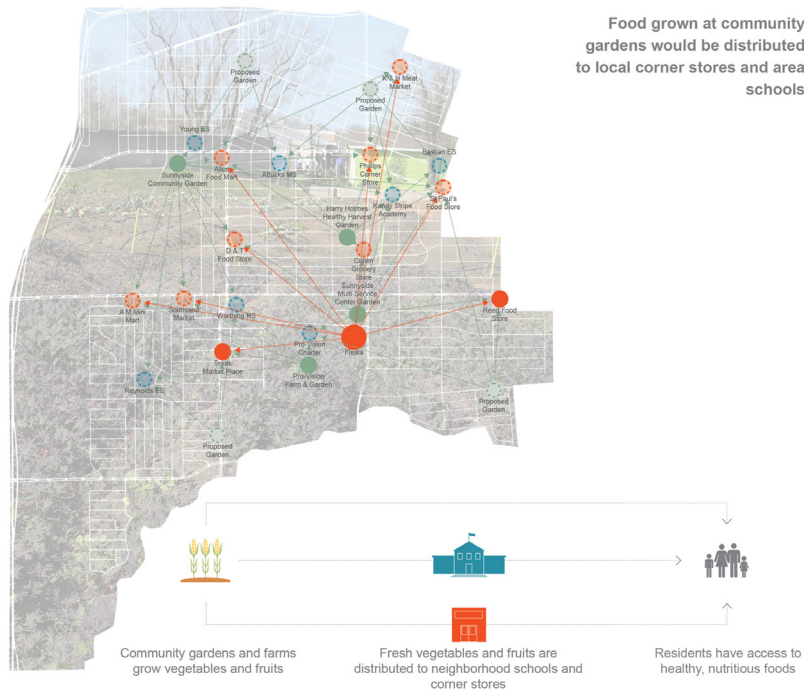
Economic opportunity is directly connected to education and health, and the healthiest communities have the greatest equity. For example, a recent study completed by the Clark County Public Health Department for Portland Oregon concluded that economic opportunity is critical to both the health of individuals and to community-wide health. The study notes, “education and employment increase individual income, leading to improved individual health, community prosperity, and income equality. These all lead to greater community health, which feeds back into improved opportunity for education and employment.”<sup>6</sup>

Health, equity, and opportunity should be embedded in community and urban design and development strategies. In our four study neighborhoods there are few sources of employment and many basic shopping and services needs are met outside of the community. For example, in one neighborhood residents spend \$22 million annually outside of the neighborhood on groceries and other goods.<sup>7</sup> While design does not typically drive economic opportunity, there is little doubt that design has the power to generate new ways of thinking about how things are done, specifically by creating connections between neighborhood assets and economic opportunities. This can mean building on the history and culture of places to develop programming with the potential to create real change. For example in the Sunnyside neighborhood with a strong farming and ranching history a series of programmatic interventions were developed to build on and support this culture. The proposed programs include horse stables, an arena, and sixteen miles of continuous riding trails that take advantage of existing utility, bayou and drainage easements. In other words it is one part projective programming and one part a landscape urbanism strategy that adds program to existing infrastructure systems. The idea is based on the Federation of Black Cowboys in New York City which operates Cedar Lane Stables. In addition to the stable the Federation provides horse, pony, trail, and wagon rides, riding lessons, picnics, parties, and other events.

## **NEW CENTERS**

There is a clear statistical correlation between education and income, and both impact health, quality of life, and opportunity. While other areas of the world invest in education, technology, and innovation the United States lags behind. In Houston, 25% of the population has not finished high school, and in one of our study neighborhoods the number is 62%.<sup>8</sup> Public school facilities represent the largest collection of public facilities in the United States. According to the Center for Cities and Schools at the University of California at Berkeley, “the buildings contain an estimated 6.6 billion square feet of space on more than one million acres of land.” The Center reports that there is a growing interest in creating innovative joint use programs for neighborhood schools, and that “It is one way to expand services for children and families, increase opportunities for physical activity and healthy living, and provide additional educational, cultural, and civic uses.”<sup>9</sup> The

**FOOD SECURITY**  
Healthy Food Network



3

Center’s list of potential joint uses include gyms, outdoor recreational spaces, libraries, performance venues, cafeterias and kitchens, and meeting spaces.

In Houston, demographic shifts, changing housing patterns, and new school capital investments present an unprecedented opportunity to reshape the ways local government and schools work together. Through combined investment these institutions could have a greater impact on the communities they serve and the people who depend on them. This is especially important for low-income, low-resource urban communities who disproportionately struggle to meet community needs.

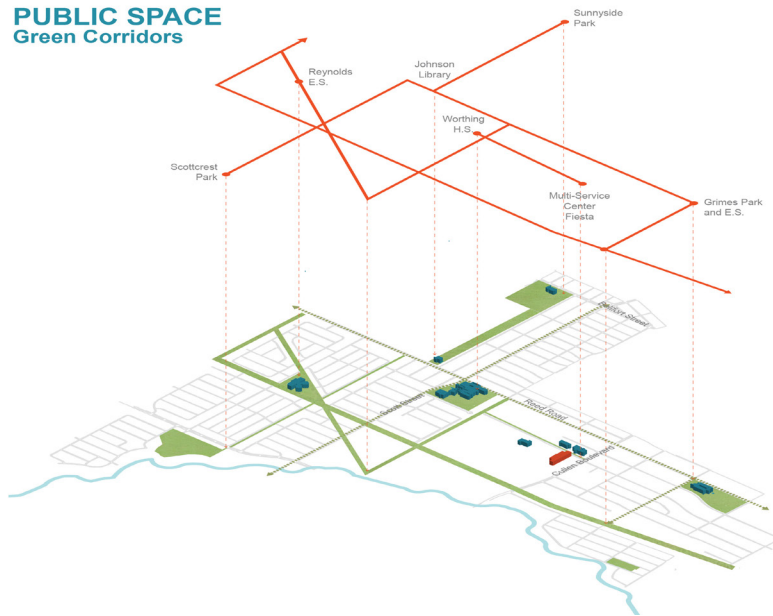
**FOOD NETWORKS**

In a city of plenty, there is far too much scarcity. In 2010 nearly half of all Houston residents reported experiencing economic hardship, meaning that they had trouble paying their rent or mortgage or buying food.<sup>10</sup> Food is a basic human necessity, and the accessibility of fresh and nutritious food can substantially impact health. For example, a recent study by the Food Trust organization concluded that Houston had fewer grocery stores per capita than other major cities in the United States. Sunnyside, home to over 21,000 residents, has only one major grocery store, Fiesta on Cullen. Over 50% of residents are more than a mile from this grocery store, and 25% of households do not have access to a vehicle. Fast food is abundant in the neighborhood. There are seven fast food restaurants in a 2-block area. A recent study by MD Anderson Cancer Center found that residents who live in areas with high concentrations of fast food are more likely to be overweight and this was particularly true in low income communities.

Sunnyside residents have higher rates of death from heart disease, cancer, stroke, diabetes, accidents, and kidney disease than the average Houston resident. Furthermore, Sunnyside residents are 1.5 times as likely to die from heart disease as an average Houston resident. These health statistics point to the

Figure 3: Food Network.

## PUBLIC SPACE Green Corridors



A network of green corridors will enhance walkability and connectivity in the neighborhood 4

necessity to develop strategies that address conditions that can lead to poor health, including lack of exercise, nutrition, and access to healthy food.

In Sunnyside we looked at what it would mean to create a food network by connecting local community gardens and farms to corner stores and neighborhood schools. The network would be built on the foundation of the three existing community gardens, a farm at a local charter school, and the efforts of Can-Do Houston to develop healthy corner stores by bringing in fresh fruits and vegetables. Identifying vacant lots and land for new farms and gardens, while also exploring the potential of a grocery co-operative, and nutrition and cooking classes for residents in local school kitchens would then compliment and continue to build the food network. The goal of the network is to improve accessibility to fresh food across the neighborhood, improving food security.

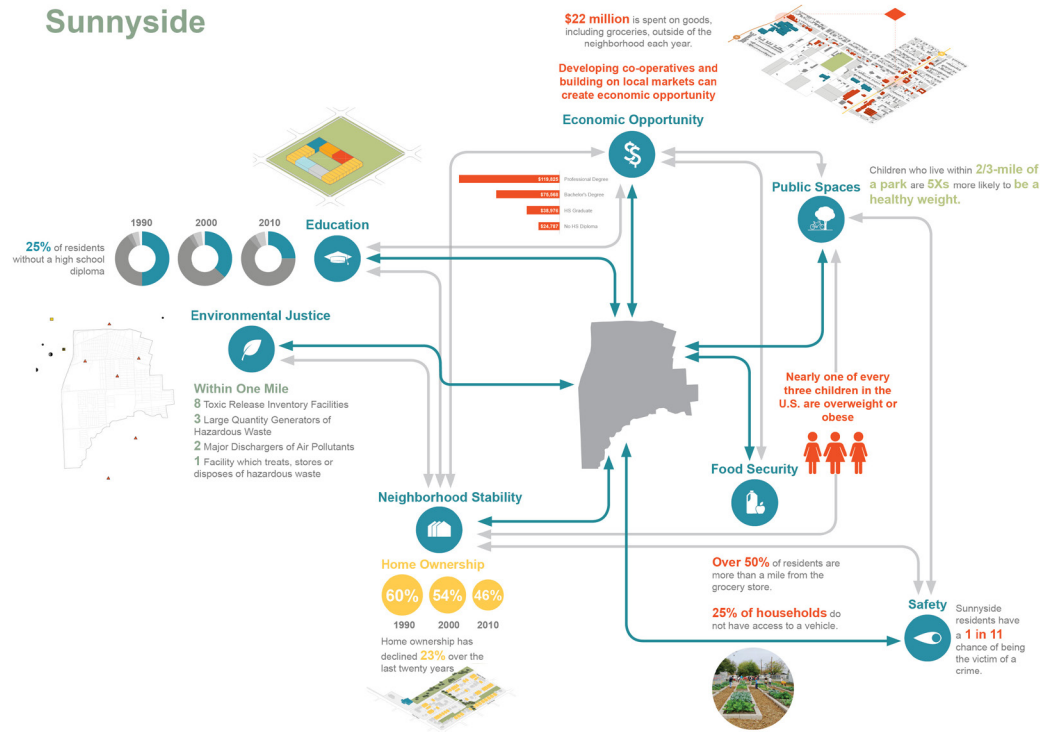
### LINKED LANDSCAPES

Parks and open spaces that are easily accessible to residents, safe, and well-maintained have a substantial impact on the health of a community and have also been found to increase property values. For example, studies have found that children who live within two-thirds of a mile from a park with a playground are five times more likely to have a healthy weight. Today, one out of three children in the U.S. are overweight or obese.

A recent study of parks and open spaces completed in Chicago illustrated that easy access to green space reduces violence and leads to a better quality of life. Specifically, the researchers at the Human- Environment Research Laboratory of the University of Illinois at Urbana-Champaign found that green spaces, when adjacent to residential areas, create neighborhoods with fewer violent and property crimes and where neighbors tend to support and protect one another. The researchers concluded that park-like surroundings increase neighborhood safety by relieving mental fatigue and feelings of violence and aggression that can occur as an outcome of fatigue. Other researchers who are conducting similar studies across the country are finding similar results. High-quality parks also spur economic development by attracting home buyers and boosting residential property

Figure 4: Linked Landscapes.

# Sunnyside



5

values by as much as 15%, meaning greater wealth for residents and increased revenues for cities.

Creating networks of walking and biking trails by capitalizing on existing systems of easements and right-of-ways has the potential to connect residents to destinations in neighborhoods, improving walkability, increasing access to resources, and encouraging people to exercise.

## HOME FRONTS

High rates of home ownership have characterized the Sunnyside neighborhood since its' founding in the 1940s. Over the last twenty years, however, the percent of homeowners has declined from 60% in 1990 to 46% in 2010.<sup>11</sup> The decline in home ownership for African American householders is a national trend. The 2013 "State of Nation's Housing" published by Harvard University reported that "at 43.9 percent, the home ownership rate for African-American households is at its lowest level since 1995."<sup>12</sup> In Houston the percent of African-American homeowners is lower than the national rate at 35%. The report goes on to note that in 2012 "investors accounted for one in five home sales nationwide."

Healthy neighborhoods are safe, walkable, dense, in close proximity to transit and parks and have quality affordable and mixed-income housing. In the Sunnyside neighborhood a major public investment has the potential to catalyze an innovative development program focused on new housing and parks and open spaces that could become the center of a successful and stable neighborhood core. This idea was tested in one four-block area with 54 vacant parcels. The proposal takes advantage of existing vacant land, infilling these lots with new housing and public spaces, including a linear park connecting to the Sunnyside Trail, a community farm and garden, a play area, and sports field.

Figure 5: Sunnyside Vision Diagram.

The proposal builds on existing public investment to create a concentrated

neighborhood core that would provide additional eyes on the park and build population density as a means to draw additional economic development. By focusing investment there is greater potential for it to ripple throughout the community over time.

## CONCLUSION

Across our cities leaders, organizations, and institutions are looking for new ways to achieve sustainable and comprehensive community development. The renewed interest in a holistic approach is reminiscent of the original community development legislation passed in 1968 that focused simultaneously on political empowerment, education, the arts and culture, housing and economic development, and social equity and opportunity. In addition to these goals new tools and strategies for building healthy communities are increasingly sought out as health care costs and obesity rates skyrocket.

Today it is vital that we find new ways to work across disciplines, scales, and issues to develop innovative strategies for positive change in our communities. This means impacting policy decisions at both the national and local levels, and swaying the dialogue and the funding streams towards equity and resilience. It means transforming localized public investments and planning decisions as a means to create more equitable neighborhoods and communities and the opportunities that they hold. And it means moving away from what has always been done to develop new and innovative projects and programs that maximize public facilities and other publicly funded work.

Participatory, proactive, and asset-based community processes are the foundation upon which a framework of new policies, planning strategies, and projects can be created to generate meaningful and sustainable change in our communities, change that originates from the goals of greater equity and resilience.

## ENDNOTES

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