National Trust *for* Historic Preservation

Older, Smaller, Better

Community Character and Vitality

Michael Powe, Ph.D., Associate Director of Research

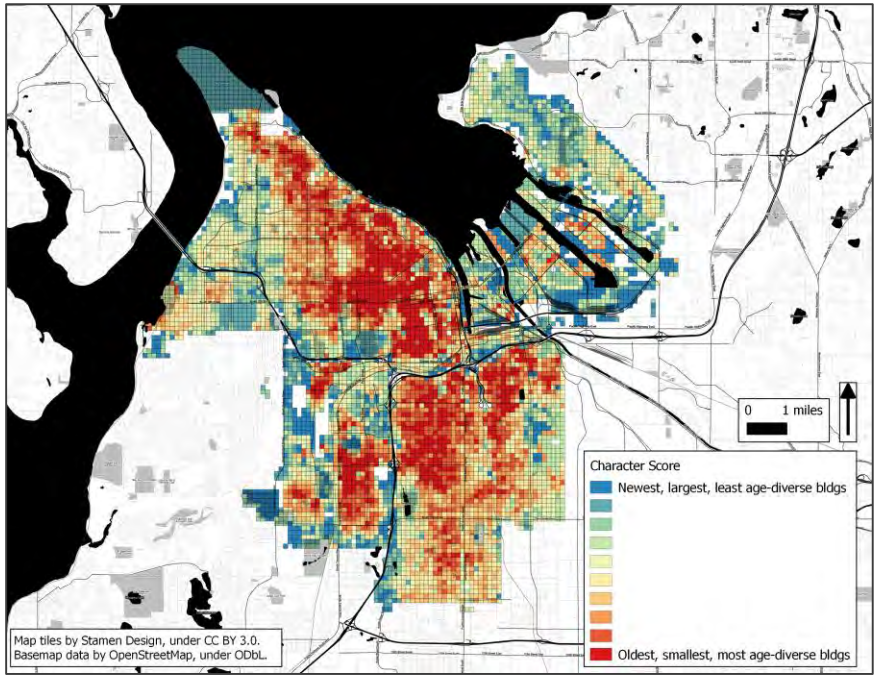
Preservation Green Lab

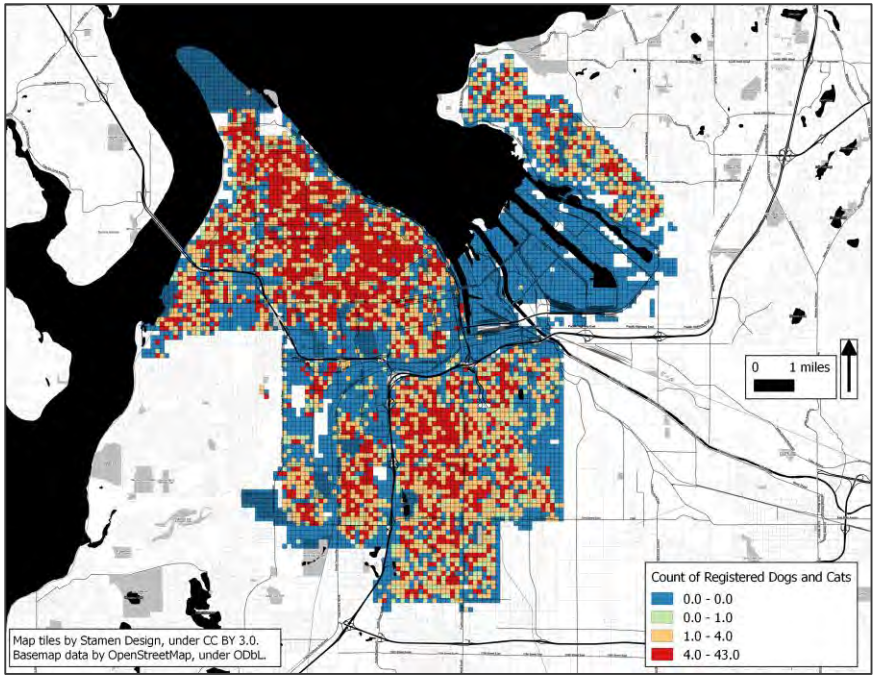
TULSA, OKLAHOMA
MARCH 17, 2016

Agree / Disagree

- A) Reusing old buildings keeps Tulsa's history alive and visible.
- B) Reusing old buildings is a smart way to reduce waste and strengthen the efficiency of cities.
- C) Reusing old buildings fosters walkable neighborhoods where people like to spend their free time.
- D) Reusing old buildings helps Tulsa become a denser city where people from a variety of backgrounds can afford to live and work.
- E) Reusing old buildings is a smart way to provide homes for puppies and kittens.

Reusing Old Buildings Supports Puppies and Kittens





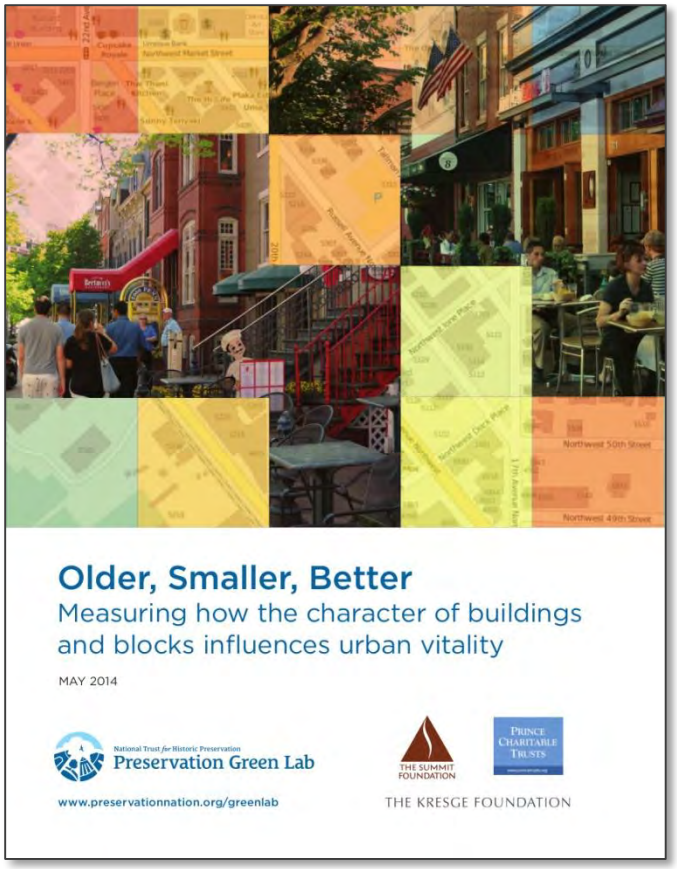
There is a clear, significant statistical link between the presence of older, smaller buildings and the number of registered cats and dogs.

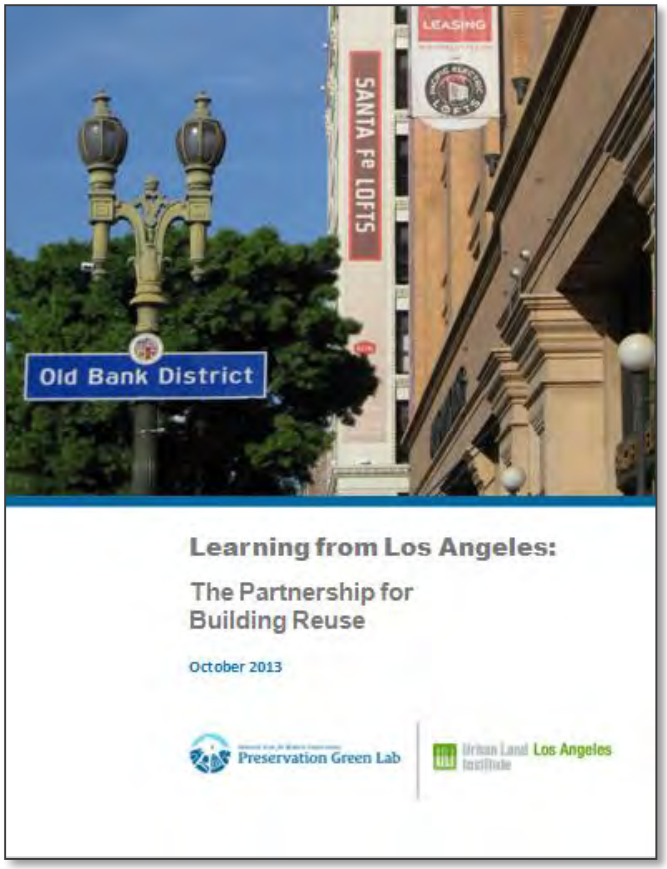


PRESERVATION GREEN LAB

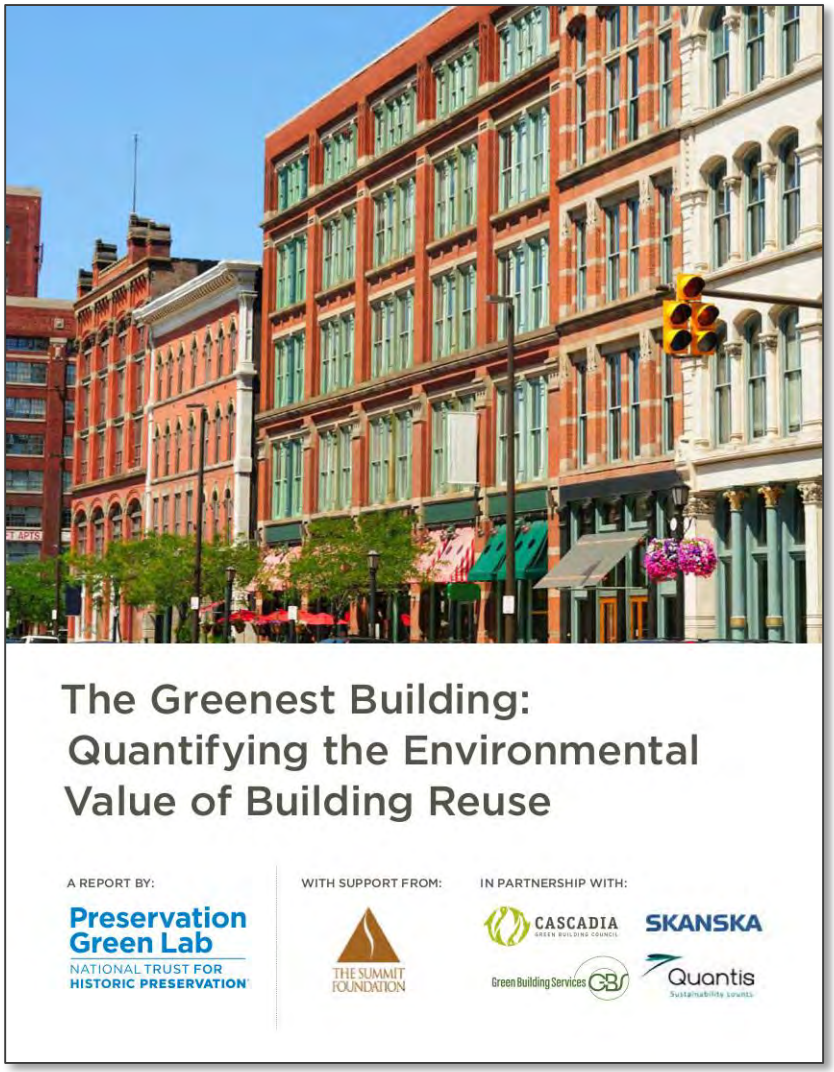
strengthens the fabric of communities
by capitalizing on the inherent value of their built assets
to improve social, environmental and economic performance.

Demonstrating Value + Advocating for Reuse





Broaden the scope of preservation by showing what a big difference older, smaller buildings and building reuse make

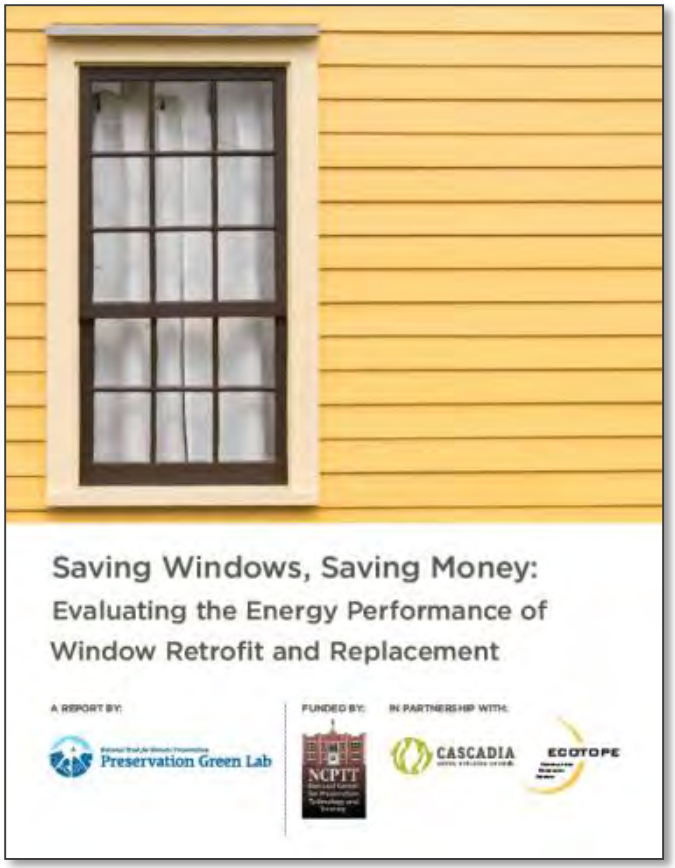


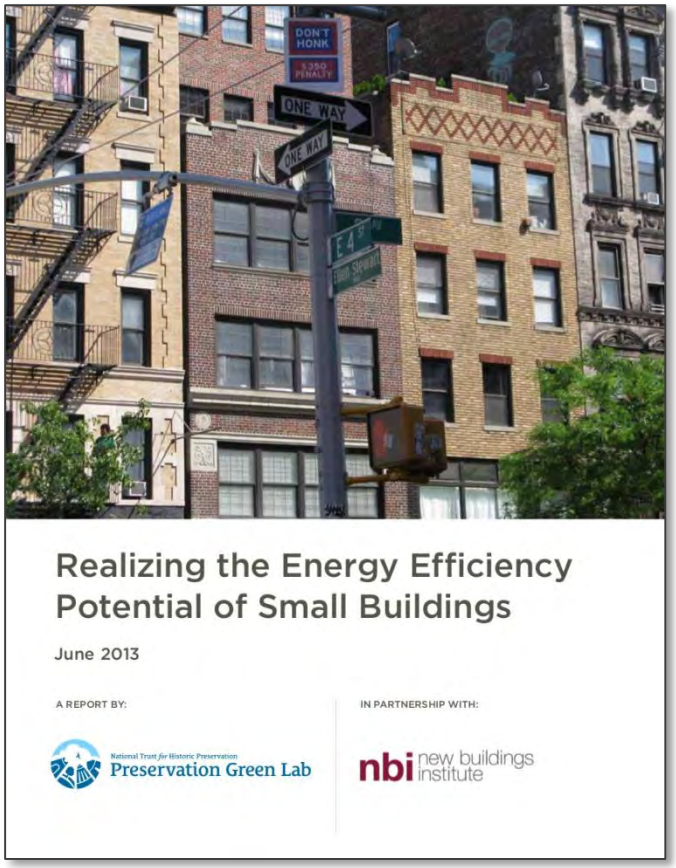
Green Lab Research

Demonstrating the Value of Building Reuse

*It can take between **10 to 80 years** for a new, energy efficient building to overcome, through efficient operations, the climate change impacts created by its construction.*

Energy Efficiency + Old Buildings





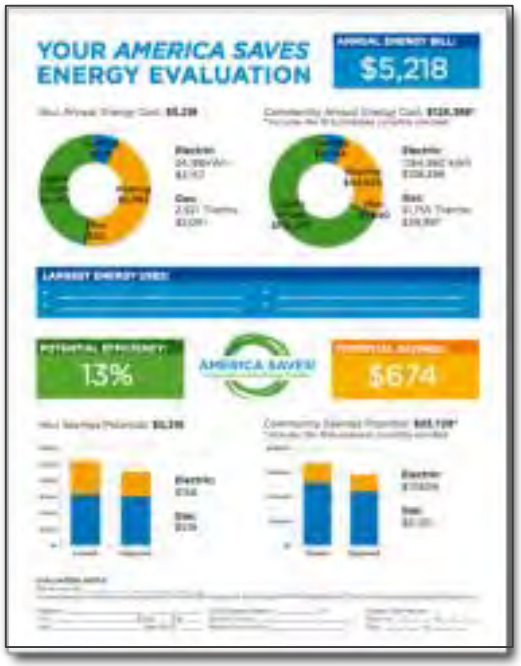
Tremendous energy and cost savings can be realized by retrofitting existing windows and existing buildings.

Energy Efficiency + Old Buildings

Retrofitting Districts of Small Commercial Buildings

The Green Lab received a 3-year, $2M grant from the Department of Energy to work with Main Street organizations, utilities, property owners and local businesses to encourage energy conservation retrofits of small commercial buildings across the country.

AMERICA SAVES!
Communities Saving Energy Together

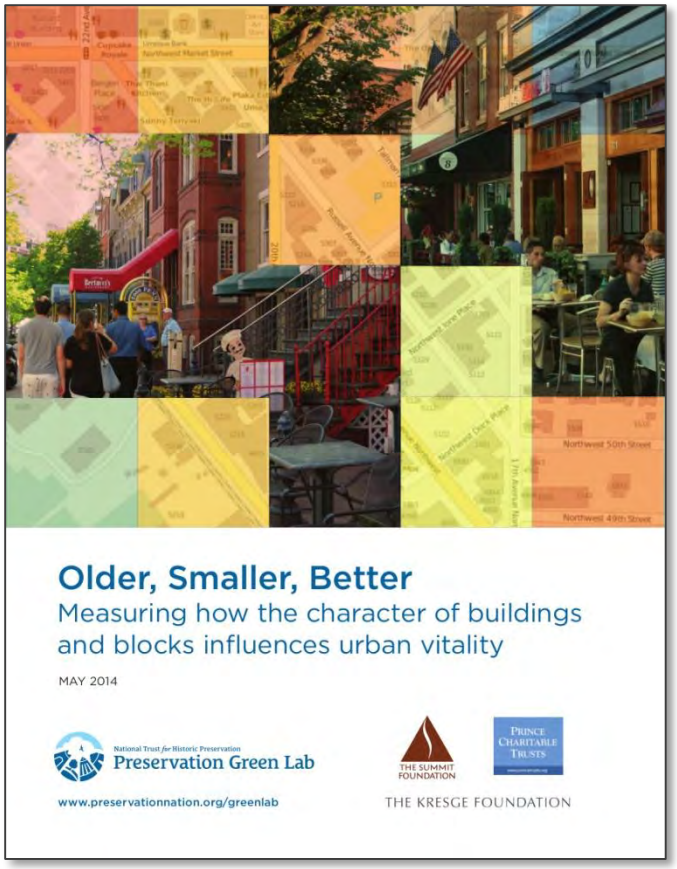


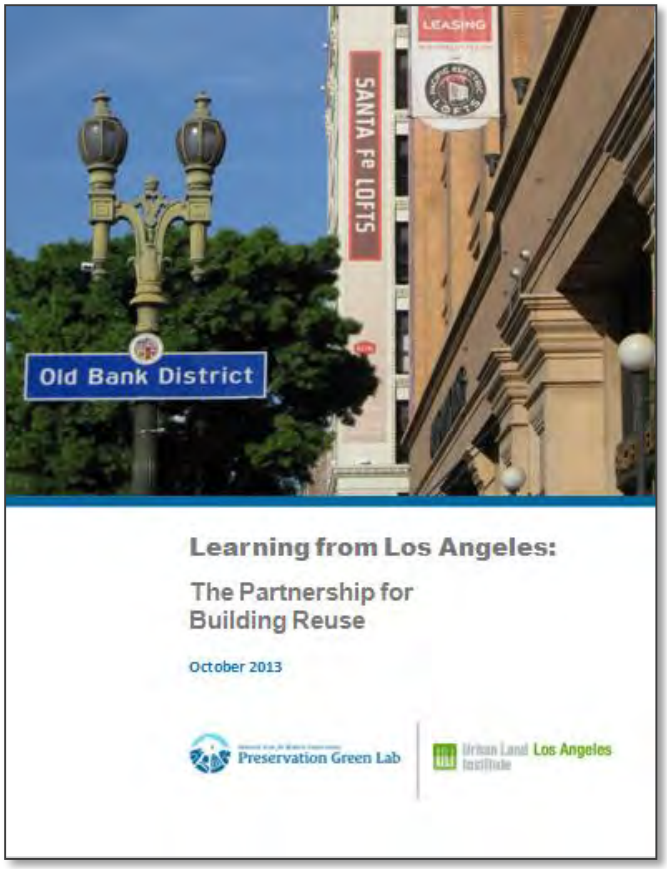
Energy Efficiency + Old Buildings

Outcome-based energy codes

*The Green Lab pushed for a major revision to Seattle's energy code that allows developers and building owners to green their buildings and abide by the city code through the building's **actual** performance.*

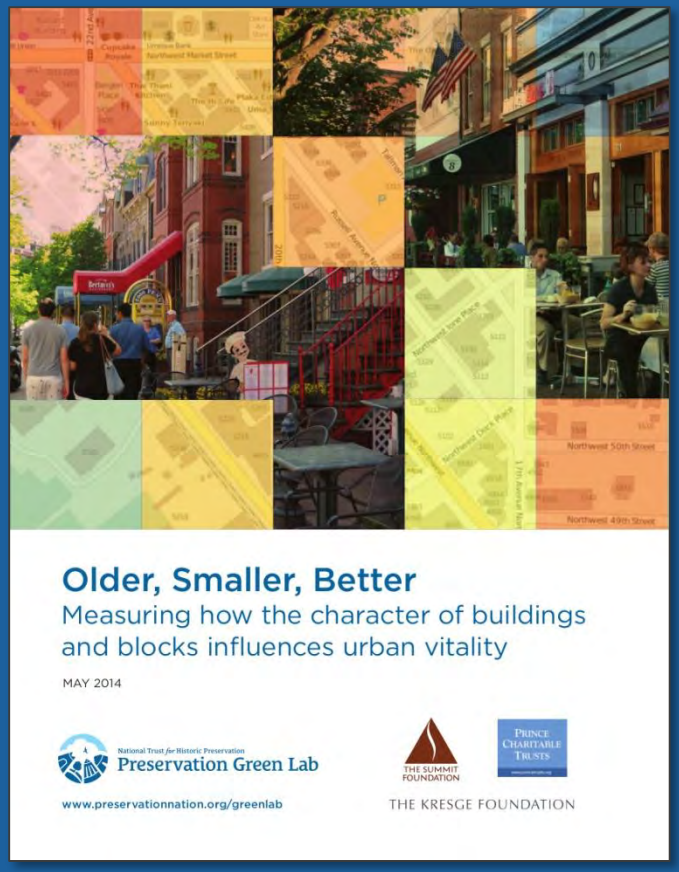
Demonstrating Value + Advocating for Reuse





Broaden the scope of preservation by showing what a big difference older, smaller buildings and building reuse make

Demonstrating Value and Advocating for Reuse



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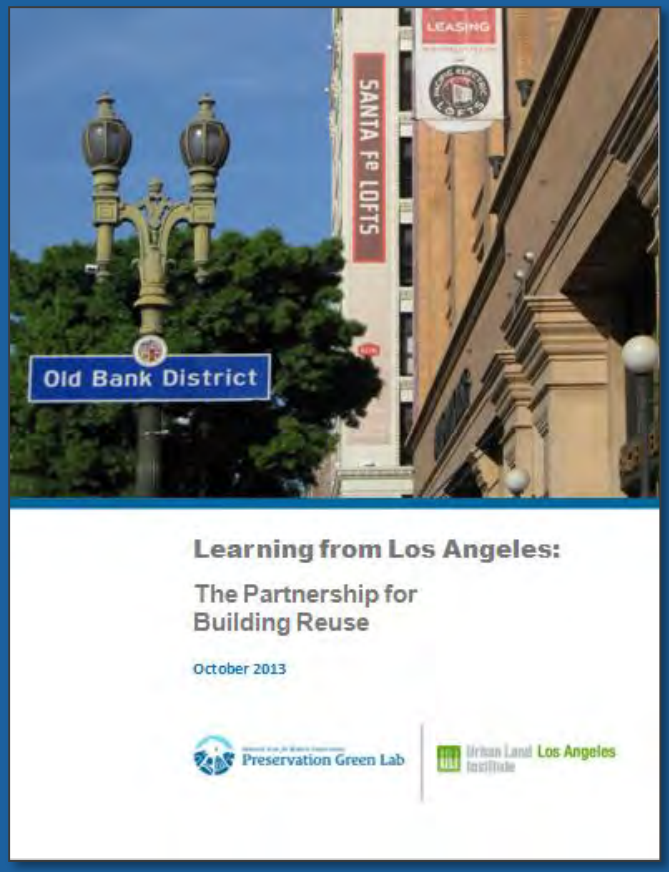


Broaden the scope of preservation by showing what a big difference older, smaller buildings and building reuse make

Applying new data to test long-held beliefs

Carl Elefante, 2007:

"The greenest building is one that is already built."

Jane Jacobs, 1961:

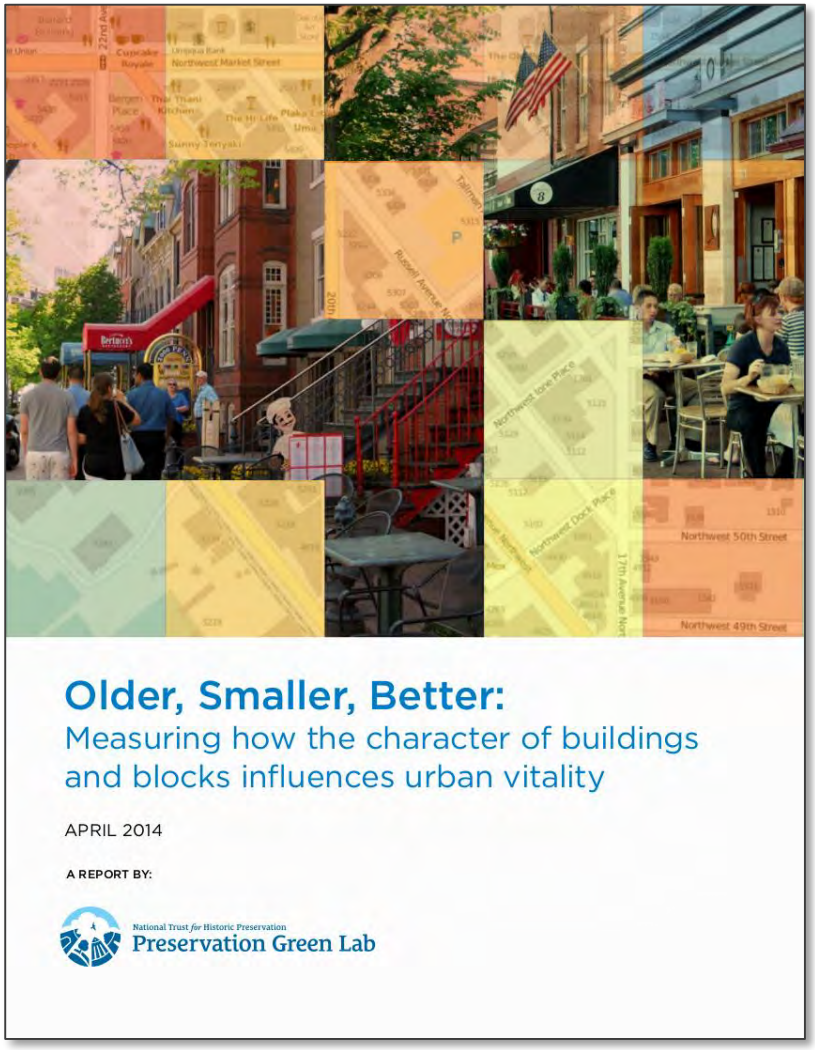
“Cities need old buildings so badly it is probably impossible for vigorous streets and districts to grow without them.”

Ed Glaeser, 2011:

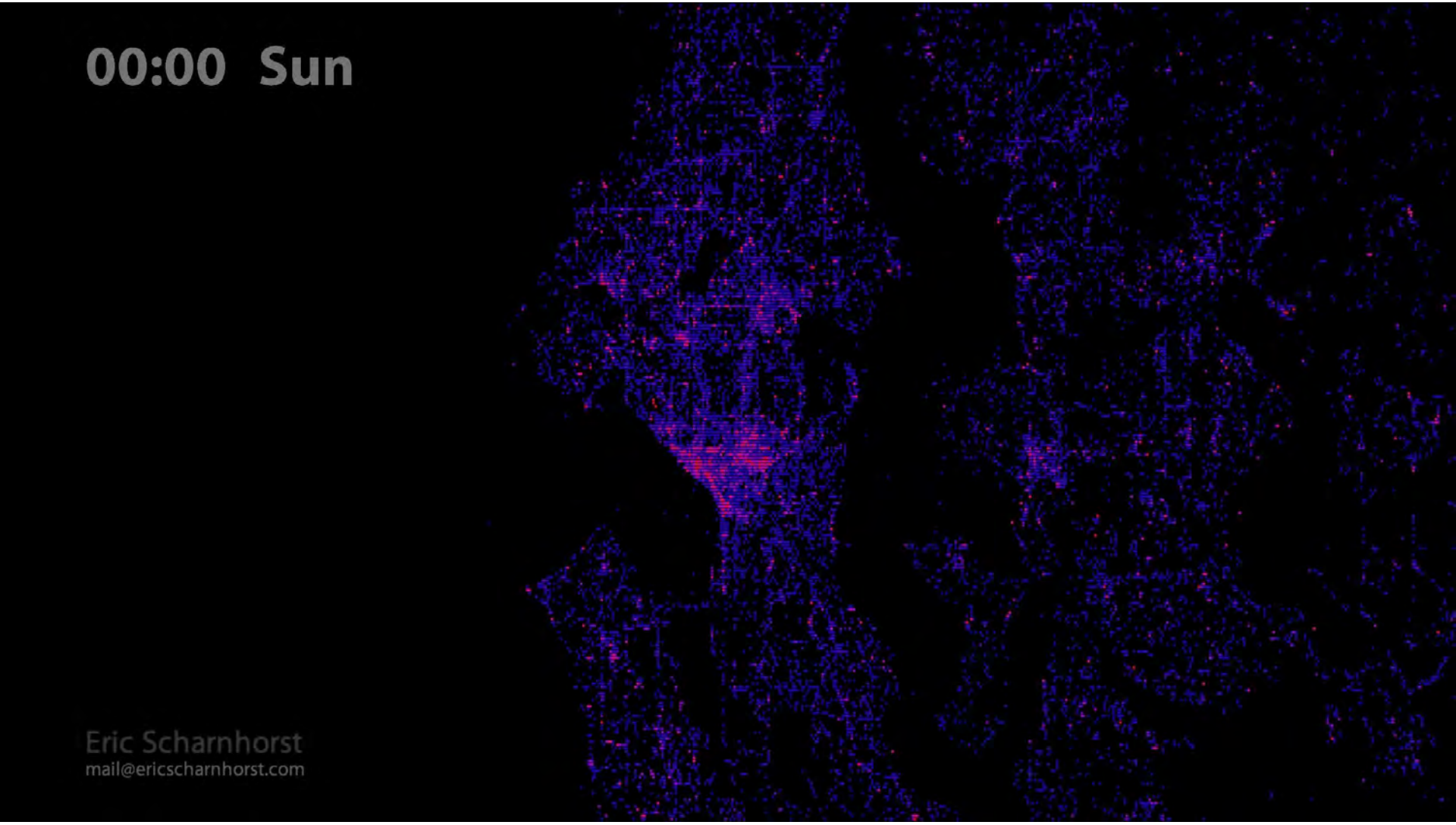
“Restricting construction ties cities to their past and limits the possibilities for their future.”

Older, Smaller, Better Project Overview

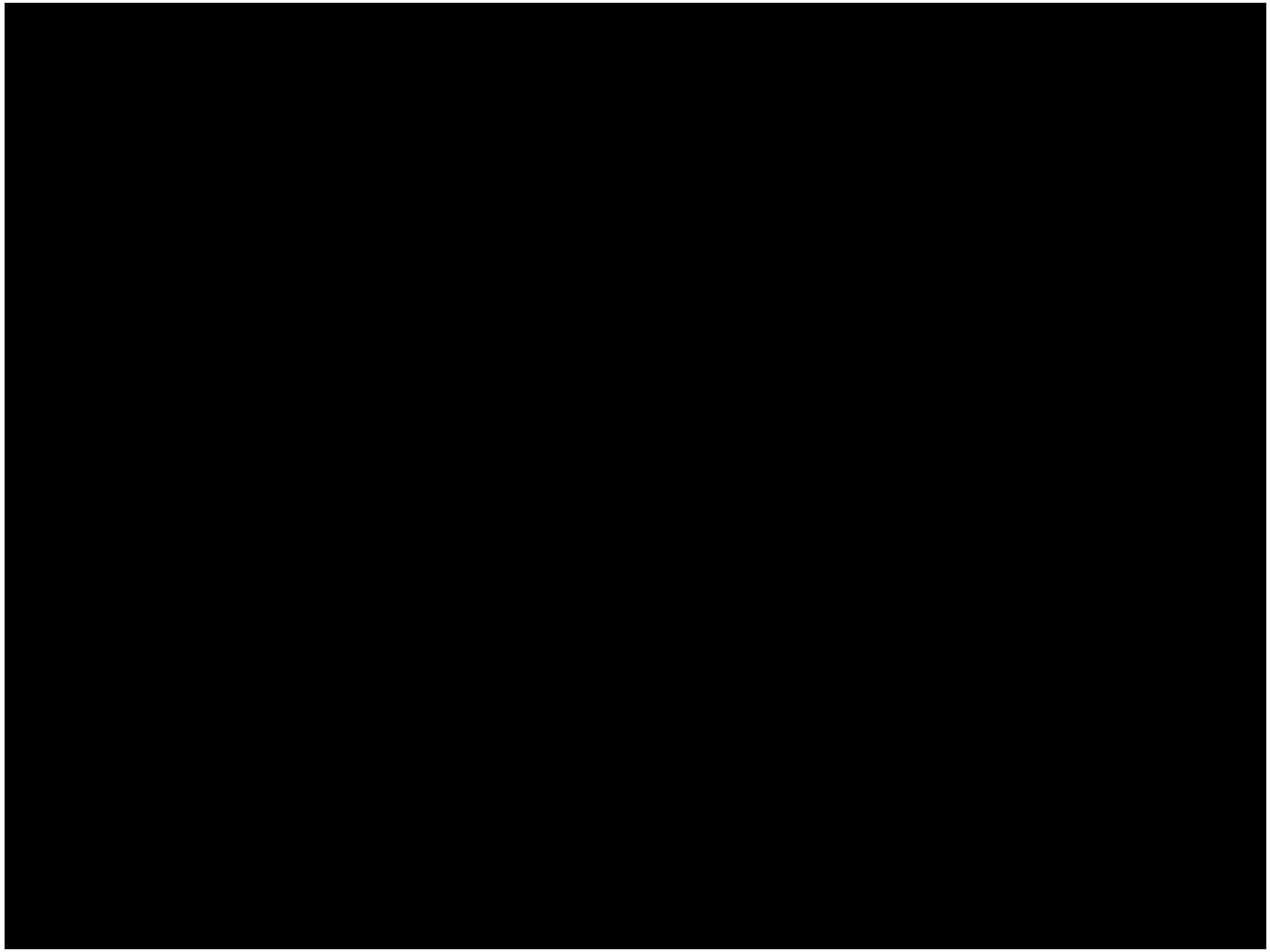
- **OBJECTIVE:** Test Jane Jacobs' hypothesis that diverse city fabric supports greater vitality and opportunity
- Used newly available data to assess the social, cultural, and economic value of older, smaller buildings
- Focused on Seattle, San Francisco, and Washington D.C.



Measures of Livability



Measures of Livability



OSB Methodology

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- Overlaid 200m x 200m grid

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- Focused on mixed-use corridors

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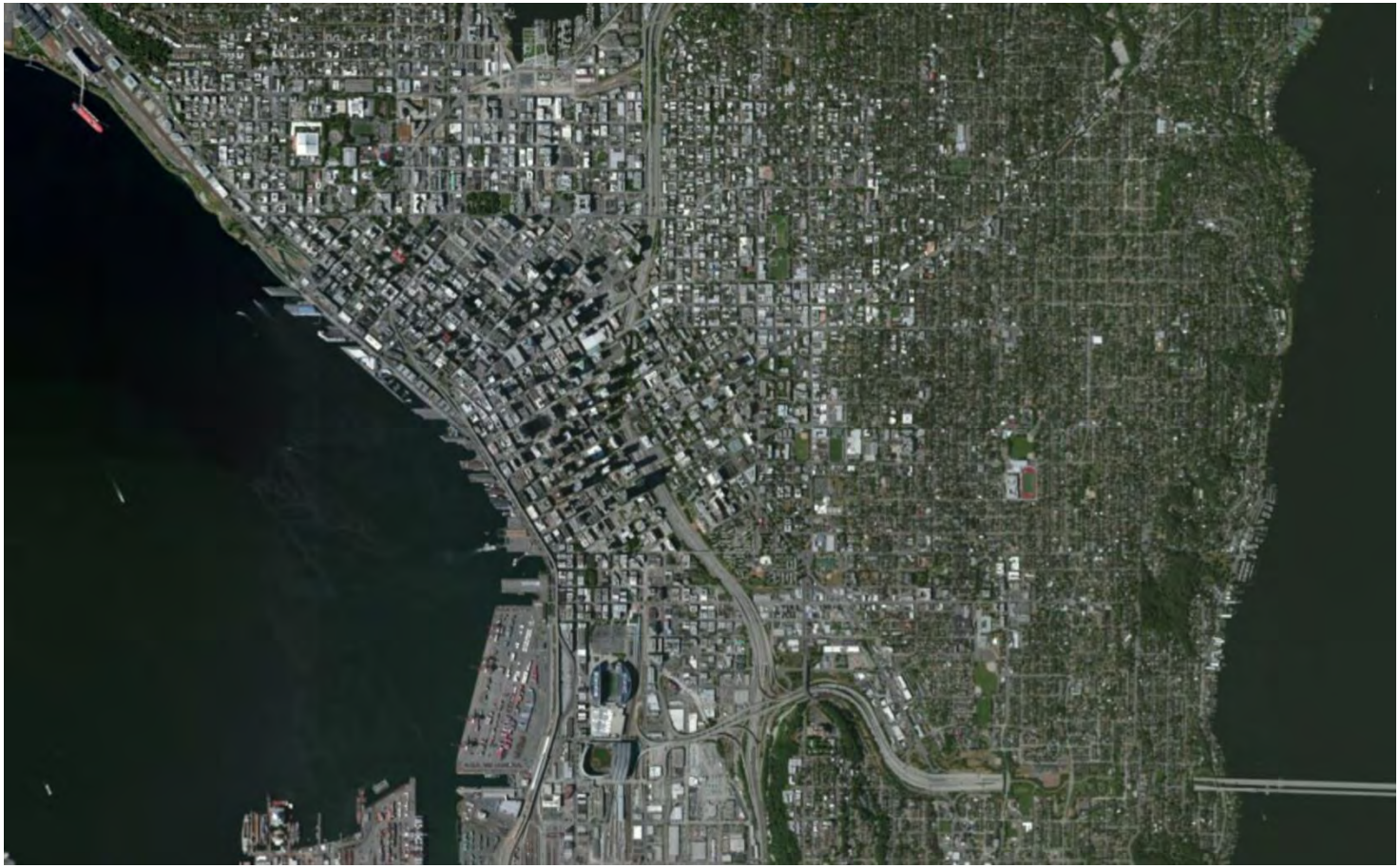
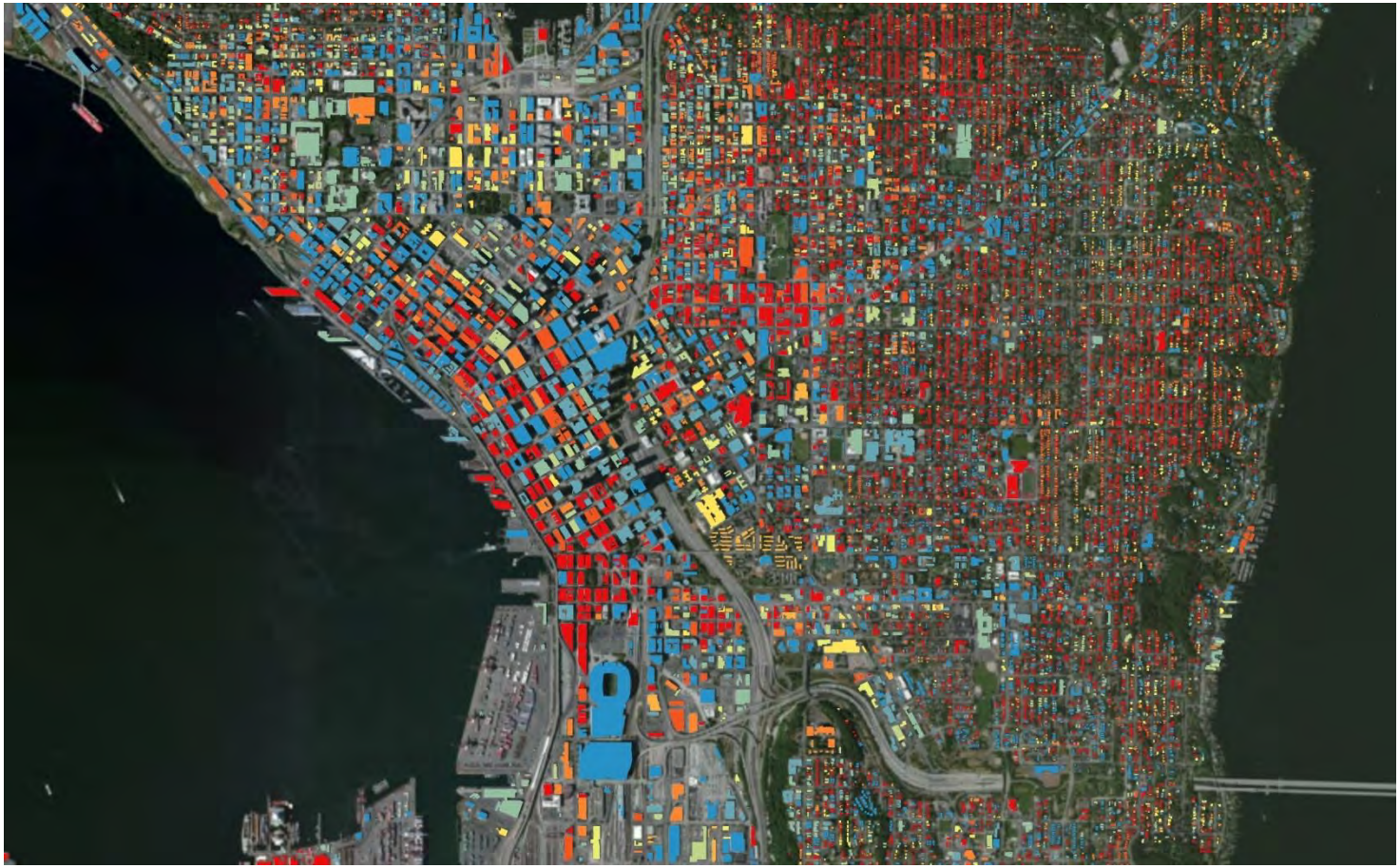
- Overlaid 200m x 200m grid
- Focused on mixed-use corridors
- Measured key features of the built fabric: building age, diversity of building age, granularity

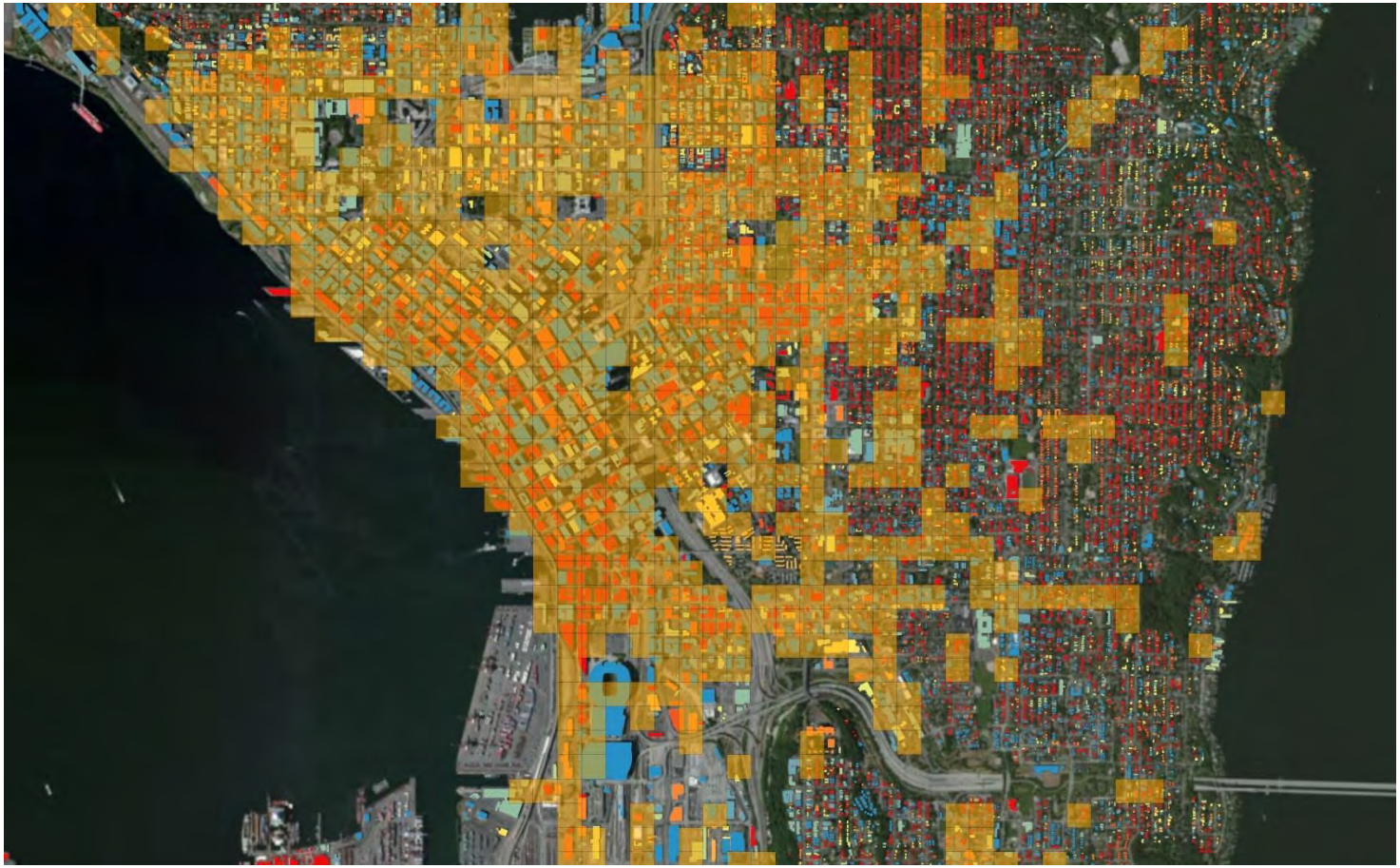
Seattle – Building Age



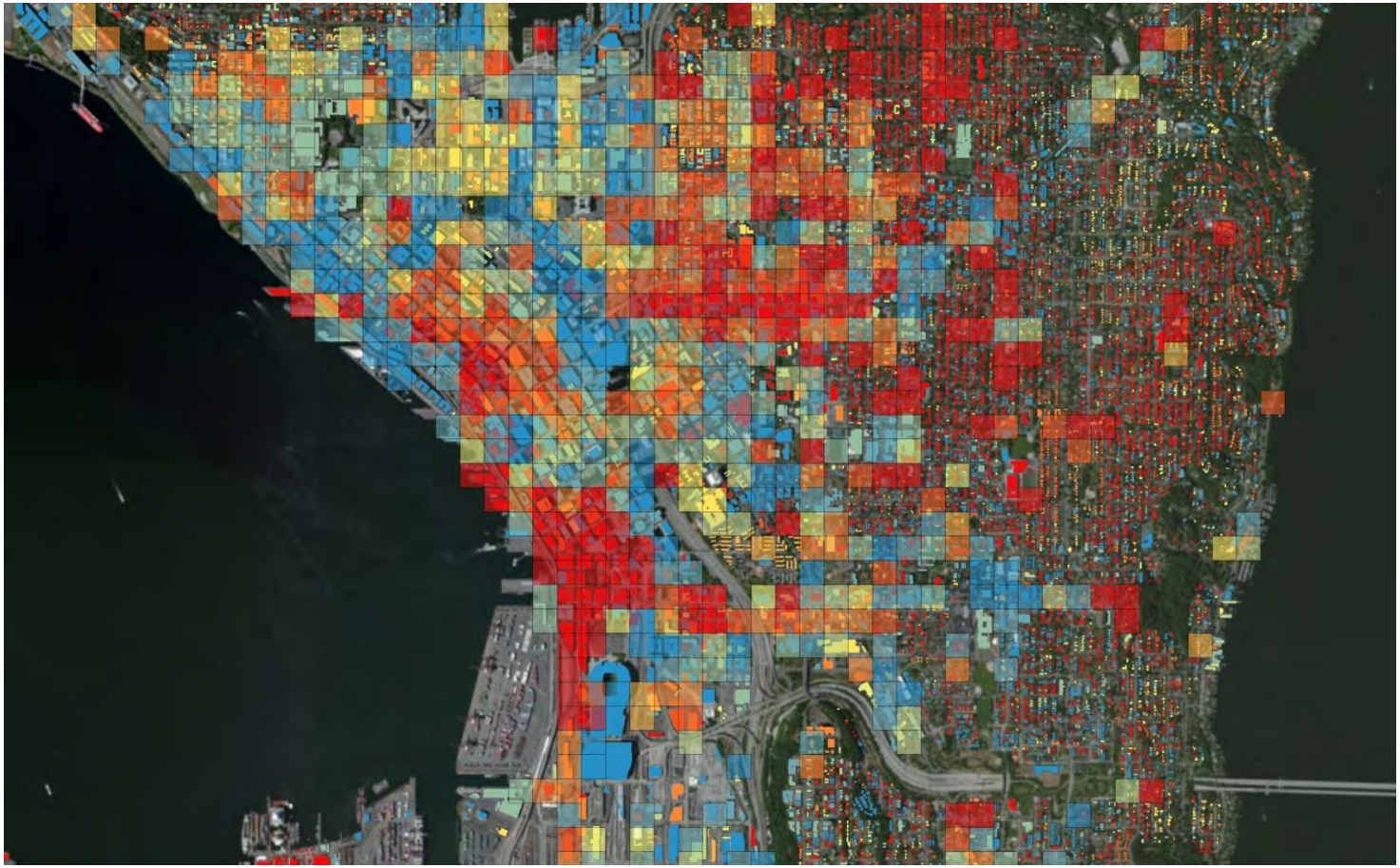
Seattle – Building Age



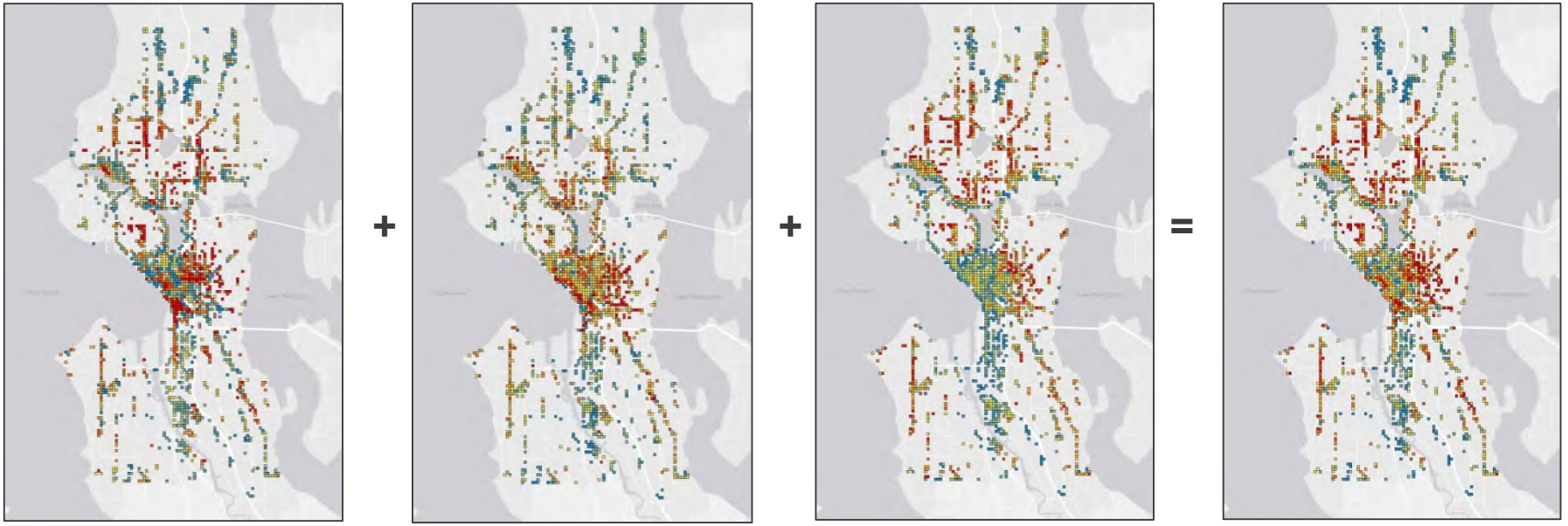
Seattle – Building Age



Seattle – Building Age



Measures of City Fabric



Building Age + Age Diversity + Granularity = Composite of all three

Our composite measure = “Character Score”

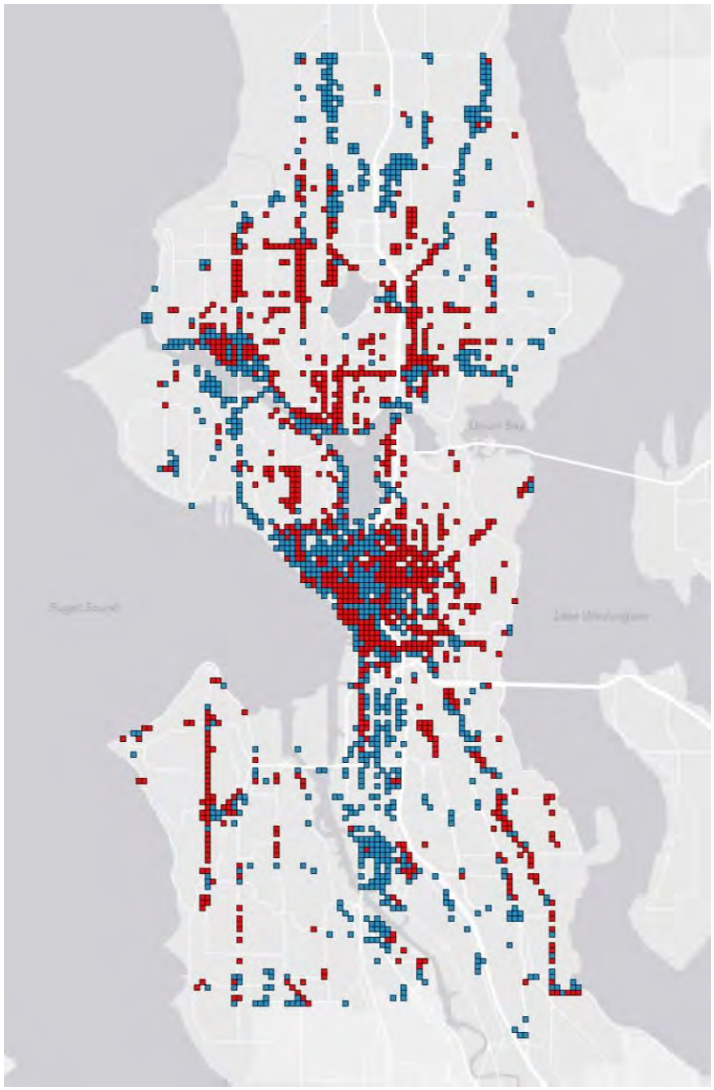
Low Character Score

- Newer buildings
- Larger buildings
- Less age diversity

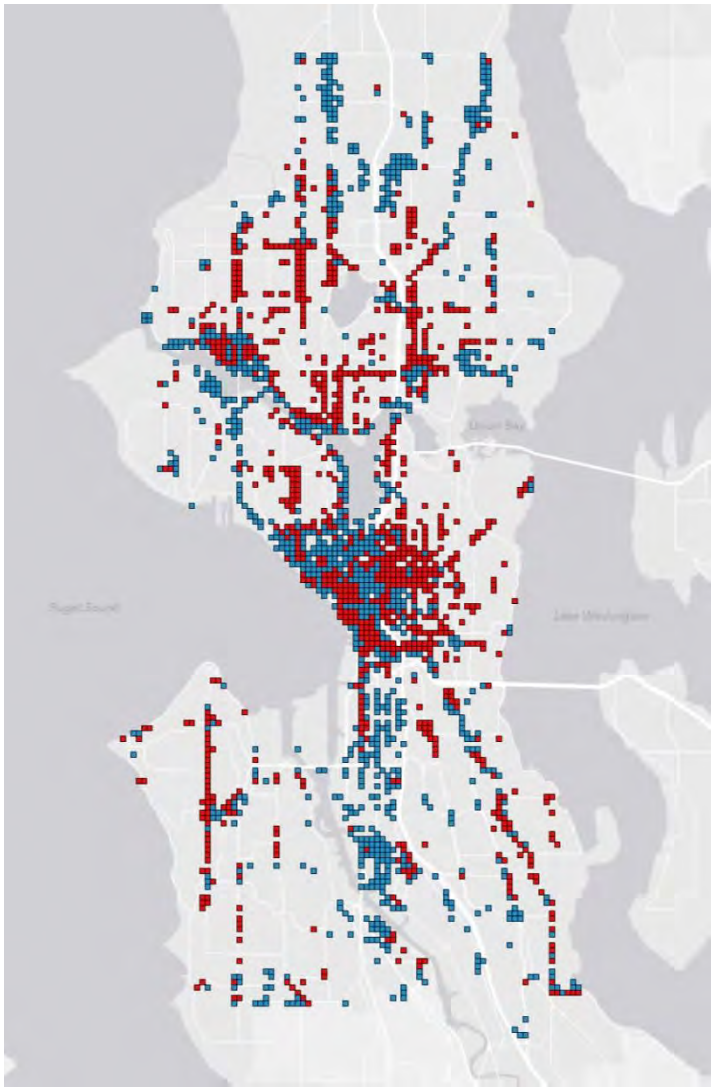
High Character Score

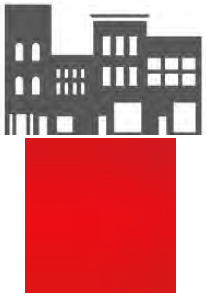
- Older buildings
- Smaller buildings
- Greater age diversity

Seattle – Character Score



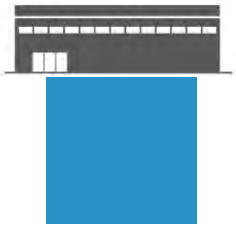
Seattle – Character Score





Older, smaller, more age-diverse buildings

Average Walk Score = 83.6



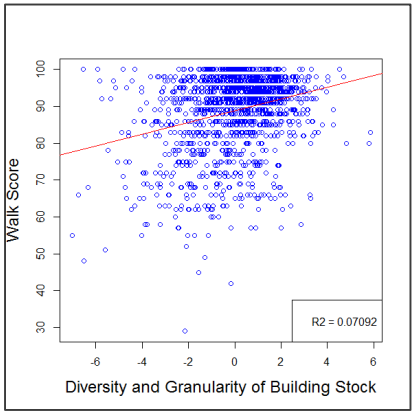
Newer, larger, less age-diverse buildings

Average Walk Score = 78.1

Major Findings

Older, mixed-use neighborhoods are more walkable.

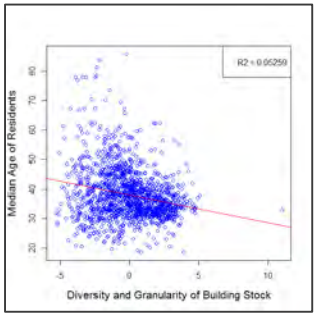
In Seattle and San Francisco, older neighborhoods with a mixture of small old and new buildings have a significantly higher Walk Score and Transit Score than neighborhoods with large, new buildings.



Photos: Walking and Transit in San Francisco (top right by Kim Komenich, SF Chronicle; bottom left from Flickr); Seattle (bottom right from worldchanging.com); Map: Walkscore in the Mission District, San Francisco

Young people love old buildings.

In Seattle, San Francisco, and Washington D.C., the median age of residents in areas with a mix of small, old and new buildings was significantly lower than in areas with larger, predominantly new buildings.



Pictured: Capitol Hill Block Party on Pike St., Seattle, WA; Credit: KEXP Blog; Map: Median Age of Residents, 3rd and 4th St NE, Washington D.C.

Nightlife is most alive on streets with a diverse range of building age.

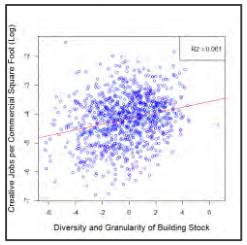
San Francisco and D.C. city blocks comprised of buildings from different eras host greater activity on Friday nights.

Seattle's Pike-Pine Corridor - Cell phone usage at 10pm on a Friday night

Right: H Street NE, Washington D.C., Amanda Voisard; Below: Pine and 11th, Seattle, WA, Michael Hanscom

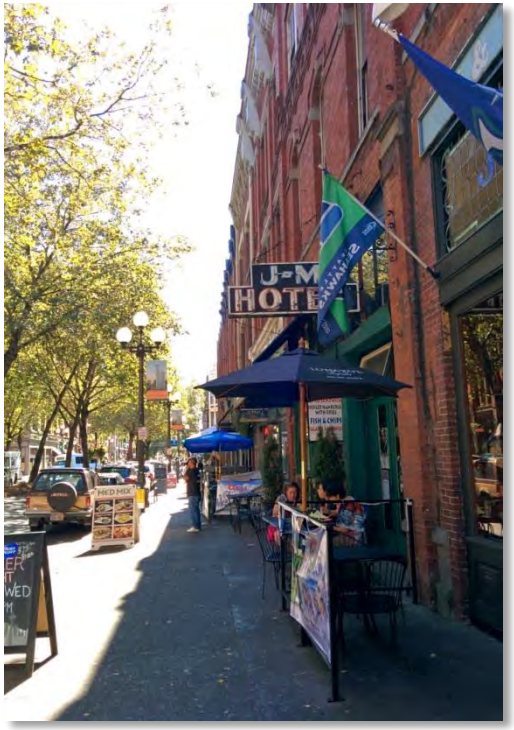
The creative economy thrives in older, mixed-use neighborhoods.

In Seattle and D.C., mixed-use neighborhoods with a mix of old and new buildings are significantly more likely to house creative companies and creative jobs.



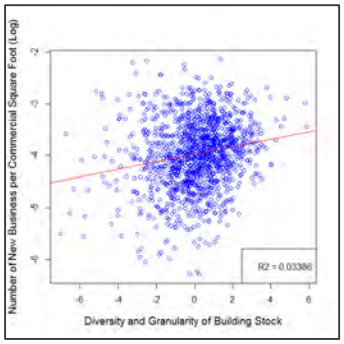
Creative jobs per commercial square foot (log) – Seattle, WA (Red = High performance; Blue = Low performance)

Pictured: Urban Outfitters corporate offices in Philadelphia (Inhabitat); Graham Baba Architects studio in Seattle (Picasa)



Older business districts offer opportunities for entrepreneurs of all backgrounds.

In Seattle and Washington D.C., neighborhoods with a fine-grained mix of old and new buildings host a significantly higher proportion of new businesses and women and minority-owned businesses than areas with predominantly larger, newer buildings.



New businesses per commercial square foot (log) - San Francisco (Red = High performance; Blue = Low performance)

Pictured: E. Smith Mercantile, Pioneer Square, Seattle, WA
Credit: Mike Powe, above; Hien Dang, Alliance for Pioneer Square right.

SEATTLE, WA

BUSINESSES WITH WOMEN OR MINORITY OWNERSHIP

2x
WOMEN AND MINORITY OWNERSHIP

Areas of Seattle with older, smaller, more age-diverse buildings have more than twice the rate found in areas with mostly newer, larger buildings.

Oldest, most diverse & finest-grained buildings

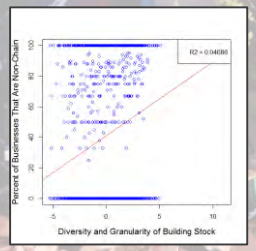
19.2%

Newest, largest, least age-diverse buildings

9.5%

Older, smaller buildings provide space for a strong local economy.

In Seattle, San Francisco, and Washington, D.C., streets with a combination of small old and new buildings have significantly higher proportions of non-chain businesses and small businesses.



Percent of businesses that are locally owned - Washington D.C. (Red = High performance; Blue = Low performance)

Pictured: H Street in Washington D.C.
Credit: Ted Eytan (Flickr)

SAN FRANCISCO, CA

JOBS IN SMALL BUSINESSES

MORE
JOBS IN SMALL BUSINESSES

Areas of San Francisco composed of older, smaller, more age-diverse buildings have significantly higher percentages of jobs in small businesses than in areas with mostly newer, larger buildings.

Oldest, most diverse & finest-grained buildings

44.6%

Newest, largest, least age-diverse buildings

34.3%

WASHINGTON, D.C.

NON-CHAIN LOCAL ESTABLISHMENTS

MORE
NON-CHAIN ESTABLISHMENTS

There are significantly more non-chain businesses in areas of Washington, D.C. composed of older, smaller, more age-diverse buildings than in areas with mostly newer, larger buildings.

Oldest, most diverse & finest-grained buildings

90.9%

Newest, largest, least age-diverse buildings

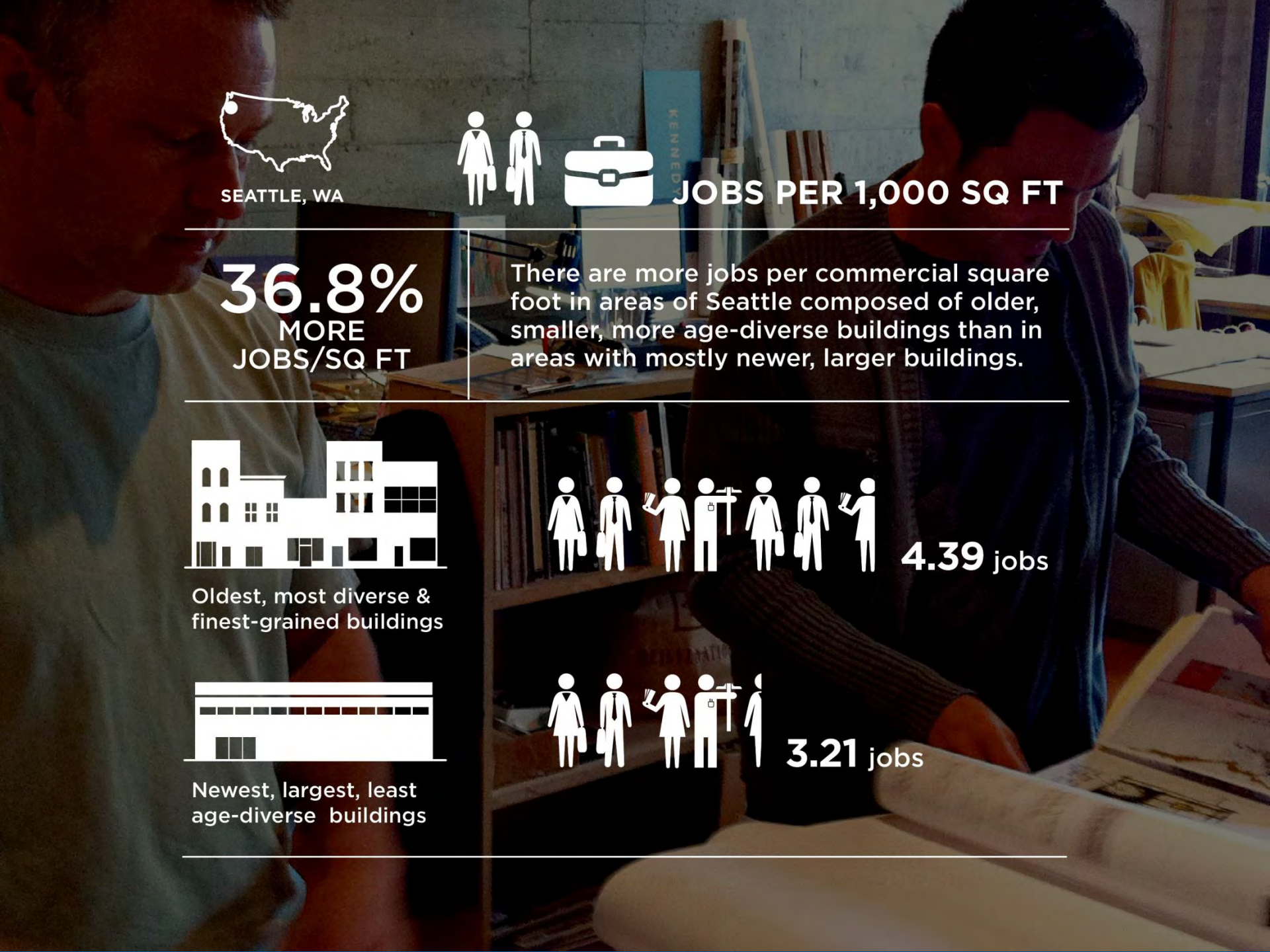
78.6%

Older commercial and mixed-use districts contain hidden density.

In Seattle, San Francisco, and D.C., streets with a mix of old and new buildings have greater population density and more businesses per commercial square foot than streets with large, new buildings. In Seattle and D.C., those areas also had significantly more jobs per commercial square foot.

Businesses per commercial square foot (log) - Seattle, WA
(Red = High performance; Blue = Low performance)

Pictured: Melrose Market in Seattle, WA.
Credit: Graham Baba Architects


SEATTLE, WA
JOBS PER 1,000 SQ FT
36.8%
MORE
JOBS/SQ FT
There are more jobs per commercial square foot in areas of Seattle composed of older, smaller, more age-diverse buildings than in areas with mostly newer, larger buildings.
Oldest, most diverse & finest-grained buildings
4.39 jobs
Newest, largest, least age-diverse buildings
3.21 jobs

Older, Smaller, Better
Evolution

- Since publication of the original report in 2014…
  - Peer-reviewed publication in the *Journal of the American Planning Association*

Jane Jacobs and the Value of Older, Smaller Buildings

Michael Powe, Jonathan Mabry, Emily Talen, and Dillon Mahmoudi

Problem, research strategy, and findings: In recent years, some economists and urban development advocates have argued that historic preservation is fundamentally at odds with a growing, diverse economy. We supply empirical support for Jane Jacobs's (1961) seminal argument about the value of "plain, ordinary, low-value old buildings," finding that older, smaller buildings support dense, diverse streets and neighborhoods (p. 187). We use spatial regression models to analyze how social and economic activity relate to building characteristics in Seattle (WA), San Francisco (CA), Tucson (AZ), and Washington, DC. On a per commercial square foot basis, areas with older, smaller buildings and mixed-vintage blocks support more jobs in new businesses, small businesses, and businesses in creative industries. However, while areas with older, smaller buildings have greater diversity of resident age and higher proportions of small businesses, we also find lower proportions of Hispanic and non-White residents, indicating limited racial and ethnic diversity.
Takeaway for practice: Focusing on new construction alone to achieve denser, more sustainable cities elides the important role that older, smaller buildings play in dense, diverse neighborhoods. Planners should support the preservation and reuse of older buildings and the integration of old and new buildings. Relevant policies include adaptive reuse ordinances, performance-based energy codes, context-sensitive form-based coding, and deregulation of parking requirements.
Keywords: preservation, Jane Jacobs, diversity, economic development, community development
About the authors: Michael Powe (mpowe@savingplaces.org) is the associate director of research at the National Trust for Historic Preservation's Preservation Green Lab. **Jonathan Mabry** (jonathan.mabry@tucsonaz.gov) is the historic preservation officer for the City of Tucson. **Emily Talen** (etalen@asu.edu) is a professor in the School of Geographical Sciences and Urban Planning and School of Sustainability at Arizona State University. **Dillon Mahmoudi** (dillonm@pdx.edu) is a PhD candidate in the Toulan School of Urban Studies and Planning at Portland State University.

Journal of the American Planning Association, 2016
DOI 10.1080/01944363.2015.1139072

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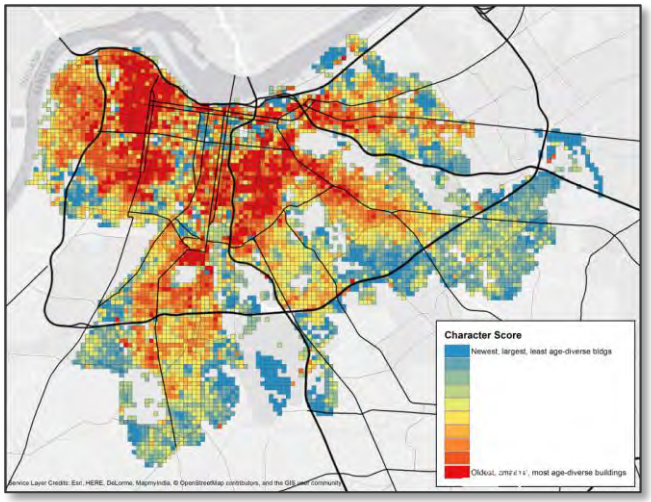

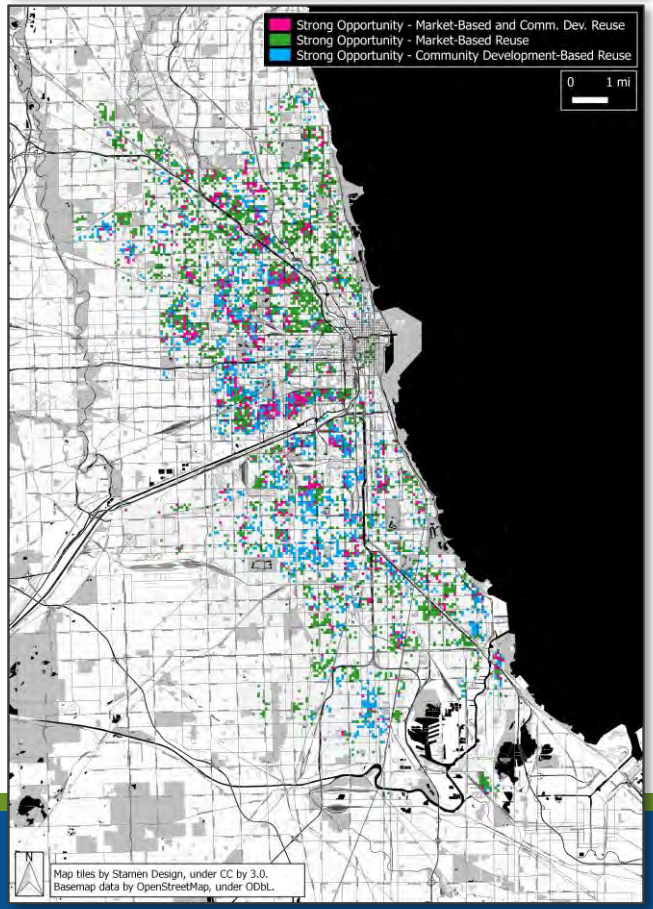

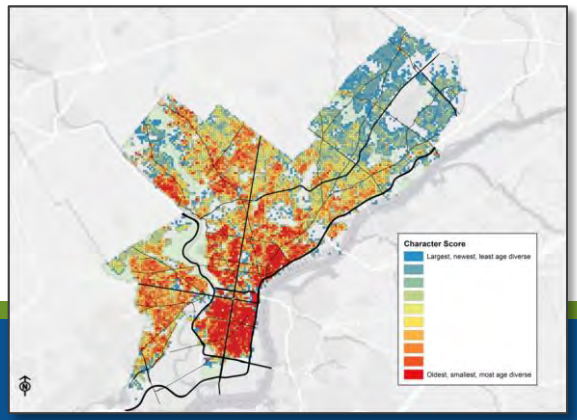

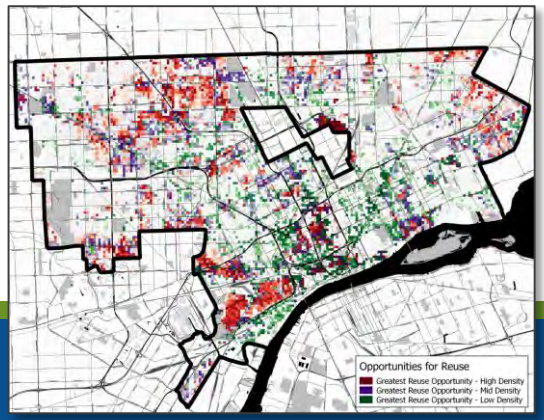

Older, Smaller, Better Evolution

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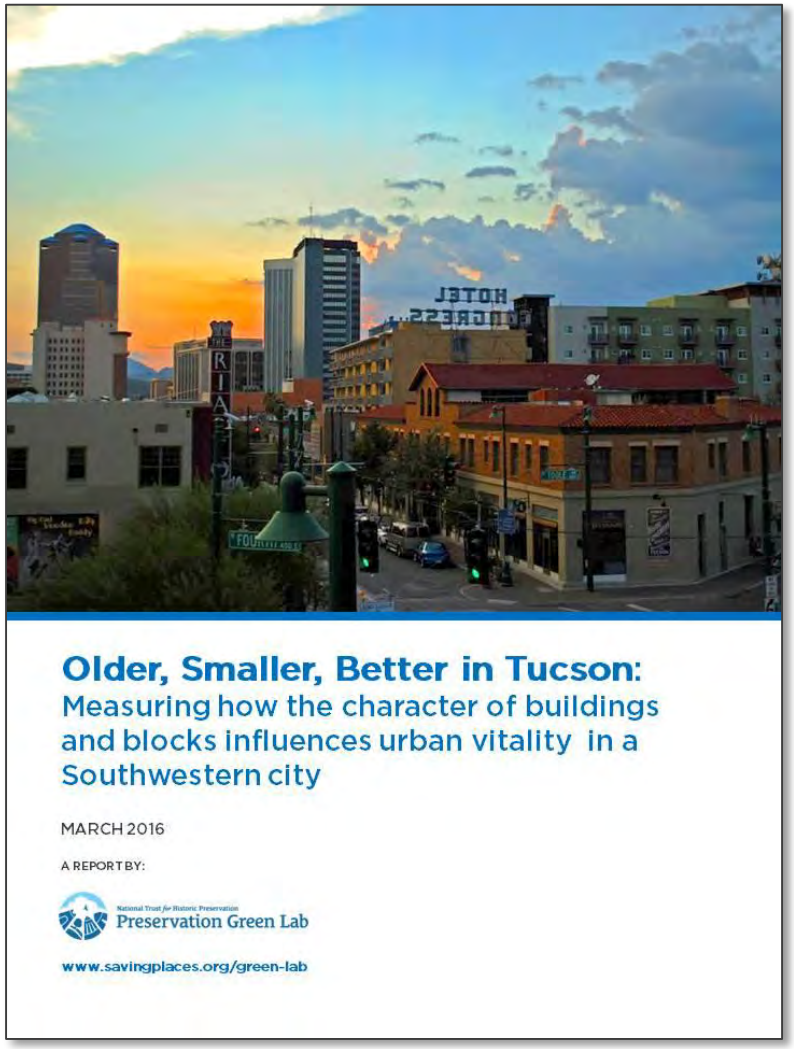
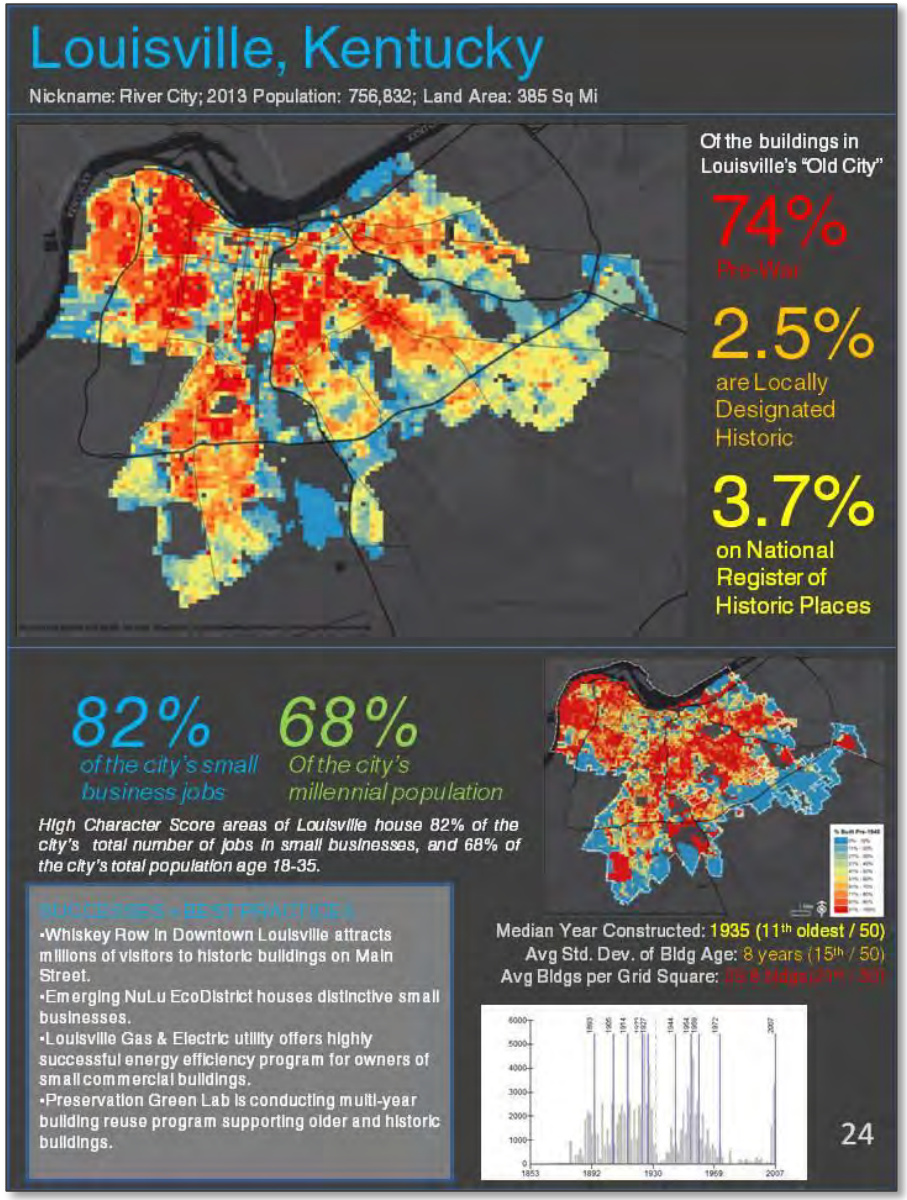
  - Full scale analysis of Tucson, Arizona, with new variables of interest



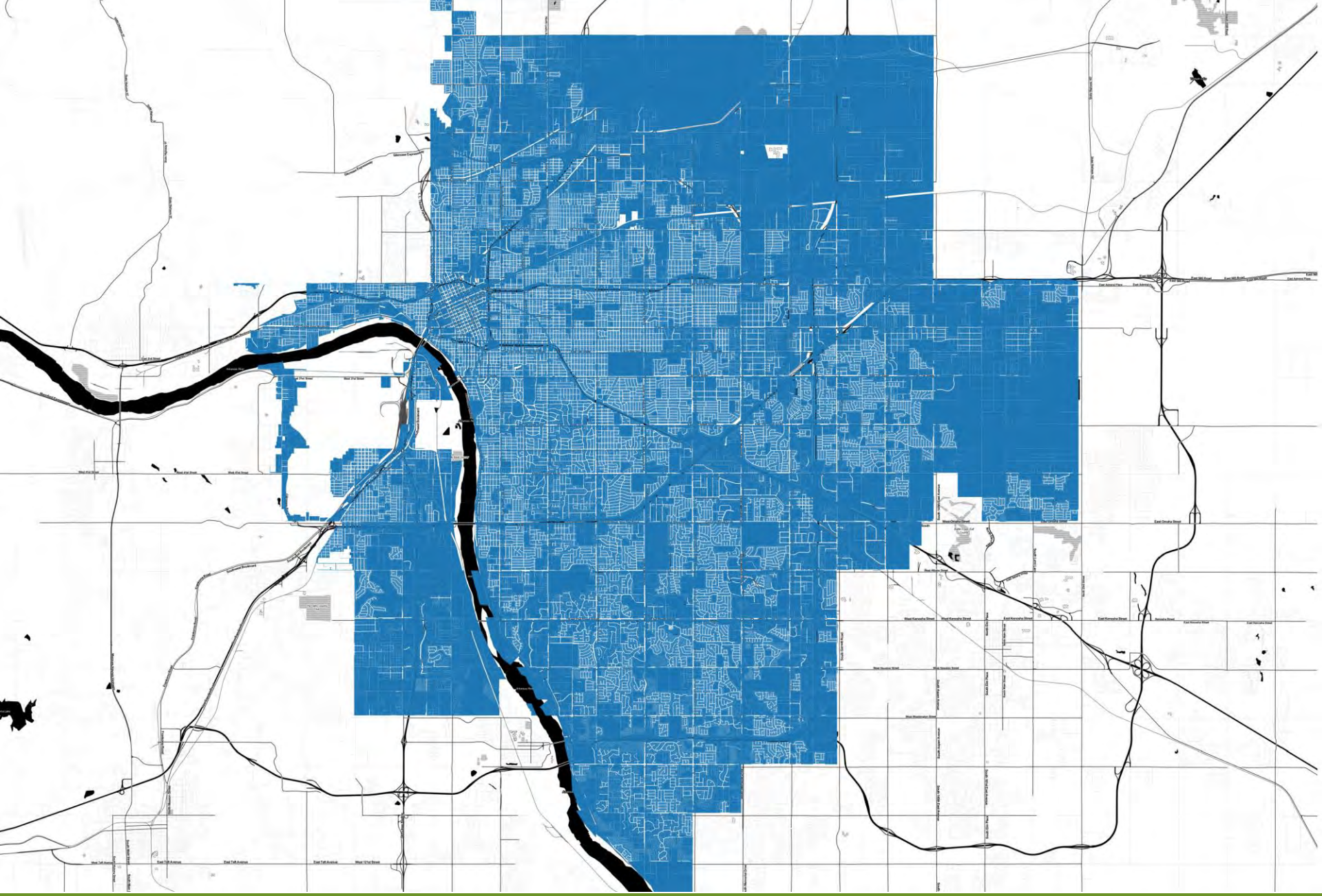
Urban Preservation Atlas

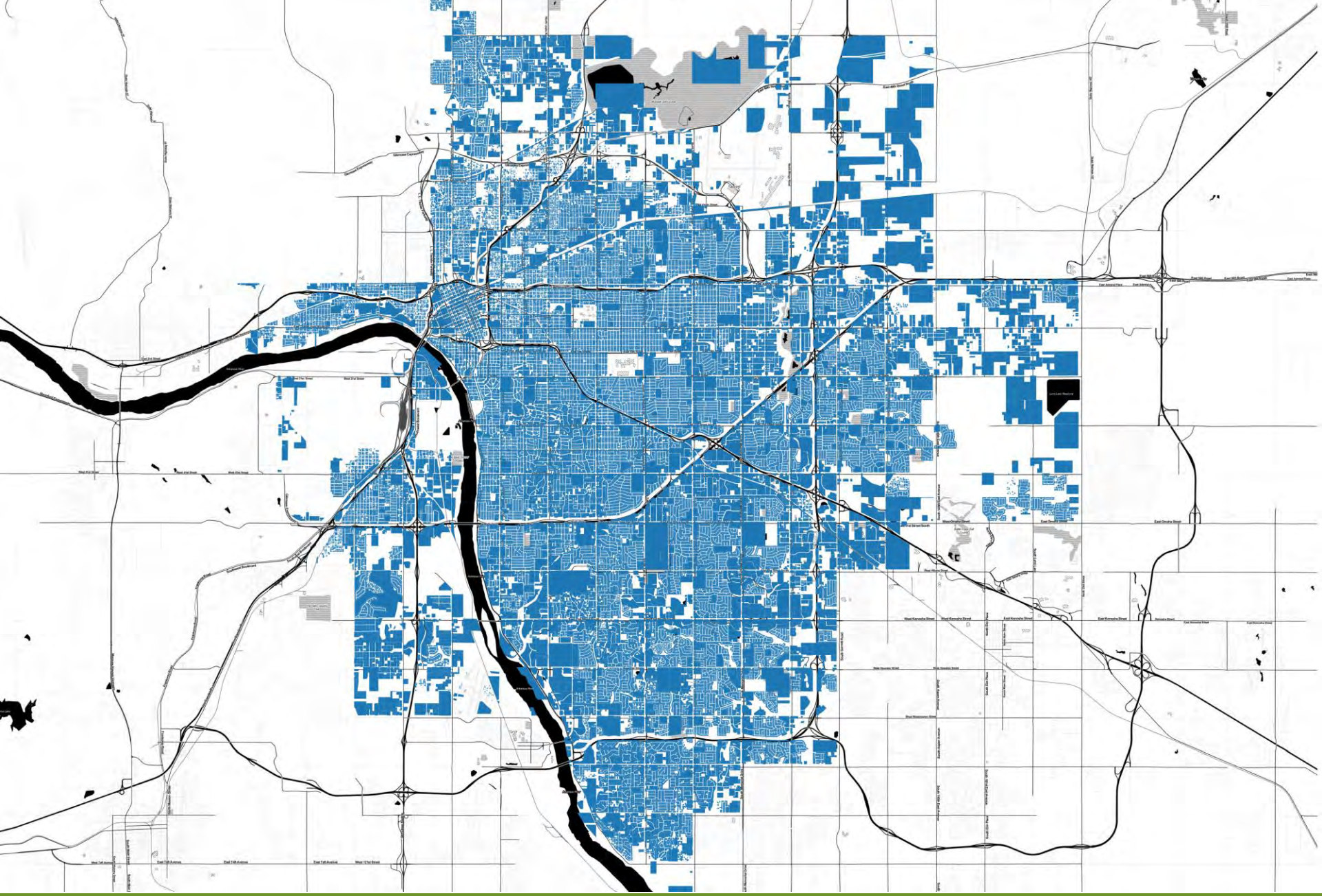
- Database and mapping platform
  - 50+ cities in 2016 and growing
  - Launch in November 2016
  - New types of analysis
    - Potential for solar power generation
  - New visualizations
    - Risk of sea level rise

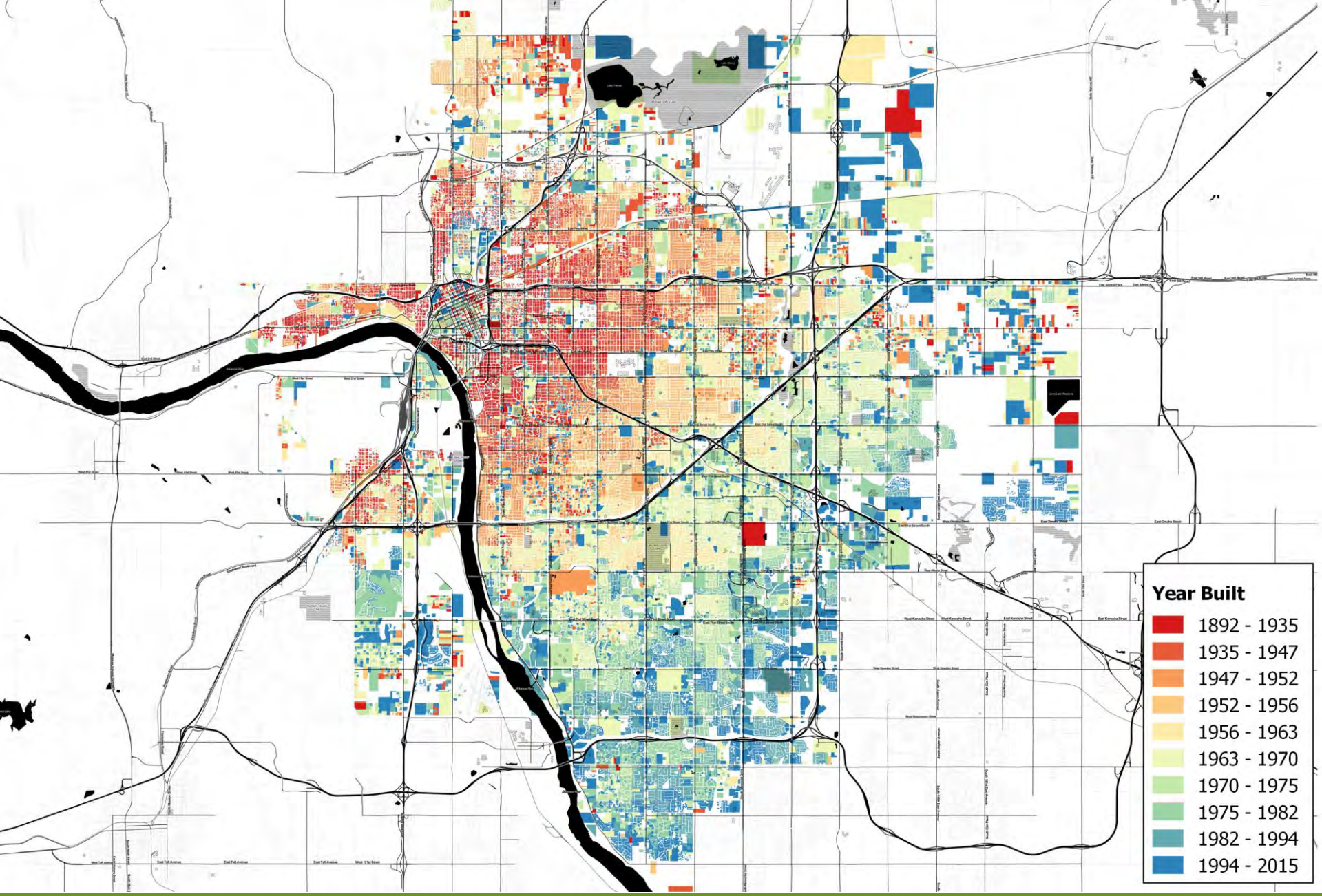


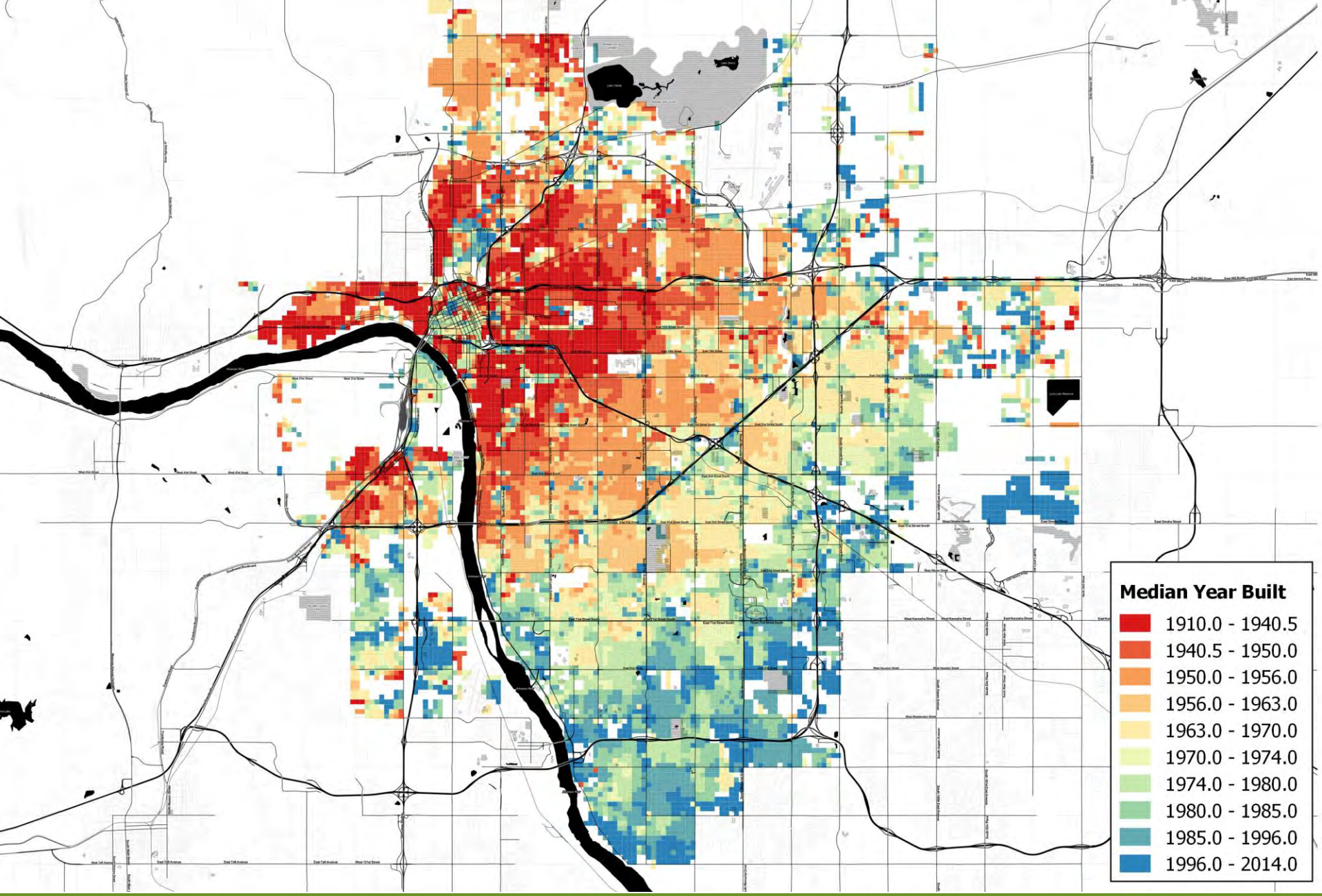
Older, Smaller, Better: Measuring how the character of buildings and blocks influences urban vitality

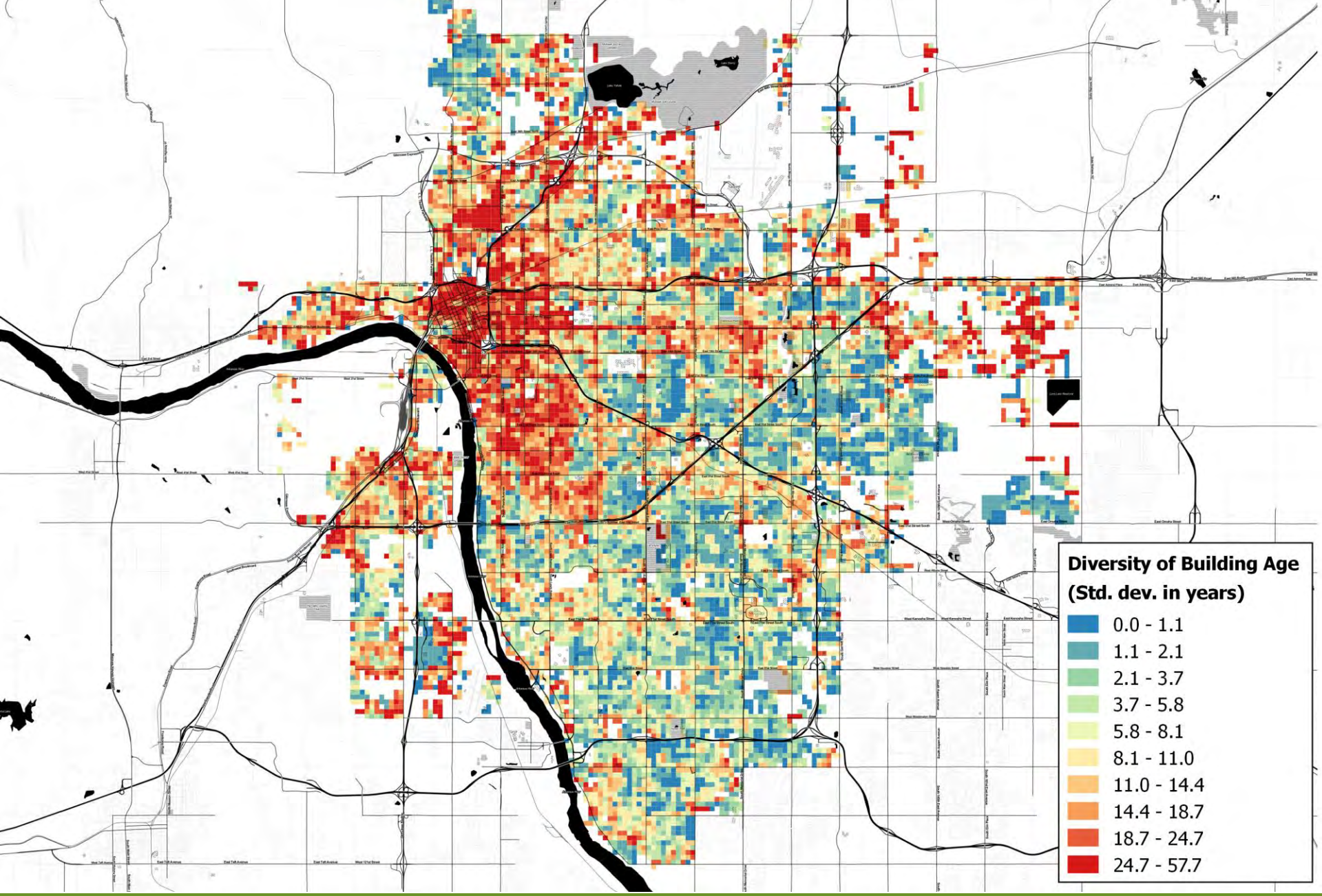
The Built Fabric of Tulsa

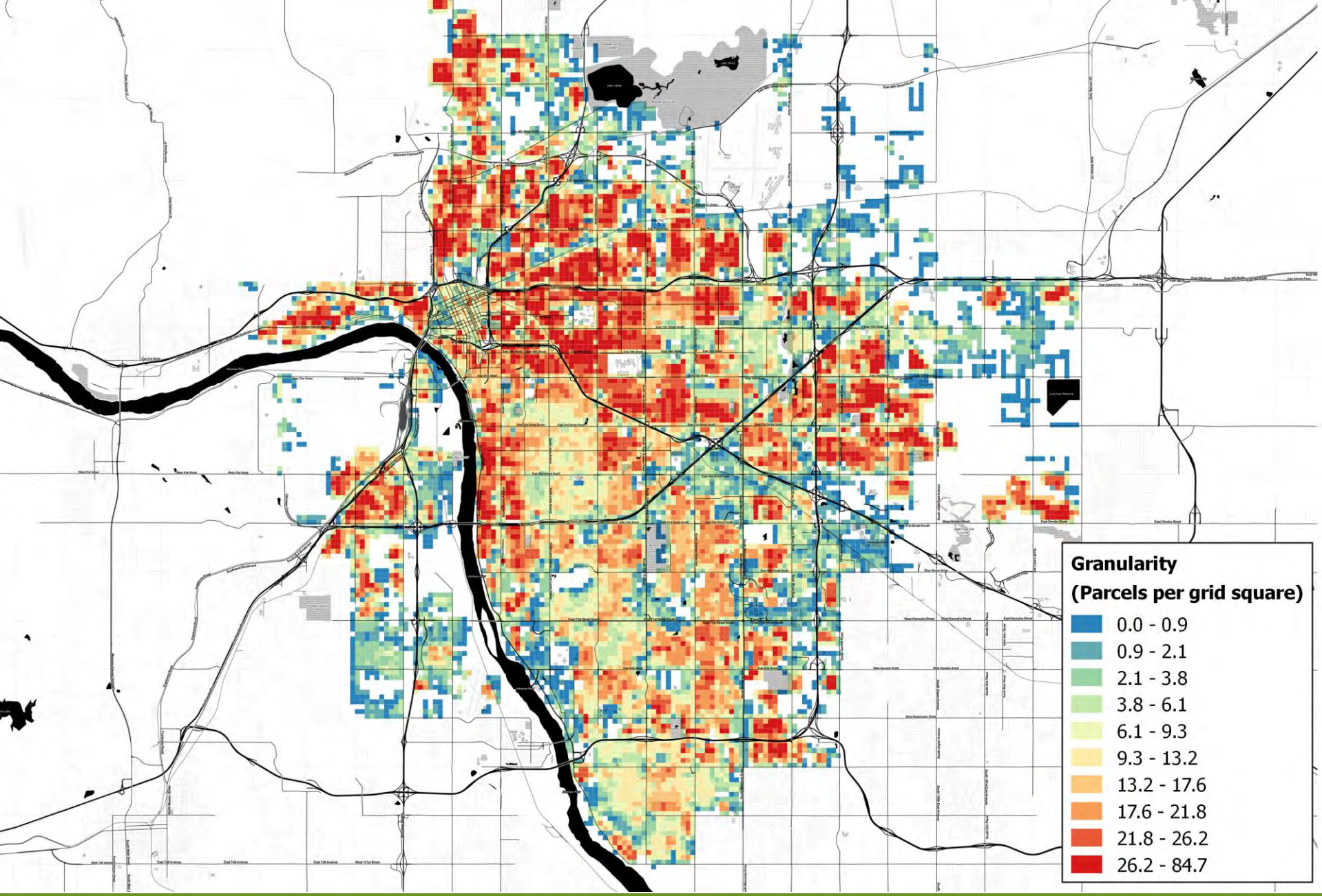


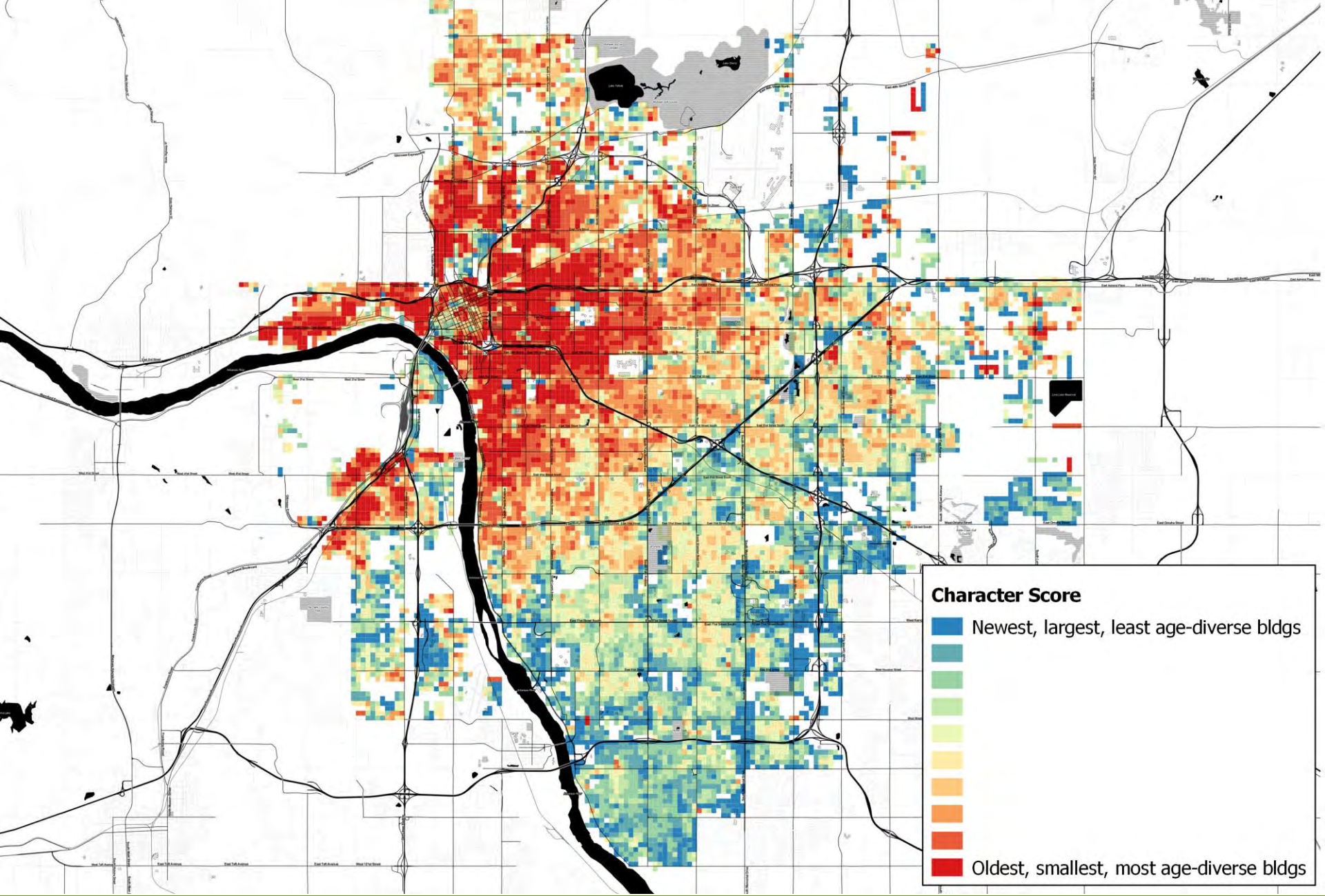


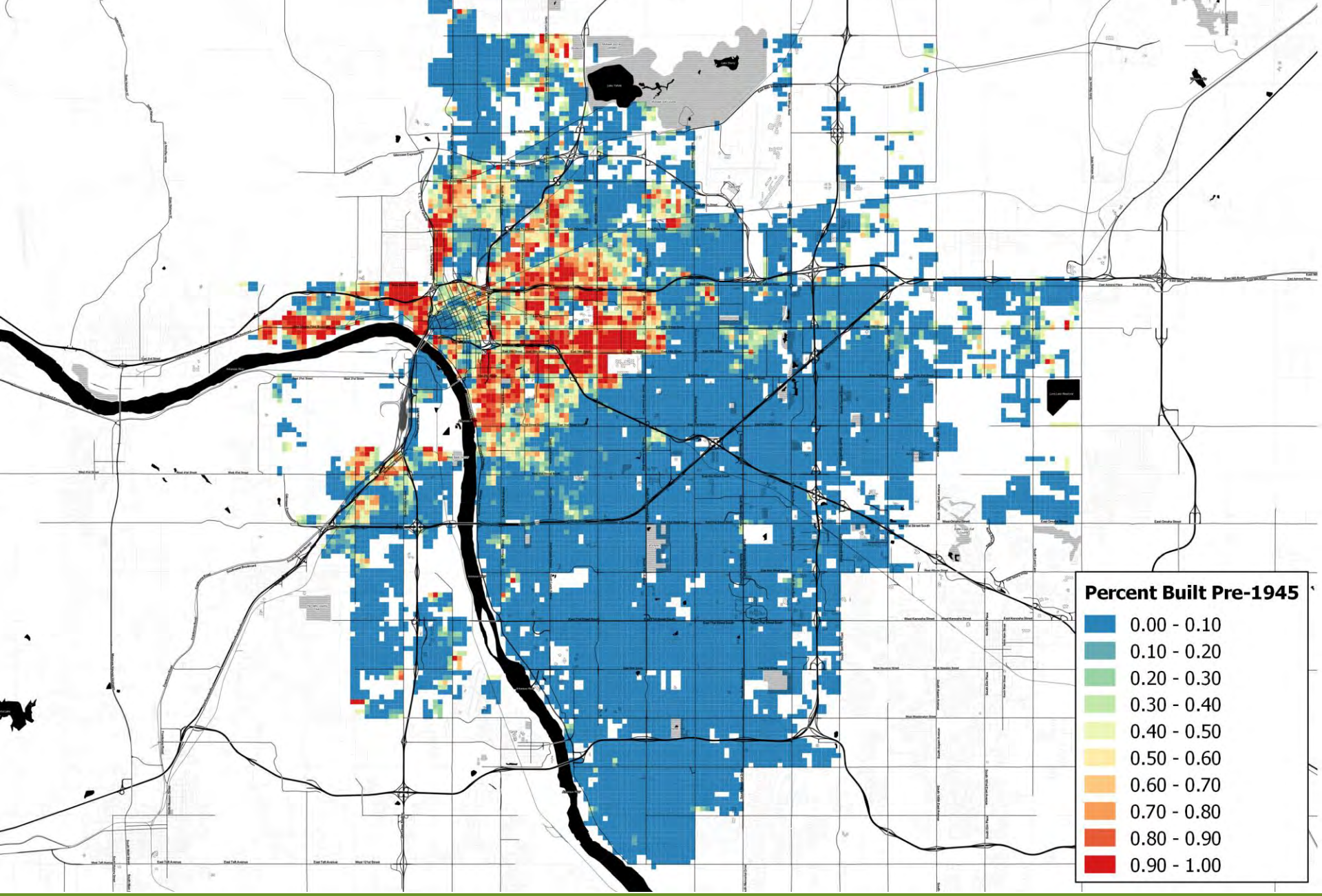

Year Built
1892 - 1935
1935 - 1947
1947 - 1952
1952 - 1956
1956 - 1963
1963 - 1970
1970 - 1975
1975 - 1982
1982 - 1994
1994 - 2015

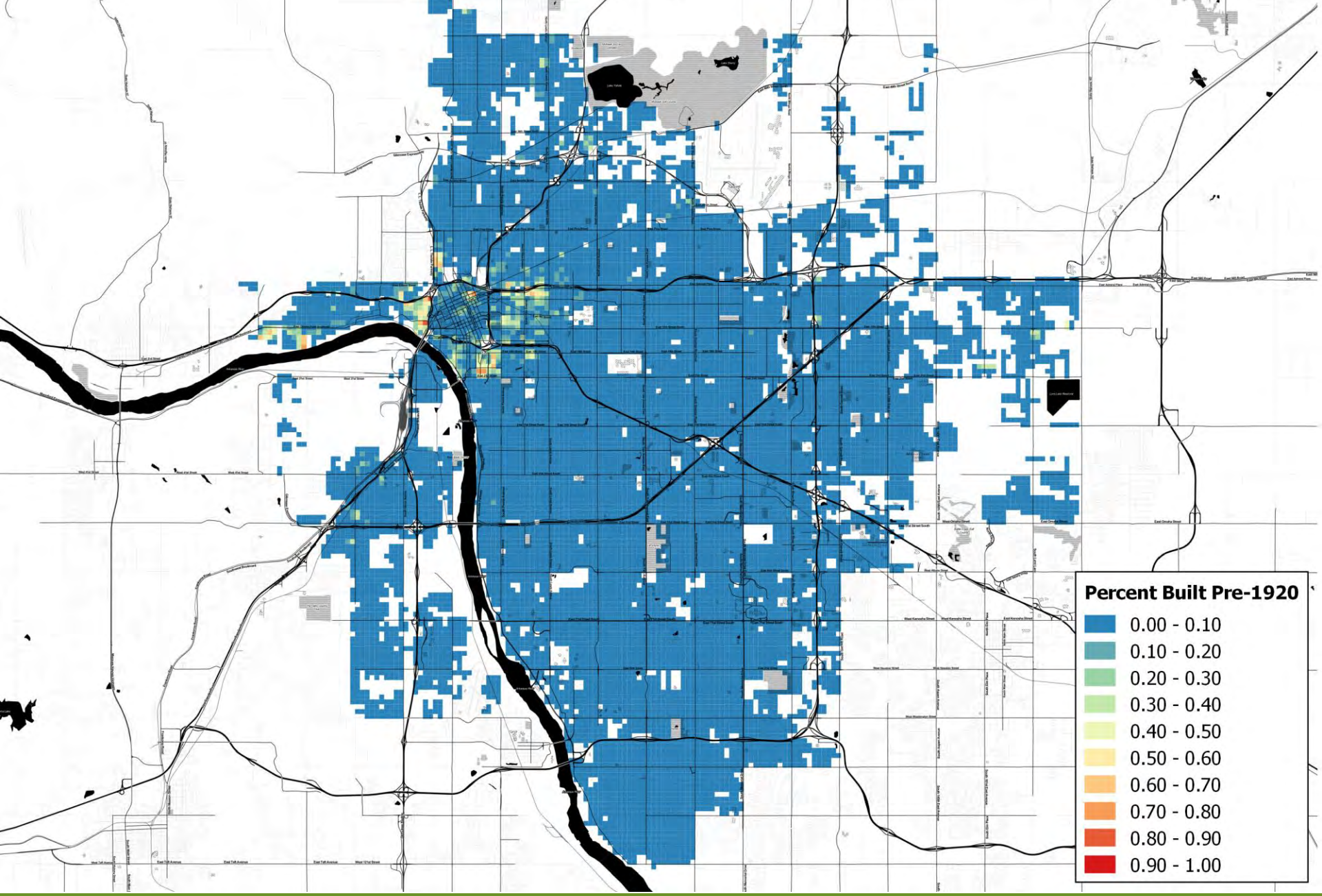

Median Year Built
1910.0 - 1940.5
1940.5 - 1950.0
1950.0 - 1956.0
1956.0 - 1963.0
1963.0 - 1970.0
1970.0 - 1974.0
1974.0 - 1980.0
1980.0 - 1985.0
1985.0 - 1996.0
1996.0 - 2014.0


Diversity of Building Age
(Std. dev. in years)
0.0 - 1.1
1.1 - 2.1
2.1 - 3.7
3.7 - 5.8
5.8 - 8.1
8.1 - 11.0
11.0 - 14.4
14.4 - 18.7
18.7 - 24.7
24.7 - 57.7


Granularity
(Parcels per grid square)
0.0 - 0.9
0.9 - 2.1
2.1 - 3.8
3.8 - 6.1
6.1 - 9.3
9.3 - 13.2
13.2 - 17.6
17.6 - 21.8
21.8 - 26.2
26.2 - 84.7


Character Score
Newest, largest, least age-diverse bldgs
Oldest, smallest, most age-diverse bldgs


Percent Built Pre-1945
0.00 - 0.10
0.10 - 0.20
0.20 - 0.30
0.30 - 0.40
0.40 - 0.50
0.50 - 0.60
0.60 - 0.70
0.70 - 0.80
0.80 - 0.90
0.90 - 1.00


Percent Built Pre-1920
0.00 - 0.10
0.10 - 0.20
0.20 - 0.30
0.30 - 0.40
0.40 - 0.50
0.50 - 0.60
0.60 - 0.70
0.70 - 0.80
0.80 - 0.90
0.90 - 1.00

Key Implications

Character and scale of buildings matter.

Key Implications

Foster the existing strengths of great neighborhoods that work.

Photo: Fairhaven.com

Key Implications

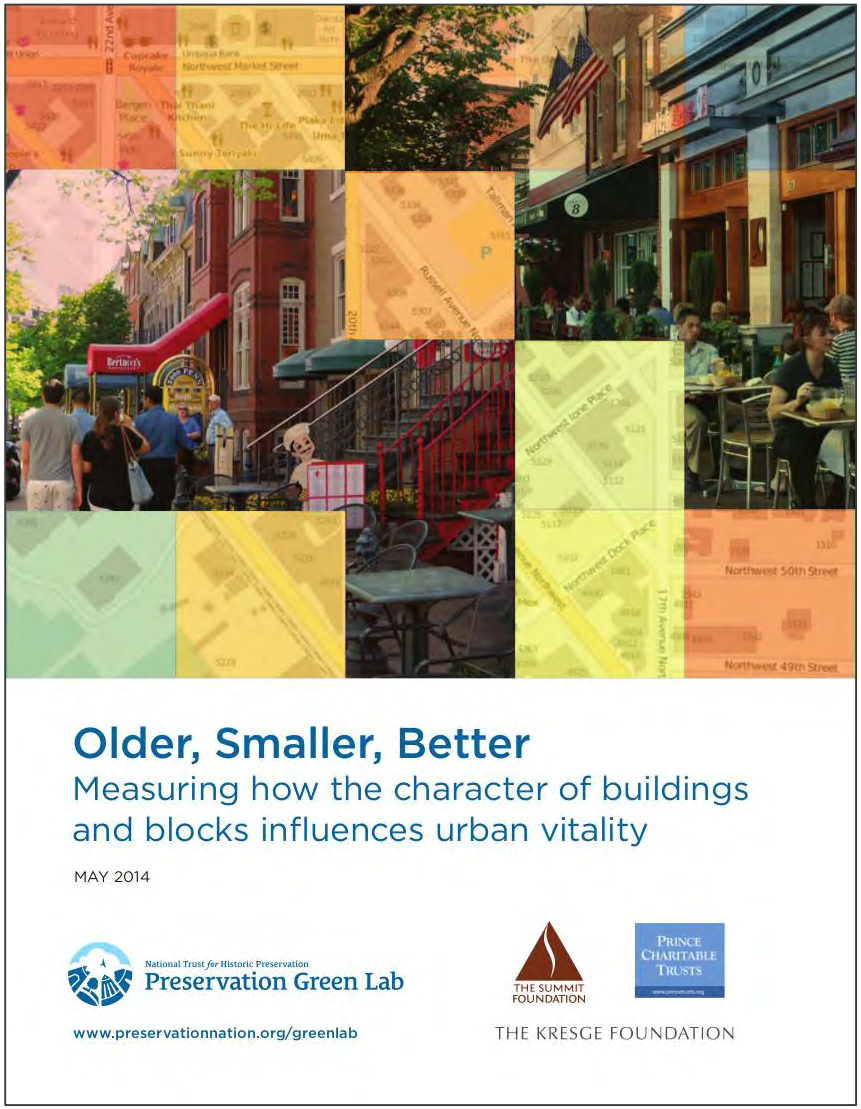
Encourage reuse and infill in transitioning neighborhoods with ‘good bones’

Photo: Kathleen Cooper, Tacoma News Tribune

Key Implications

Don’t be afraid to mix old and new — just be smart about design

Photo: Jim Lindberg



Questions?
Comments?

www.savingplaces.org

www.savingplaces.org/green-lab

National Trust for Historic Preservation
Preservation Green Lab