

**22<sup>nd</sup> Annual Ahwahnee Conference for  
Elected Officials**  
The Local Government Commission

# City Design and Urban Innovation for the Knowledge Economy

**Michael Freedman, Principal**  
March 15-17 2013; Yosemite



Freedman Tung + Sasaki, San Francisco

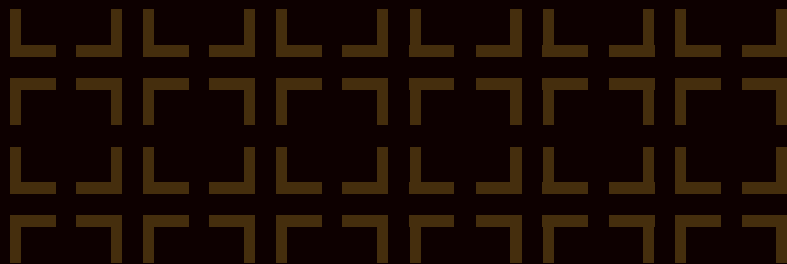


The Local Government Commission  
20<sup>th</sup> Annual Conference for Elected Officials

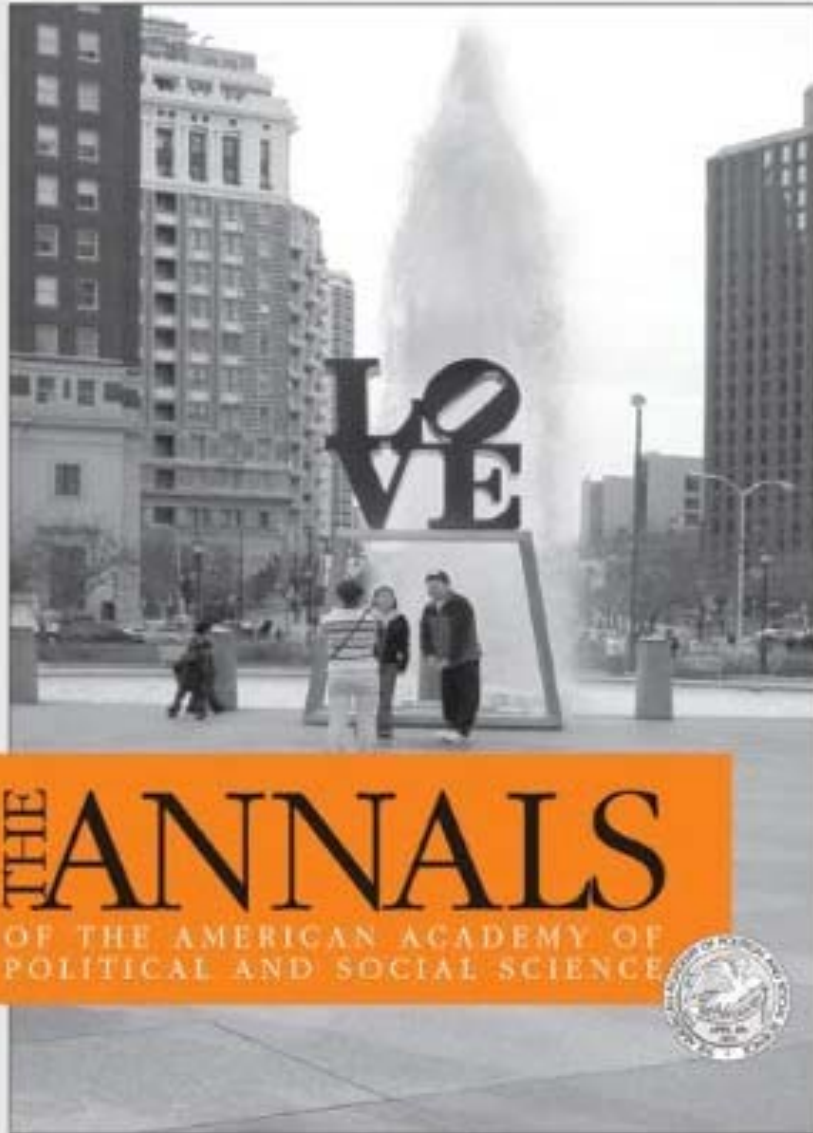
# Ahwahnee Evolution

*Urban Design Strategies Essential to  
Achieving Sustainable Prosperity in the  
Current Era*

Michael Freedman  
Freedman Tung + Sasaki  
Yosemite: March 19, 2011

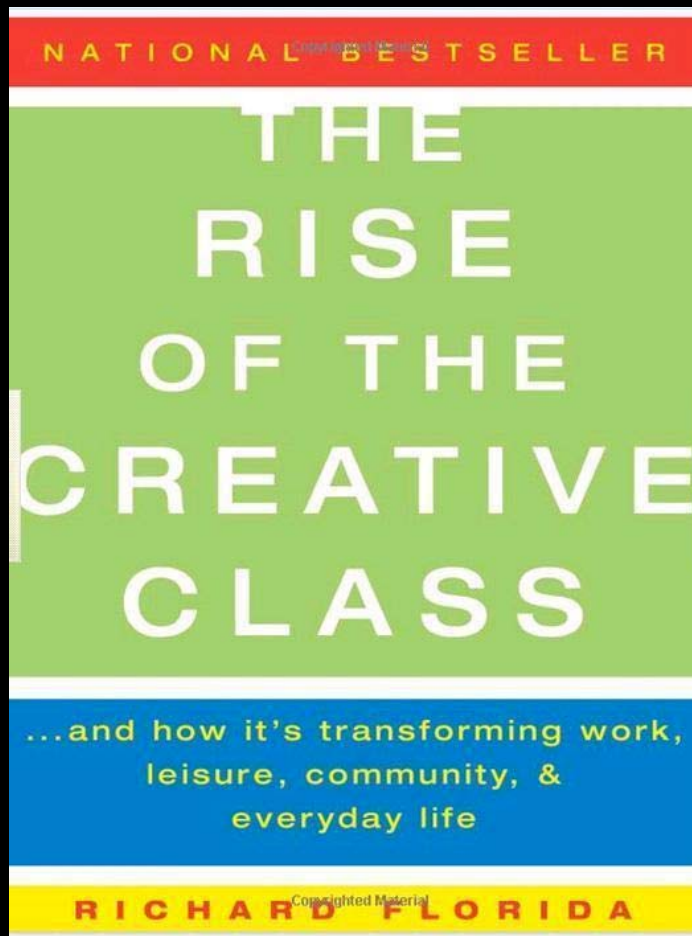


The Shape of the New American City  
Special Editors: Eugénie L. Birch and Susan M. Wochter



Volume 606 November 2009

Sociological and urban studies research has documented a massive transformation in work, daily life, and the drivers of prosperity.



## THE CREATIVE ECONOMY

47

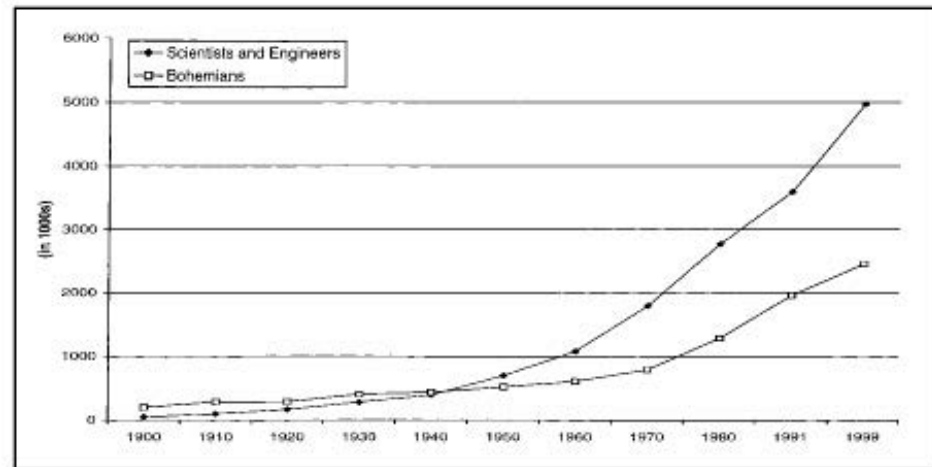


FIGURE 3.3 The Growing Creative Workforce, 1900–1999

(SOURCE: *Historical Statistics*, 1976; *Statistical Abstract*, various years.)

Sociological and urban studies research has documented a massive transformation in work, daily life, and the drivers of prosperity.



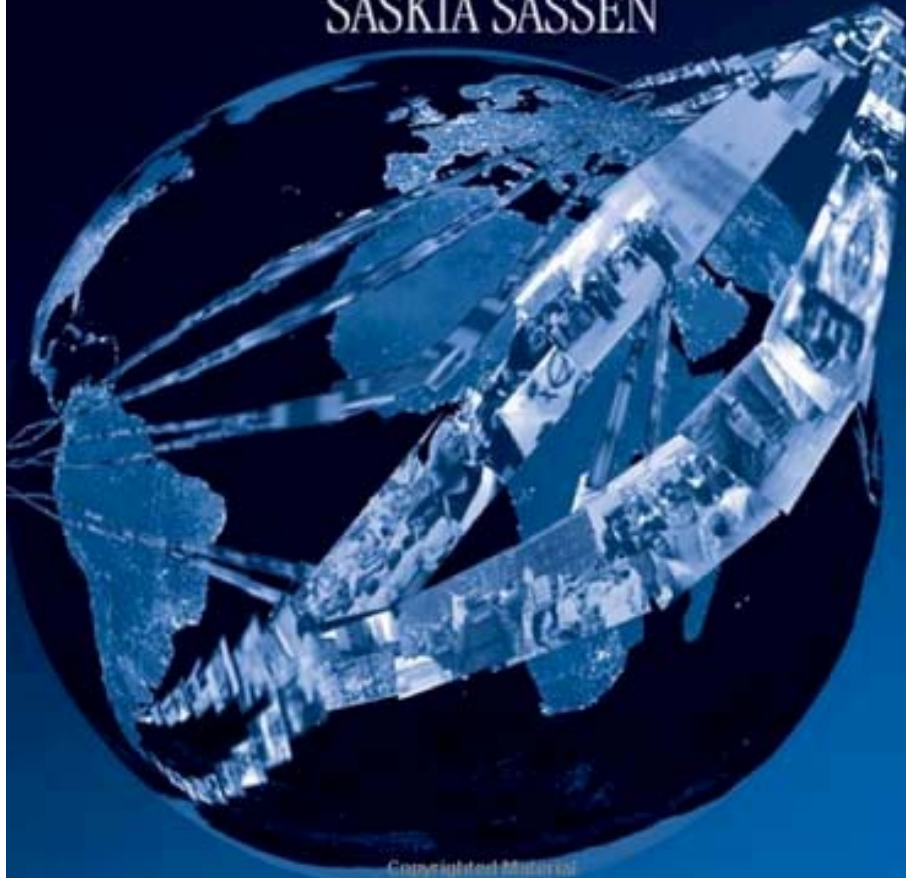
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SOCIOLOGY FOR A NEW CENTURY



# CITIES IN A WORLD ECONOMY

THIRD EDITION

◆  
SASKIA SASSEN



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The specific changes to the composition of cities brought about by globalization since the mid-1980s

2011

Lynda Gratton

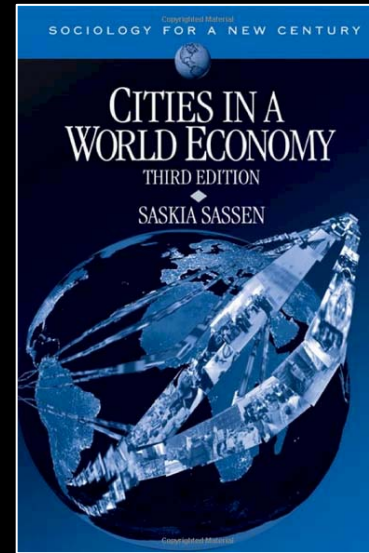
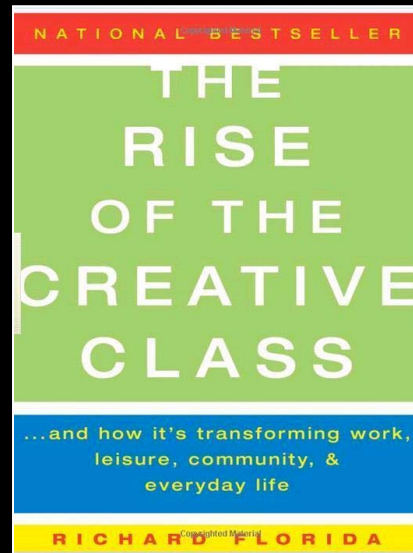
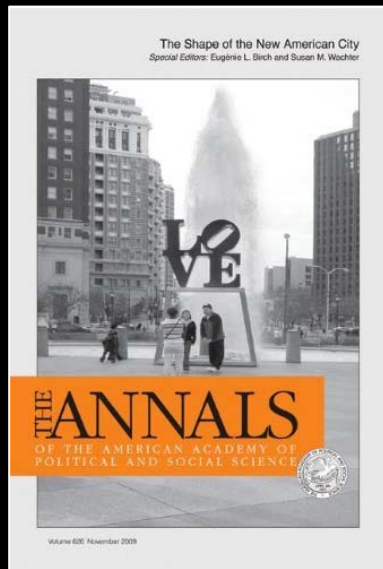
“We are witnessing now is a break with the past as significant as that in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries when parts of the world began the long process of industrialization.

LYNDA GRATTON

**THE SH/FT**

The future  
of work is  
already  
here

Have you made the crucial shifts for success?



*The message:* This transformation makes many of the customary ways of managing a career or developing a business or city obsolete

# 1. Work Changes the City

We can get a sense of the magnitude of what we are in for by examining the last period of such transformational change



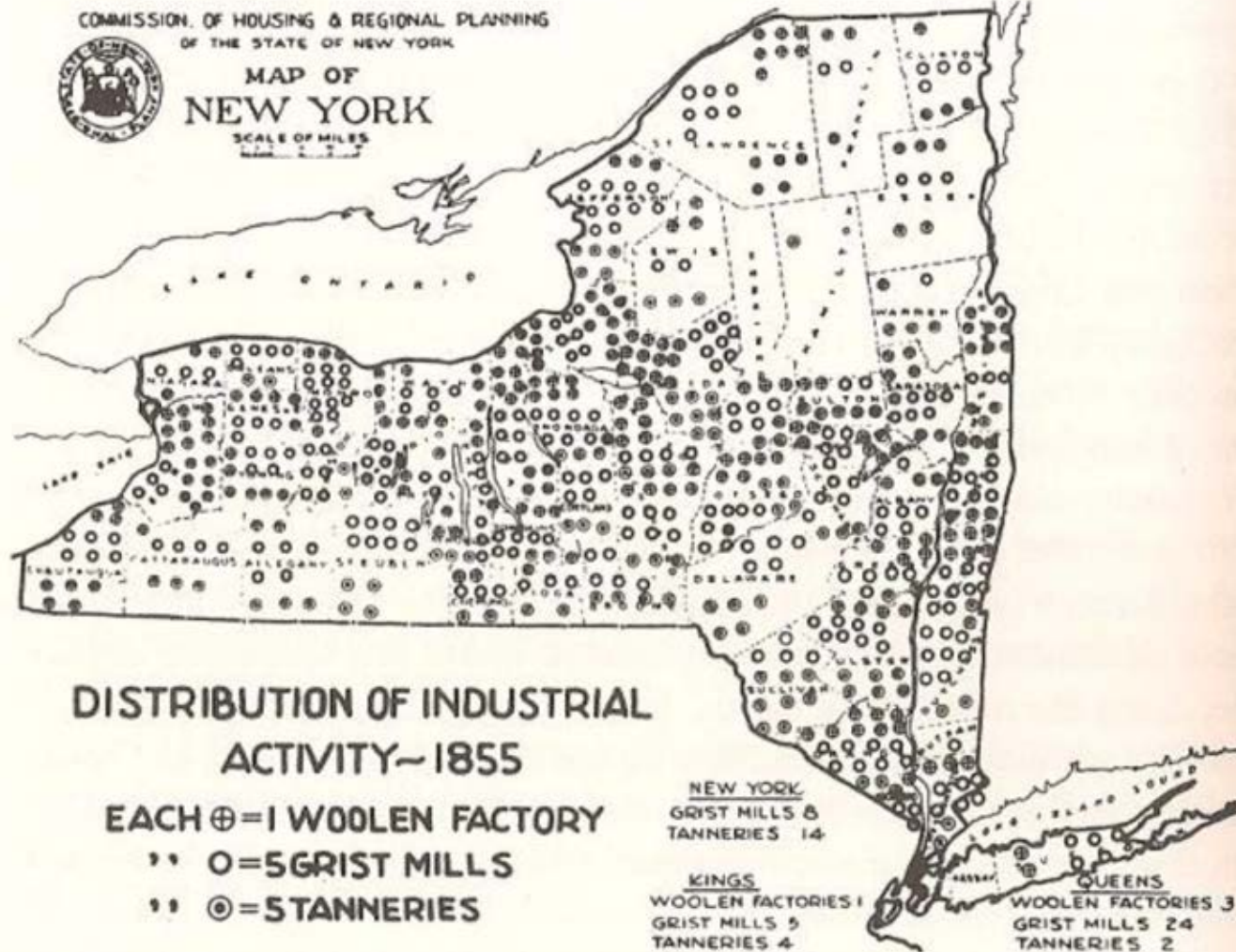


Figure 7. Industrial activity prior to the Civil War was widely distributed. The production and distribution of goods were localized, making each community virtually self-sufficient. (N.Y. State Census, 1855.)

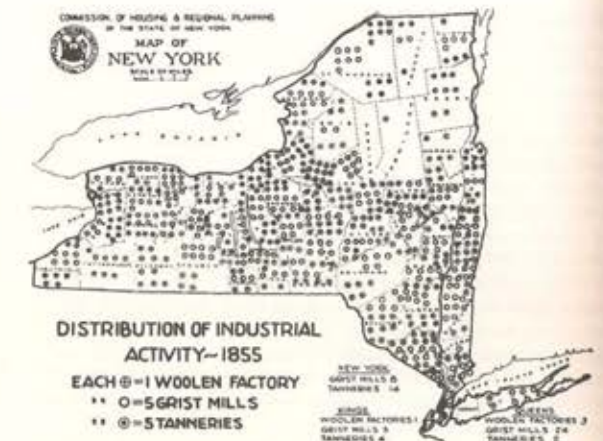
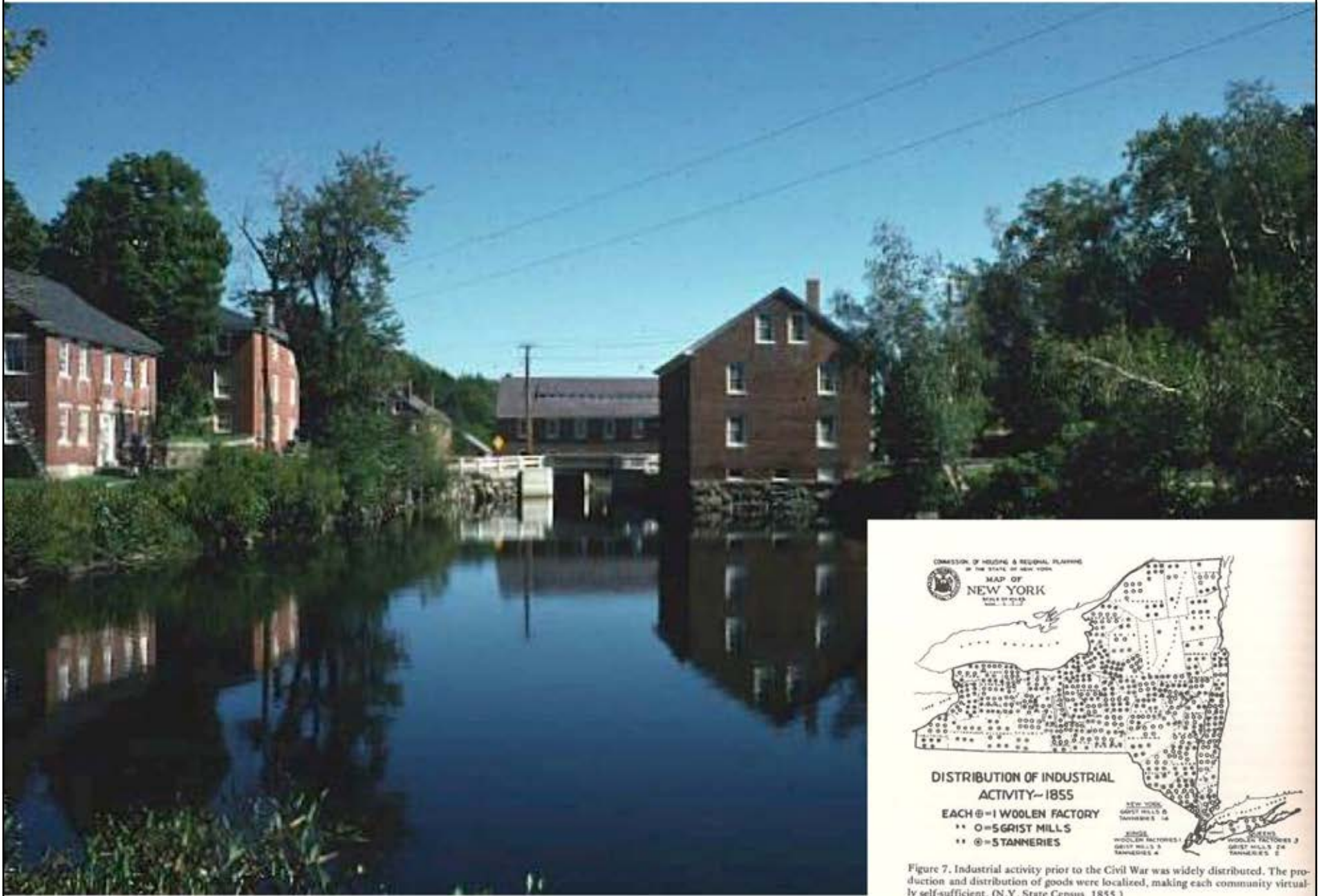


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GARRETT BROS.' OLD TANNERY, OAKLEY CREEK, AVONDALE, AUCKLAND.



COMMISSION OF HOUSING & REGIONAL PLANNING  
OF THE STATE OF NEW YORK  
MAP OF  
NEW YORK  
SCALE OF MILES  
1:100,000

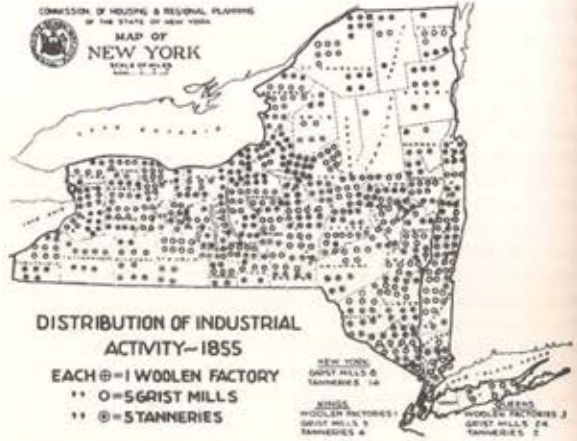


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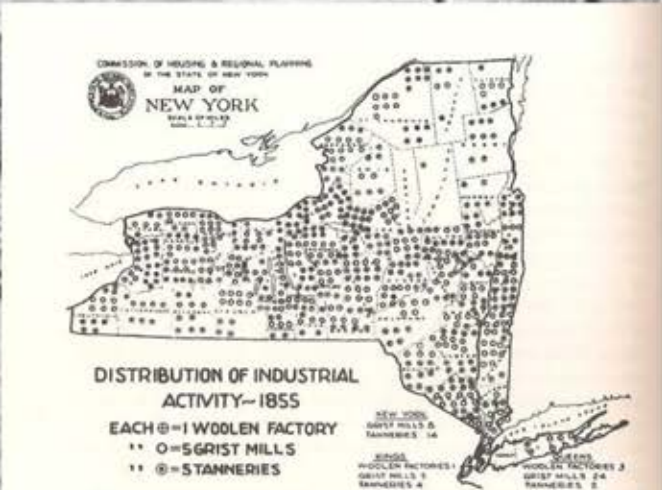
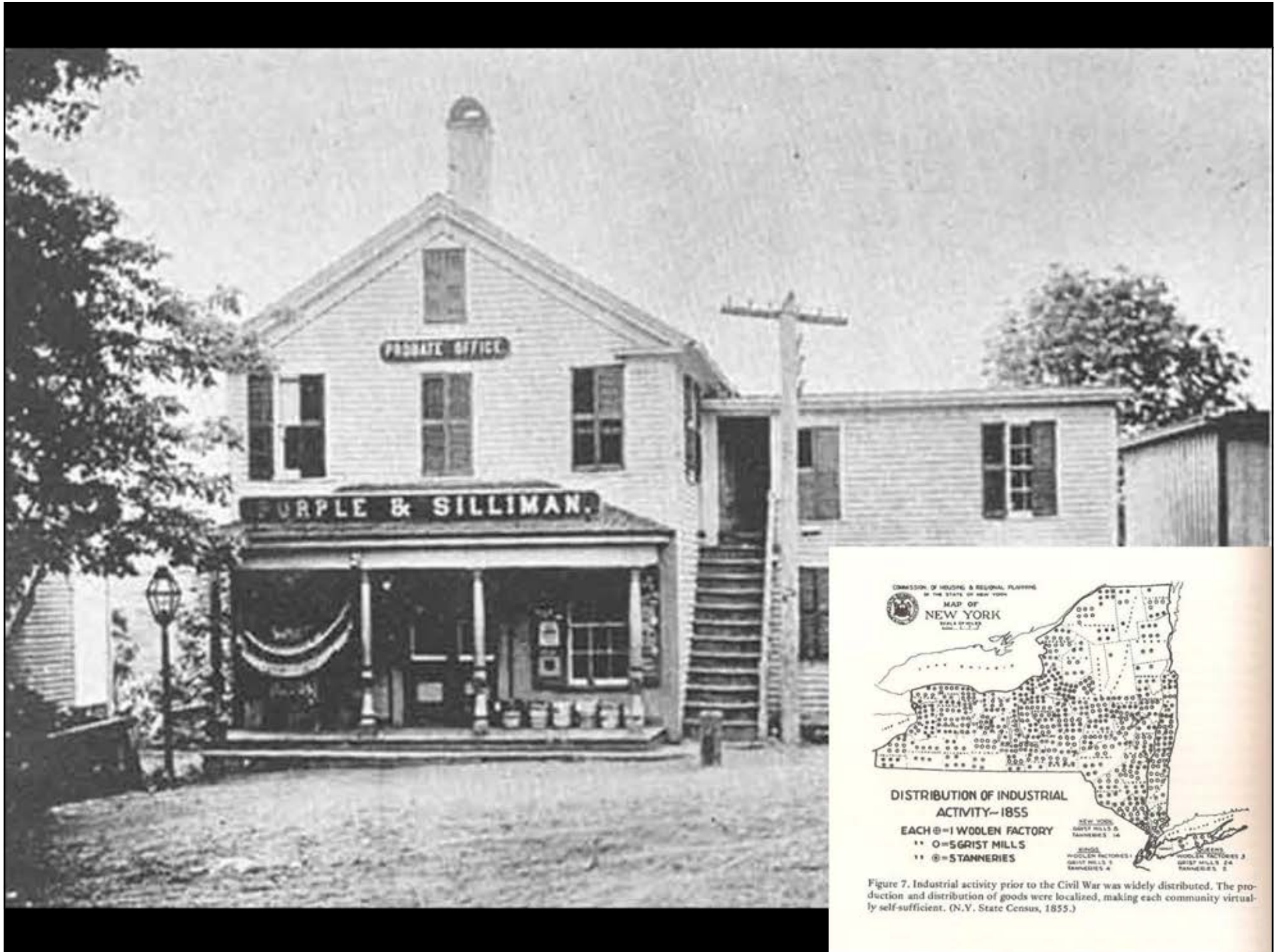


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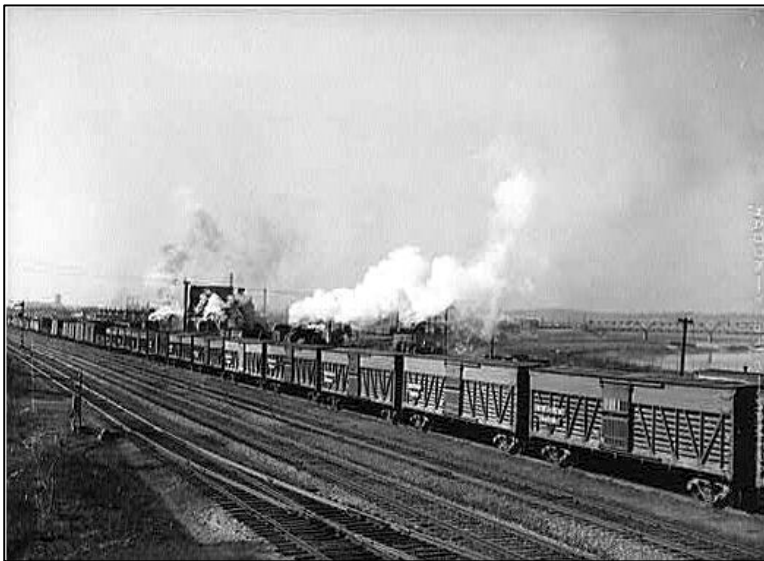






## Steam Engine / Fossil Fuels

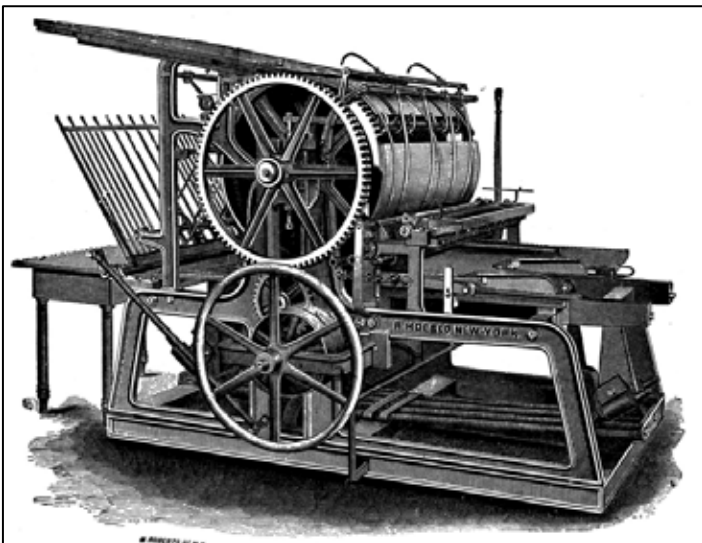
*Mechanized transportation technologies  
– ability to serve distant markets with  
larger production facilities*





## Steam Engine / Fossil Fuels

*Machine-assisted labor: make more of everything with much less human effort*



# 20<sup>th</sup> Century: The Assembly Line / Taylorism



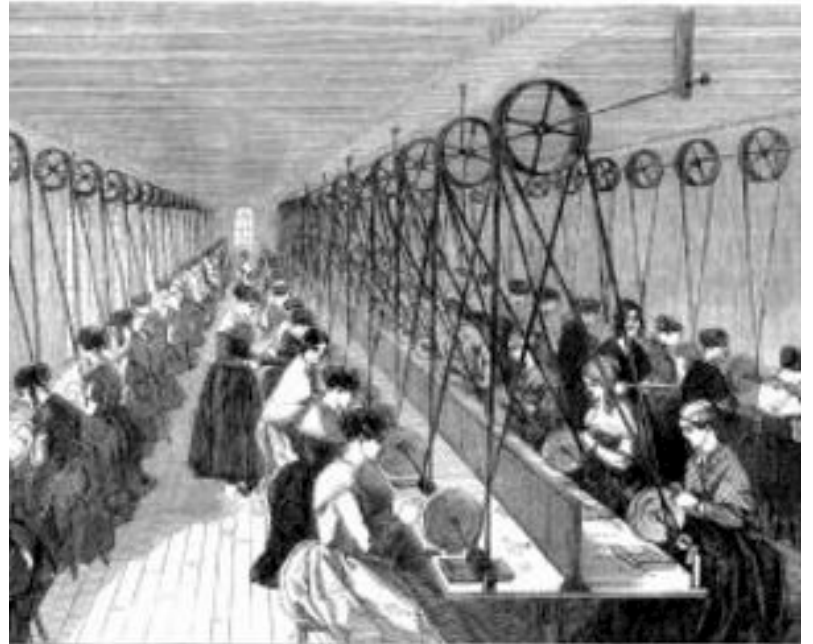
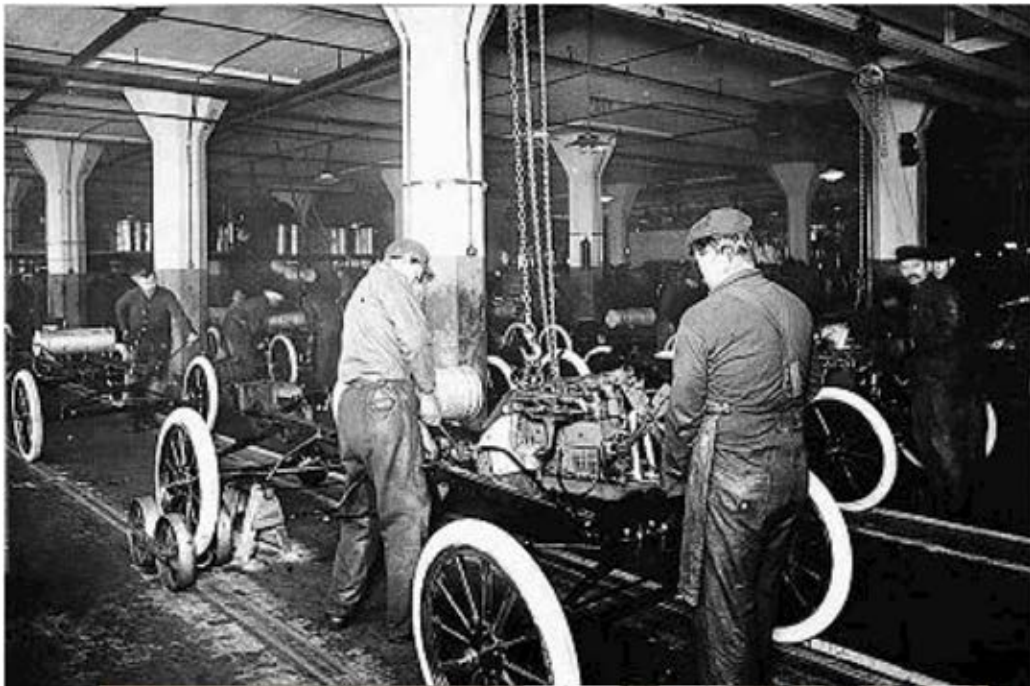
Factory work



Office Work

- Low-skill, repetitive work
- Specialization
- Synchronization
- Central control







**By reducing human labor to standardized sets of repetitive instructions, the assembly line allowed factories to employ massive numbers of interchangeable unskilled laborers**





**The rise of labor-intensive assembly line factories set off a tidal wave of migration to cities clustered around nodes in the railway network**

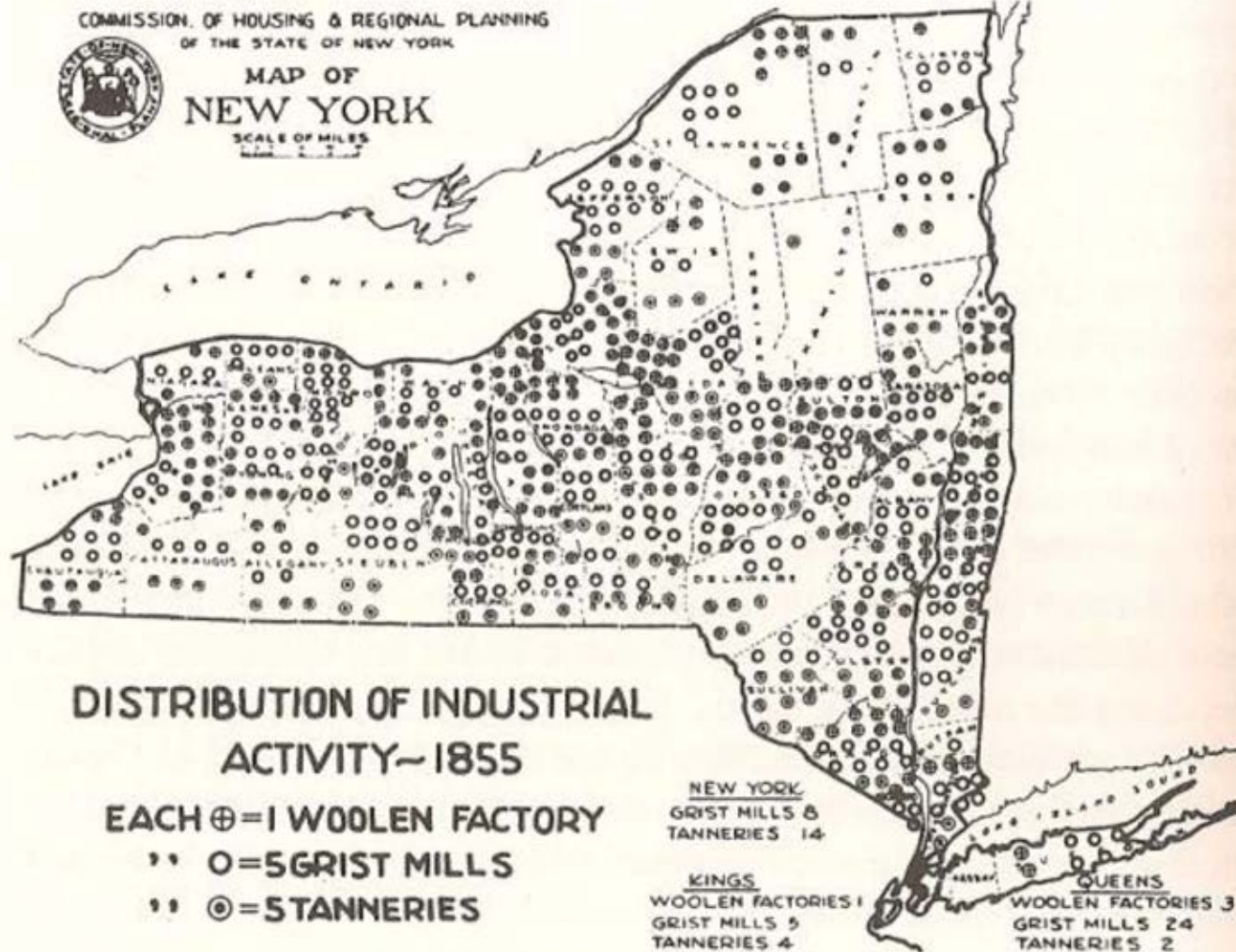


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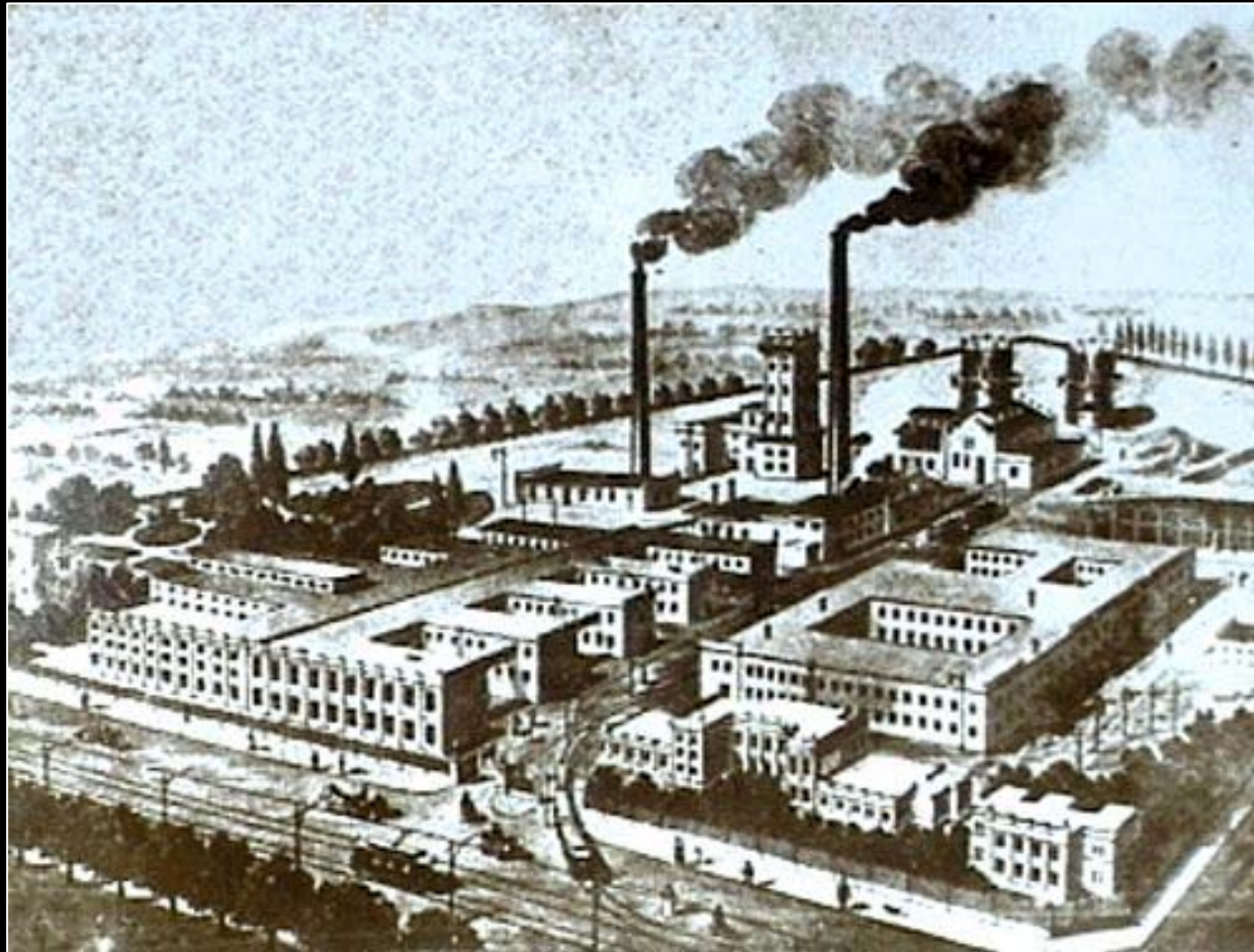






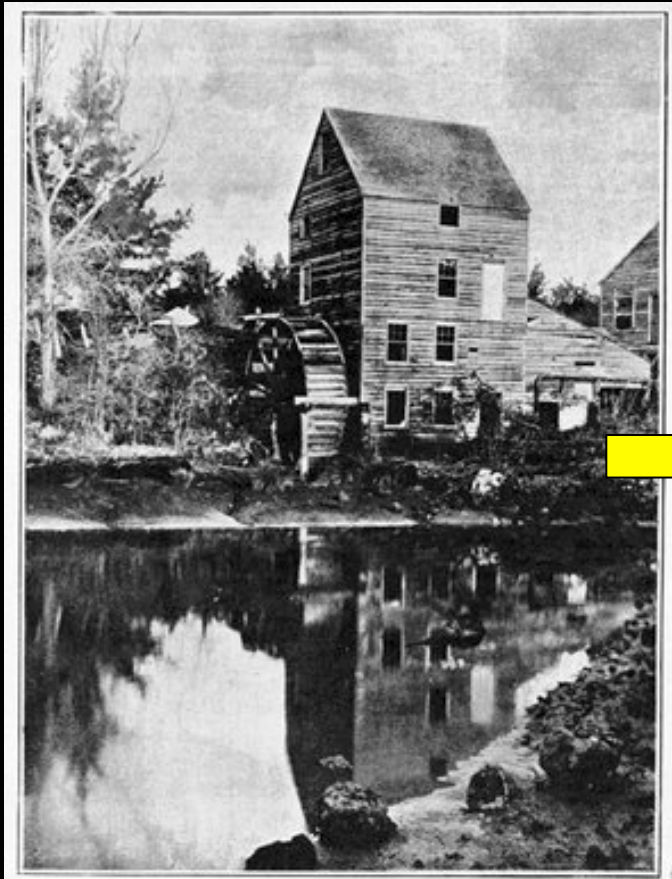






Railroads brought the factory and the city together : before railroads, factories had to be located adjacent to waterfalls for power; in era of steam engine railroads carried fuel (coal)

## Work: Agriculture & Crafts to Factories



GARRETT BROS.' OLD TANNERY, OAKLEY CREEK, AVONDALE, AUCKLAND.



The **prosperity machine** of early industrialization grew cities and towns to a never-before-seen scale

**When the nature  
of Work changes  
the city is entirely  
transformed**

# The Advent of the “Modern” Lifestyle

The factory-centered economy **catalyzed a complete transformation of daily life**: Everyone tied to the factory slept, woke, worked, ate, quit work, went home, relaxed, played and prayed at the same times and on the same days in accordance with the new “workday” and “week-end”



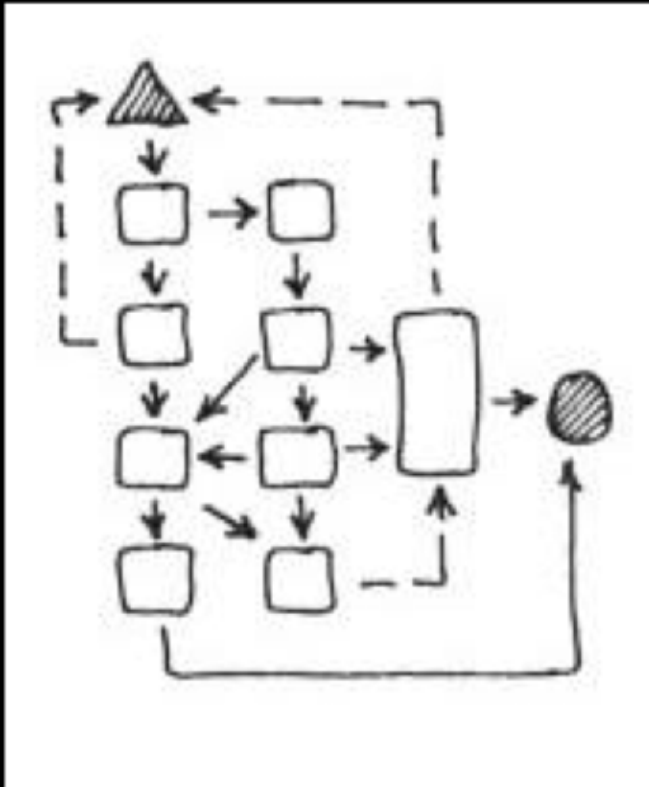
# The Modernist City Model



With The Charter of Athens (codified in 1933)  
CIAM proposed a radical reorganization of cities

# City as Machine

Reorganization of Cities based on the principles of the Assembly Line



- **Standardization and mass-production** of component parts
- Land development & building type **segregated** and **optimized** by function
- Economy focused on Making and Moving massive numbers of identical goods.



















## Assembly Line model applied to Offices







# The Advent of Suburbia

In the USA: Massive Residential Relocation beginning late 1940s



## Development clustered close to the Train Station



Everything within walking distance: train, shops, homes













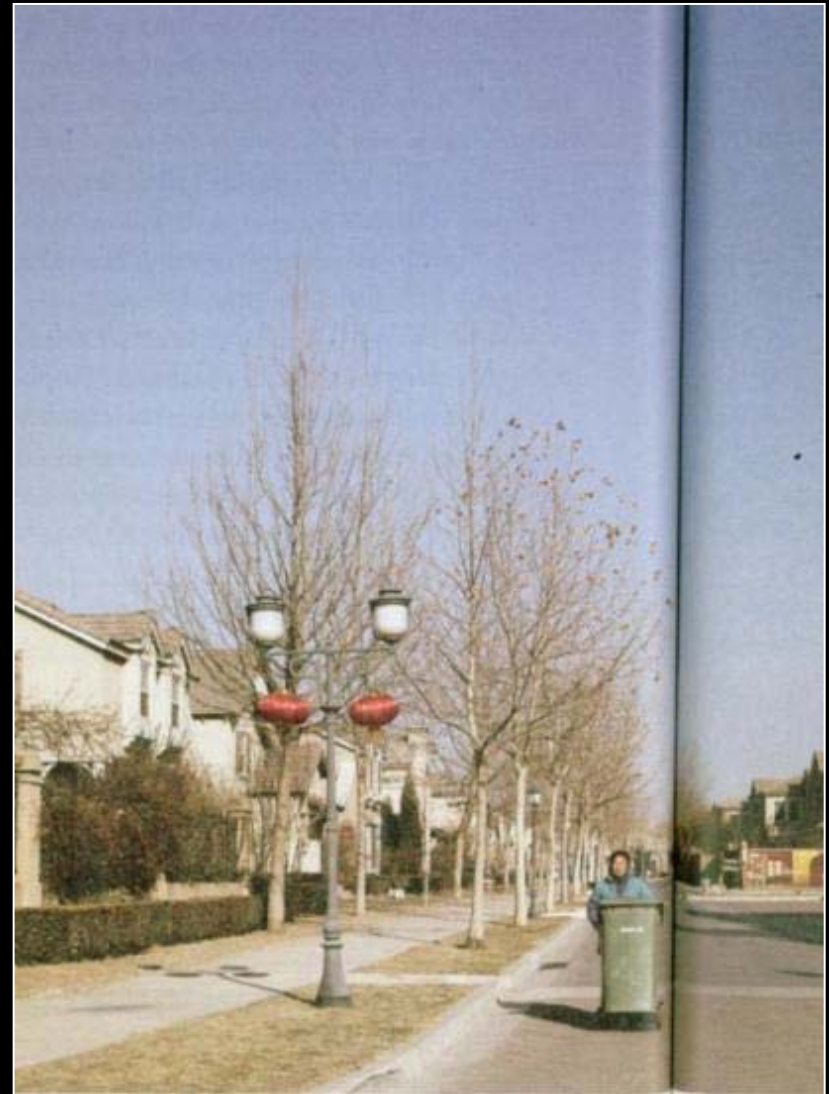
















# The new suburban highways (1940s)



Land Use along the new suburban highways . . . Gas stations and ?



## 1960s - Neighborhood-Serving Retail Follows the Housing to Suburbia.

*Beginning in 1950s, accelerating in the 1960s. Store setback w parking in front – 1960s.*

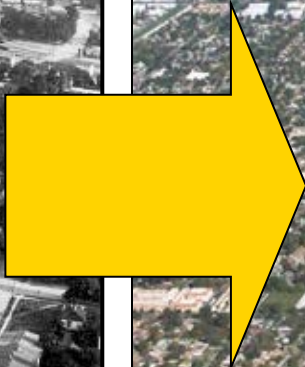


Beach Blvd., Huntington Beach, CA  
1959





# Downtown District to Linear Strip



# Downtown District to Linear Strip

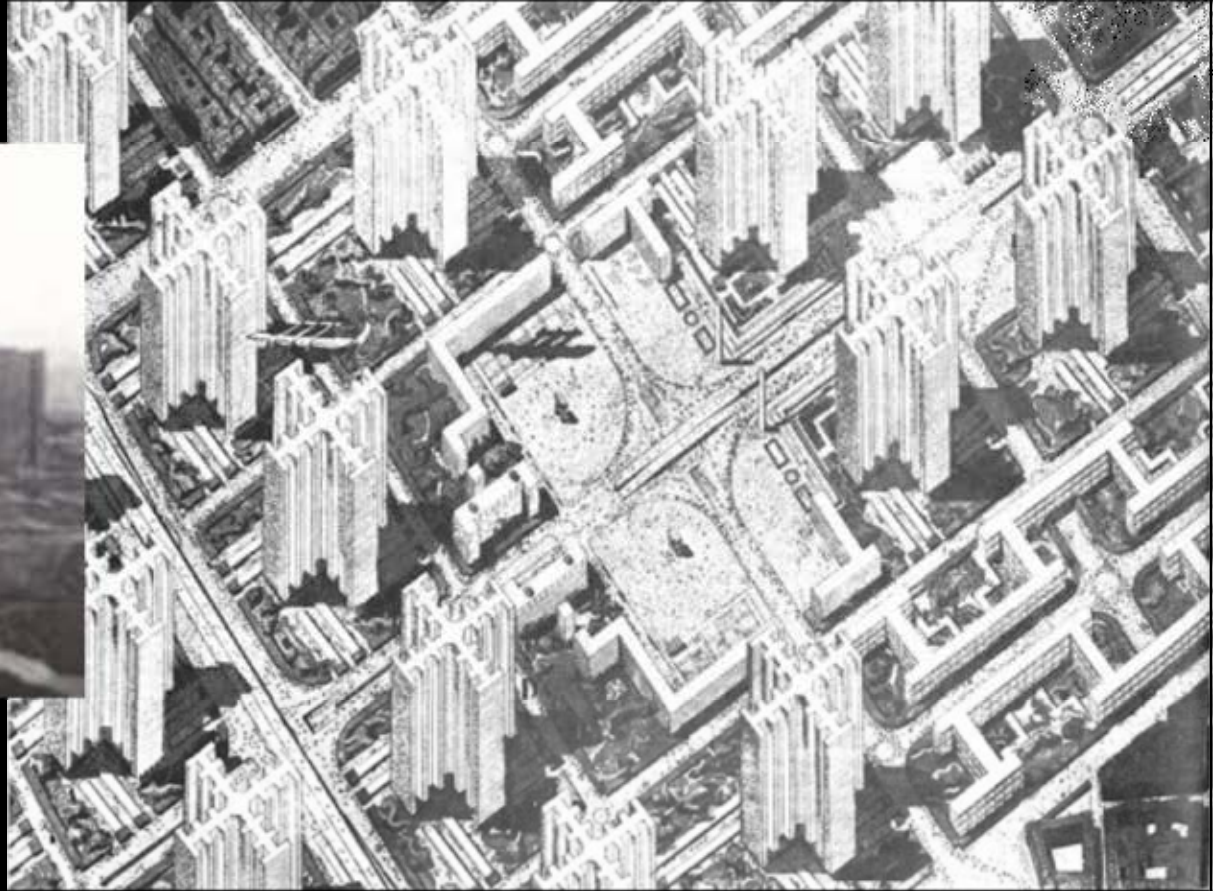


The Strip completely changed the pattern of community life for two generations









CIAM Modernist City Experiment changed urban EVOLUTION to REVOLUTION









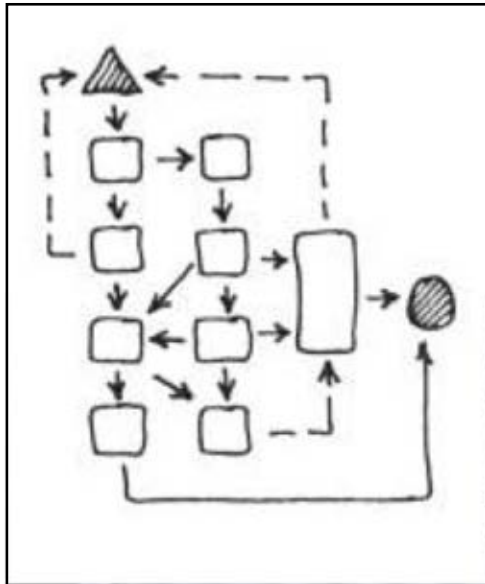
# Roadways and utilities



Miles of Pavement Needed to Connect the Separated Uses

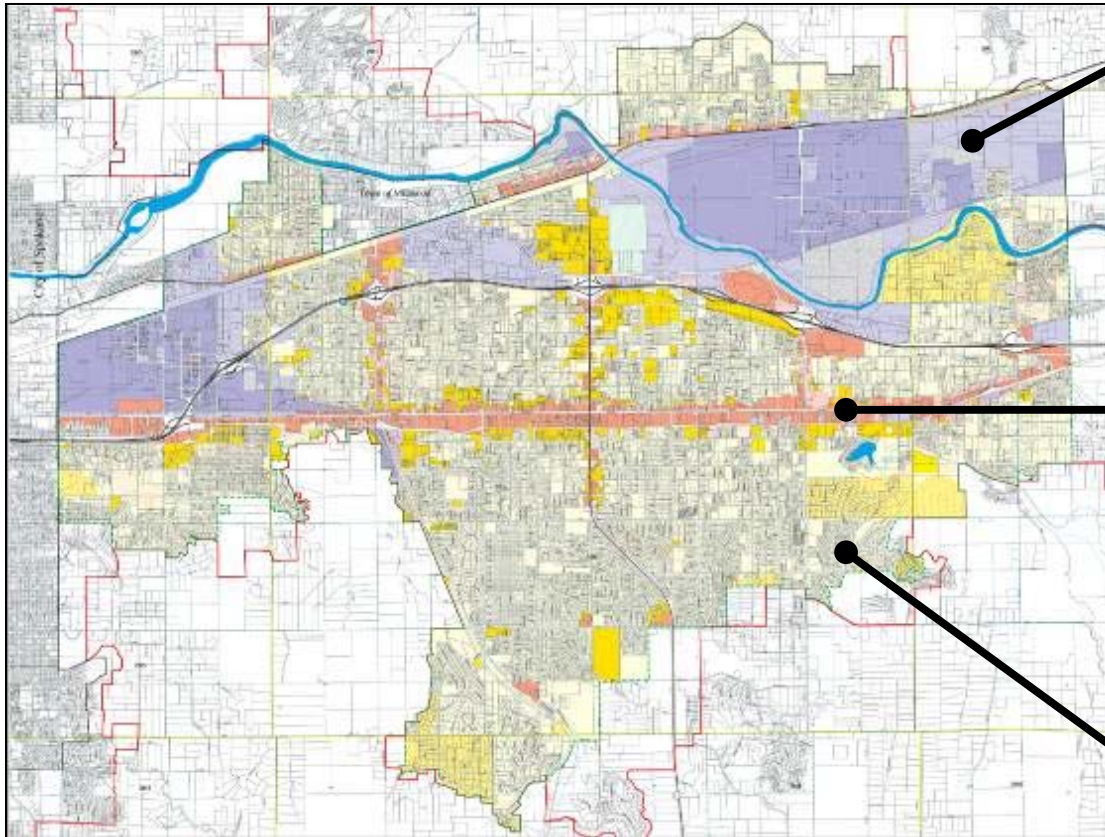
Underground: Miles of Pipe and Conduit to Distribute Municipal Services



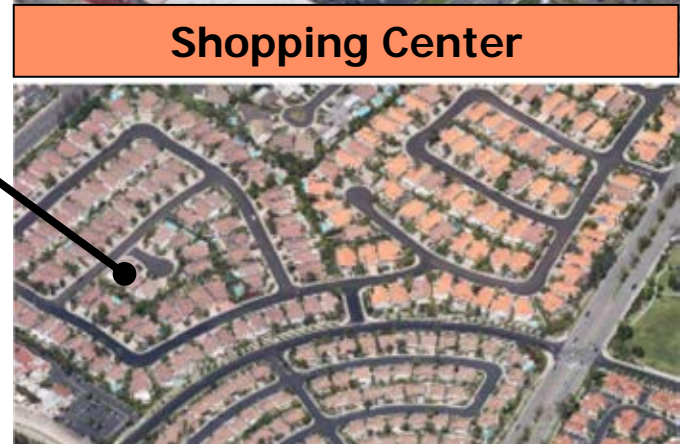
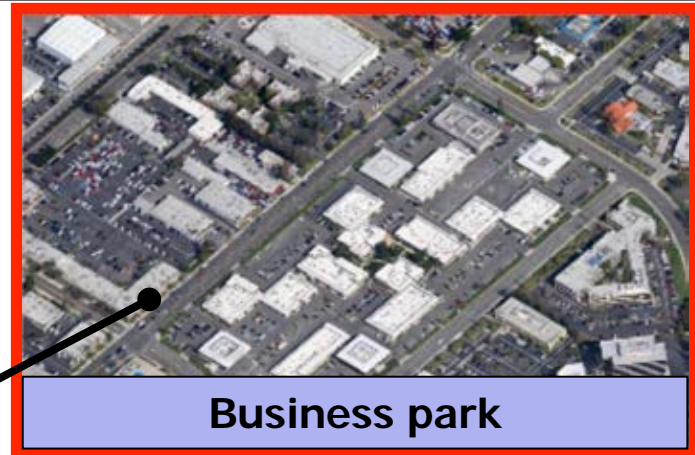




Cities were reorganized along the industrial principles of specialization and segregation of function.



Institutionalized in 20<sup>th</sup>  
Century City Zoning





# The City of Standardized parts





# The City of Standardized parts

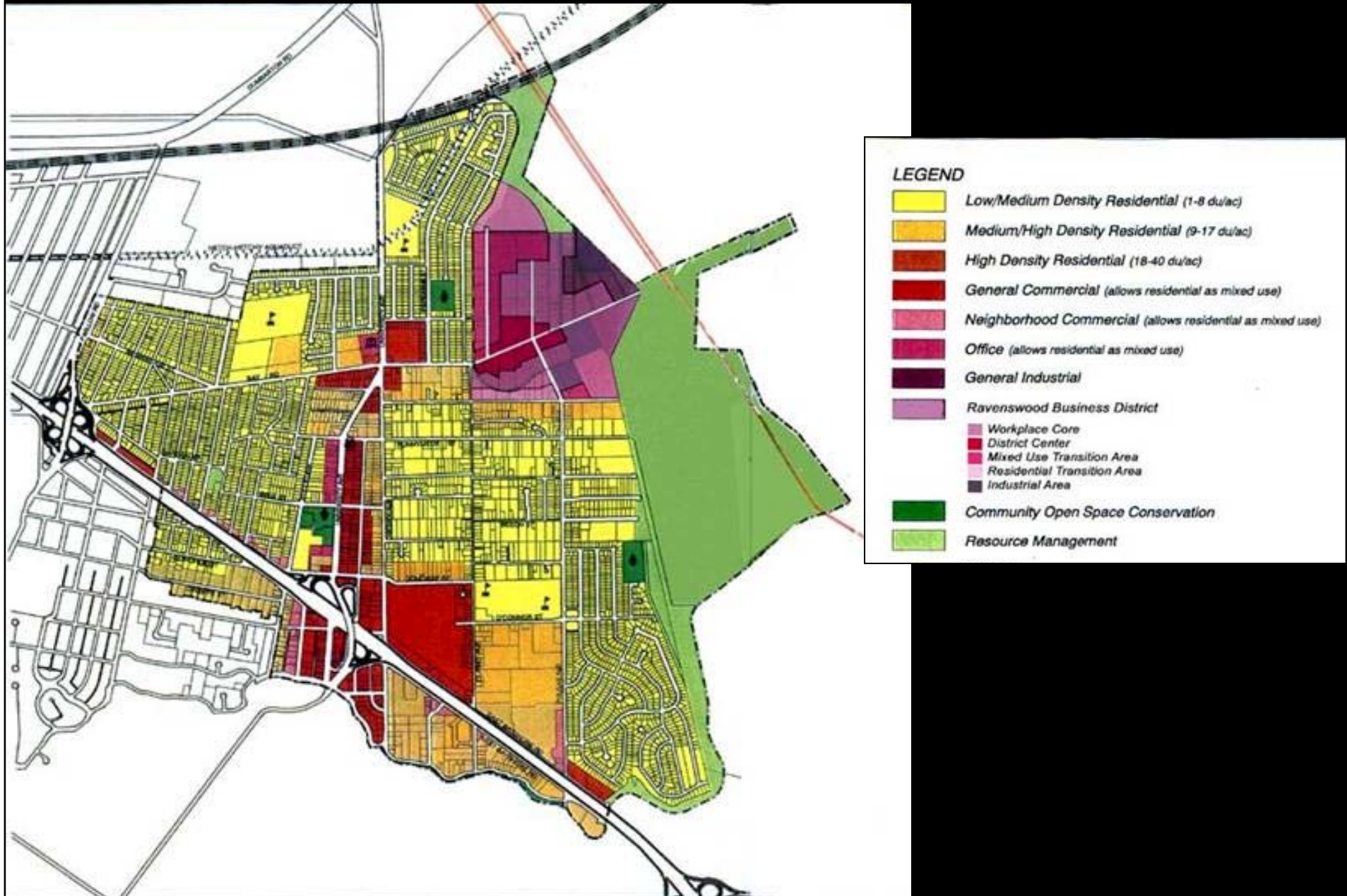






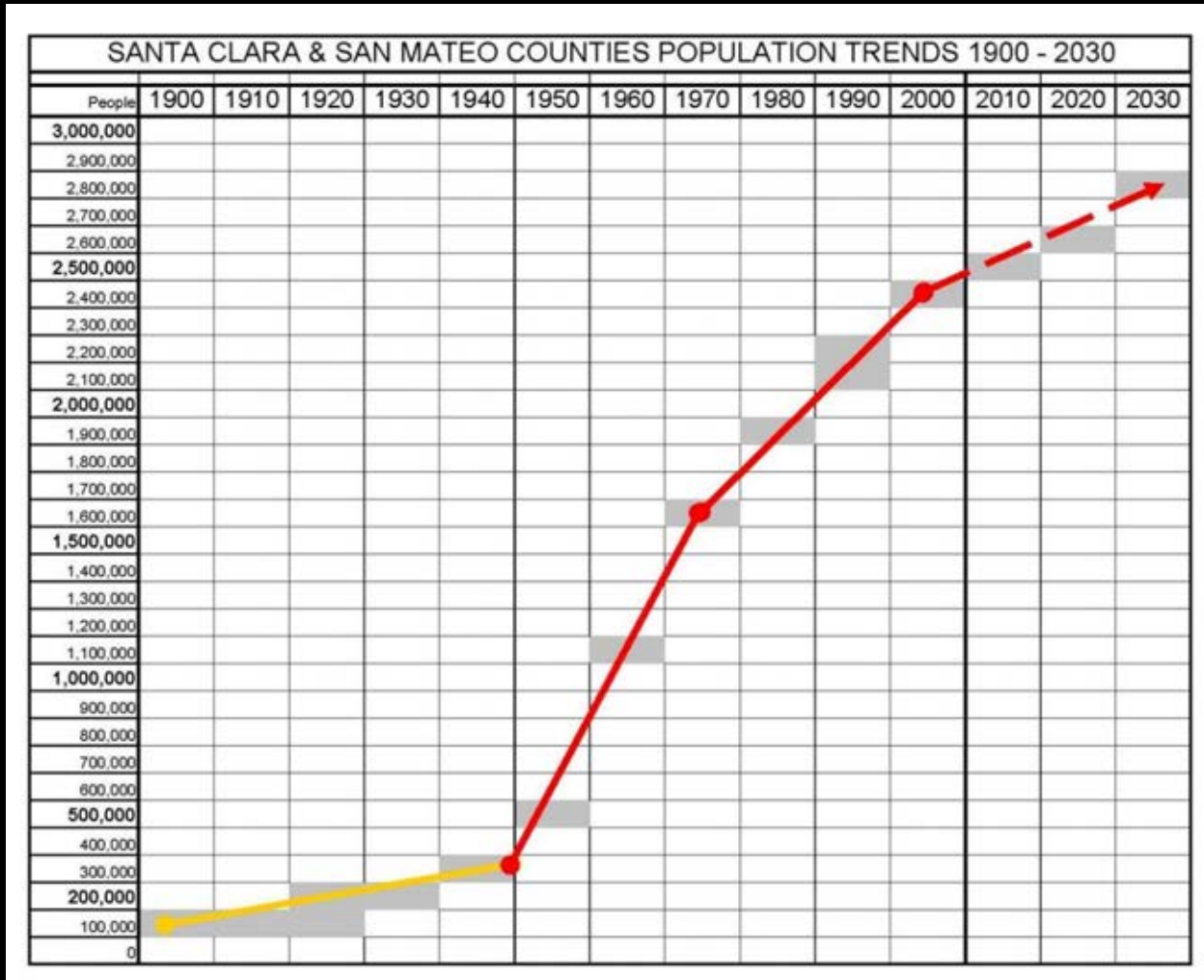
**Urban Design “in scale with our broader, faster world and based on the sensibility of the Abstract Expressionist artists of the time . . . And those of the modernist architects of the 1950s . . . [characterized by] their Cartesian geometries and their preoccupation with purity**

This way of building cities is now institutionalized.





# Perfect Timing: Post-War Building Boom



- After “lid” of Great Depression & WW2 lifted, immense suburban growth and Baby Boom way of life

# The Modernist Experiment FIT the new Industrial Economy to a tee

## New Technologies

- Automobiles
- Electrical Grid
- Telephones
- Refrigeration

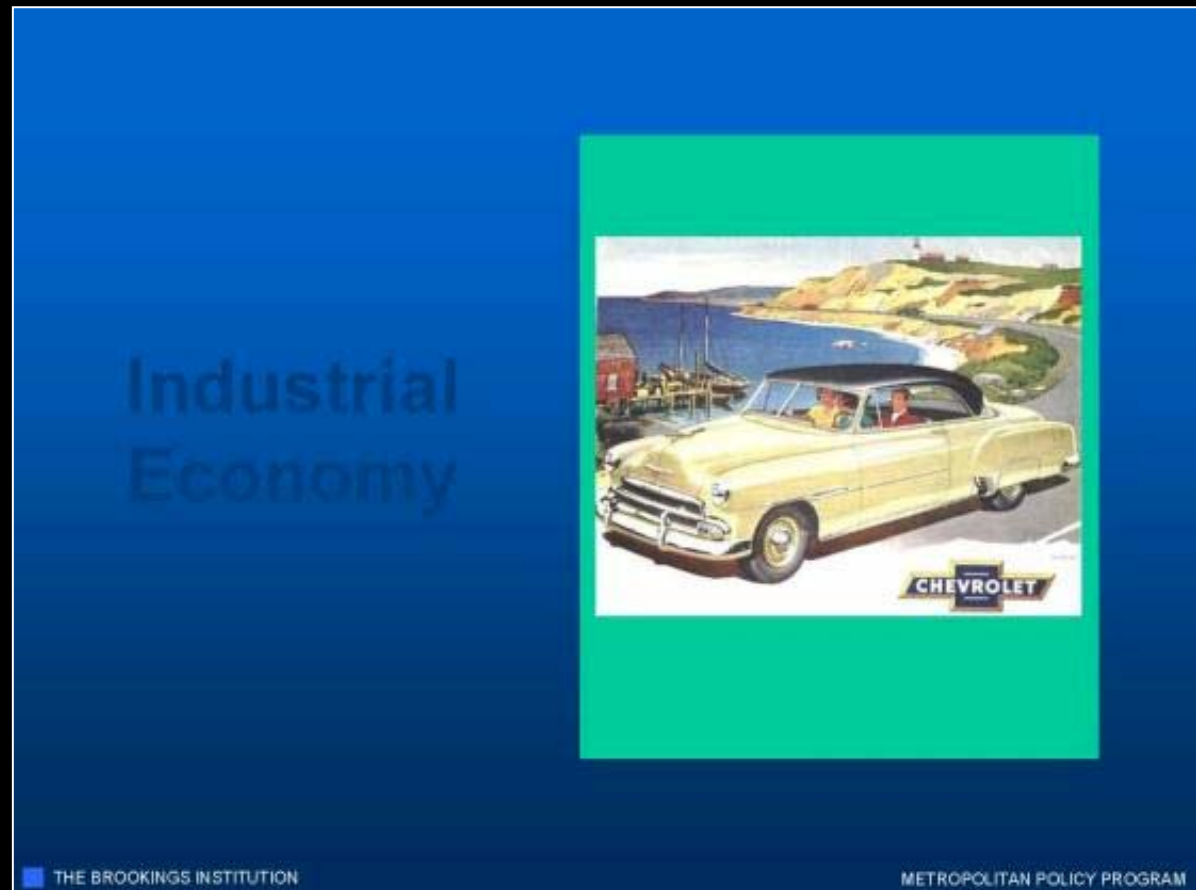
## Assembly Line Factories

## Standardized Lifestyles

## Uniform Household Structure

## Abundant land

## Cheap Domestic Energy





# The Experiment FIT with the industrial economy of the Era.



**Business park**

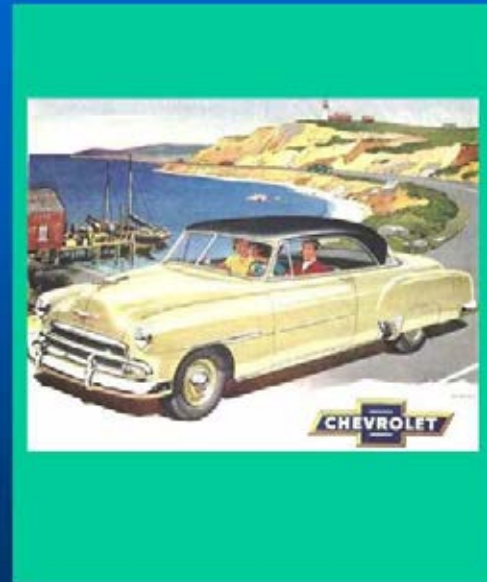


**Shopping Center**



**Housing Subdivision**

Industrial  
Economy



**When the nature  
of Work changes  
the city is entirely  
transformed**





# 2. The New Work

An equally profound shift is now  
underway . . .



# Internal Combustion Engine / Fossil Fuels

*The primary driver of this extraordinary  
peirod of change and wealth-creation*



# A New Energy Source







GETTY IMAGES





**Automation of Repetitive Tasks** vastly reduced the amount and type of human labor need to produce standardized products











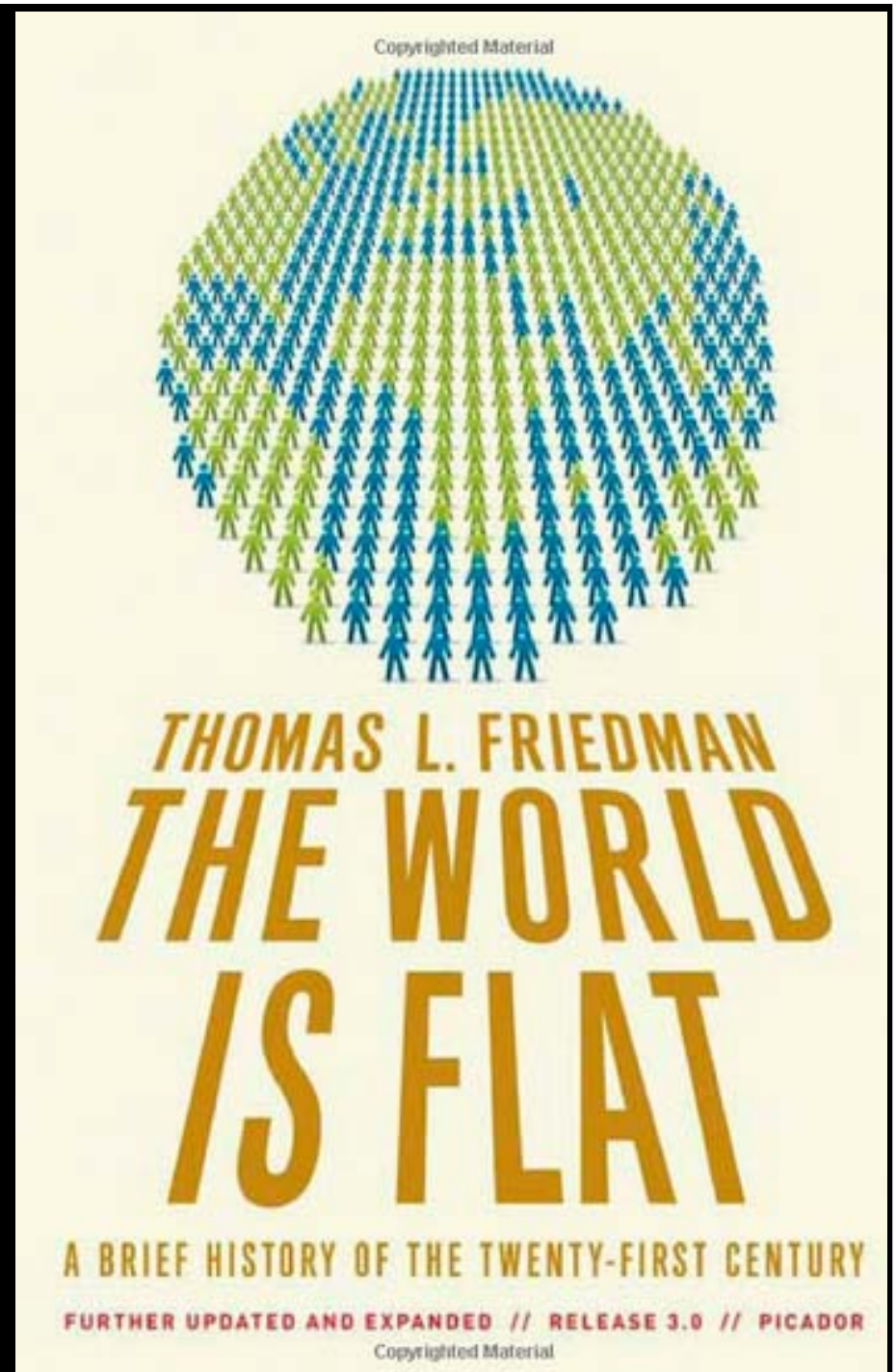


Wanted: Software engineers and food science professionals.



# Global Platform to Connect, Collaborate and Compete

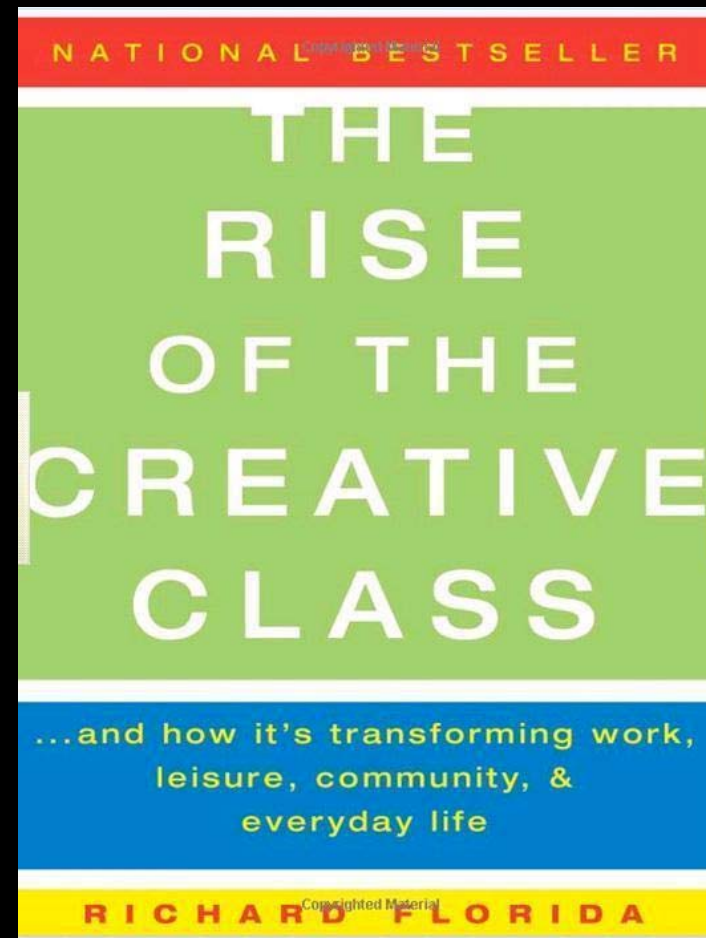
- Unprecedented Global Connectivity and Access to Markets and Customers
- Enabling of multitudes of people and companies to work, collaborate and compete
- An expanding range of products and services flood the global marketplace with increasing speed



# The New Centrality of Innovation

The hypercompetitive global economy **has shifted the basis of wealth-creation in all industries to rapid creative innovation**

- Firms focus on using highly skilled people and computing power to invent new and improved products and services with increasing speed and creativity



Creativity & Innovation have become **the primary wealth-generators** in the new global economy



Saskia Sassen: the heightened importance of rapid creative invention has effected **all industries** – from mining and agriculture to electronics.



How do we  
nurture  
creativity  
and  
innovation?





# Innovation is a social process



*Research has shown that innovation comes from:*

- Group collaboration rather than individual solitary effort.
- Interaction between people with different specializations, experiences, and perspectives.

Essential Principal: Innovation is fostered by providing settings that bring people together to collaborate and exchange ideas



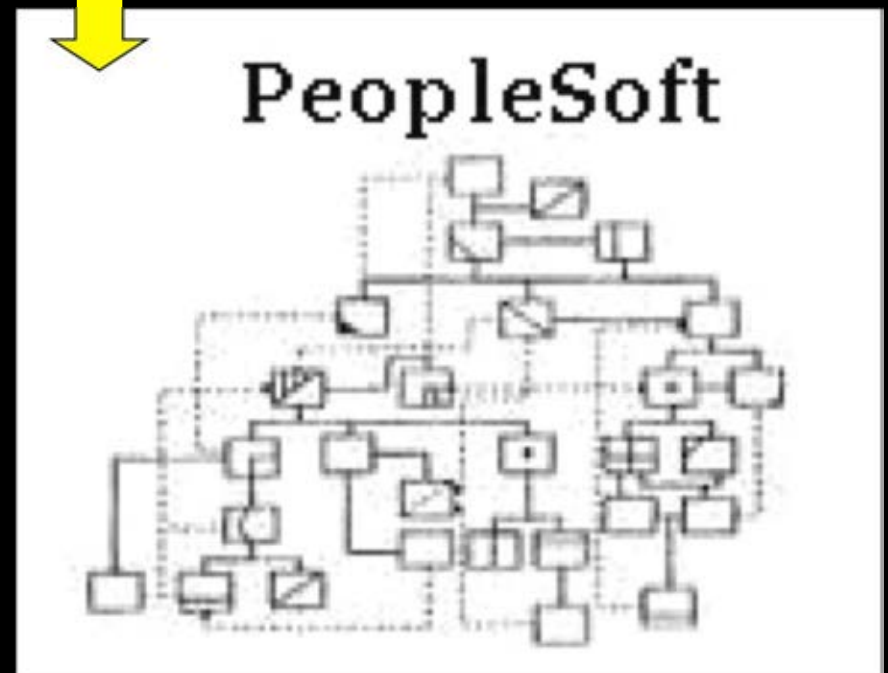
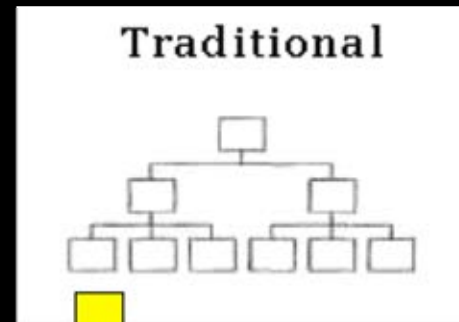
- In the office and the lab
- In the conference room
- In cafes, bars and restaurants
- During breaks, recreation and leisure
- Especially while socializing



# 3. The New Workplace

The realization that innovation is fostered by providing settings that bring people together to collaborate and exchange ideas (rather than by segregating work by specialty) has already resulted in . . .

# Changes INSIDE the Workplace: **New work processes organized around collaborative teams**



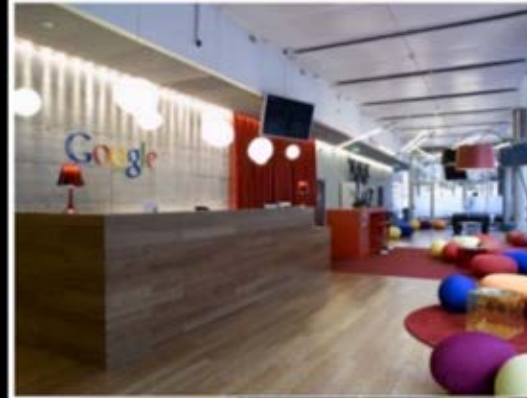
Decentralization, shared decision making, and skilled labor



At first, many thought it was just a change in tools.  
But digitalization has led to  
**Fundamental changes in work activity**



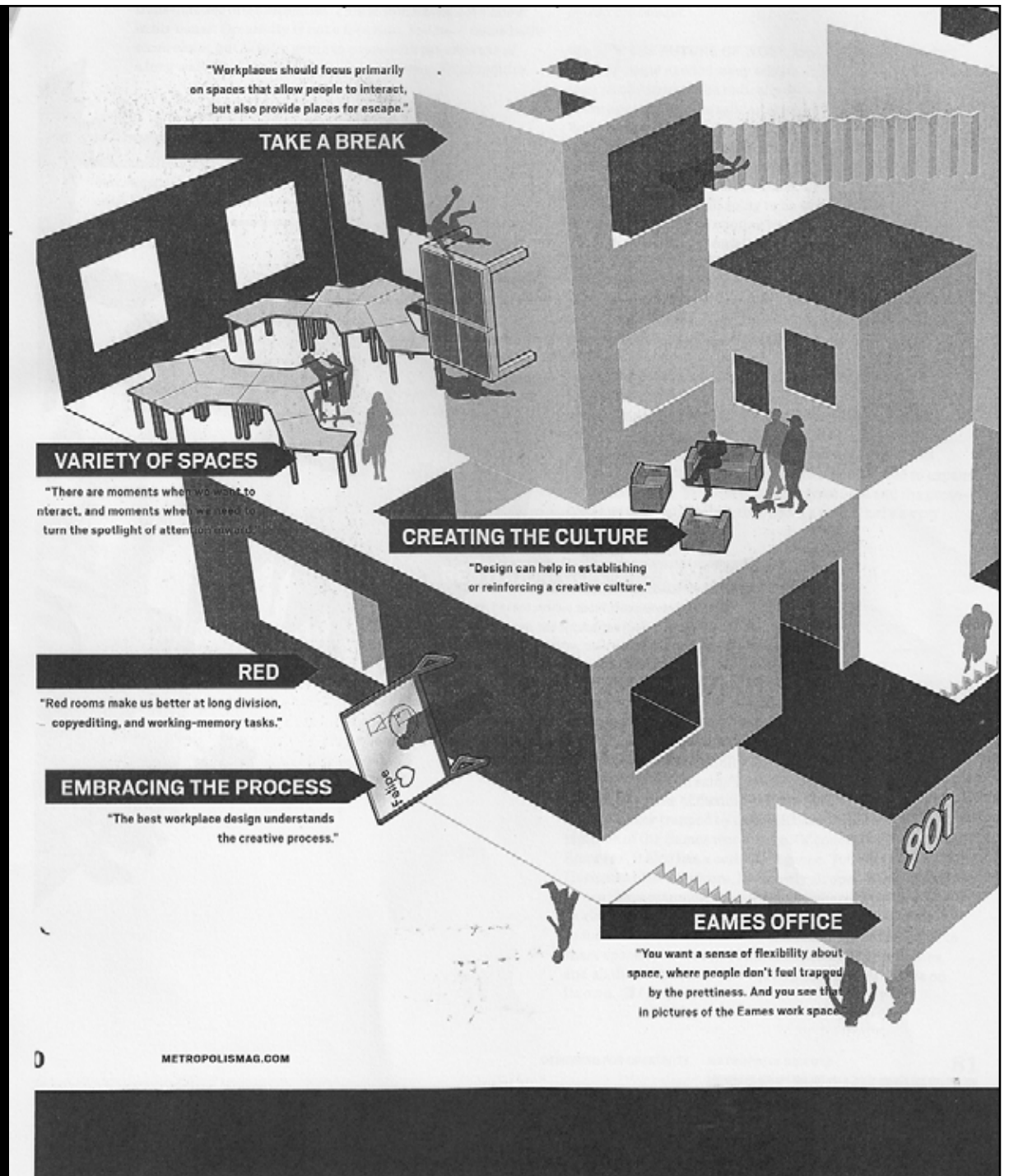
# Changes INSIDE the workplace (2): Offices designed to force interaction (“collision”) and exchange





Changes  
INSIDE the  
workplace (2):  
Offices  
designed to  
force  
interaction  
("collision")  
and exchange

Leading examples:  
Pixar, 3M, Google –  
offices designed to  
foster maximum  
interaction



Changes INSIDE the  
Workplace (3):  
New Organizational  
Formats are emerging  
to fit the new creative  
focus of start-ups



## Hub San Francisco

next to Powell St.  
Bart station

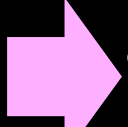
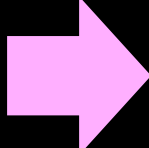
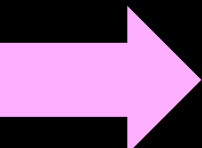
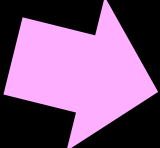
8500 sq. ft.

600+  
members





# As before: fundamental changes in work are effecting lifestyles & preferences

- Synchronized Labor – 9 to 5 workday/week 
- Centralized Workplace (Commute) 
- Segregated and optimized types of specialized work 
- Top-down hierarchies of control 
- Work 24/7/365
- Work anywhere; growing demand for live-work-play
- Collaborative, interdisciplinary teams; forced collisions and exchange
- Loose network of collaborative teams

# Creative Class preferences



Streetlife



Density



Transit



Public Spaces





# mix: live-work-play



Source: United States General Services Administration

# Changes in the PREFERENCES of the most sought-after employees

- Almost 64 percent of them reported they pick where they want to live before launching a job search.
- They are about 90% more likely to live in close-in urban neighborhoods





CEOs for Cities is a civic lab of today's urban leaders catalyzing a movement to advance the next generation of great American cities

**CEOs**  
**FOR CITIES**  
INSPIRE · CONNECT · SUCCEED

## **CEOs for Cities: Young, College-Educated Population Booming in Urban Centers**

*Number of 24-35 year-olds with a four-year degree living close to metro centers has grown 26% in the last decade*

[Chicago, IL – April 1, 2011] – Over the last decade, urban centers have increasingly become the residential destination of choice for young college graduates, according to a new analysis by CEOs for Cities.

In 2000, young adults with a four-year degree were about 61% more likely to live in close-in urban neighborhoods than their counterparts with less education. Now, these well-educated young adults are about 94% more likely to live in these close-in urban neighborhoods.

“The market for America’s downtowns and close-in neighborhoods just keeps getting stronger,” said Carol Coletta, president and CEO of CEOs for Cities. “Even Cleveland and Detroit, which for years have watched their populations dwindle, are seeing increases in the number of well-educated young adults in their close-in neighborhoods.”

Neighborhoods within three miles of central business districts have seen their population of college-educated 25 to 34 year olds grow by an average of 26% while the outlying

# The “creative class” craves urban centers

*Centers are places with: Density - Synergy - Mix*







**Dense, mixed-use, walkable districts with transit service have become the preferred location for a significant portion of knowledge workers and companies.**



*As before:*

Changes in the nature of **WORK** are rippling out in ever-widening influence on **businesses, lifestyles, ideas, and ultimately city districts.**

# The Modernist Experiment FIT the new Industrial Economy to a tee

## New Technologies

- Automobiles
- Electrical Grid
- Telephones
- Refrigeration

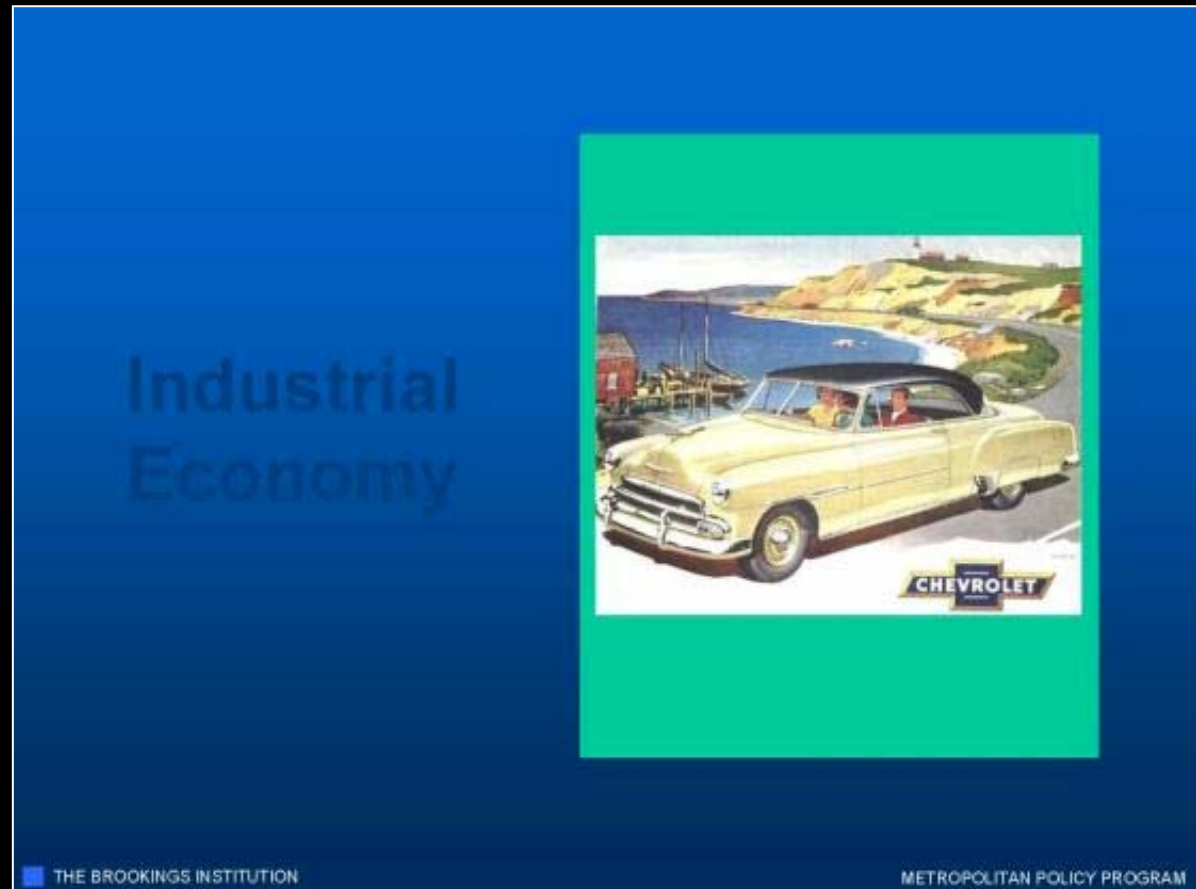
## Assembly Line Factories

## Standardized Lifestyles

## Uniform Household Structure

## Abundant land

## Cheap Domestic Energy



Does the Modernist City  
format still fit the needs of  
today's economic activity?



# FOUNDATIONS OF THE RECENT CONSENSUS 1950 - 2007

1. Demographics – uniform household structure
2. Cheap and abundant energy
3. Abundant, available and accessible land
4. Massive government subsidies - home mortgages, strip construction, highway construction
5. Assembly-line factory driven economy and wealth-creation paradigm
6. Standardized lifestyles
7. Nostalgia - Recent generations of Americans learned to associate sprawl with America

# FOUNDATIONS OF THE RECENT CONSENSUS 2008 - -

1. The Open Road
2. Demographics – uniform household structure
3. Cheap energy
4. Abundant, available and accessible land
5. Massive government subsidies - home mortgages, strip construction, highway construction & maint.
6. Fordist model of national economic development – based on consuming homes, cars, and home appliances.
7. Nostalgia - New generations of Americans learned to associate sprawl with America



Source: *America Town: Building the Outposts of Empire*, by Mark Gillem



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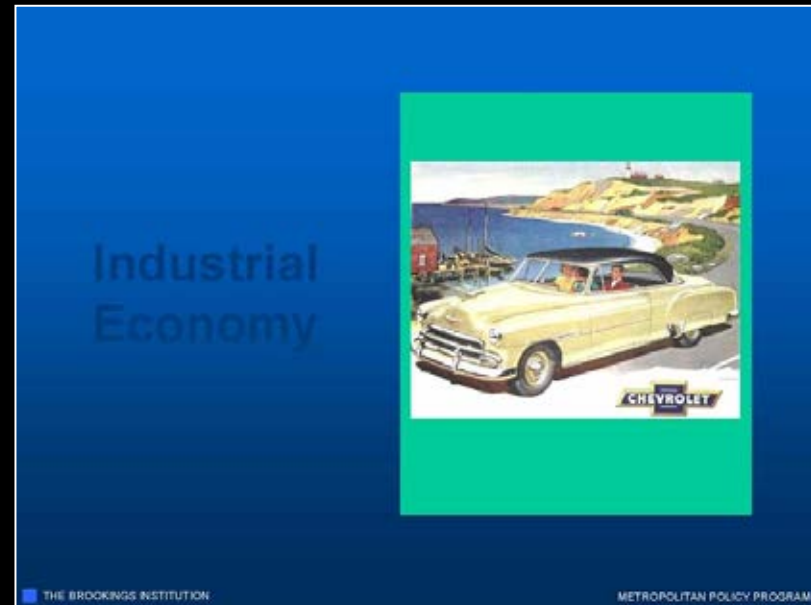
Business park



Shopping Center



Housing Subdivision



The urban design that so closely fit the assembly line economy is now **out of synch** with the requirements of the Innovation Economy.

# Segregated land uses + arterial roadway system – failing as a habitat



## Forces Undermining the Viability of the Modernist City:

- Poor Accessibility
- Rapid Consumption of Farmland, Natural Resources
- Acceleration of Climate Change
- Wasteful of Diminishing Fossil Fuel Reserves
- Increasingly expensive for families



**The Modernist  
City is  
Unsustainable**

**We are designing our  
cities to meet the  
needs of the old  
industrial economy**

**The City is Broken**



# 4. The Next City

## *Urban Design for the Innovation Economy*

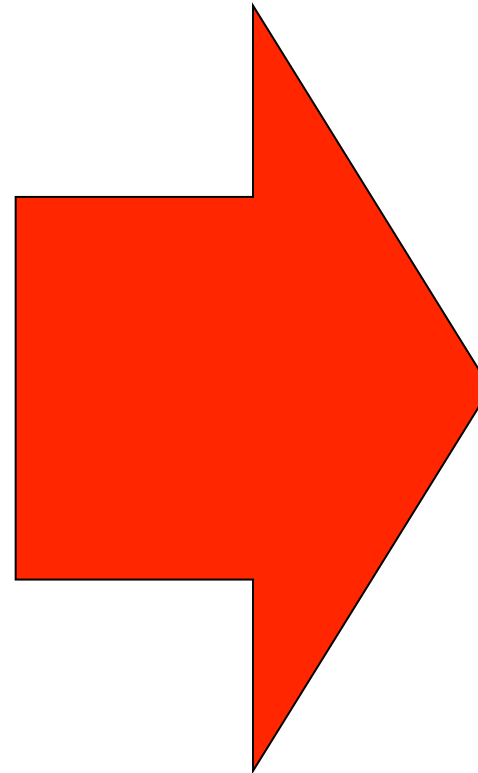
**To secure the benefits of the rapidly unfolding new economy, we must realign our city-building ideas, practices, and institutions with the new drivers of prosperity**

# The Modernist City



The Basis of Our Half-Century Consensus  
Codified in 1933 in the Charter of Athens

# The Modernist City



The Basis of Our Half-  
Century Consensus Codified  
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- In the office and the lab
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- During breaks, recreation and leisure
- Especially while socializing





Linking the New Economy to the  
Livable Community

APRIL 1998

Collaborative Economics, Mountain View, CA

Research funded by the Irvine Foundation in 1998 has been repeatedly cited as the best source thus far on this question.

Findings:  
The new basis of competitive advantage and the new nature of work requires a different kind of urban design

# Essential Principle: Provide Settings for Interaction

## **New Economy values vital centers**

*The New Economy values the vital centers of regions, towns, and neighborhoods. These centers promote the interaction, accessibility, and creativity on which the New Economy depends. Creativity is encouraged by work and living environments that allow for a lot of interaction among people. Chance encounters in hallways, restaurants, neighborhoods, and conferences lead to new partnerships and solutions to tough problems. The proximity, density, and publicness of vital centers stimulate interaction among people. Vital centers are typically filled with the kinds of places conducive to planned meetings as well as chance encounters—places to eat and drink, conference and meeting facilities, recreation space and facilities, parks and plazas, business service centers.*



**To foster and to attract creativity & innovation cities must provide  
“Vital Centers”**

**Clustering & Density**

**Synergy & Mix**

**Settings for Interaction**



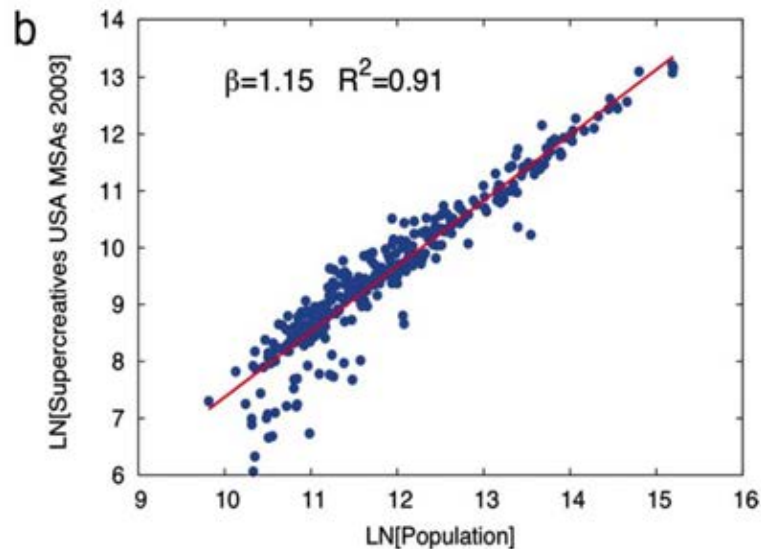
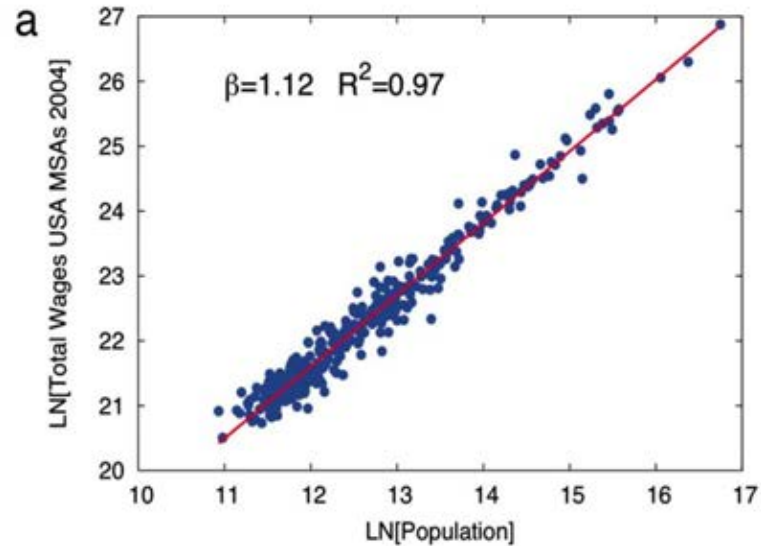
Centerless Workplace



“Vital Center”

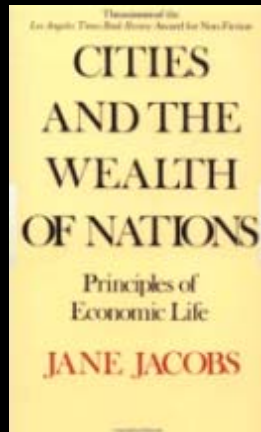
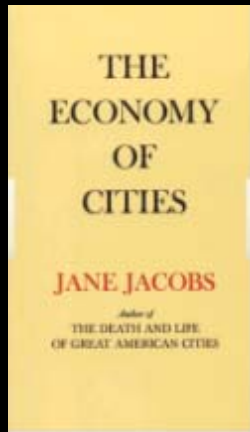


**Dense  
Clustering of  
people,  
productivity,  
talents and skills  
powers  
economic  
growth**



Bettencourt L M A et al. PNAS 2007;104:7301-7306

# Cities, not firms, are the wellsprings of innovation



“Whereas companies tend to specialize, cities give rise to a wide variety of talents and specialties, the broad diversity of which is a spur to innovation. **The City’s diversity is the true source of innovation and economic growth.**”

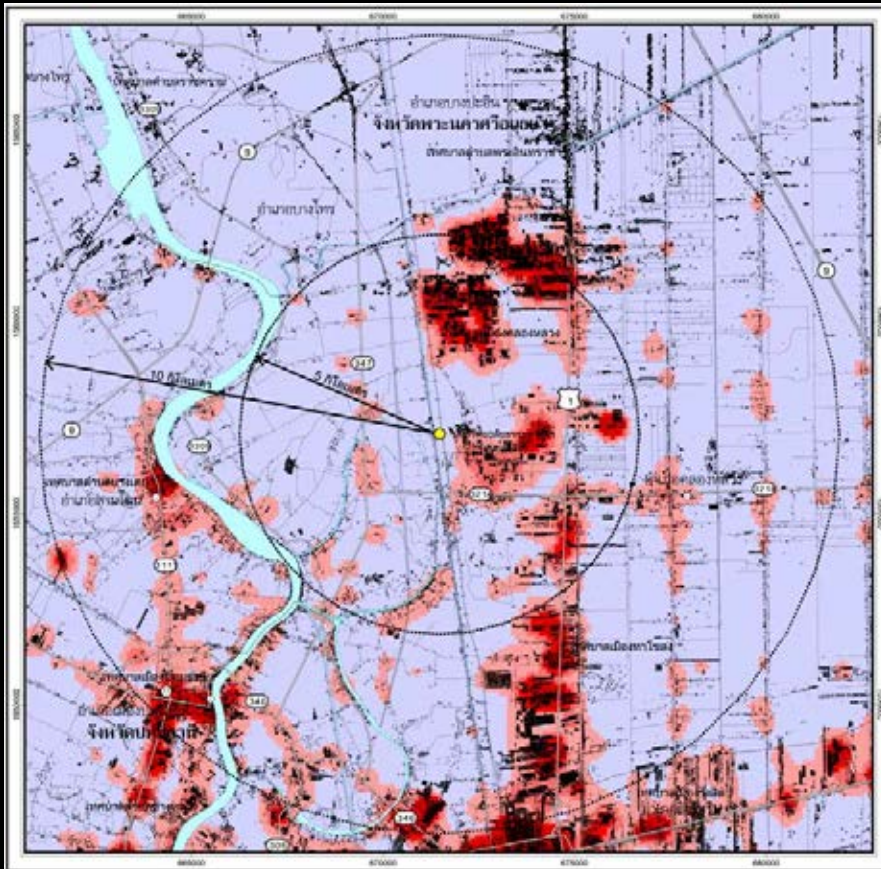


# 1. The Pattern of Regional Development

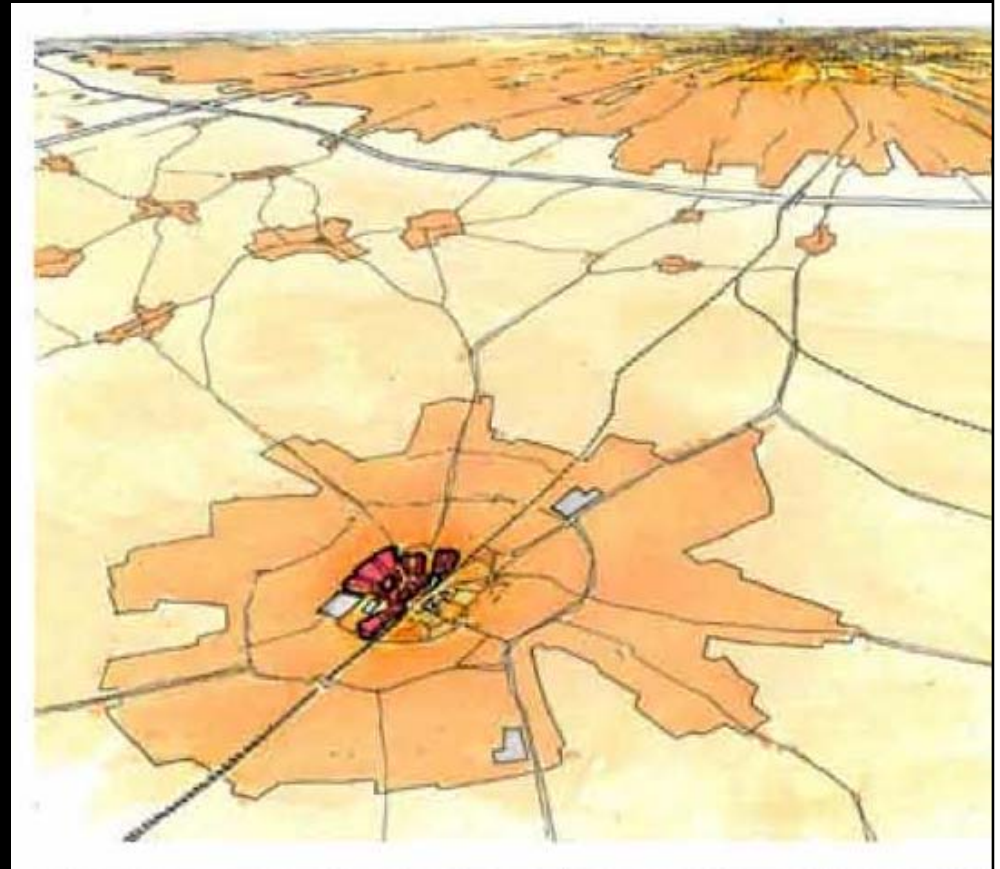
The age of suburban sprawl is over; **the suburban portions of metropolitan regions must be nucleated.** Urbane town centers that foster face-to-face exchange are critical to the New Prosperity.



To make our regions prosperous - as well as sustainable, we must **NUCLEATE** them



Diffuse; Linear



Poly-nucleated

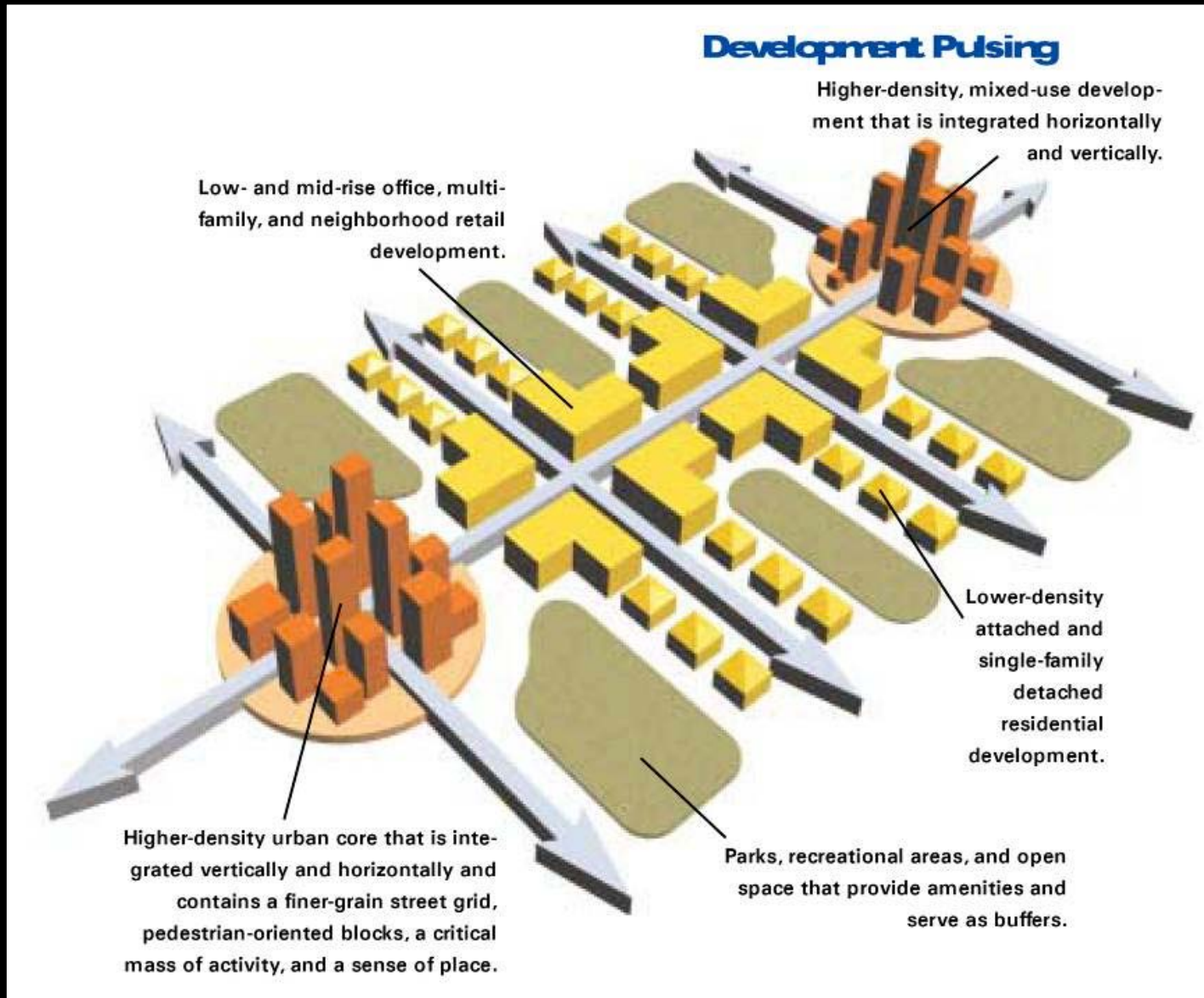
**CENTERS** foster interaction and exchange by providing attractive gathering places, a mixture of uses, at the highest densities the market can support

These are not real centers





Real Centers are concentrations of activity, synergy, and mix



Source – ULI: Ten Principles for Reinventing America's Suburban Strips



Real Centers are concentrations of activity,  
synergy, and mix



Real Centers are the Most Urban Districts in the City

## DRIVABLE SUBURBAN (SPRAWL)



## WALKABLE URBAN





# Real Centers are nodes of accessibility



Real Centers are the crossroads of the community.





## Real Centers

center around the neighborhood/city/region's primary public and civic spaces



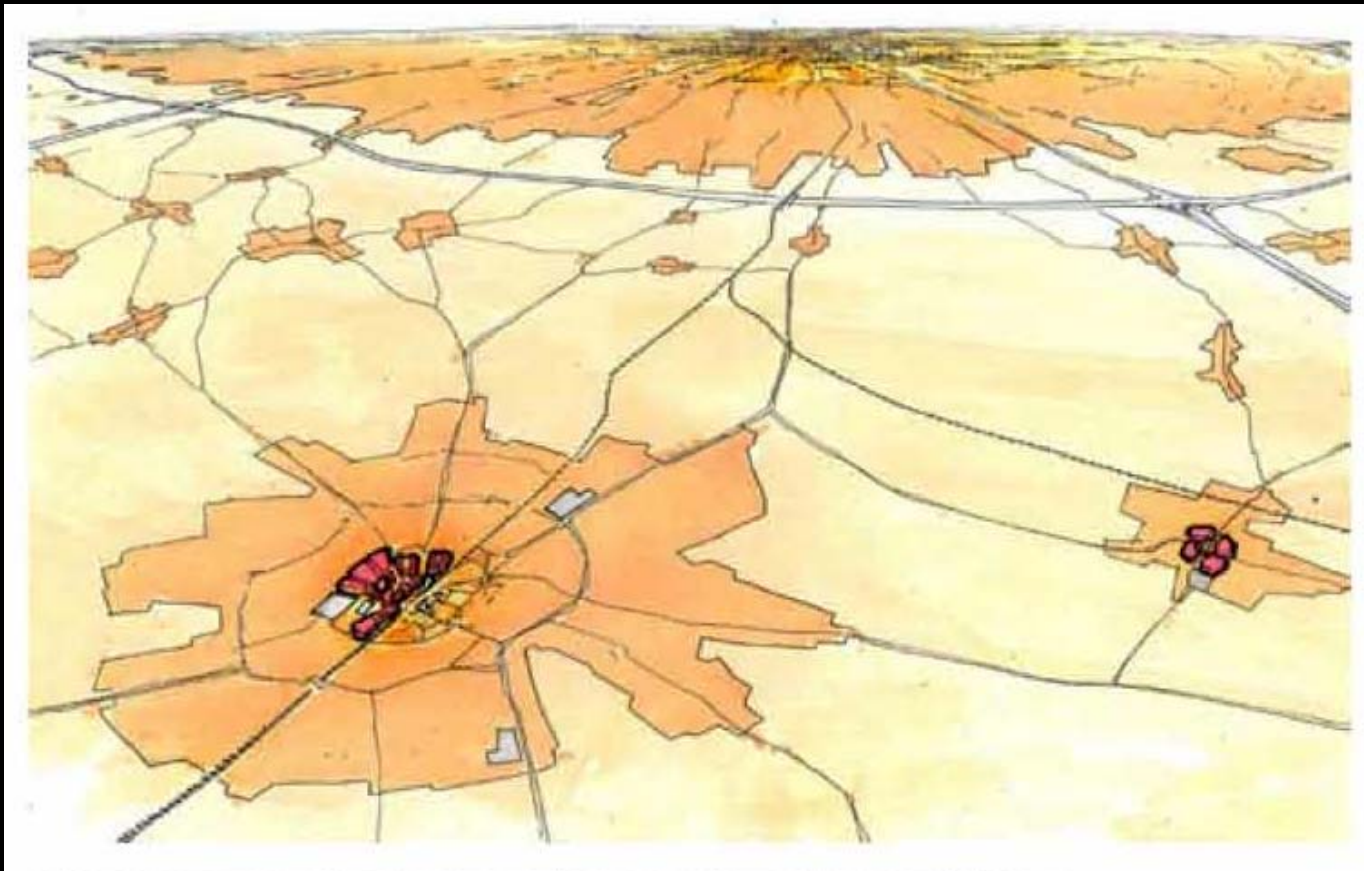
. . . Nodes of accessibility that are exciting urban places of arrival and vitality



Downtown Redwood City Precise Plan - "Depot Circle"



**CENTERS:** As the Innovation Economy takes hold, the craving for **a multitude of venues** for meeting and exchange is providing a growing source of market demand.





1. Urban Core  
 CBD's  
 augmented  
 with mix,  
 meeting places,  
 and innovation  
 anchors

U.S. NEWS

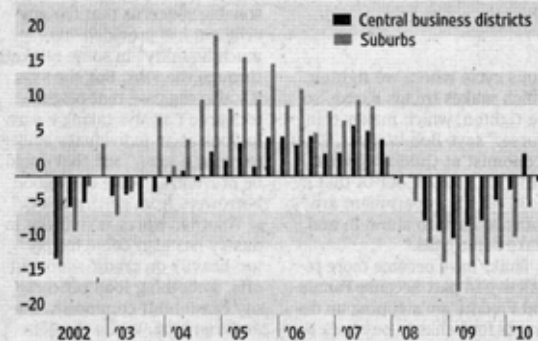


A succession of mayors have revitalized downtown Houston, above, persuading companies like BG Group to relocate there from the suburbs.

Downtowns and Suburbs Go Different Ways

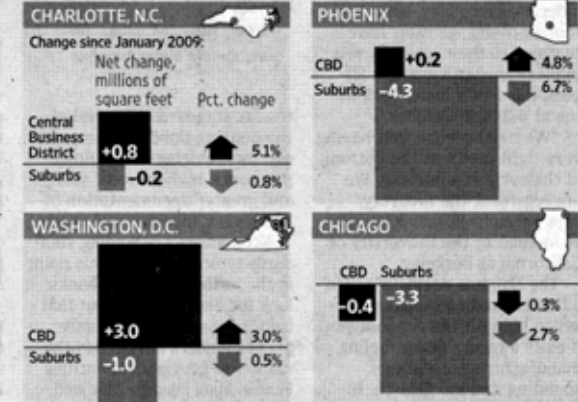
In contrast to the last recovery, suburban office space is still emptying even as downtown markets stabilize.

Quarterly change in occupied office space, in millions of square feet:



Source: Reis, Inc.

The housing bust clobbered the suburban office market while government and big banks have helped downtowns weather the storm.



# Downtowns Get a Fresh Lease

*Suburbs Lose Office Workers to Business Districts, Reversing a Postwar Trend*

By ANTON TROIANOVSKI

As the market for office space shows signs of recovery, the sub-

according to data firm Reis Inc. In the first three quarters of this year, businesses in the suburbs vacated a net 16 million

companies that have recovered more quickly, such as big banks. To be sure, most American office workers continue to work

downtown was a more convenient commuting destination, policy and corporate-affairs vice president David Keane said. BG

## 2. Revitalized Historic Downtowns



Downtowns and City Centers are no longer just “nice to have” – peripheral urbane town centers are critical to the New Prosperity.

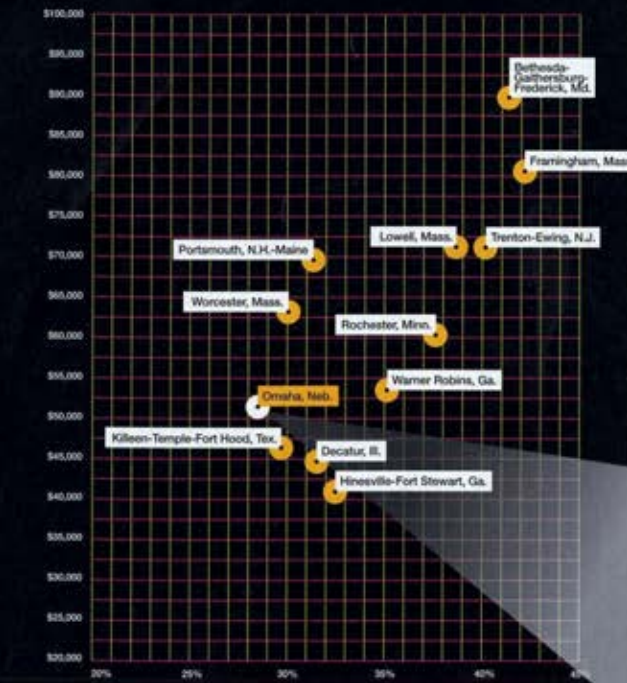


# The Reviving Downtowns

Smaller cities and towns are remaking themselves as hubs for the knowledge economy.

Map illustration by Bryan Christie

Livable cities draw creative people, and creative people spawn jobs. Some places you'd never expect—small cities not dominated by a university—are learning how to lure knowledge workers, entrepreneurs, and other imaginative types at levels that track or even exceed the US average (30 percent of workers). Here are some surprising destinations from the data of the Martin Prosperity Institute, directed by Richard Florida, author of *The Rise of the Creative Class*.



Median household income (2005-2008) vs. Projected percentage of creatives per city, 2018

SOURCE: MARTIN PROSPERITY INSTITUTE (MARTINPROSPERITY.ORG) AT THE UNIVERSITY OF TORONTO'S ROTMAN SCHOOL OF MANAGEMENT. LOCATIONS BASED ON METROPOLITAN STATISTICAL AREAS.



**Midtown Crossing,** unveiled in 2010, is the culmination of a five-year effort to revitalize midtown, which had been home to Mutual of Omaha and Berkshire Hathaway but not much good housing. Mutual put up the funds for the project, a million-square-foot bet that upscale condos and retail could lure young professionals.



**Downtown** for years was a tiny oasis of urban cool: an overstuffed used-book shop, some fancy restaurants, even (starting in 1984) a hopping gay club. But sometime in the early 1990s, new gourmet restaurants like Vivace and the Flatiron Cafe began to draw the suburbanites—and tempt them to consider moving closer in.

**The Slowdown development,** as this complex is known—after the indie rock club that anchors it—was completed in 2007 on an abandoned lot owned by Union Pacific Railroad. Funding for the \$10.2 million project came from Saddle Creek Records and the city; in 2008, Esquire called Slowdown the best club in America.

## CASE STUDY:

# Omaha, Nebraska

It's only the 42nd-largest city in the US, but over the past two decades, Omaha has been transformed into one of the Midwest's most vibrant cultural hubs. Here's how the rebirth happened, starting in the '90s.

- PHASE 1 1991-1994**  
It all started with better food. For decades, Omaha had few gourmet destinations aside from its musty old steak houses. In the early '90s, though, new restaurants—and a revitalized farmers' market—brought foodies back.
- PHASE 2 1995-2001**  
This was when the arts really took off downtown. The new permanent home of the Bemis Center, a work and gallery space, helped to draw artists downtown—while west on Leavenworth Street, the Cog Factory became a punk-rock mecca.
- PHASE 3 2003-2007**  
Omaha learned to cater to the younger set: North of downtown, an extraordinary collaboration between Saddle Creek Records (home of Conor Oberst) and the city brought a new infusion of culture, with a club, an art-film theater, and a skate shop.
- PHASE 4 2008-2010**  
Lately the city has added more grown-up pleasures, particularly in the Midtown Crossing area: eco-estery the Gray Plume (which Time called the "greenest restaurant in America") and Jazz on the Green, a summer series in Turner Park.









# Downtown Mountain View, CA

Served by Caltrain, VTA Light Rail



Castro Street shops



Civic Center



Fenwick & West (expanded from Stanford Bus. Park)



Parking facilities



Transit & TOD Housing



### 3. Retrofitted shopping malls





# A Plan for the Heart of the Region

CATEGORY · The Region  
LOCATION · Tukwila, WA

The Plan orchestrates the Restructuring of a 1,000-acre Regional Shopping Area into a Social and Symbolic Center for the Region.

## REGIONAL CONTEXT



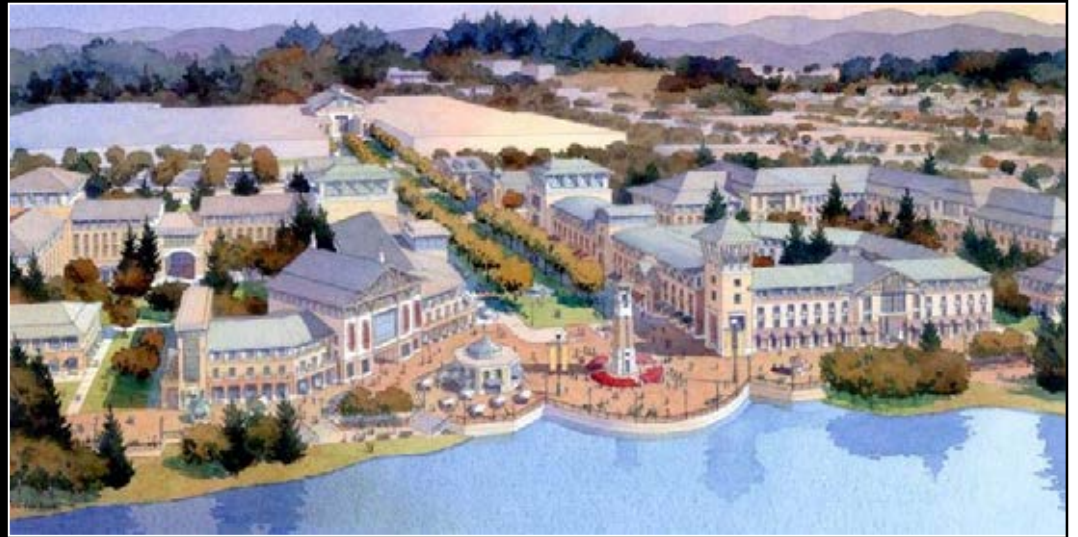
## PROJECT AREA



## ILLUSTRATIVE MASTER PLAN

The plan grafts urbanism onto typical built-out, mall-centered sprawl by directing the redevelopment of oversized parking lots and remaining underutilized properties into a pattern that connects the project area's key anchors and overlooked amenities - department store and big-box anchors, pond, river, commuter rail station - to surrounding neighborhoods infilled with new homes, workplaces and a rich and varied public realm.





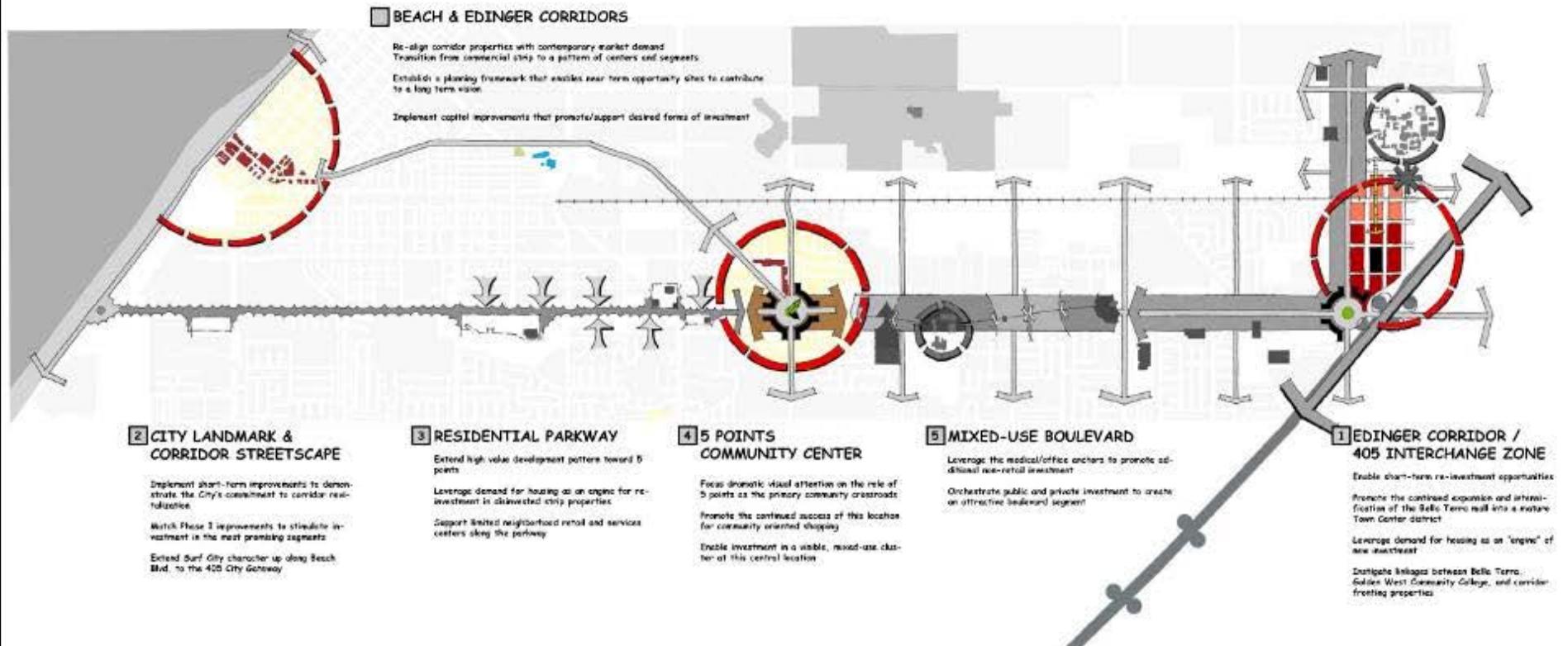


## 4. Centers along Restructured Commercial Strips





# Pattern of City Centers



1. The pattern of retail will be transformed from linear to nodal
2. Plenty of land is left in between the centers that is unappealing for retail investment
3. The pattern of retail clusters sets up the primary framework for the restructuring plan

## 5. Transit Station Areas – Dense, Walkable Complete Districts



Auto-oriented Transit (Park & Ride)



Transit-Oriented Development (TOD)



## 6. Retrofitted Suburban Business Parks – “NextGen” Business Districts





# 7. Redeveloped Industrial Districts







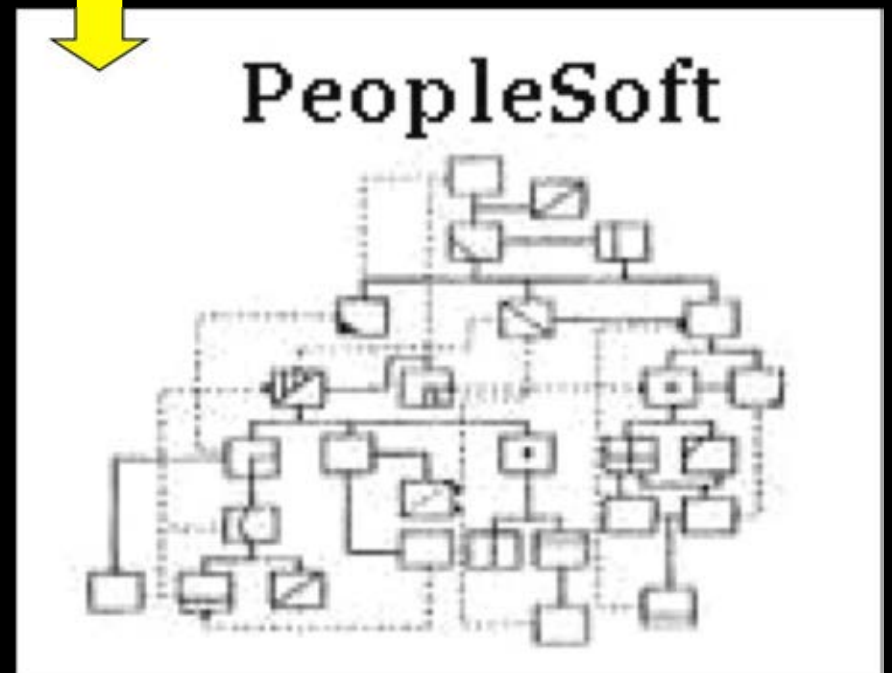
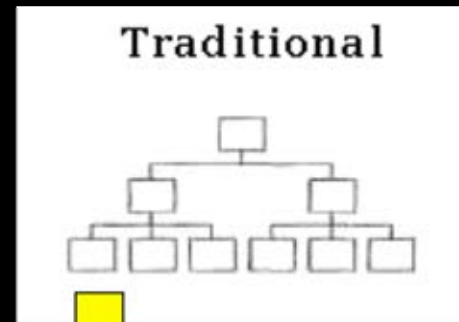
## 2. Workplace Districts

The Business Park and Office CBD are dead ends.  
21<sup>st</sup> Century workplace districts will provide settings to foster innovation and will match the preferences of the most sought-after employees.

Early adopter cities/districts that provide “talent-magnet districts” will have prime-mover advantage.



# Changes INSIDE the Workplace: **New work processes organized around collaborative teams**



Decentralization, shared decision making, and skilled labor

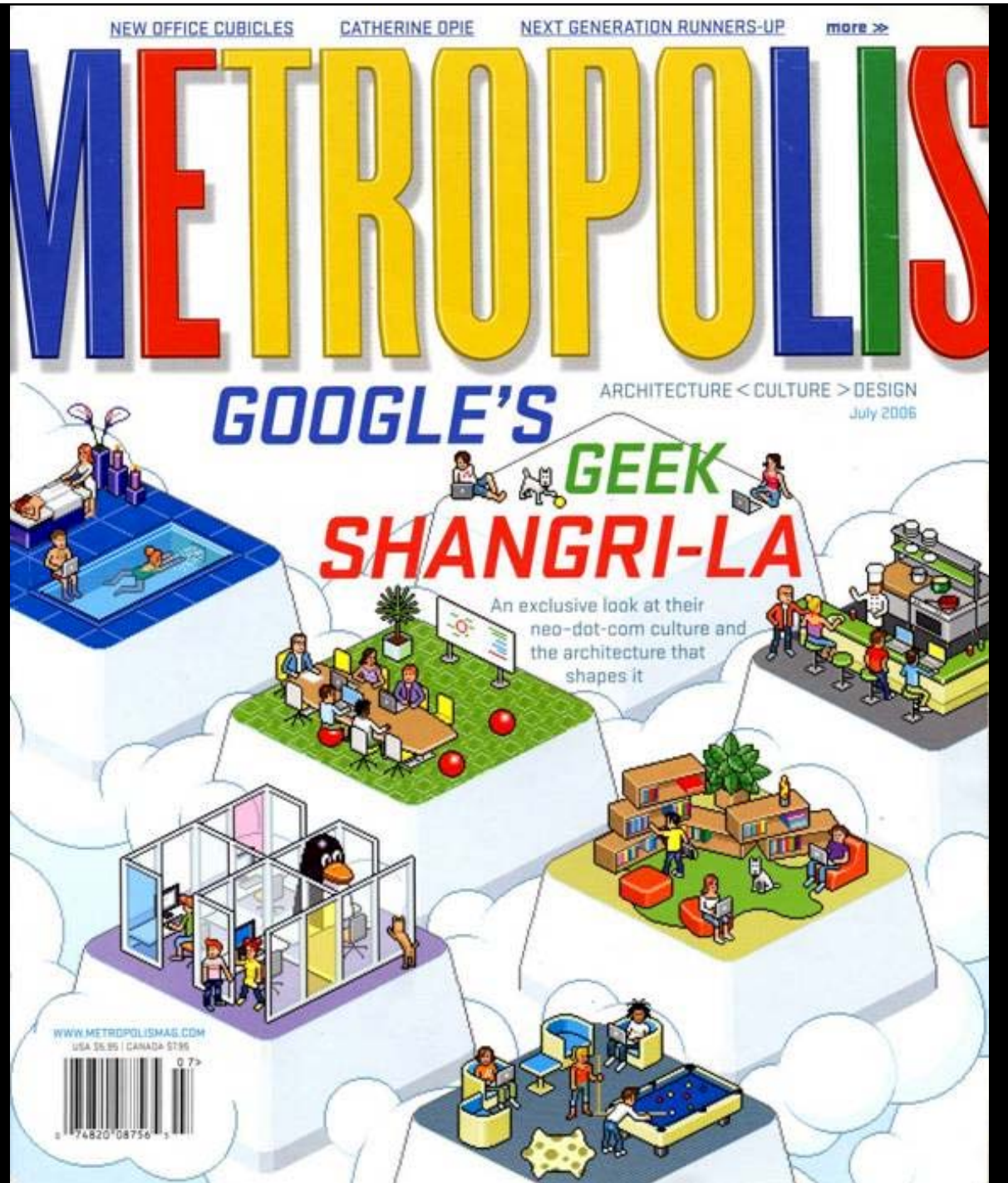
# NEXT: Changes OUTSIDE the Workplace – at the scale of the Workplace District



- \* Segregated work from everything else
- \* Low Density – Single Use

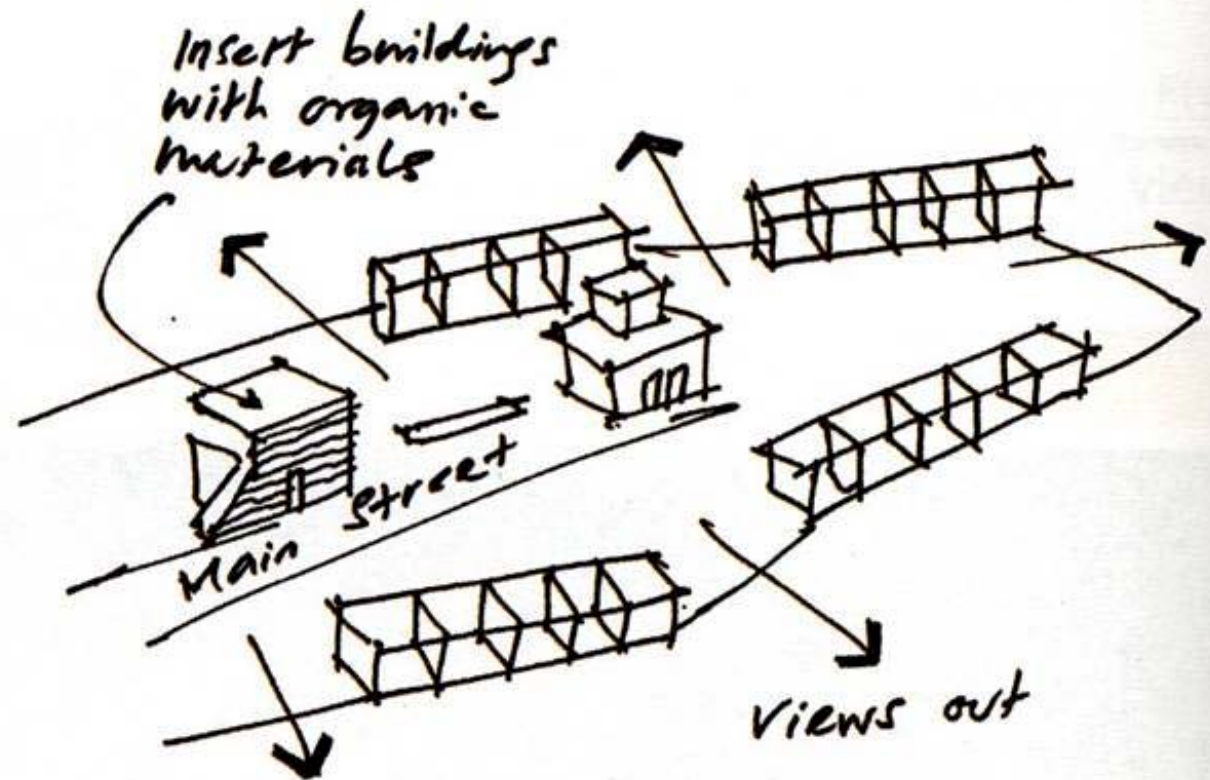


21<sup>st</sup> Century  
Knowledge  
Workers need  
**environments**  
**that foster**  
**collaboration** to  
produce creative  
ideas, products  
and processes





Clive Wilkinson Architects' proposal for the redesigned Googleplex included sketches illustrating fundamental features of the new interior. Chief among them is the use of a "main street," a central pedestrian corridor lined by "shared-use building blocks" (below) and glass-walled work-rooms along the perimeter (right).



“The development of Urban Typologies and Neighbourhood Planning in office environments is a reaction to the pent-up demand for more meaningful work places...”

Nicola Gillen, DEGW





Next to the Googleplex: North Bayshore's Business Parks



# The 20<sup>th</sup> Century CBD and Business Park models no longer fit the needs of the innovation economy





# The Workplace *District* remains out of synch



Separate Precinct





- Usually segregated in *type of work*: office, R+D, manufacturing





- ***No activity focus or center*** - only auto-oriented





- Fabric of *large blocks* and *wide roads* necessitated by them

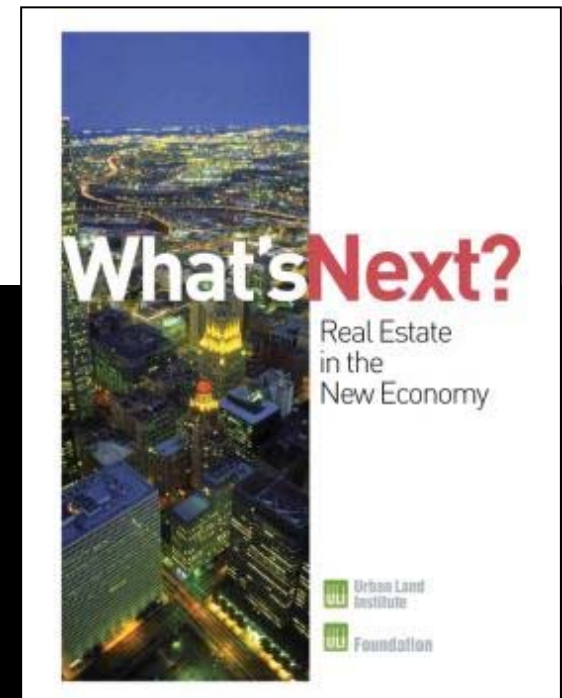


- Buildings surrounded by *parking & landscape* (plenty of open space but no public space).

# Urban Land Institute - October 2011

tions. Proximity to anything didn't matter when you could drive easily to almost everywhere. And exhilarating mobility over long distances enabled more people to own more land—and build larger houses—at the ever-expanding suburban fringe. Employers sought to build suburban office islands, set apart from housing, retail, and transit.

## That's over. What's next?





**To foster and to attract creativity & innovation cities must provide  
“Vital Centers”**

**Clustering & Density**

**Synergy & Mix**

**Settings for Interaction**

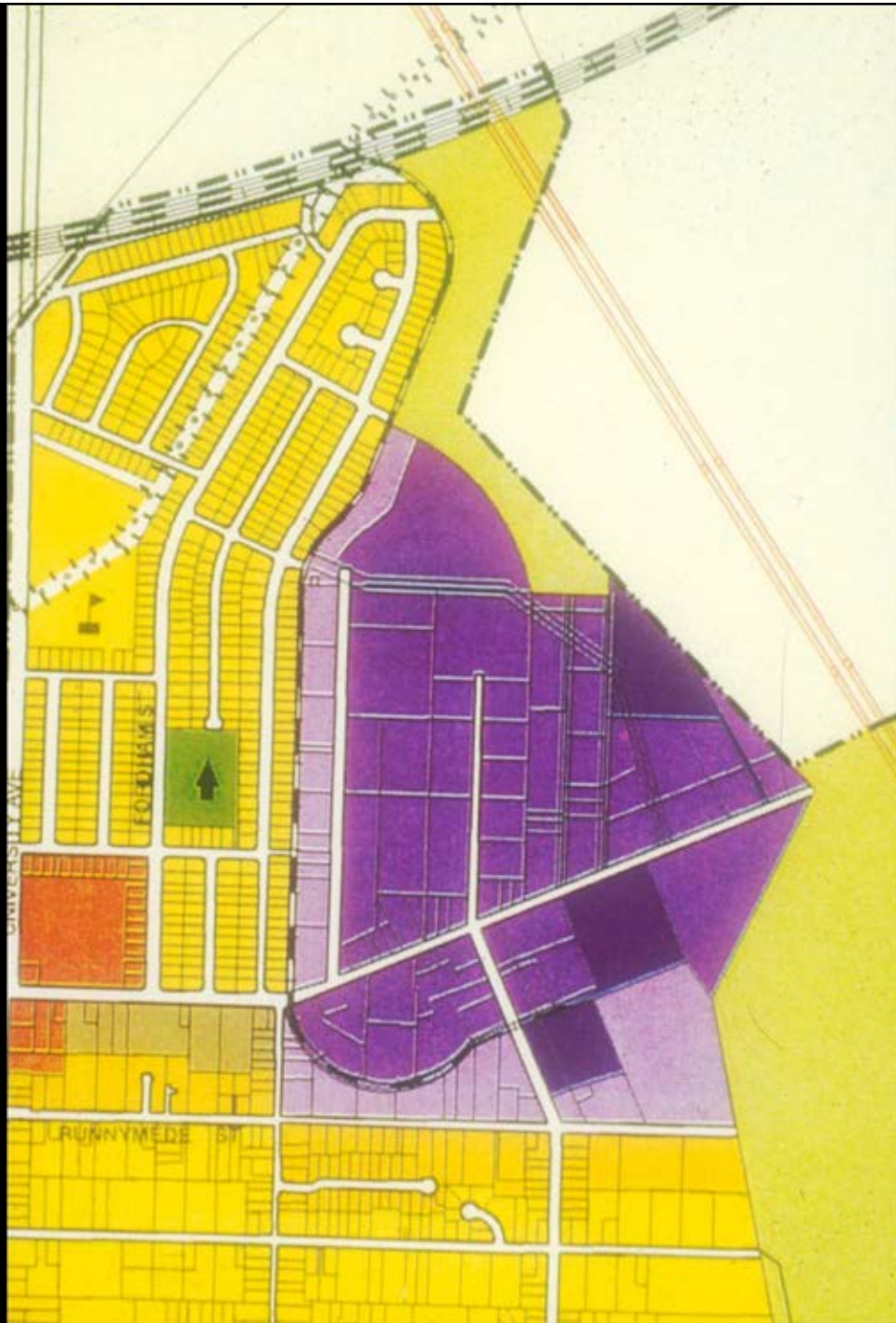


Centerless Workplace



“Vital Center”

**The Old Model:**  
Policy for  
Separate  
Precinct



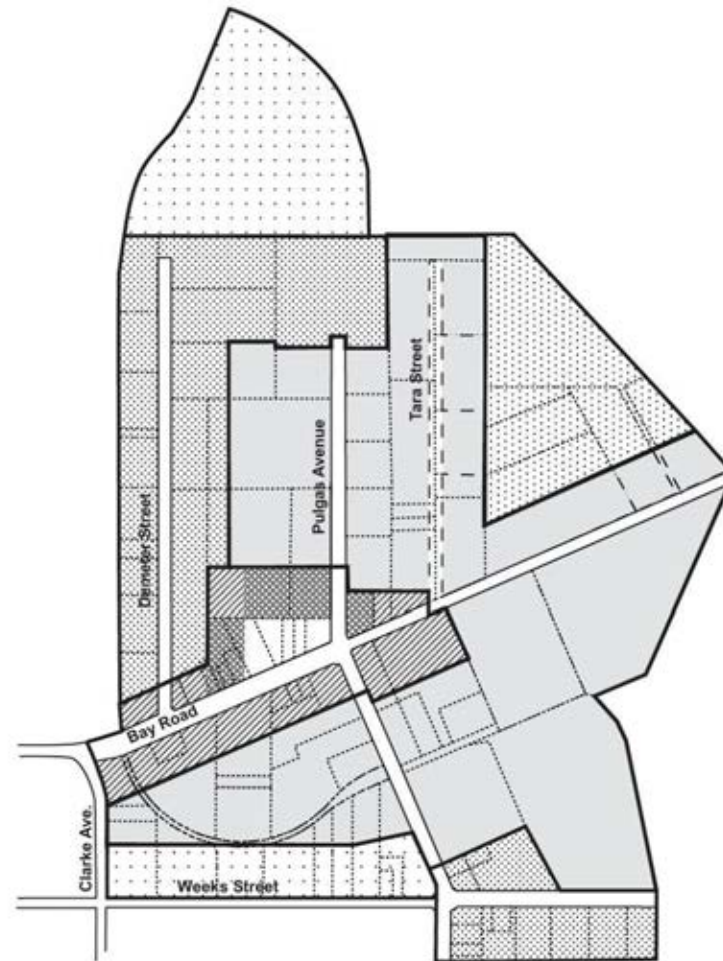
## The New Model:







District Center

Workplace Core

Mixed-Use Transition Areas

Residential Transition Areas



- |                                                                                                                                     |                                                                                                                 |                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|  District Center - Ground Floor Retail Allowed  |  Mixed Use Transition Area |  Industrial Area               |
|  District Center - Ground Floor Retail Required |  Workplace Core Area       |  Residential Transitional Area |

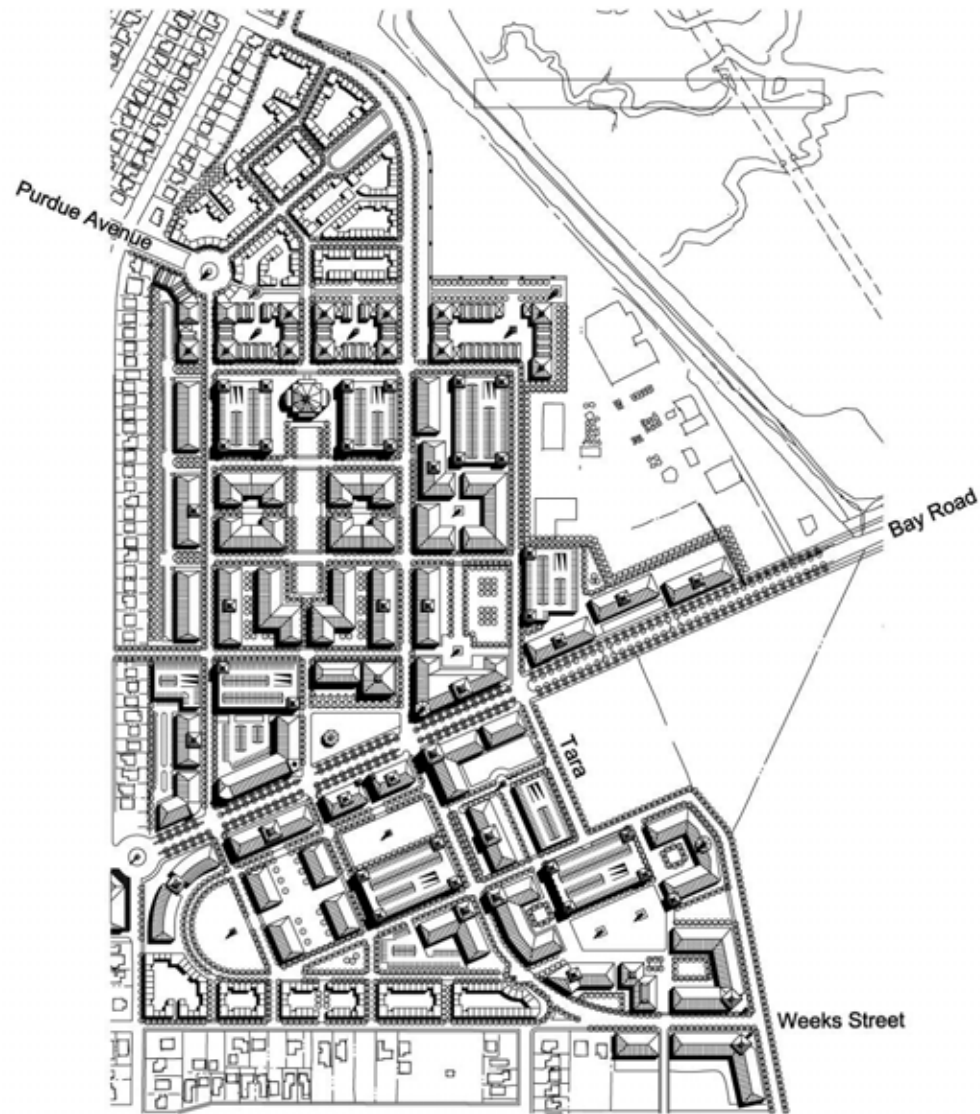
### Land Use Plan Areas

Ravenswood Business District



City of East Palo Alto





## Site Development Concept Plan

Maximum Buildout Potential

Ravenswood Business District



City of East Palo Alto



### Existing Street Network

Ravenswood Business District



City of East Palo Alto



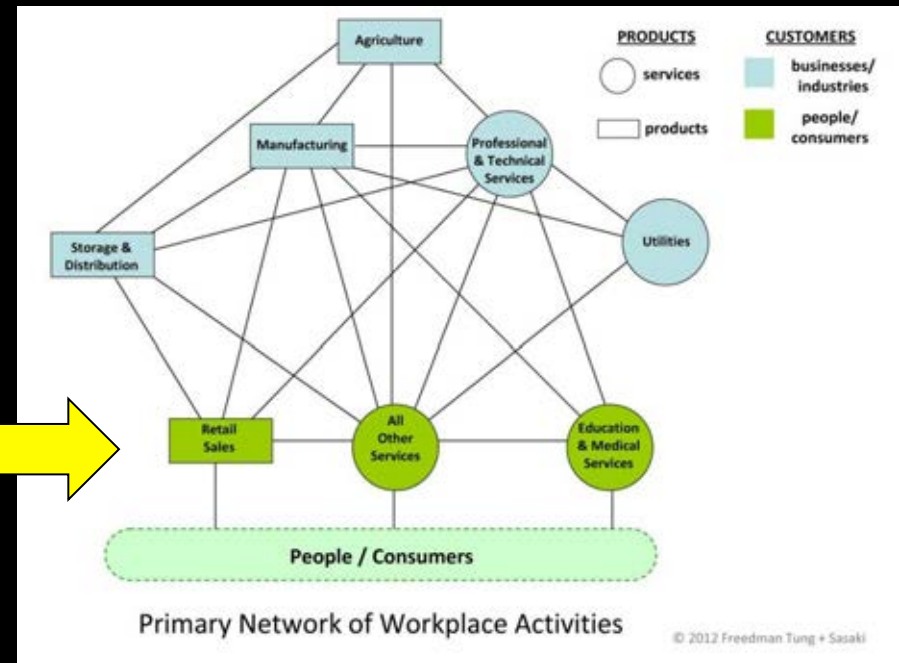
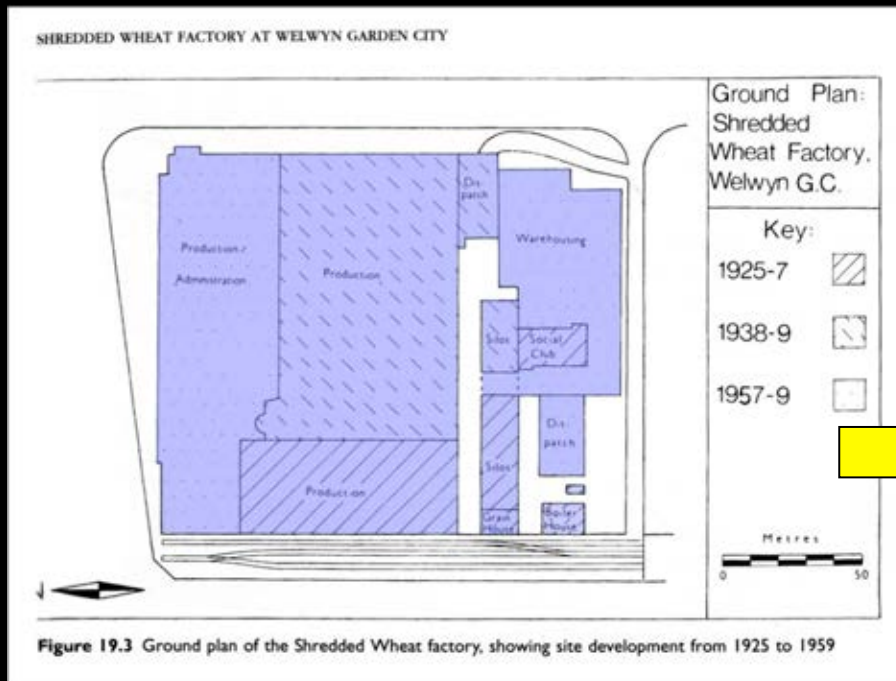
### Proposed Street Network

Ravenswood Business District



City of East Palo Alto

# Work is distributed among a highly connected network of specialized, collaborating partners





# Typical Business Park: little variation



# Range of building types

Mixture of workspace types, costs, tenancies, sizes, **in proximity**



Quality Medium Sized Space



New lower cost, small scale space



Creative rehab – lower cost spaces



Established Corporate Space



- Publicness: Activity Core

## Traditional Business Park approaches:



No activity core – food use inside buildings, or located incidentally



Insertion of a commercial strip center



- Publicness: Activity Core

A workplace district may have a **main Activity Core** and/or a **series of local cores**, depending on its structure.



4<sup>th</sup> Street retail cluster:  
**District Activity Core** for West  
Berkeley

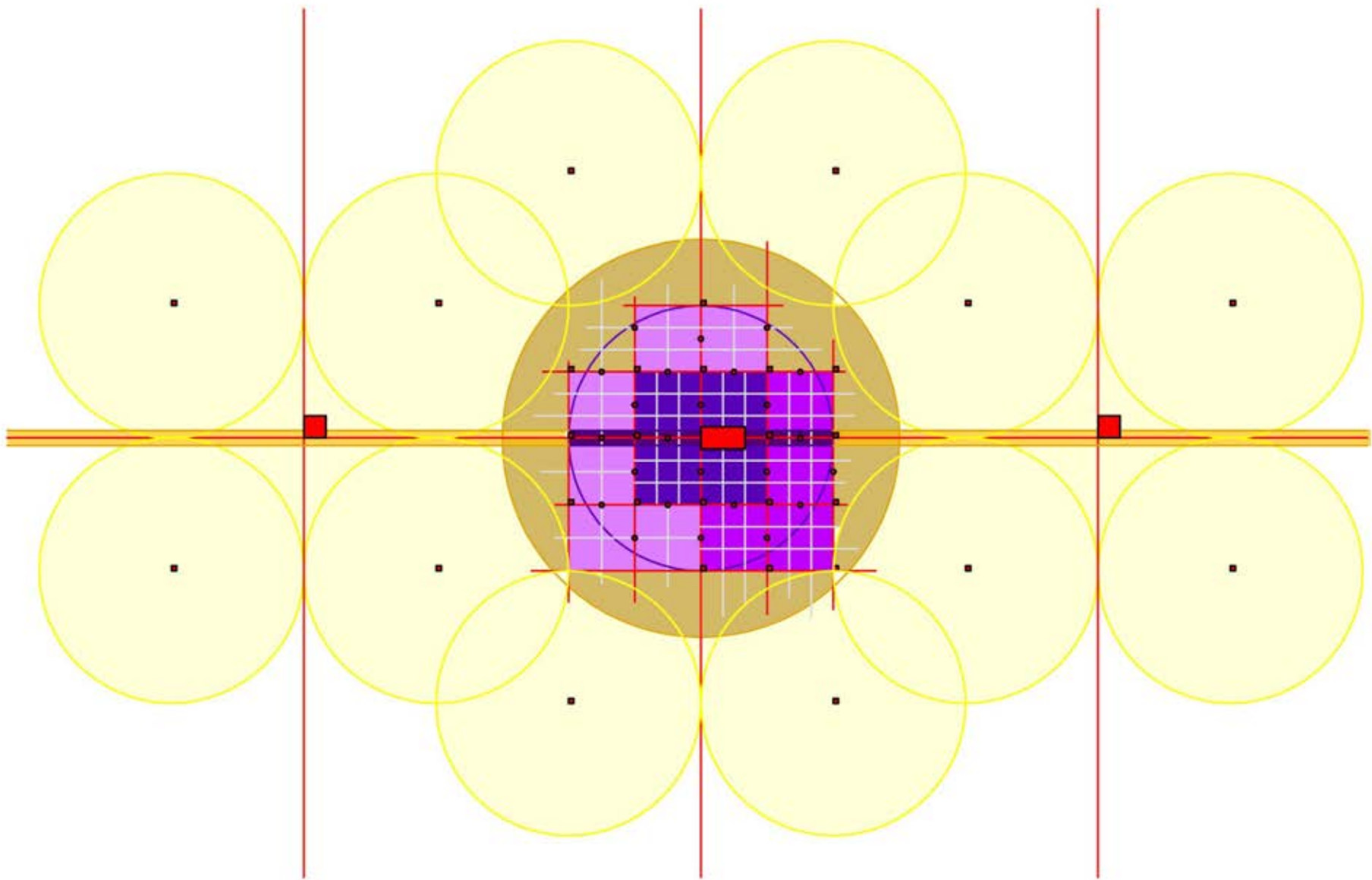


“Can’t Fail Café” across from Pixar  
Studios and City Hall in Emeryville:  
**local Activity Core**

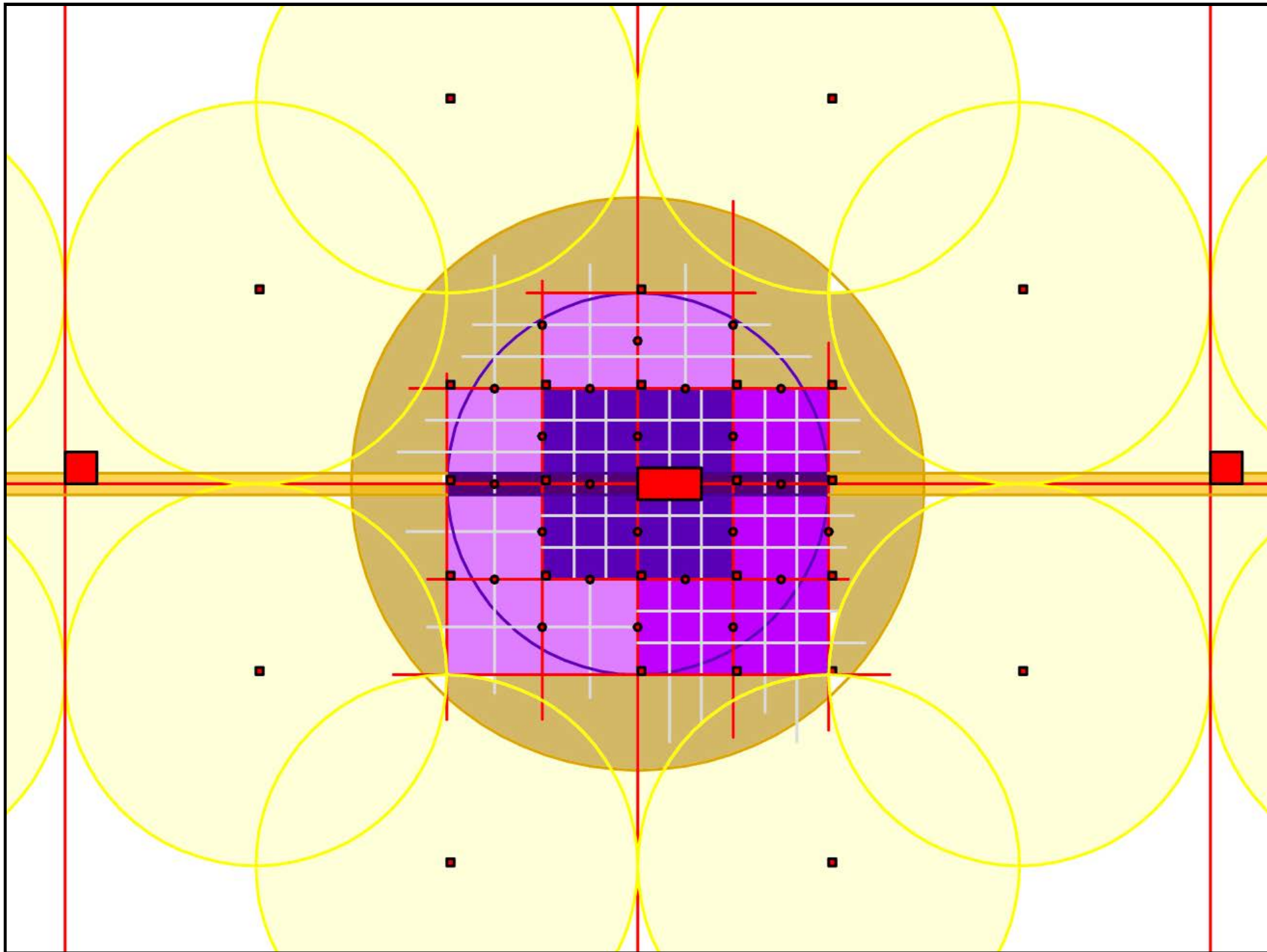


# The New Model: Settings for Interaction, Serendipity











Adding a few floors to the same model alone will not get us where we need to go



We are starting to see evidence of workplace “Vital Center” evolution in the most innovative districts and cities





# NextGen: Higher intensity, innovation-oriented format

Livermore Labs



Activity cores, mixed uses, walkable blocks, commute transit, structured parking



**Talent Magnet Districts center on nodes for interaction and exchange  
They will feature media with meaningful content.**



**Sony's Digital Media City**  
**Seoul, South Korea**  
(2000 companies expected by 2015)

# The emerging “New Workplace” ecosystem:

- **City and Regional Centers (Downtowns)**
- **Workplace-focused districts**
  - Revitalized Business Parks
  - Redeveloped Industrial Districts
- **Institution-anchored districts**
  - Educational Campuses
  - Medical Districts



# 3. The Critical Role of Retail & Services



**. . . The pattern of retail development has been exclusively single-function and auto-oriented**



**Commercial Strips**



# “Shopping Centers”



Shopping Malls, Strip Centers,  
Big-box Retail



**Vertical Malls in Urban Centers**



Shops & Eateries  
provide the kinetic  
energy of cities





Competitive Cities will **deploy retail as an activity-generator** to provide places for meeting and socializing – which are key to attracting knowledge workers



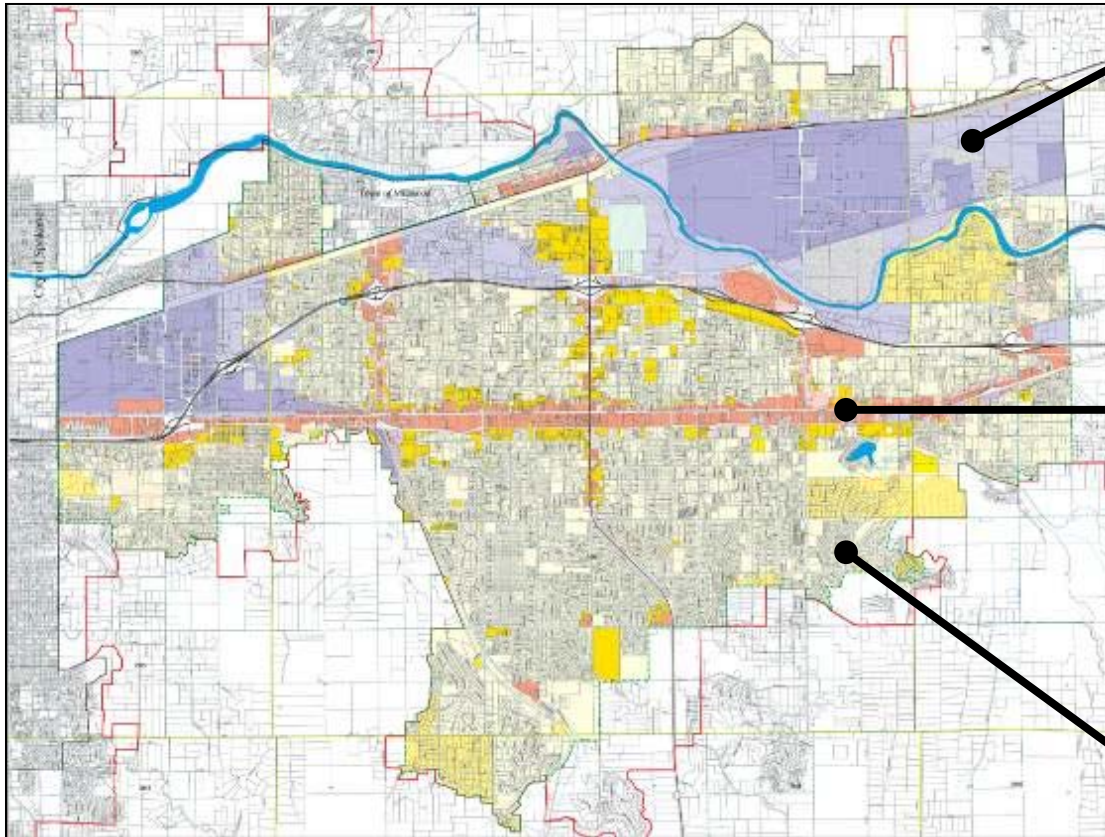
Cities that fritter away their supportable market share of retail as stand-alone, auto-oriented developments will lose out.

## 4. Mobility (the Public Realm)

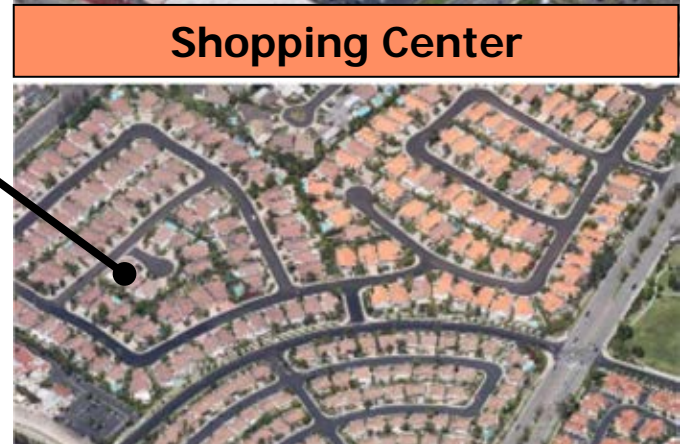
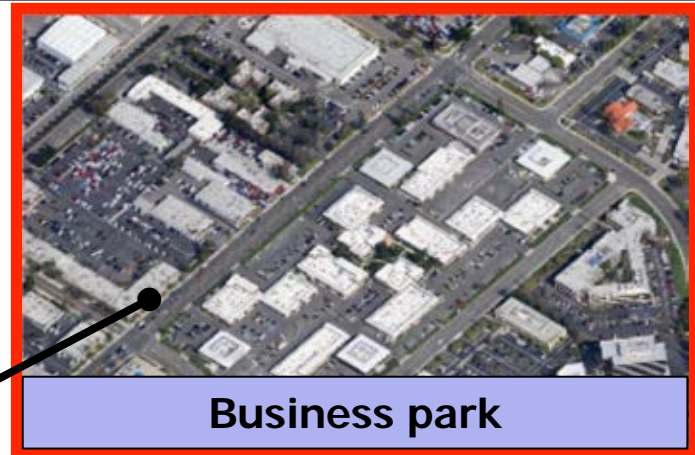


Industrial Economy: Value created by making and moving vast quantities of physical products  
(including information products)

Cities were reorganized along the industrial principles of specialization and segregation of function.



Institutionalized in 20<sup>th</sup>  
Century City Zoning





**NO CHOICE:** The way we design the new areas of our cities forces us to drive to get access to what we need.





# Highest Priority placed on Mobility



**Industrial Economy:** Value created by making and moving vast quantities of physical products (including information products)

But in the **Innovation Economy**, cities derive their value from attracting and delighting a large population of knowledge workers.

# The “creative class” craves vital centers



Transit



Streetlife



Public Spaces





Taking a break from the office cubicle (to look for ideas).





Helsinki



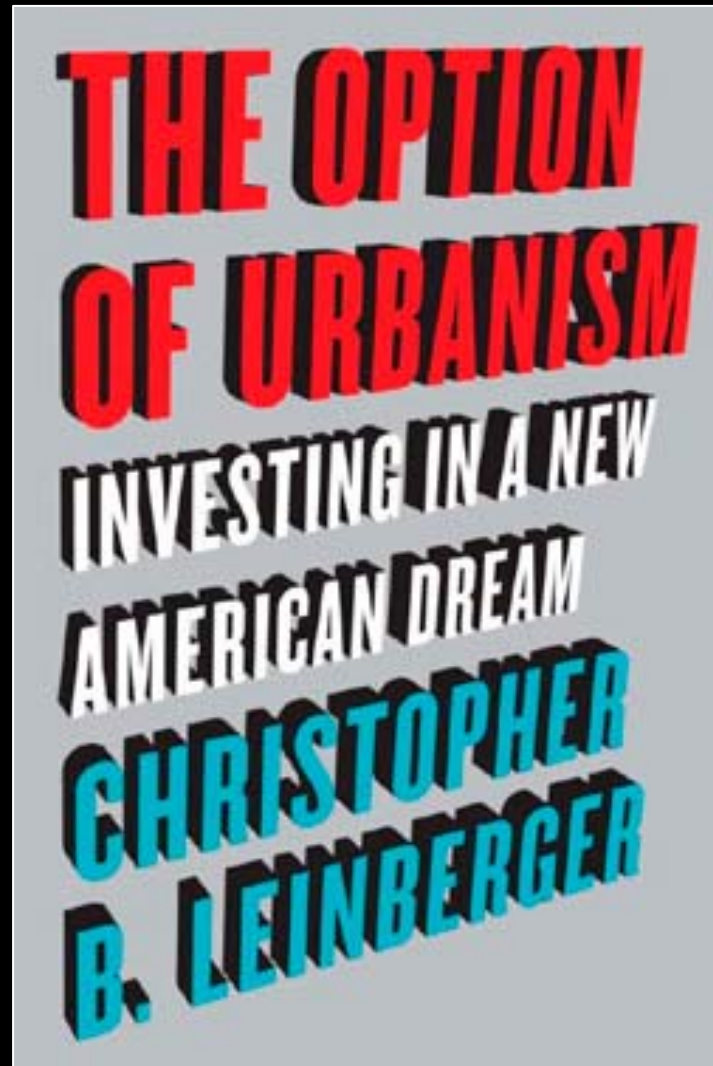








# Shifting Market Preferences



Nationally, “housing prices in **walkable urban places** have about a 40-200 percent (three-fold) **premium over drivable single-family housing**. . . .  
. . . reflecting the **dramatic shift in values** that has taken place”

Leading city decision-makers are shifting their priorities from auto-mobility to amenity



Cheonggyecheon Restoration Project, Seoul



The 21<sup>st</sup> Century City must balance transportation infrastructure with enhanced “Place-Making”



Before



After

## Seoul: Chongyecheon

To be successful in the 21<sup>st</sup> century, cities are replacing the old industrial infrastructure with the infrastructure of the creative economy.

# New York: The High Line



Leaders of competitive cities know they must work hard to attract and retain talented people with urban and cultural amenities and a high quality of life.



# New York: Broadway



The approach reflects the enhanced role of public amenities in growing urban economies to position cities to attract high-value-added growth.



# Cities large and small are shifting away from automobility and towards amenity in public space



An aggressive "Complete Streets" approach: "Transitional" expansion of pedestrian & bike realm outside of curb with colored asphalt topping, striping, signposts, and movable street furnishings: Broadway, New York City (2008)

# The 21<sup>st</sup> Century City must balance transportation infrastructure with enhanced “Place-Making”

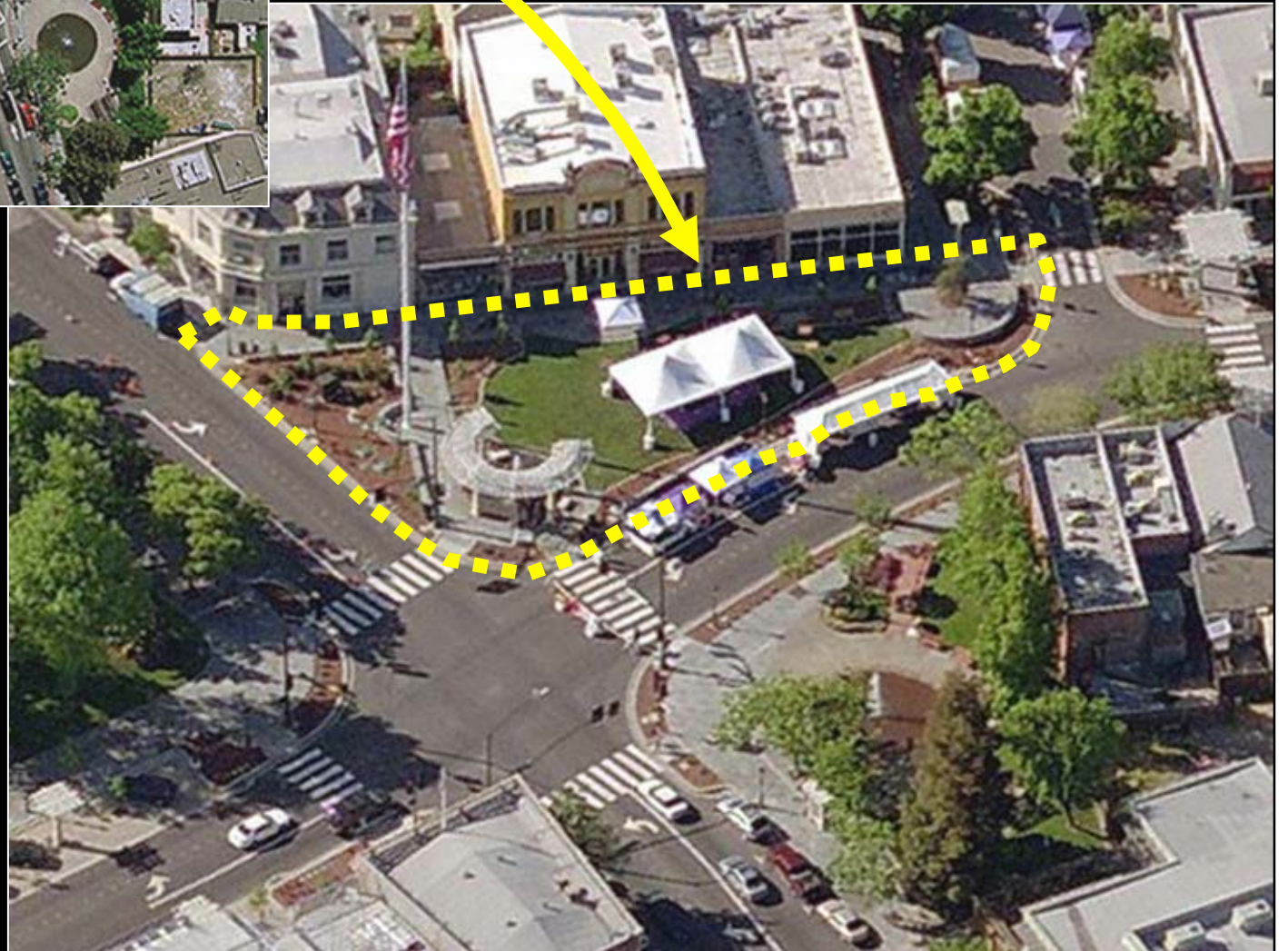
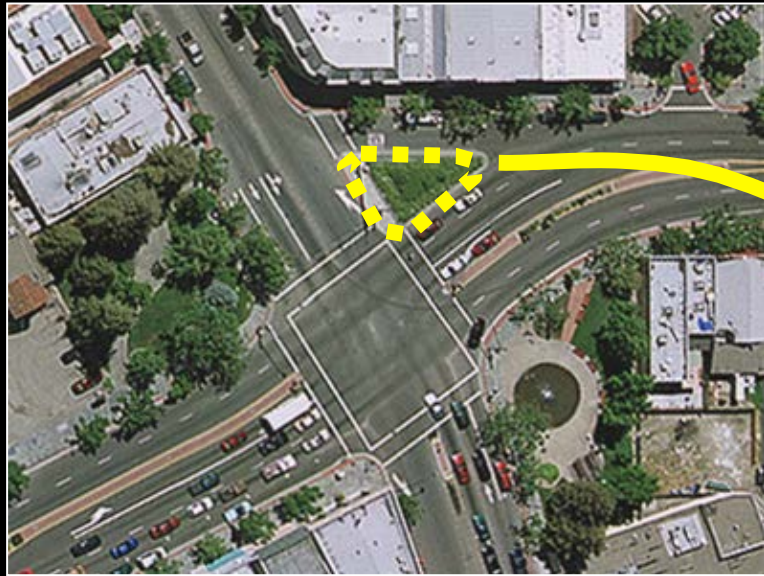






Downtown Livermore in 2002: underperforming business and community image, low activity, not well connected to surrounding wine country

1<sup>st</sup> St. & Livermore Ave:  
Traffic island becomes a  
town green





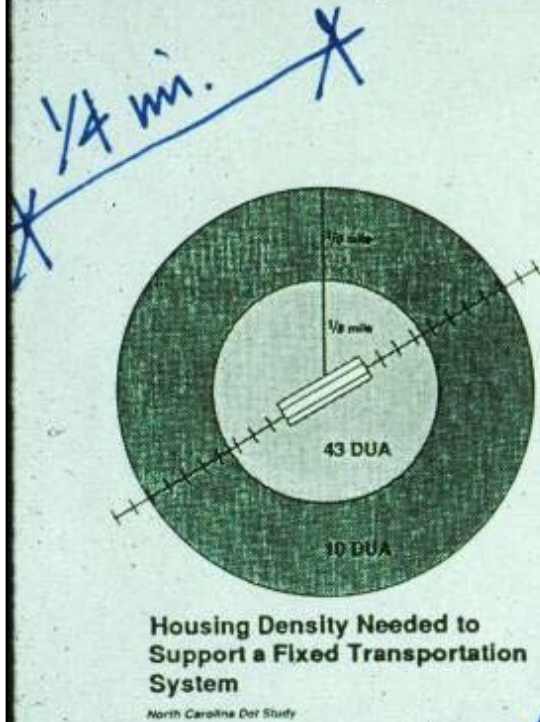
Amenitized public realm:



"Winery Patio" streetscape, new plazas & interactive fountains



# Minimum Densities Necessary to Support Mass Transit



But how about that old villain, “lifestyle”? Some people argue that Americans simply love their cars and won’t do without them. As the story goes, people like the privacy and the sense of independence that comes with locking the door, turning the key and playing the radio.

But in the final analysis, isn’t this really a matter of economics? Among those who have a choice, most people now prefer private automobiles to the alternatives. But if public transit was faster and more convenient and if the daily cost of driving was clearly more expensive than the alternatives, how many people would stick to their cars as a matter of lifestyle choice?

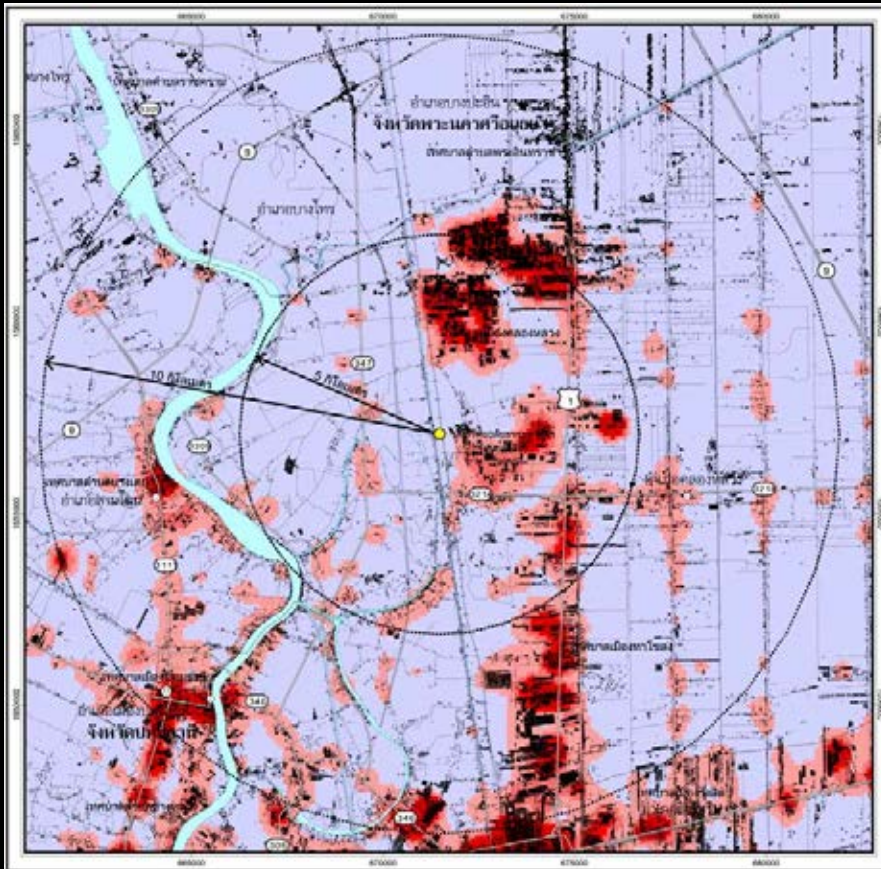
Public transit cannot be faster and cheaper without ridership support. And people will only support public transit if it is conveniently located. Boris Pushkarev and Jeffrey Zupan discuss this problem in their 1977 book, *Public Transportation and Land Use Policy*. As communities become more compact, the demand for public transit increases. Where there are more people, cars become both less convenient and more costly. According to Pushkarev and Zupan, to support transit, the general rule is there must be at least seven units of housing per acre and the downtown area must contain at least 10 million square feet of office space. For very frequent bus service, a community needs at least 8 units per acre. A study published in 1990 for the North Carolina Department of Transportation, found that to support a fixed guideway system, a community should have 43 units of housing per acre within one-eighth mile of a station and 10 units per acre in the next one-eighth mile.

e.g. big city

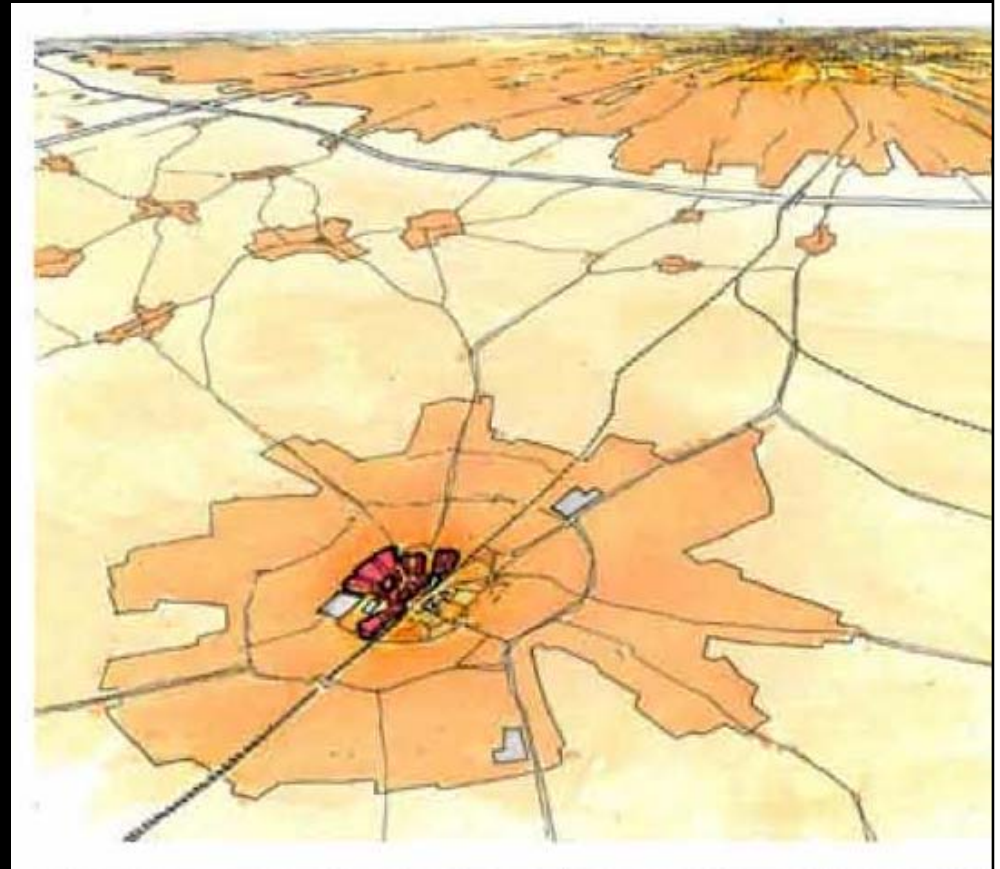
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To make our regions prosperous - as well as sustainable, we must **NUCLEATE** them



Diffuse; Linear



Poly-nucleated

**CENTERS** foster interaction and exchange by providing attractive gathering places, a mixture of uses, at the highest densities the market can support

***Transit infrastructure and TOD are critical to support the densities of centers. . .***



***. . . and to free up road space for sidewalks, plazas, boulevards, greens, big trees, seating, kiosks.***



# The Public Realm – Industrial vs. Innovation Economy

- Remove friction
- Default activity: movement
- Public realm provides resources to move and deliver physical things
- Induce friction
- Default activity: lingering, interacting
- Public realm provides resources to instigate exchange and to make information accessible

# 5. Sustainability

What we need for **sustainability** we need for **prosperity**.



# Segregated land uses + arterial roadway system – failing as a habitat



## Forces Undermining the Viability of the Modernist City:

- Poor Accessibility
- Rapid Consumption of Farmland, Natural Resources
- Acceleration of Climate Change
- Wasteful of Diminishing Fossil Fuel Reserves
- Increasingly expensive for families

## Related problems:

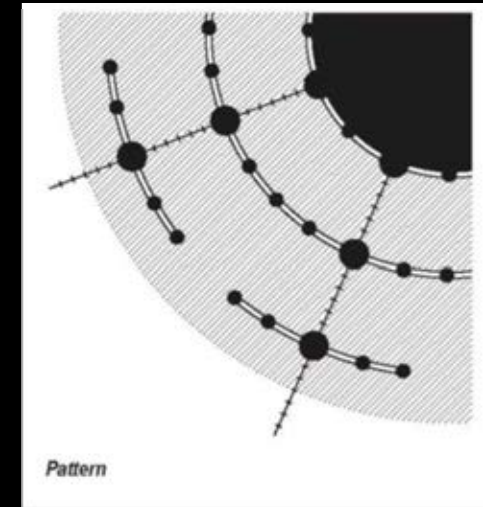
1. Congestion (lack of accessibility)
2. Energy waste (too much fuel use)
3. Land and resource consumption (auto-driven decentralization)
4. Climate Change (burning too much fossil fuel per person)

## Critical to Any Solution:

1. **Vastly Reduce Automobile Use** – reduce vehicle miles travelled (VKT)



# Simple Solution:



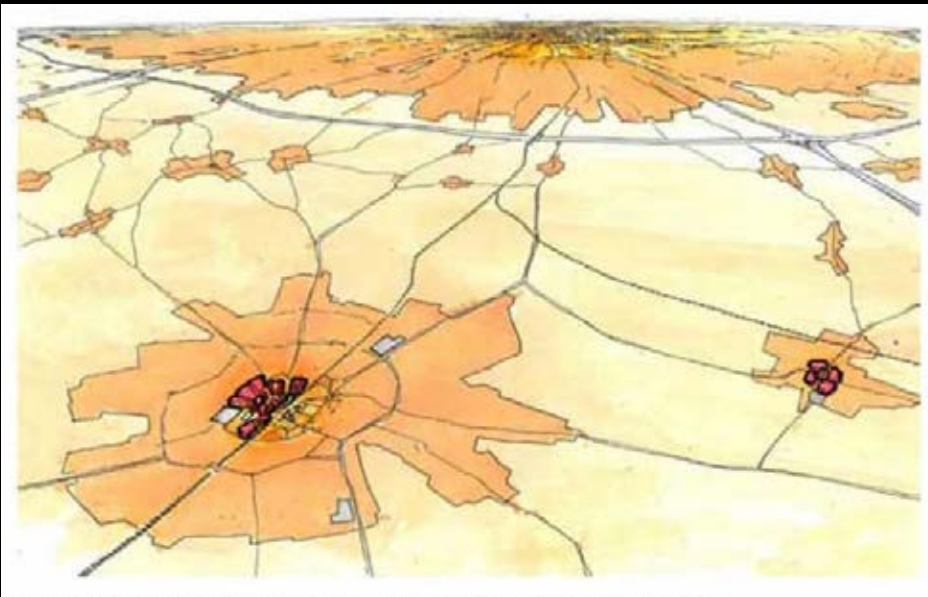
- **Complete Neighborhoods** (walkable, mixed, denser around stations)
- **TOD:** Multi-Nucleated Pattern of Development; Integrated with a Transit Network offering modern frequent service.

# To foster and to attract creativity & innovation cities must provide “Vital Centers”

Clustering & Density

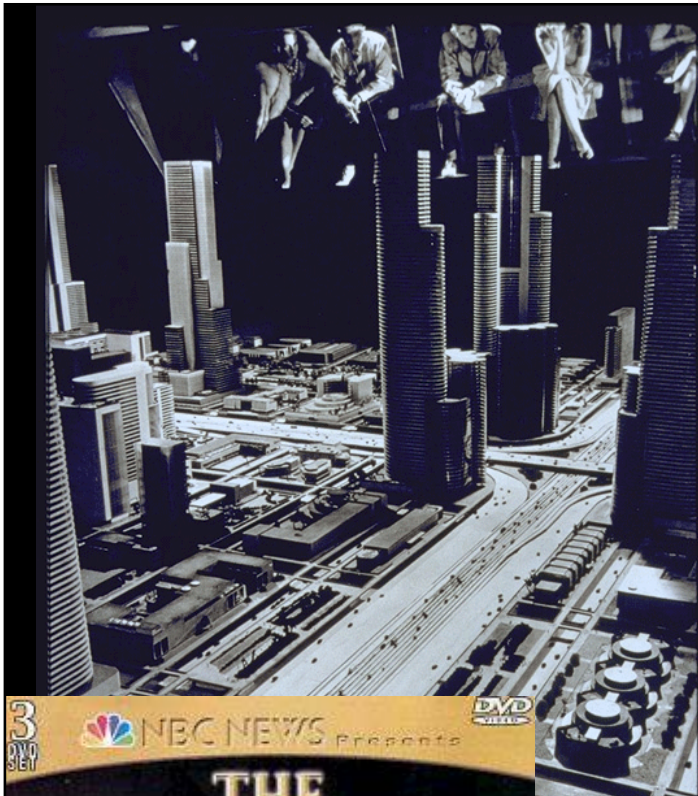
Synergy & Mix

Public Places and Pedestrian Amenities



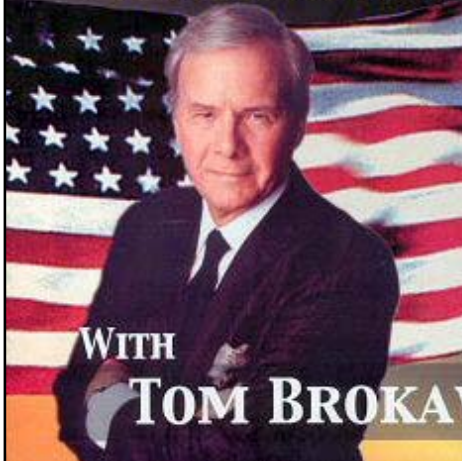
... These are the same urban design outcomes needed to conserve energy, decrease greenhouse gas emissions, reduce waster of land and resources and preserve species habitat.





3  
9/17  
NBC NEWS Presents  
DVD  
VIDEO

# THE GREATEST GENERATION



## 5. Economic Development Strategy in the Innovation Economy



Today's global economy requires a new set of economic development strategies **to attract people and companies**

# PREVIOUS ERA

## Economic Value Created by Large Corporate Firms:

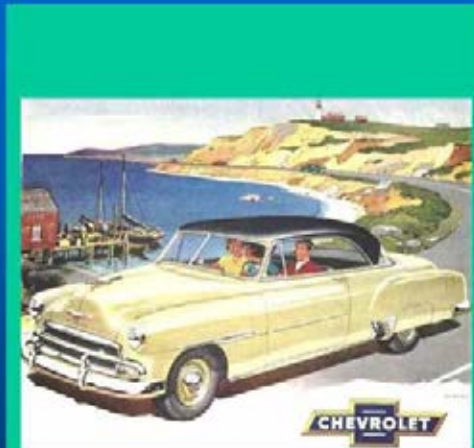
- The major employers
- Mass produce and sell their own well-known goods and services far and wide
- Vertically integrated
- Business Services provided in-house
- Primary value-creators in the economy
- Innovated at their own pace – to stimulate sales, keep competition at bay.



# PREVIOUS ERA: Economic Development

Tap into the “Big-Firm Ecosystem” by attracting large firms

Industrial  
Economy



- Transportation access
- Financial incentives (tax incentives, land write-downs, etc.),
- Infrastructure improvements

## THE SHIFT:

Beginning in the mid-1980s:

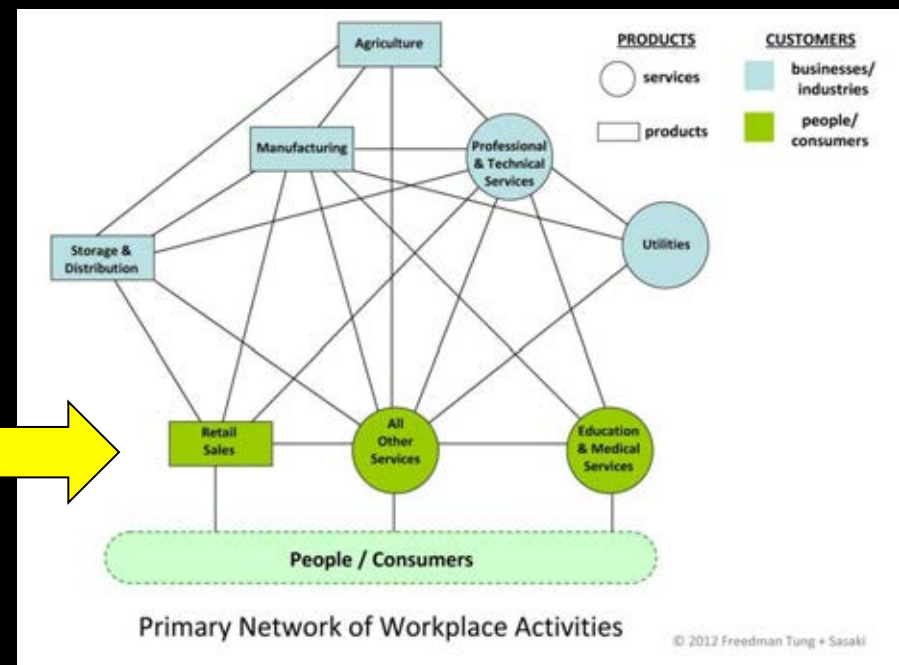
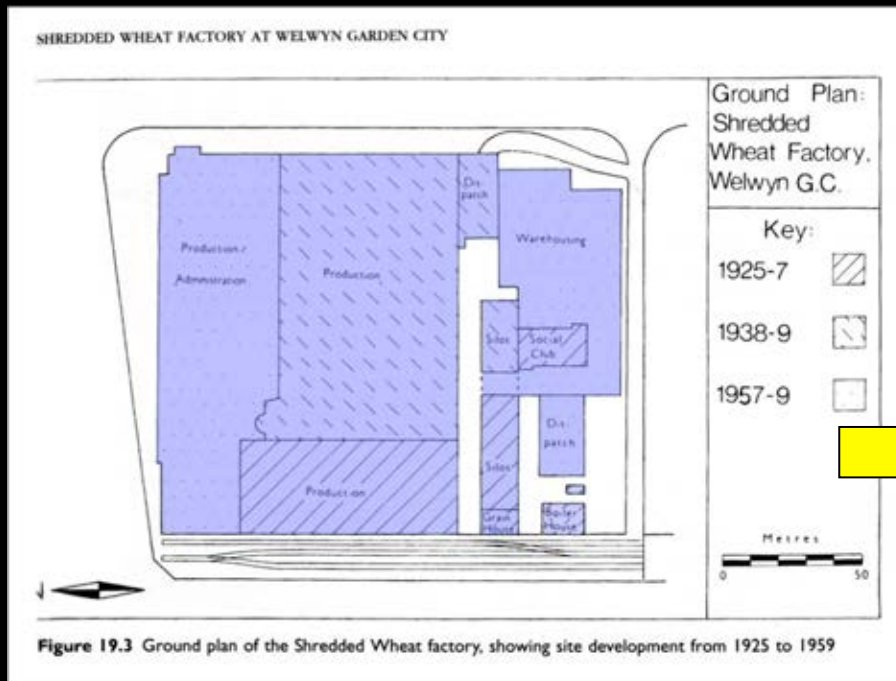
The forces of [globalization](#), enabled by political change and by digital and telecommunications technologies, [changed this system.](#)

# Change#1: The scale & complexity of business operations has increased dramatically

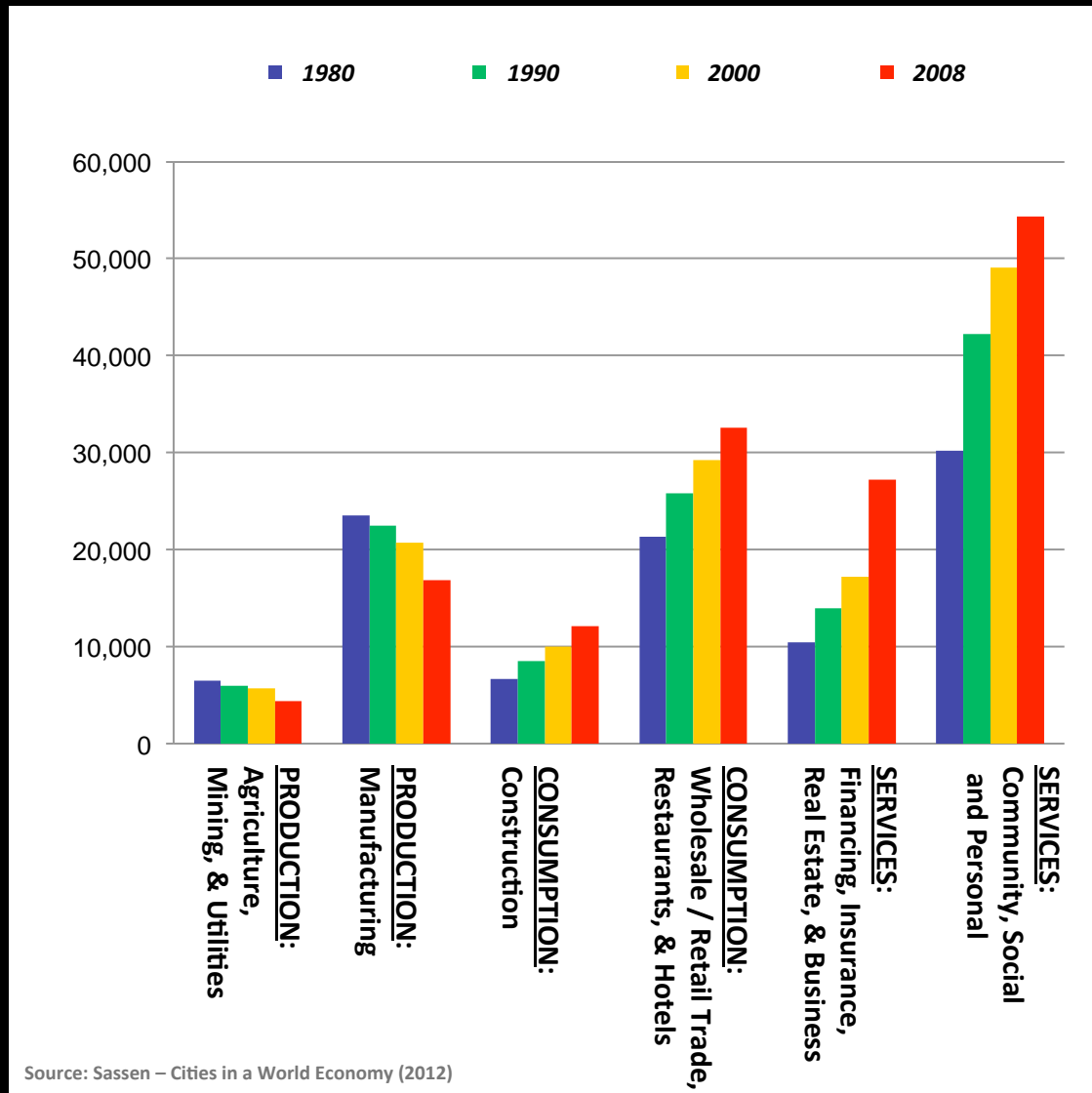




# Change #2: Work is distributed among a highly connected network of specialized, collaborating partners



# Change #3: There has been sharp growth in producer services



To service the greater complexity of operating with a network of partners on global, national and regional scales.

**Change #4:** Small and medium-sized producer services firms have become the most dynamic component of urban centers.



Producer services are highly collaborative so they tend to cluster in urban centers to be near each other





*Perhaps the CBD looks much the same; but its composition has been changing . . .*





# Central Fukuoka: Primary Production Services Clusters

Third Floor Usage



... How do we grow and nurture these?



To be successful in this transformed economic landscape:

1. Economic development efforts for urban centers must focus on attracting and retaining small and medium sized firms along with large ones.

# The Critical Role of Small Firms & Start-Ups in the Innovation Process



Over 100 including:  
Android, Picasa,  
Frommers, Zagat



Over 30 including:  
Instagram



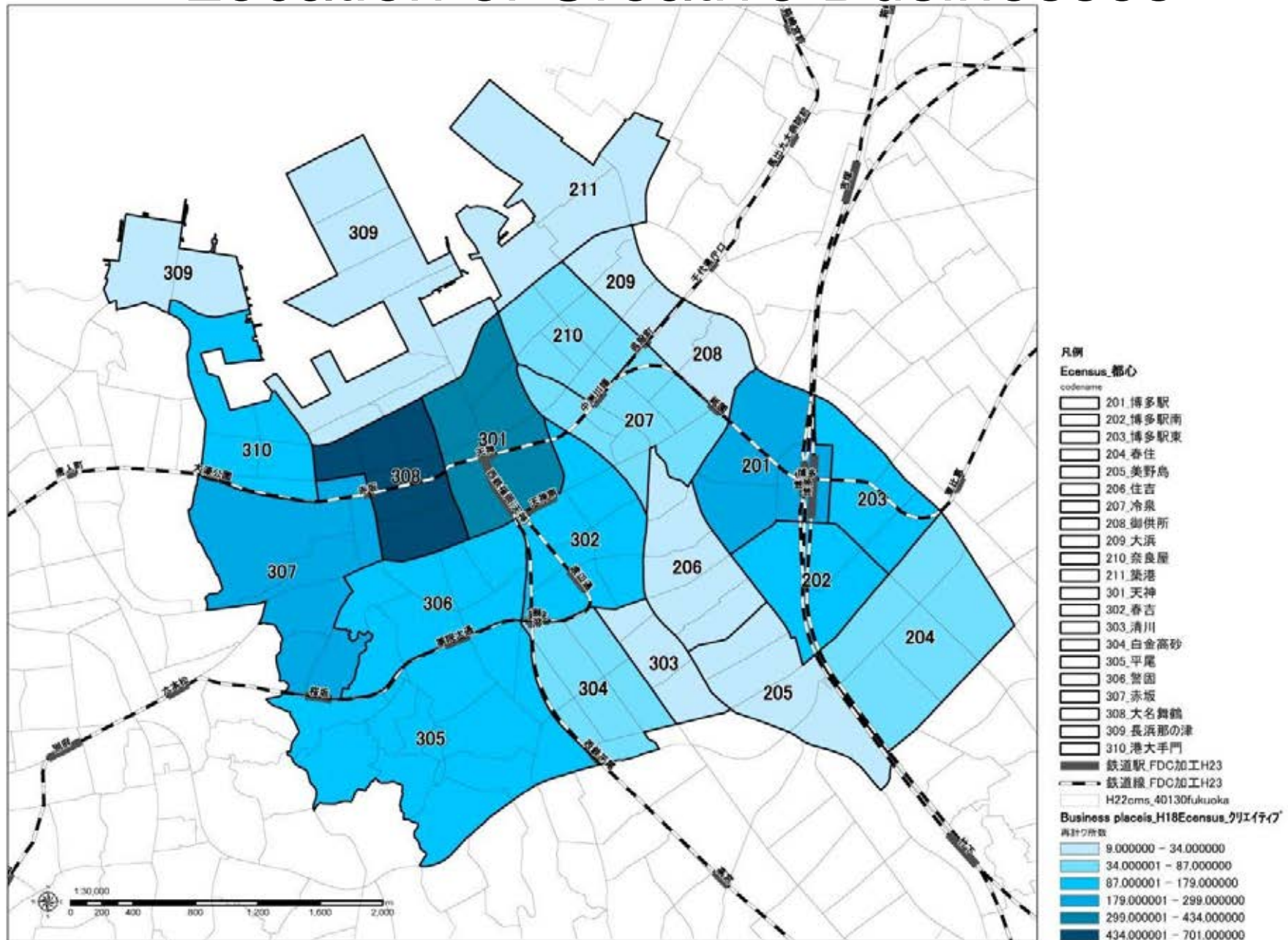
Over 40 including:  
Siri

Large firms innovate by purchasing small firms

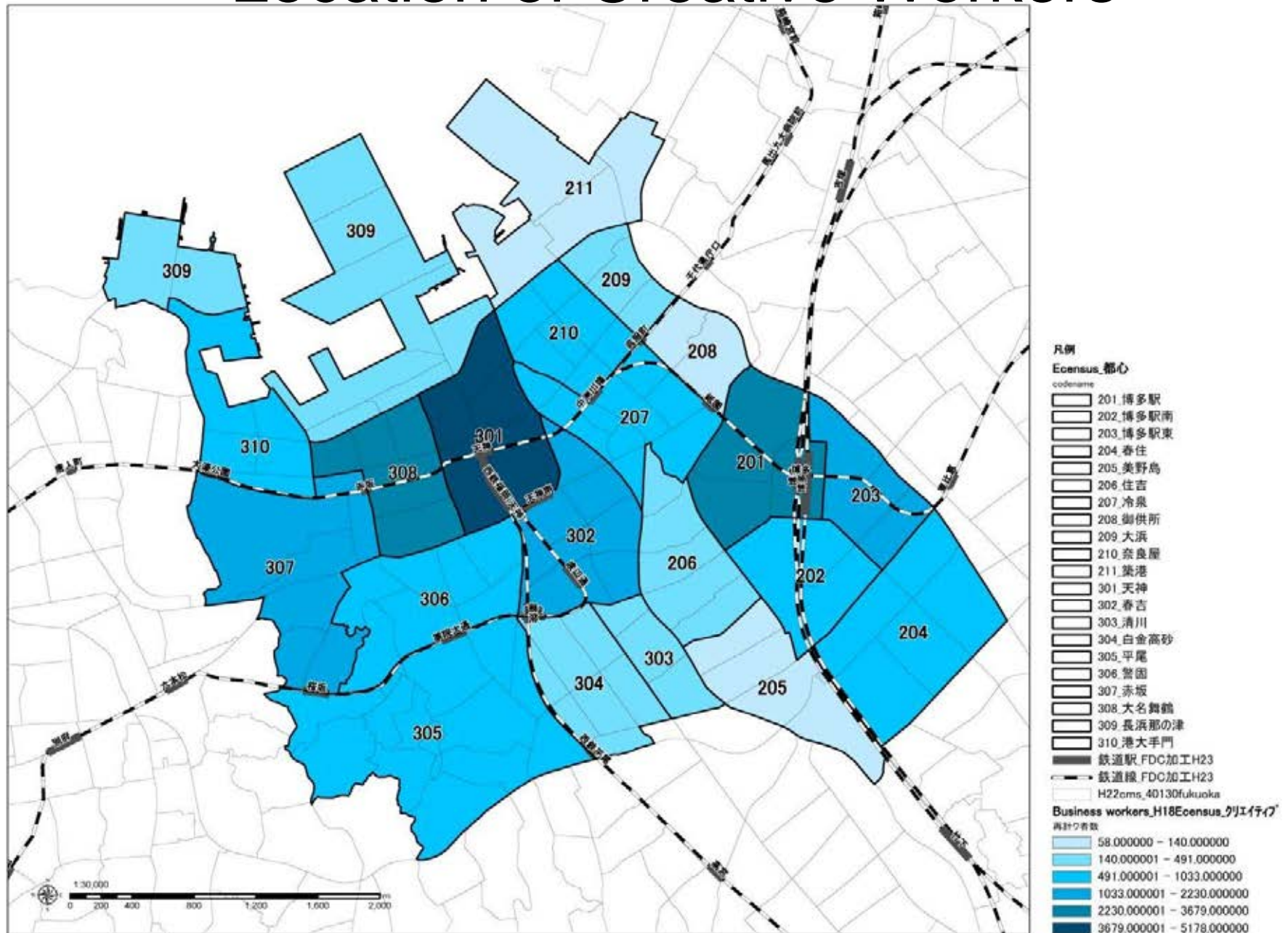
Accelerate the growth and visibility  
of the Districts' compliment of  
Start-ups, Entrepreneurs, and  
Small Businesses



# Location of Creative Businesses



# Location of Creative Workers





# NEW WORK: Co-Work, Work Cafes, Small Business





# New Work requires small buildings, older buildings



**Development Regulations should limit large-scale development in Daimyo District**

# Provide or Instigate the Development of an Incubator or Accelerator





# Make Work More Visible

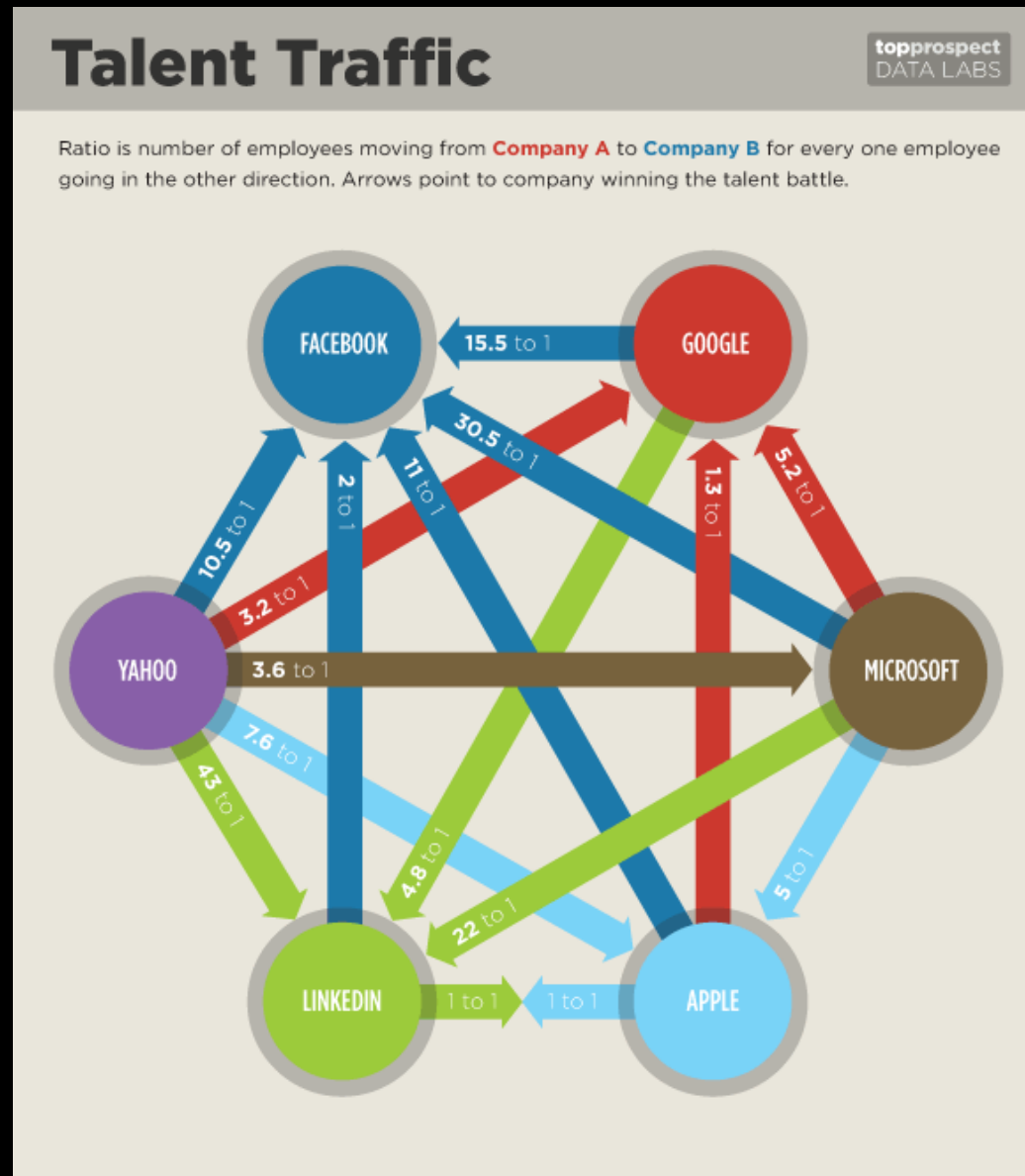




To be successful in this transformed economic landscape, Cities must:

2. Attract and produce a pool of Knowledge Workers.

# Major companies locate near “talent pools.”



**THE MONOCLE  
GLOBAL QUALITY  
OF LIFE SURVEY**

**Paris 10**

**HELSINKI 5**

**Munich 2 ↓**

**福岡 17  
Fukuoka 17 →**

**VANCOUVER 8**

**Copenhagen 1**

**Sydney 11**

**14 Berlin**

## CEOs for Cities survey of 25 – 34 year old college graduates:

- Almost 64 percent of them reported they pick where they want to live before launching a job search.
- They are about 90% more likely to live in close-in urban neighborhoods



# The “creative class” craves vital centers



Transit



Streetlife



Public Spaces

## Drivable Suburban



**70%-90% of Supply**

## Walkable Urban



**45% - 55% of Demand**

Source: Leinberger (2008)

Add venues to meet before  
and after work



# Add More Venues to meet (1)



Restaurants, Bars & Cafes opening out toward the sidewalk

## Add Venues to Meet (2)



- **Cultural Activities & Self-Improvement**: language schools/circles, cooking schools, wine tasting, ceramic schools, etc. The flavor of culture attract people more than pure amusement.

To be successful in this new economic landscape:

3. Success now depends on creating the kind of urban “INNOVATION DISTRICT” that attracts Knowledge Workers and Companies (of all sizes).



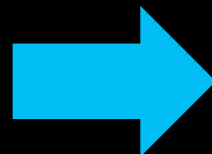
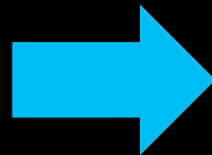
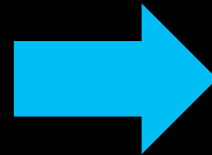
# Critical to Success: **Deliberately Assembling** the Innovation Ecosystem



## Changing how we pursue Economic Development . . .

### INDUSTRIAL ECONOMY

Focus  
Exclusively on  
Attracting Big  
Vertically  
Integrated  
Firms



### INNOVATION ECONOMY

Assemble An  
Innovation Ecosystem  
that Motivates  
Innovation & Attracts  
Innovators:

- A Dynamic Mix of Small/ Medium/Large firms
- Innovation Anchors
- Many venues that foster interaction & Echange
- Incubators, Accelerators
- Mix work, housing, shops, nightlife



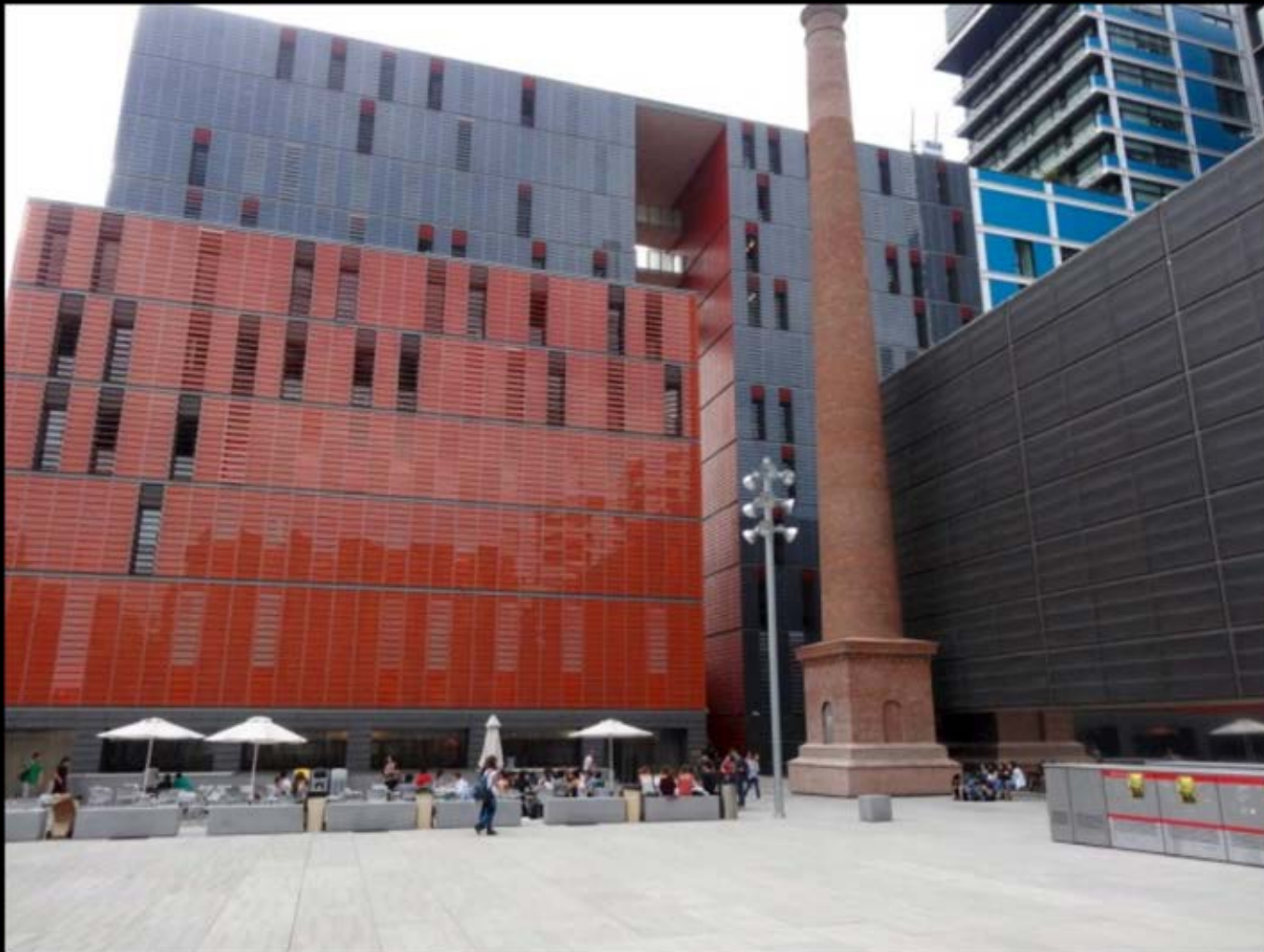
# Make the District A “Knowledge Center”



Grow and improve the local population of knowledge workers

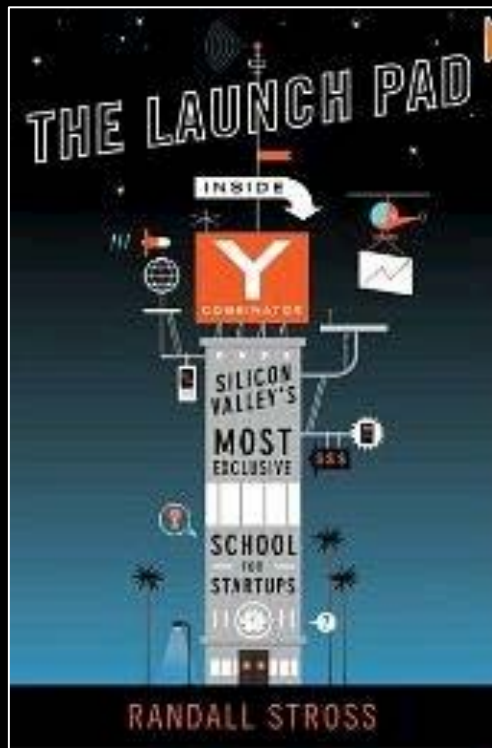


# Strategically Locating “Innovation Anchors”



University Media Department in 22@ Barcelona Innovation District

“Institutions” that actively facilitate innovation, collaboration, and knowledge exchange



Incubators, Accelerators, Training, Technical Assistance, Institutions, Regulators...

# 21<sup>st</sup> Century “Infrastructure”: Beyond Data, Energy, & Transportation

## MediaCity



Shared Production Studio Facilities:  
logistics, management, and post  
production services, and satellite  
uplink.



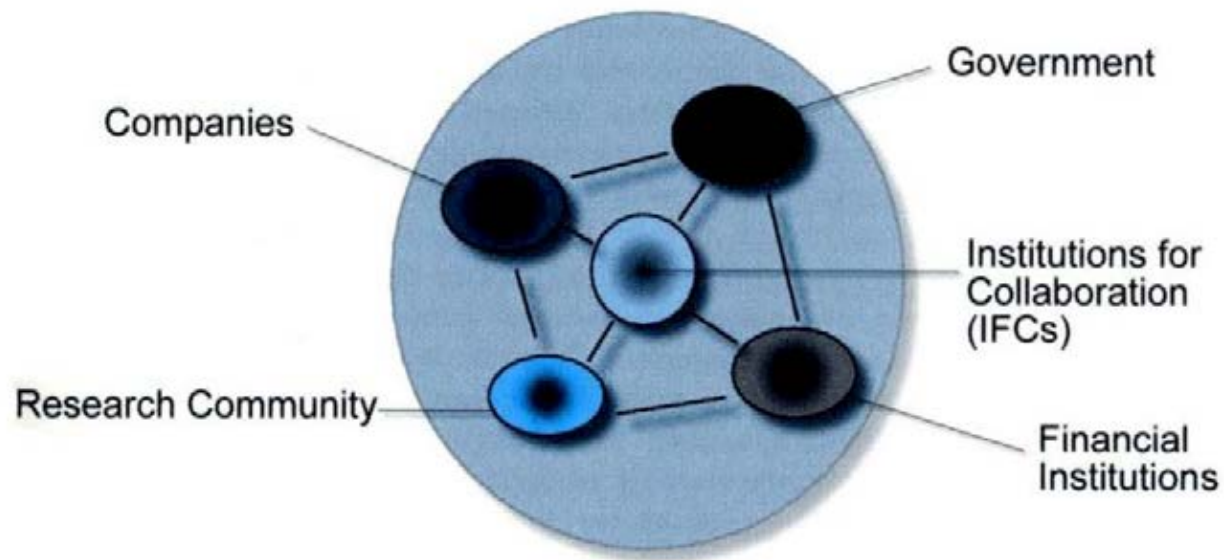
Shared Research Facilities:  
technology centers that promote  
collaboration and education.

Facilities provide scientists with  
technical know-how and access to  
state-of-the-art instrumentation,  
technologies, and materials.



## Cluster Model

Categories of cluster actors



Source: Adapted from Sölvell et al. (2003)

# The Workplace *District* remains out of synch



*Ideas and activity are hidden*

# Put Ideas on Display: Architecture of Engagement & Information



CUSTOMER ENGAGEMENT  
TECHNOLOGY WORLD

HOME REGISTRATION CONFERENCE

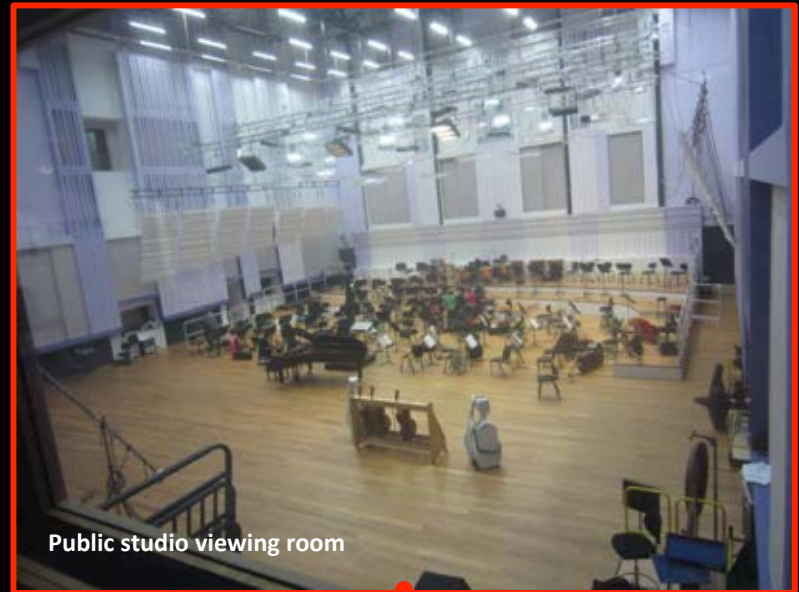




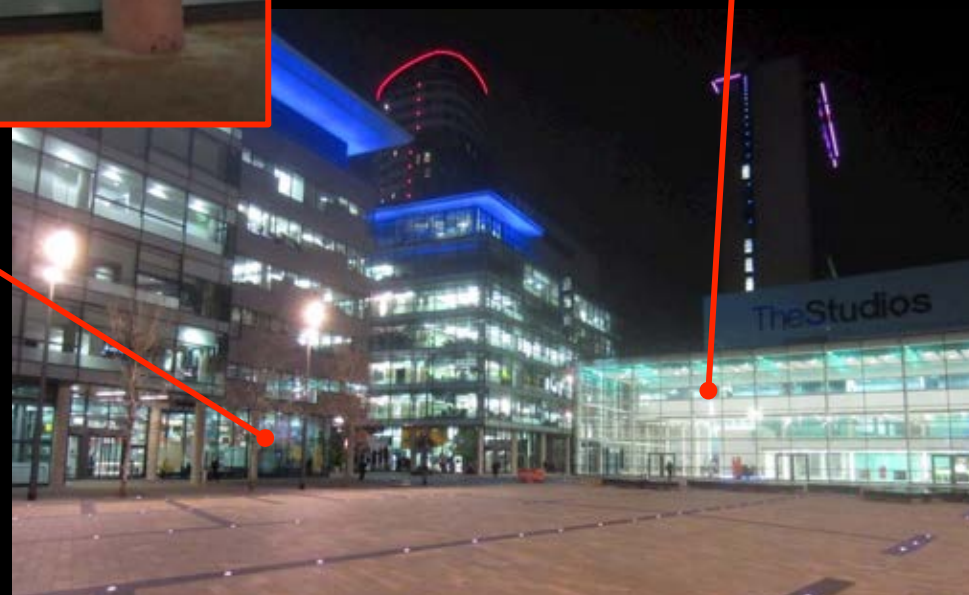
# Put Ideas on Display: Make Work More Visible



BBC Sport production activity



Public studio viewing room



**Talent Magnet Districts center on nodes for interaction and exchange  
They will feature media with meaningful content.**



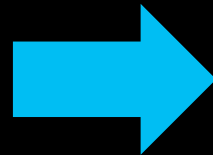
**Sony's Digital Media City  
Seoul, South Korea  
(2000 companies expected by 2015)**

Attracting, Building, and Serving  
the Businesses of Tomorrow requires  
**a new approach to Economic Development**

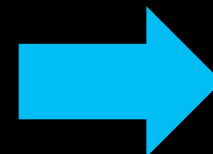
Industrial Economy

Innovation Economy

Focus Exclusively on  
Attracting Big, Vertically  
Integrated Firms



Physically re-shape cities  
to attract and accommodate  
the needs of innovators



Assemble knowledge districts  
that foster innovation and  
produce innovators



## Worth Repeating:

Assembling the critical elements of the “innovation ecosystem” –and marketing the city as such—is the key to success in the new economy, and the key to success in drawing companies (of all sizes) and knowledge workers.