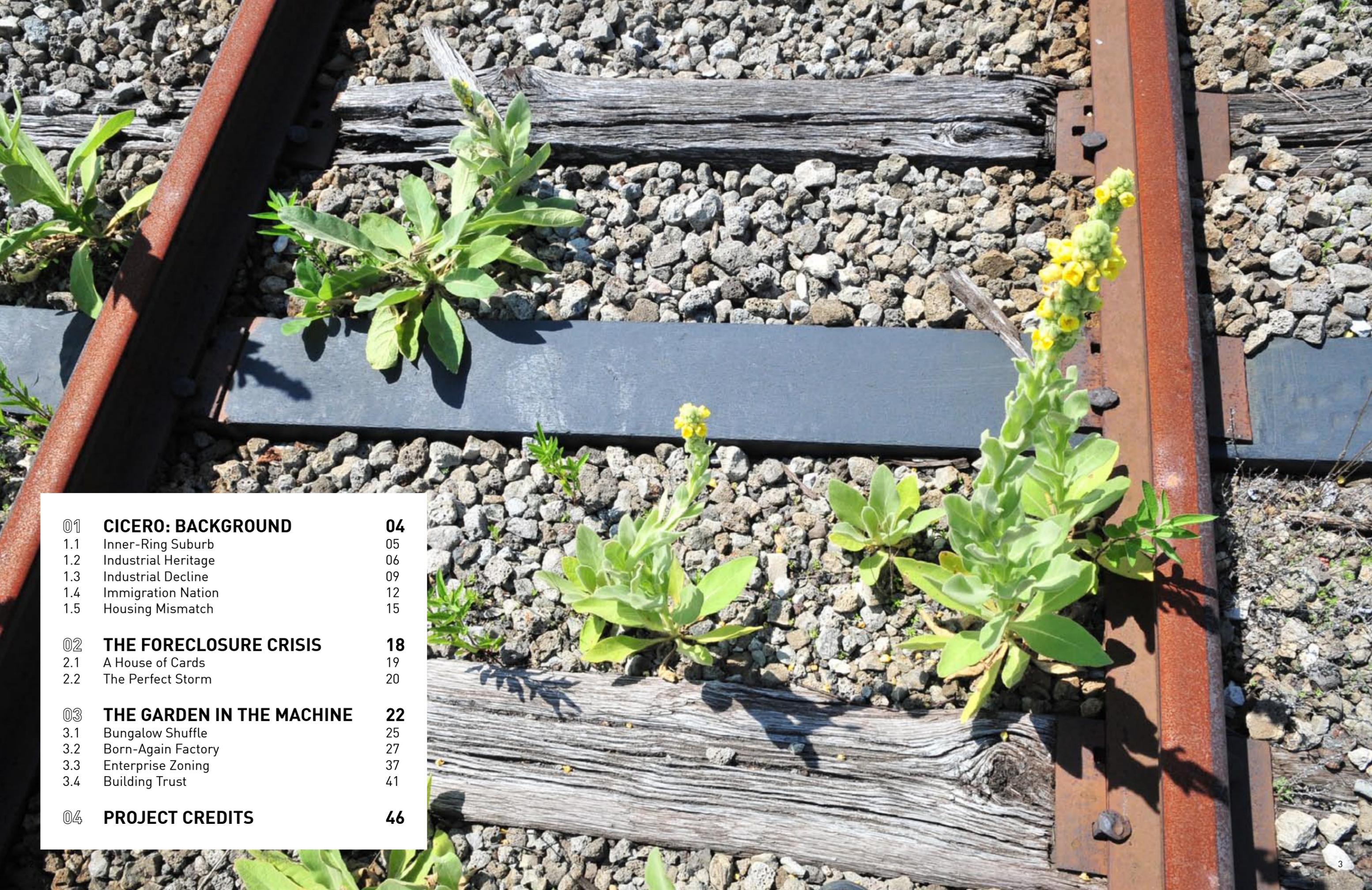


THE
GARDEN
IN THE
MACHINE

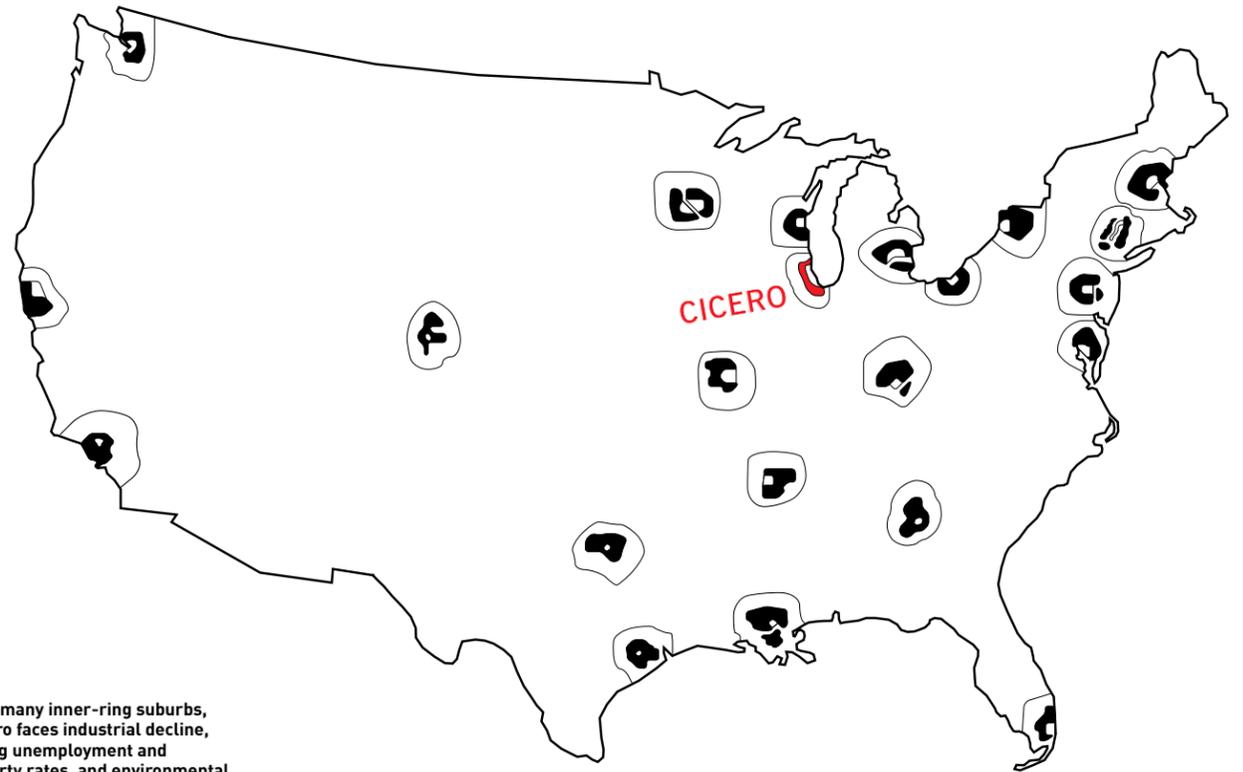
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01 CICERO: BACKGROUND



Like many inner-ring suburbs, Cicero faces industrial decline, rising unemployment and poverty rates, and environmental contamination.

1.1 Inner-Ring Suburb

- 1 "Cicero, IL," The Encyclopedia of Chicago, accessed February 8, 2012, <http://encyclopedia.chicagohistory.org/pages/287.html>.
- 2 Douglas Deuchler, *Cicero Revisited* (Charleston, SC: Arcadia Publishing, 2006), 7-9.
- 3 Elizabeth Kneebone and Emily Garr, "The Suburbanization of Poverty: Trends in Metropolitan America, 2000 to 2008," The Brookings Institution, January 2010.

The dream of Cicero, Illinois, predates the "American Dream." Its history and urban form have little in common with the suburban utopias of the post-war. Founded as a railroad town in 1857 on the outskirts of Chicago, Cicero was a city of immigrants (Poles, Czechs, and Lithuanians), a city of churches, a city of brick bungalows, a city outside Chicago's laws (hence its most famous resident, Al Capone), and most of all a city of industry—which eventually came to occupy more than one-third of its land.¹

Bounded on three sides by Chicago, Cicero was the city's oldest suburb, spawning others such as Oak Park and Berwyn as it shrank to its original size.² By century's end, Cicero's grid had become thoroughly enmeshed with its neighbors'. Today, it is nearly impossible to tell where the Chicago ends and "the suburbs" begin—at the border their densities and typologies are indistinguishable.

In that regard, Cicero is the archetypal inner-ring suburb, overlooked during both the 1960s flight to suburbia and in more recent gentrification. These are the places where the inner-city poor displaced by the "creative class" have settled—one reason why the number of America's suburban poor climbed 25% between 2000 and 2008.³ The foreclosure crisis did not only take place somewhere "out there" in abandoned McMansion-filled exurbs, but in the suburb next door.



Studies conducted in the 1920s found that Hawthorne Works' workers were more productive when they were empowered to collaborate amongst themselves—a phenomenon known to this day as the "Hawthorne Effect."



Western Electric's Hawthorne Works plant in Cicero operated from 1905 until 1983, and employed 45,000 workers at the height of its operations.

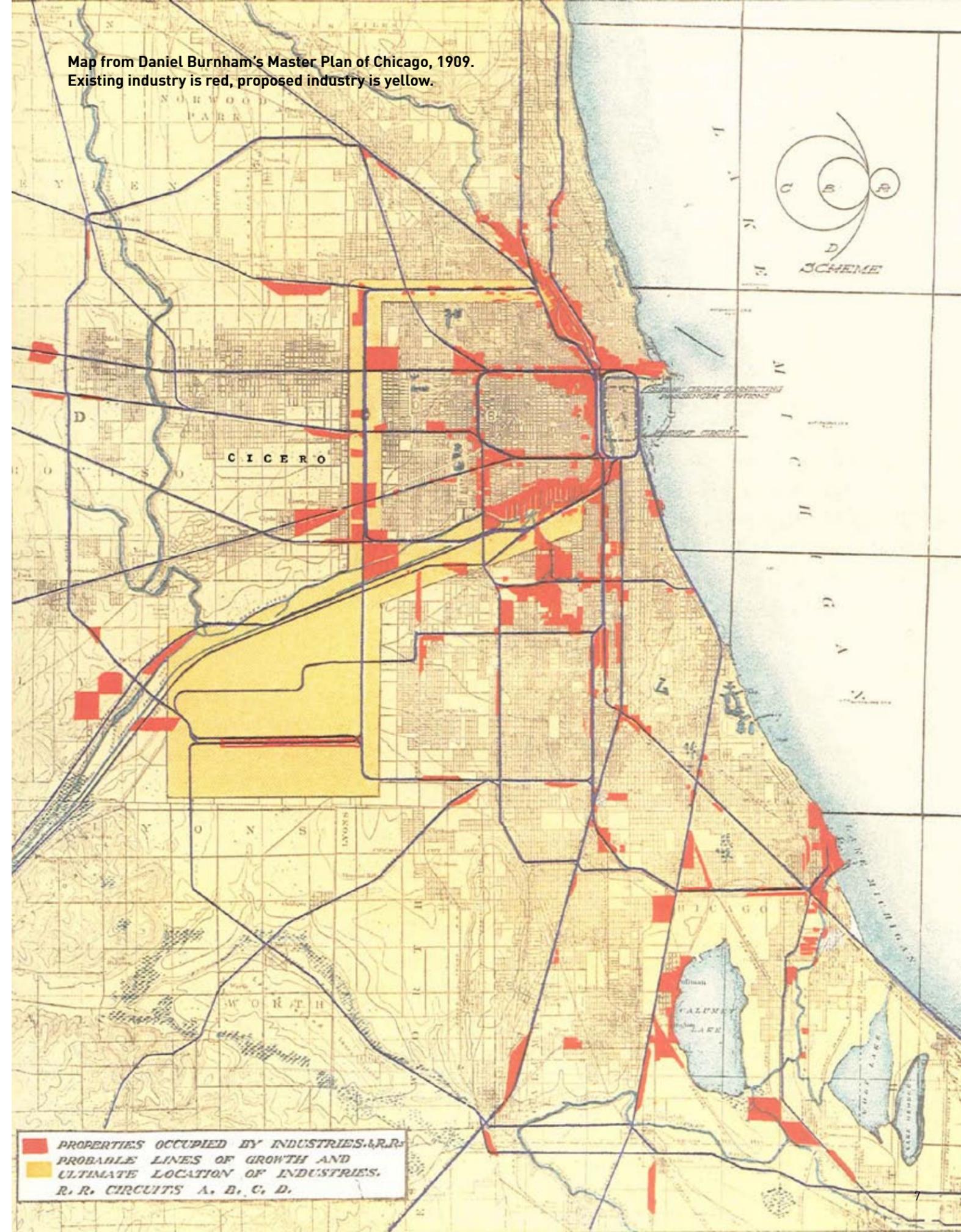
1.2 Industrial Heritage

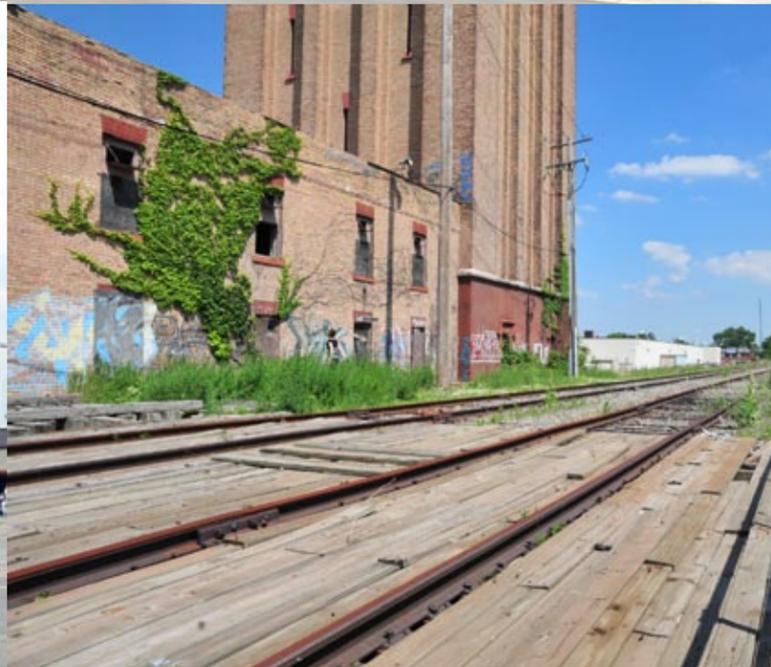
With the railroads came factories. Drawn to their machine shops and the workers who toiled there, smelters and cotton mills began to set up shop in the 1870s and '80s near the yards of the Chicago & North Western Railway and the Galena & Chicago Union Railroad. But it wasn't until Western Electric—the manufacturing arm of an ascendant AT&T—built a massive factory in 1904 that Cicero was transformed into a city of industry.⁴

The Hawthorne Works, as the complex was known, employed 25,000 people at a time when Cicero had only 15,000 residents. The city's population promptly quadrupled, swelled by Czech and Polish immigrants seeking work, not suburban refuge. Cicero quickly became a little Bohemia, dotted with beer halls and Catholic churches. By 1930, the city was majority male and 99.8% white, according to Census figures, cementing Cicero's identity as a blue collar, staunchly conservative community willing to violently defend its prosperity against any ethnic minorities who tried to settle there.⁵

Meanwhile, inside the Hawthorne Works, eventually nearly 45,000 people designed, assembled and tested the telephones, relays and switches comprising the backbone of the Bell network (and later, the early Internet).⁶

- 4 Deuchler, Cicero Revisited, 9.
- 5 "Cicero, IL," The Encyclopedia of Chicago.
- 6 "Western Electric Co.," The Encyclopedia of Chicago, accessed February 8, 2012, <http://encyclopedia.chicagohistory.org/pages/2900.html>.





1.3 Industrial Decline

The Hawthorne Works closed abruptly in 1983, a casualty of the court-ordered breakup of AT&T. Thousands of Cicero residents were thrown out of work.⁷ Tens of thousands more would lose their jobs and leave over the next few decades as their employers decamped first for the Sun Belt, and later for Mexico and China. But the railroads stayed. Today, Cicero's leading industry is logistics—the shipping and handling of goods produced thousands of miles away.⁷

Cicero's low housing costs, increasing vacancies and proximity to Chicago once again made it attractive to immigrants, and Latinos began arriving in droves in the 1980s and '90s. Despite resistance from the old guard, "the New Cicero" (as the city calls itself) is largely a Mexican one, with 87% Latino residents, half of them being foreign born.⁸

In the absence of manufacturing jobs, however, Cicero's recent arrivals are resigned to odd jobs in the service sector—as day laborers, retail clerks, and underfunded entrepreneurs. Cicero's leaders have embraced its post-industrial fate, encouraging the construction of strip malls and distribution centers to fill the gaping holes in its tax and employment base.⁹

All that remains of the once-massive Hawthorne Works is a lonely tower stuck behind the big box stores lining the intersection of Cicero Avenue and Cermak Road. Cicero has literally turned its back on industry.

⁷ Reinhold Martin, Leah Meisterlin, Anna Kenoff, *The Buell Hypothesis* (The Temple Hoyne Buell Center for the Study of American Architecture, 2011), 372.

⁸ "U.S. Census Bureau State and County QuickFacts," last modified January 31, 2012, <http://quickfacts.census.gov/qfd/states/17/1714351.html>.

⁹ Town of Cicero officials Frank Aguilar, Craig Pesek, Cynthia Salvino, and Frank Zolp, in discussion with Studio Gang Architects, May 2011.



Cristine Pope Interview

Interfaith Leadership Program Director

THE TOWN OF CICERO

Cristine: “The town of Cicero, interestingly enough, was always a big immigrant community. There were lots of different groups over time. And then back in 1926, Al Capone got pushed out of Chicago, came in here and took over by force. Then Cicero became this mob-influenced town. All of those groups came together. But it’s been the white, ethnic coalition that has been holding onto their power for as long as they could. And in some ways, they still are, but they’ve figured out that they need to start bringing in other people in order to maintain that power. Because, Cicero is about 90% Latino. And so Cicero has brought other people into jobs and two of the trustees are Mexican, but out of a council of nine – so, not so many. They’ve been inclusive enough to try to keep people happy and satisfied.”

“My opinion is that there are a lot of festivals and things like that –we’ll do the Cinco de Mayo festival – and not so much real representation. But I also think it has to do with the Mexican community here being mainly immigrant or first generation. There is a lot of cynicism about government. We have a hard time getting people to vote. People are coming from places where they didn’t trust the elected officials there either. People just want to come and raise their kids, send them to school, do their job, and that’s it. So in some ways, that fits nicely together. The government wants to go on maintaining their power and some are willing to allow that.”

FORECLOSURE CRISIS

Cristine: “When the Foreclosure crisis first started it had a lot to do with people having bad loans, with crazy A.R.M.s and very high interest rates. And people deliberately marketed those kinds of loans to this community, to people who were more of a risk in terms of a loan – people without a social security number, people whose income wasn’t very high. They overstated people’s income in order to get them qualified. So that was the first wave. Now it’s much more that so many people are out of work or lost half their hours at work. And different members of the family have lost their jobs. So unemployment is really the major piece. Most of the people that work in this community have the kind of jobs where you’re not guaranteed your forty hours per week – construction, factories. They’re doing jobs on the side – handyman kinds of things – but a lot of times it’s difficult to prove that income. And in terms of a loan modification, they don’t count unemployment as an income.”

“Cicero was the community that everybody moved to to be able to buy their first house. And people had big families and everybody wants to buy a home. It’s kind of the idea of making it when you can buy your first home. And there’s really nice housing stock out here in Cicero. So everybody moved out of Chicago, got gentrified out, or was renting and able to buy a house here.”

“Cicero, right now, technically by the census, is 88% Latino. So that’s probably even higher [in reality]. There was a study done showing that Latinos, more than other groups, invest in their home instead of other kinds of investments, like savings plans or retirement, etc. So that has a more devastating impact [on this community], because it really is the one secure- or thought to be secure – investment that people had. And we talk to a fair amount of people that had some business or had another property and really put down a lot of money in their house. It’s one thing to lose your house if you had a few thousand dollars equity. It’s another if you gave 50 or 60 thousand dollars down for a property.”

THE BANKS

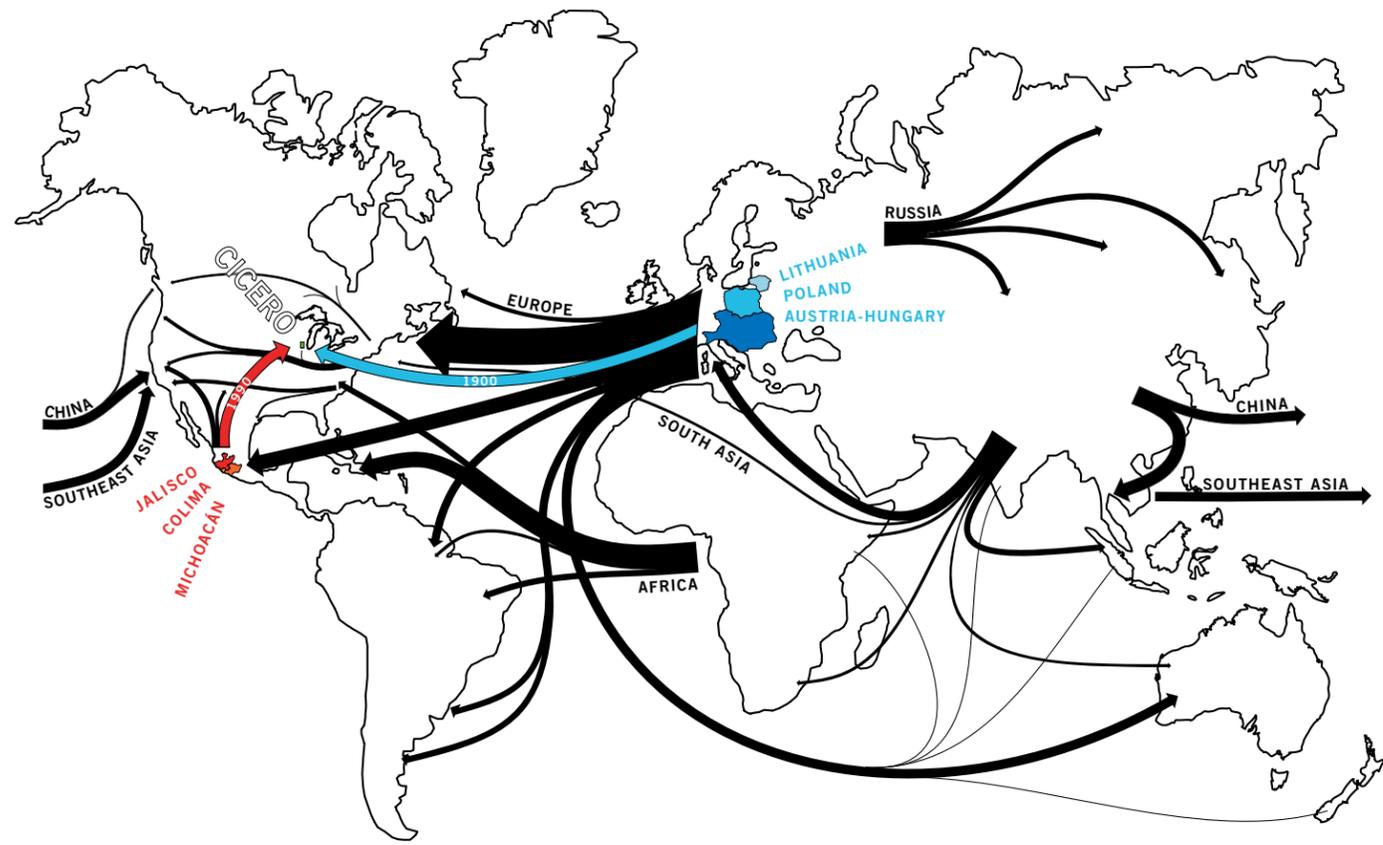
Cristine: “Making the banks act differently; The things that they’re doing to people, some of them upfront were not fair. The loans that were sold to people were bought by other banks. The banks knew that they were risky loans, knew people would likely default, but took them anyway because they’d turn around and sell them to somebody else. So everybody else along the way made their money upfront. So it didn’t matter if the homeowner was successful at keeping this loan.”

“But currently, the majority of the people that we talk to have been trying to communicate with their bank since before they couldn’t make their first payment. And the banks won’t talk to them until they’re a few months behind. When they do submit a loan modification application, I would say 75% of the time [the banks] lose some part of the paperwork. And so people send them more stuff. They don’t answer. If [the banks] don’t respond in three months, the information is outdated. The person has to submit the package again. [The banks] are unwilling to do things like principal reduction. They’d rather take a home through foreclosure and resell it on auction to somebody for \$40,000 than reduce the principal a little bit and keep the person in the home with the \$150,000 mortgage... because of the way that their investors and servicers work.”

“So , [the banks] are not willing to negotiate even when they’re forced into the Cook County mediation program. [The banks] come to the mediation and they haven’t even read the paperwork. My opinion is they’re kind of using the court system as their personal collection agency. “We’re going to sue them for foreclosure,” and then they just leave it sit in court. And, people just get further behind. In some ways for homeowners, it buys them some time that the process takes a long time. At the same time, it’s a much bigger hole to get out of at the end of the day when it takes a year to talk to your bank... to get some kind of resolution.”

PROACTIVE CICERO

Cristine: “The town of Cicero will do things like have informational workshops. I mean, that’s what we do – give people information at their doorstep. At the same time, I think they’re in a position to advocate a little bit better being a municipality... to kind of push back a little bit. The one thing they do in terms of foreclosure, is they get federal neighborhood stabilization program money. They’ve bought ten or twelve houses, rehabbed them, and resold them to people. In Cicero alone in 2010, there were 1066 foreclosures initiated. So buying and reselling twelve houses is not making any kind of impact on the problem in the community. I think they need to be much more proactive in terms of the work that’s going on to change the way the system works, as opposed to just taking available resources and passing them back out again.”



World Migration since 1785

1.4 Immigration Nation

Suburbs as Arrival Cities

Immigration has gone suburban. More immigrants now live in suburbs than inner cities, with new arrivals in suburbia outnumbering those in ethnic neighborhoods by almost two to one. Nearly half of all Hispanic Americans live in the suburbs,¹⁰ and more are on their way—another 80 million immigrants are expected by 2050.¹¹ Cicero’s high percentage of foreign-born Hispanic residents, predominantly Mexican, is now the norm.

Cicero is an “arrival city,” one of hundreds found on the peripheries of cities worldwide. Arrival cities are places of transition—integration machines capable of absorbing rural poor, providing them with work, housing, and savings, and propelling them into the middle class.¹²

Cicero served the same purpose a century ago, when a generation of Polish, Czech, and Lithuanian immigrants arrived to work in its factories. Today those factories are gone, and inner-ring suburbs like Cicero are home to contaminated industrial sites and the fastest-growing poverty rates in the country.¹³

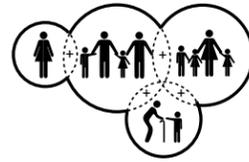
The “American Dream” is no longer to escape the city for the comfort of a single-family house in a remote suburb. Cicero’s new arrivals have a different dream: one of opportunities—to work or own a business, to educate their children, to retain their ties (and perhaps return) to villages back home.¹⁴

- 10 Jill H. Wilson and Audrey Singer, “Immigrants in 2010 Metropolitan America: A Decade of Change,” The Brookings Institution, October 2011.
- 11 “U.S. Department of Labor, Futurework Report,” downloaded February 07, 2012, <http://www.dol.gov/oasam/programs/history/herman/reports/futurework/report/pdf/ch1.pdf>.
- 12 Doug Saunders, *Arrival City: How The Largest Migration In History Is Reshaping Our World* (New York: Pantheon Books, 2010), 19-21.
- 13 Kneebone and Garr, “The Suburbanization of Poverty: Trends in Metropolitan America, 2000 to 2008.”
- 14 Guadalupe Sanchez, Maria Velasquez, and Alejandra Castillo, Cicero residents, in discussion with Roberta Feldman and Theaster Gates, July, 2011.

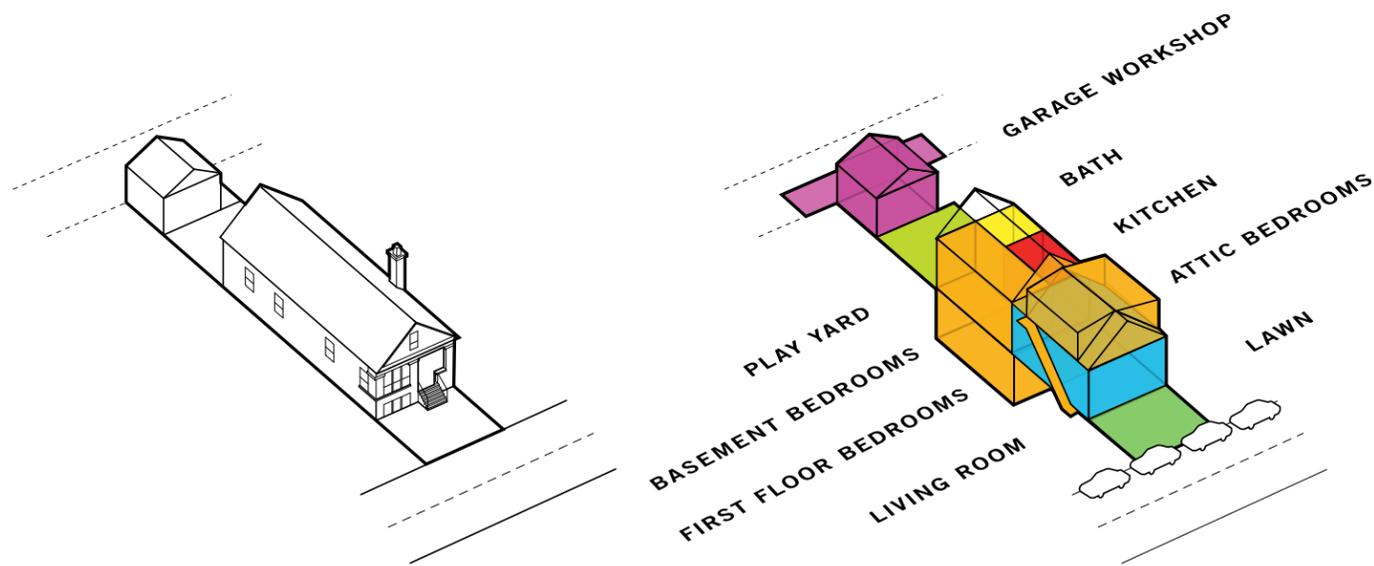




BUNGALOW AS DESIGNED
ca. 1920



BUNGALOW AS USED
ca. 1990



This collection of mailboxes on a Cicero bungalow provides a clue to the crowded conditions within.

1.5 Housing Mismatch

¹⁵ Guadalupe Sanchez, Maria Velasquez, and Alejandra Castillo, Cicero residents, in discussion with Roberta Feldman and Theaster Gates, July, 2011.

Look closely at Cicero's ubiquitous brick bungalows, and you'll notice mailboxes with five or six names. Built in the 1920s and '30s by a previous generation of immigrants with nuclear families, these single-family homes were repurposed in the 1980s and '90s as multi-family housing.

The bungalows have become a tight squeeze for residents, with basement and attic apartments and garages now used for storage instead of parking. Residents often work multiple jobs and need space for working at home in workshops, offices, and kitchens to supplement their incomes. The bungalows are a poor fit for the growing families (and shrinking finances) of recent arrivals, but they are the only affordable housing option.¹⁵



Cicero Residents Interviews

Ana Godínez, Interfaith Leadership Employee
Isidro Gonzalez, Interfaith Leadership Employee
Guadalupe Sanchez, Resident of Cicero
Maria Velasquez, Resident of Cicero
Alejandra Castillo, Resident of Cicero
Spirit of Space

FORECLOSURE

Alejandra: We got somebody to come to us and help us out with everything and he told us not to be embarrassed. He showed me a listing of all the people in Cicero who are losing their house. It looks pretty bad out there. The day we actually showed up for the court date, there were a lot of people there too. It's pretty bad.

Alejandra: We actually had another bakery, but we had to close down because of all the problems that came with the economy. Business got really slow. We weren't making enough money to pay for the rent, for our house, our car, and the business. It was just a lot. We almost lost the bakery. We actually lost the house and one of our cars.

Maria: I lost my home. I had to put it on short sale. I couldn't pay for it anymore. I also lost my job. I gave \$60,000 as a down payment and I lost it with this house. There were days with no electricity, days with no gas, days with no food. It's terrible.

Guadalupe: My husband lost his job. We went to an organization. They said they couldn't help us. We needed a fixed income. So we went to court. All they're giving us is time. So we go to the court to get time to find a fixed income.

WORK IN CICERO

Isidro: The economy has called for any type of job that will bring in money to the family. Based on my experience, my father always taught me that no matter what you're doing, as long as you're not robbing anybody, you shouldn't be ashamed of any job.

Ana: Some of the people do side jobs. For example, some make cakes and they can sell them to the stores so they can have another income.

Maria: I have three jobs. I work at JCPenny in the morning. Then I'm a lunch supervisor for a school. Then I go back in the evening to JCPenny. These jobs are in Georgetown, Lombard, and Riverside. I drive to get there.

Guadalupe: My husband is trying to earn \$160 per day. Construction only pays \$120. He has to travel far for his job and buy necessary materials and gas. This costs \$15 - 20 per day. This offsets his earnings for the day.

Alejandra: The town of Cicero is very strict for the most minor things. And taxes are very high here in Cicero. It's about \$2000 in taxes every six months. That's what we pay for our house.

LIVE IN CICERO

Isidro: When they get displaced, they will look to stay with family. And now we're going back to a single bungalow housing as many as two-three families. As you may know, Hispanic families can be quite large. I come from a family of eleven people. And so, if we were to get displaced, we would probably have to be separated among our aunts and uncles. It's really sad to see. When we do our door knocking, we see a lot of bungalows with a metal staircase going to the top and often houses with two or three mail boxes.

Guadalupe: Ours is a two-family duplex. I live with my kids, two brothers and an entire family upstairs. That's twelve people altogether.

Maria: My daughter is buying a house so that I can go live with her. Many people can only live by renting.

Alejandra: I live with my mom, my dad, and my daughter. Me and my family are really close. They're my best friends. My daughter looks up to my family a lot. I look up to them a lot. I want to be here for them as much as I can.

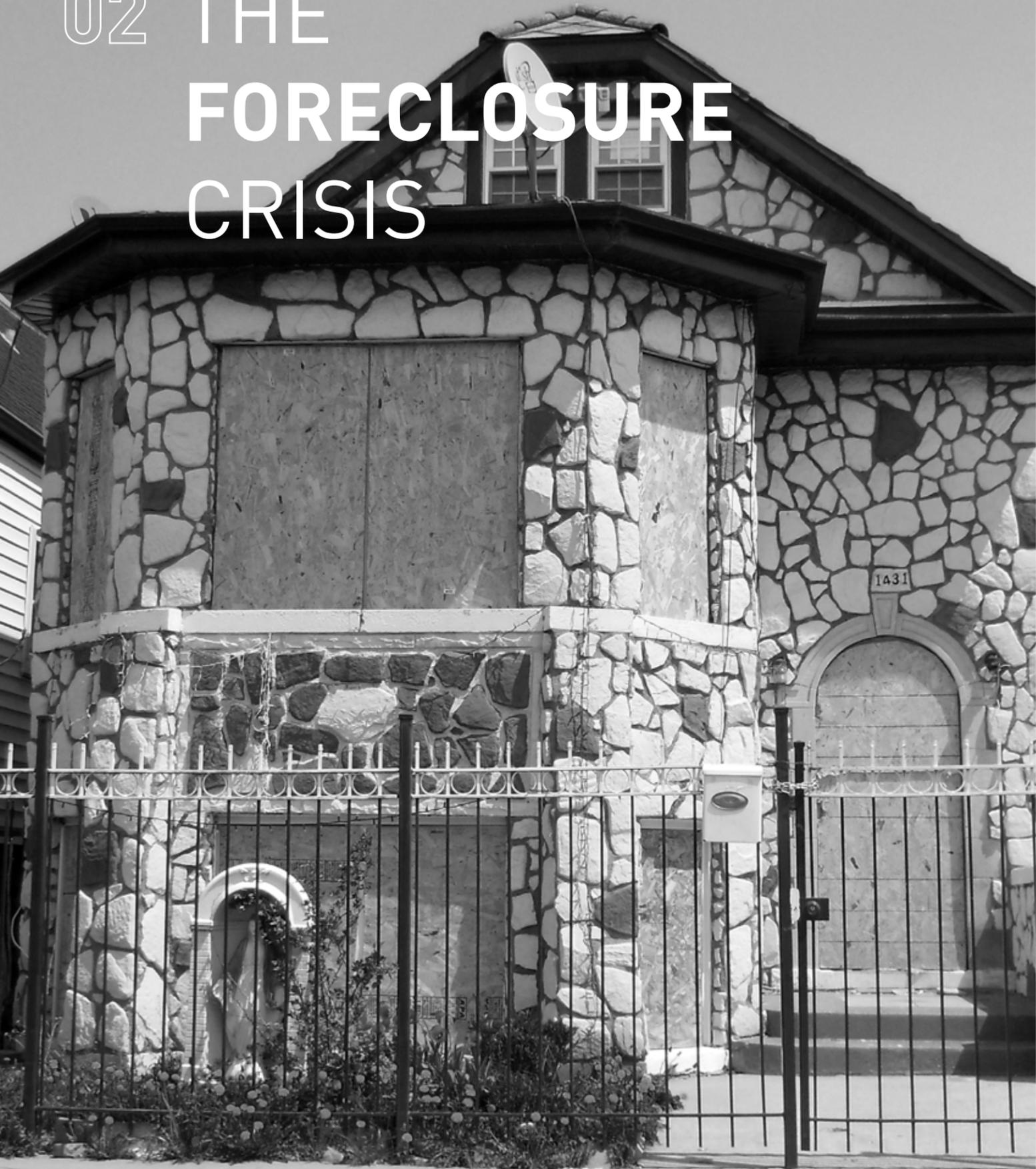
PLAY IN CICERO

Alejandra: I don't really stay in Cicero when I go out. I usually go downtown for that - not in Cicero. Everything is just a little bit cleaner and nicer out there.

Guadalupe: Going to the park with the kids - just to walk. There's really not a lot here, other than the parks and the church. I volunteer at the church. I would like to have outdoor basketball courts in Cicero. Now, there is only indoor, not outdoor, and there are a lot of restrictions on access to those places. There are some public pools but they are not cheap. They are charging \$4-\$5 per child for access to those places. And with three or four children, you have to think twice before going to those places.

Maria: The thing I can say about my culture is that I was taught to keep going forward. No matter what, keep going forward - no matter what type of job you have, as long as it's a decent job, and you do it well. And to be strong - my parents taught me to be strong.

02 THE FORECLOSURE CRISIS



2.1 A House of Cards

The foreclosure crisis hit Cicero especially hard. One in ten homes were in foreclosure by the end of 2009—a rate twice as high as the state’s, which was one of the highest in nation. Cicero’s 2,049 foreclosures that year were the second-highest in the state, after Chicago.¹⁶

In retrospect, it’s easy to see why Cicero was so vulnerable. Part of it was cultural. Studies of Hispanic immigrants in gateways such as Chicago and Los Angeles have found that poverty rates are highest among the youngest, most recent arrivals—a stigma denying them access to affordable credit—while homeownership rates climb over time.¹⁷ Hispanic arrivals follow a pattern of saving, buying a home, and then investing their future savings into the property, perceiving it as safer than the markets. So when the crisis hit, foreclosed residents lost not only their homes, but also their nest eggs and decades of sweat equity.¹⁸

Another reason was political. Decades of pressure to expand homeownership to lower-income families in the name of the “American Dream” led government-sponsored lending institutions such as Freddie Mac and Fannie Mae to loosen credit by agreeing to purchase and securitize subprime, high-interest loans. Public housing programs were then systematically undermined in an effort to privatize low-income housing.¹⁹

The final piece was financial. Denied access to traditional 30-year fixed-interest rate mortgage, Cicero residents were easy prey for subprime lenders such as Countrywide Financial, which began targeting Hispanic borrowers in the 1990s and subsequently described itself as a leading lender to “multicultural market communities.” (After issuing \$97 billion in subprime mortgages between 2005 and 2007,²⁰ Countrywide was acquired by Bank of America on June 25, 2008, the same day the Illinois Attorney General filed a lawsuit alleging “unfair and deceptive” practices.)²¹ Cicero officials estimate that more than half of the city’s mortgages are subprime.²²

These three factors created a trap for residents: a misplaced faith in the virtues of homeownership fed immigrants’ conflated desires for a place to live and financial security, which in turn exposed them to the securitization—and default—of the subprime American Dream.

- 16 “Cicero Neighborhood Stabilization Program Application, 2009,” downloaded February 07.2012, <http://www.thetownofcicero.com/content/img/1215769/nsp2cicero.pdf> (Primary Source: U.S. Department of Housing and Urban Development).
- 17 Dowell Myers and Julie Park, “The Role of Occupational Achievement in Homeownership Attainment by Immigrants and Native Borns in Five Metropolitan Areas” (1999): 86-87.
- 18 Paul Taylor, Rakesh Kochhar, Richard Fry, Gabriel Velasco, Seth Motel, “Wealth Gaps Rise to Record Highs Between Whites, Blacks and Hispanics,” Pew Research Center, 2011.
- 19 Martin, Meisterlin, Kenoff, The Buell Hypothesis, 46-49.
- 20 Ibid., 372.
- 21 Gretchen Morgenson, “Illinois to Sue Countrywide,” *The New York Times*, June 25, 2008.
- 22 Martin, Meisterlin, Kenoff, The Buell Hypothesis, 374.

2.2 The Perfect Storm

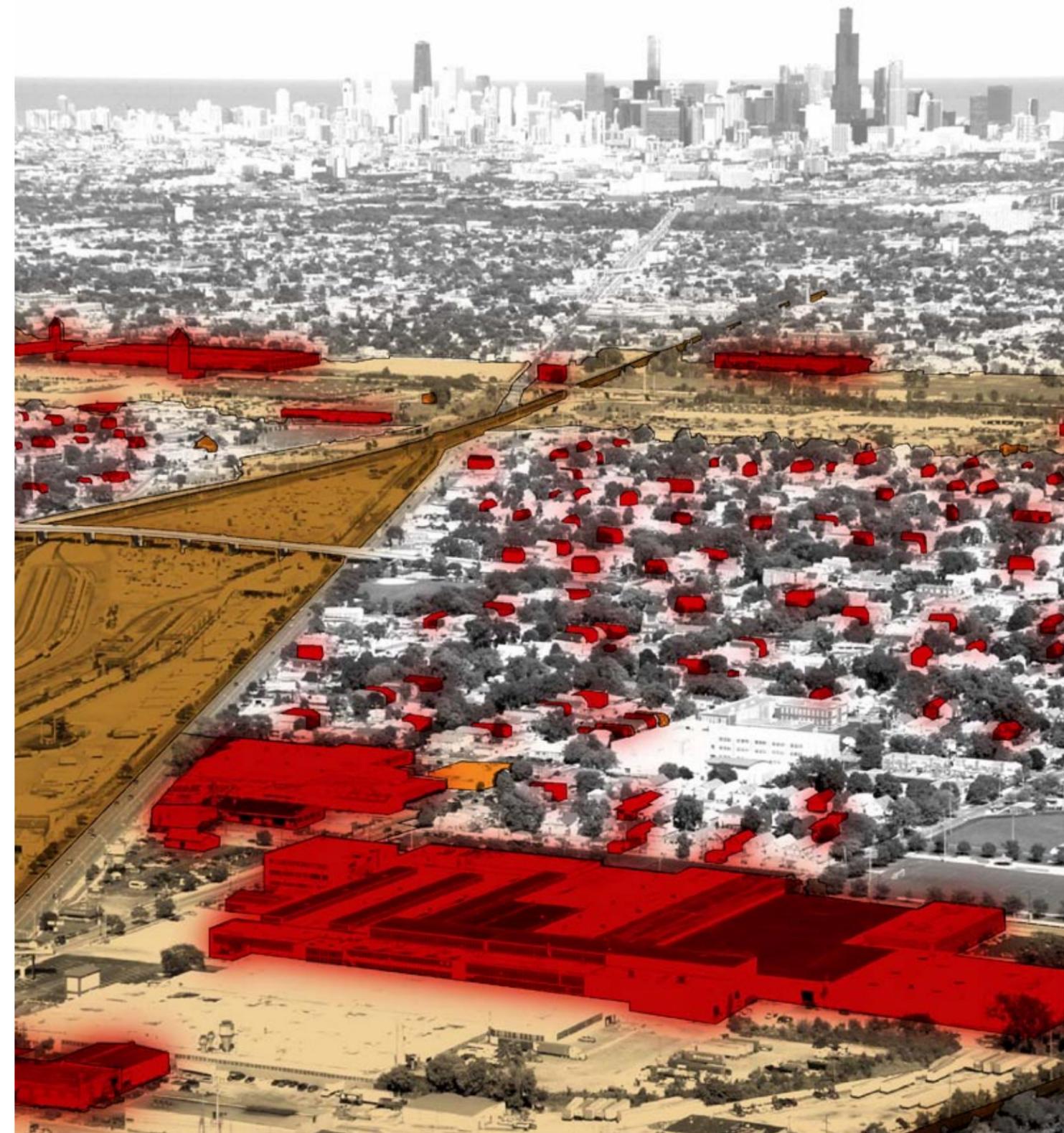
When the crisis hit, the Town of Cicero acted more aggressively than most, applying for \$2,078,351 in federal funds from the Neighborhood Stabilization Program (NSP) to acquire and redevelop a dozen foreclosed properties.²³ “While the housing market crisis has hit The Town of Cicero hard, it appears there might finally be a light at the end of the tunnel,” city leaders ventured in a 2009 press release.²⁴ (A year later, Cicero reported 1,066 new foreclosures.)²⁵

They were looking in the wrong place. Cicero’s housing crisis was prefigured by an employment crisis. Two-thirds of Cicero’s homeowners and more than half of its renters must allocate 30% or more of their incomes toward housing—the level considered “burdened” by HUD.²⁶

While city officials grapple with the housing crisis, plugging chain stores and warehouses into the widening industrial gaps, the larger foreclosure crisis—the foreclosure of industry—has been missed. Cicero epitomizes the disconnect between America’s pastoral ideal and its industrial heritage. In *The Machine in the Garden*, Leo Marx reminds us that to move beyond this conflicted identity, we need to find “new symbols of possibility.”²⁷

The task facing Cicero—and other inner-ring, suburban arrival cities like it—is to find a way to tightly weave the disparate strands of living, working, green space and arrival, all while reclaiming and regenerating contaminated industrial wastelands. Rather than the machine in the garden, Cicero needs the opposite: the garden in the machine.

- 23 Cicero, Illinois “Neighborhood Stabilization Program Action Plan,” accessed February 8, 2012, http://www.hudnsphelp.info/media/GARports/A_B-08-MN-17-0003.pdf.
- 24 “Town of Cicero Neighborhood Stabilization Program Update,” last modified November 21, 2009, <http://www.thetownofcicero.com/news/contentview.asp?c=224014>.
- 25 Cristine Pope, director of the Interfaith Leadership Project of Cicero and Berwyn, in discussion with Roberta Feldman and Theaster Gates, July, 2011.
- 26 Martin, Meisterlin, Kenoff, *The Buell Hypothesis*, 428.
- 27 Leo Marx, *The Machine in the Garden: Technology and Pastoral Ideal in America* (London: Oxford University Press, 1964), 365.



The foreclosure crisis in Cicero includes homes, industries, and contaminated former-industrial land.

03 THE GARDEN IN THE MACHINE

“Try to live... deep in nature. Be native as trees to the wood, as grass to the floor of the valley,” Frank Lloyd Wright exhorted in 1950, on the cusp of America’s great suburban explosion.²⁸ This is the Machine in the Garden writ large—living deep in nature on privately owned, publicly financed parcels of lawn.

The Garden in the Machine subverts this premise from the outset, asking how the dreams of Cicero’s residents—and future arrivals—might be fulfilled in the post-industrial landscape of our site: a foreclosed factory adjacent to both bungalows and trains. Instead of ripping up the urban fabric, **our plan is to weave living and working together with remediated and recycled materials from the factory itself, within a financial framework protecting homeownership from financialized “housing.”**

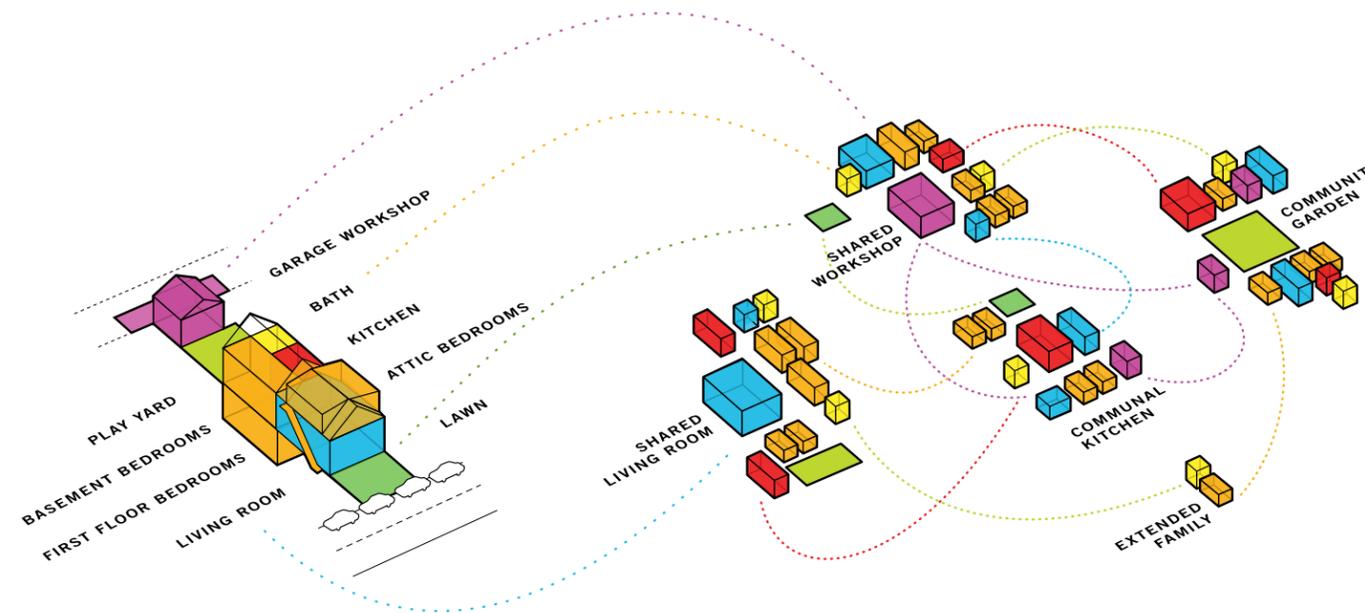
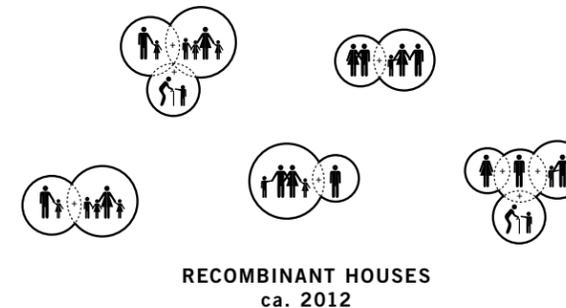
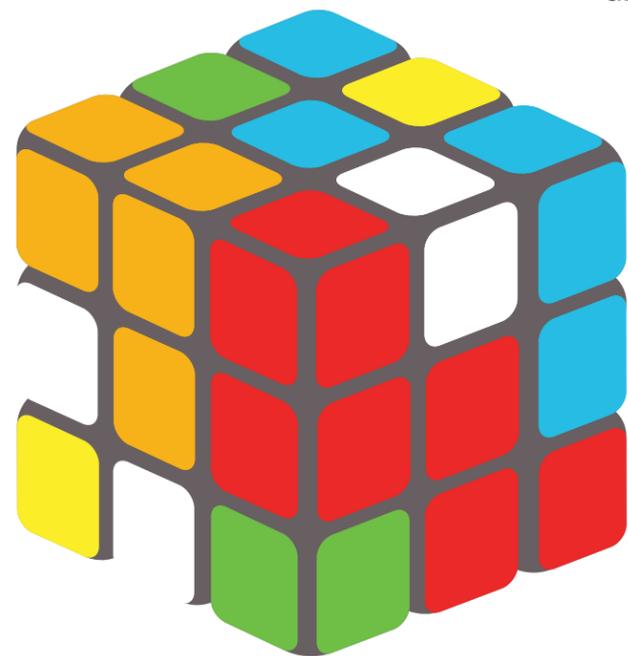
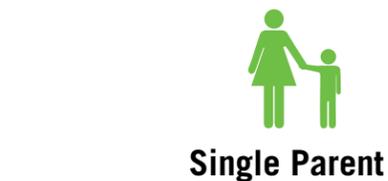
²⁸ Frank Lloyd Wright, *The Living City* (New York: Horizon Press, 1958), 81-82.



The Machine in the Garden
“The Lackawanna Valley” George Inness



The Foreclosed Machine
“Totems in Steel” Charles Sheeler



3.1 Bungalow Shuffle

Recombinant Houses

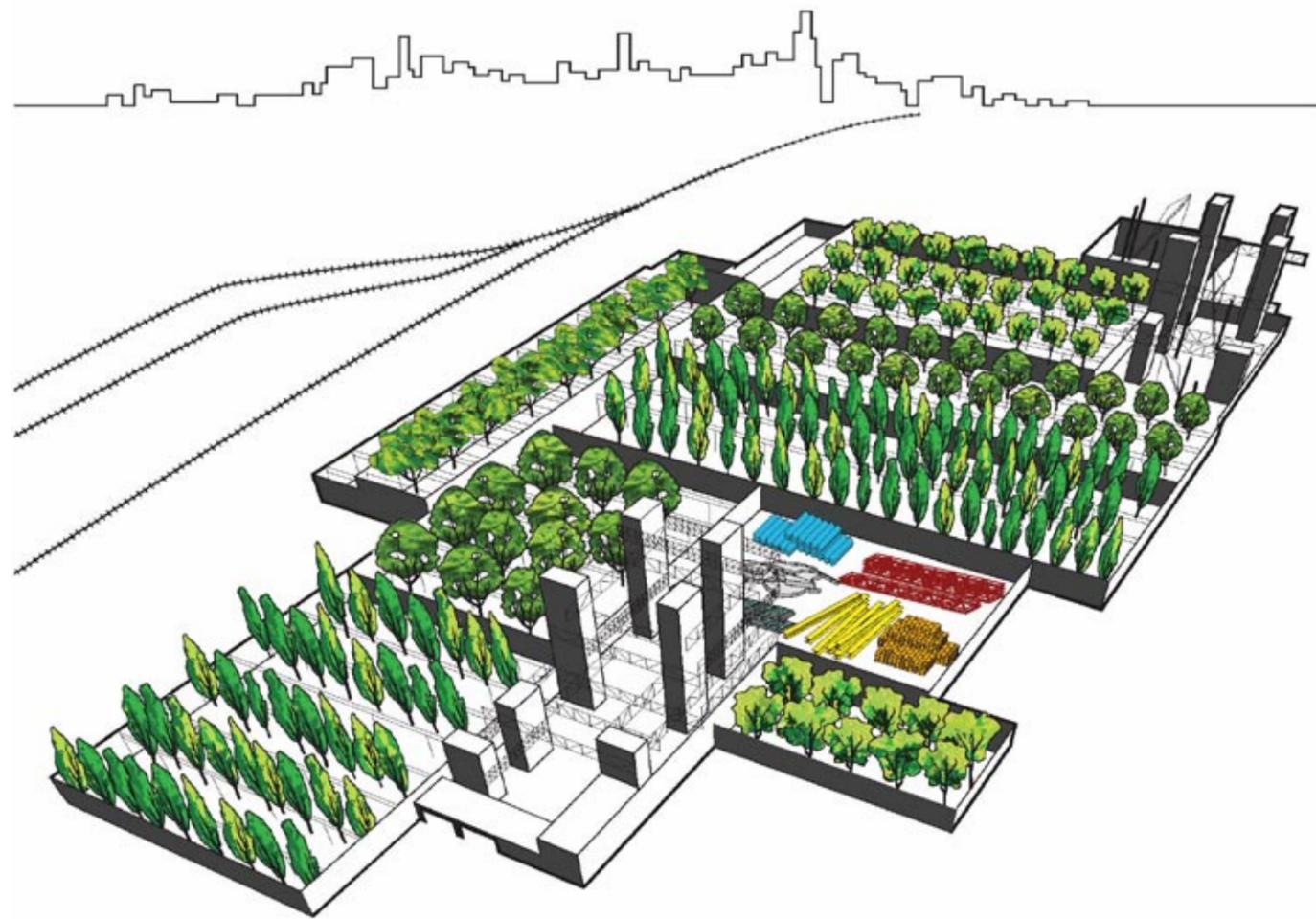
Post-war suburban logic used the single-family house to separate public from private, communal from individual, work from housing. Over time, Cicero's single-family bungalows have been subdivided into smaller apartments renters can afford.

Today's residents stand to gain from a large variety of combinations that currently don't exist. Instead of forcing families to fit into the house, what if the house could be rearranged to fit them?

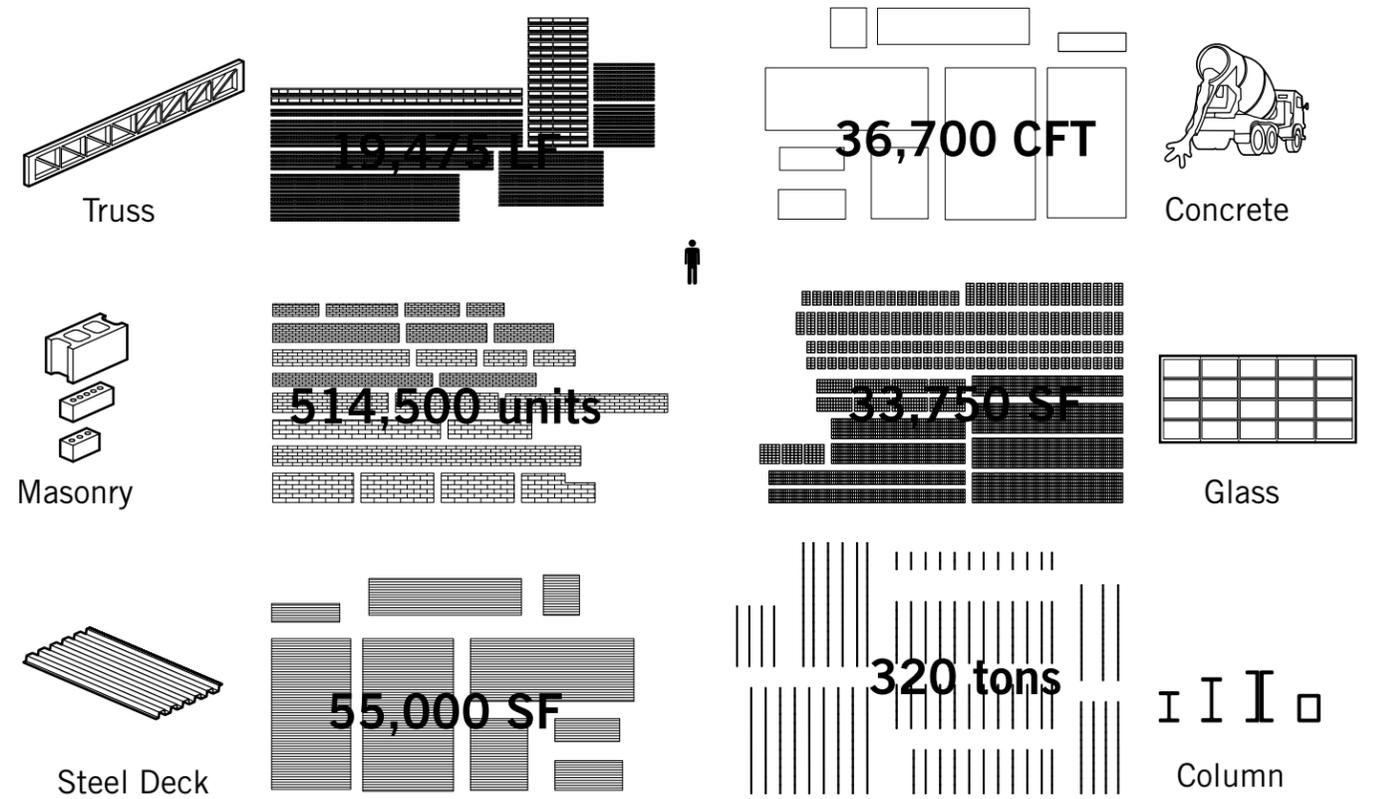
The new house would meet the needs of 21st-century families with smaller, customized, and therefore more affordable, units that could be deployed horizontally and vertically to create communities that are both more compact and more livable.

The Garden in the Machine proposes a new form of housing—the "Vertical Neighborhood"—in which homes are shuffled and stacked in flexible combinations, tailored to residents' changing needs. City blocks themselves are reconfigured to allow the seamless coexistence of homes, work, and public amenities. Shuffling the activities and uses of the bungalow maximizes flexibility and provides entrepreneurial opportunity to new arrivals.

Like this famous toy, our live-and-work neighborhood can be recombined and change.



The transformation of a foreclosed factory starts by planting toxin-absorbing trees. Materials are then salvaged, sorted, and recycled into components for new structures on-site.



The foreclosed factory is a rich source of materials.

3.2 Born-Again Factory

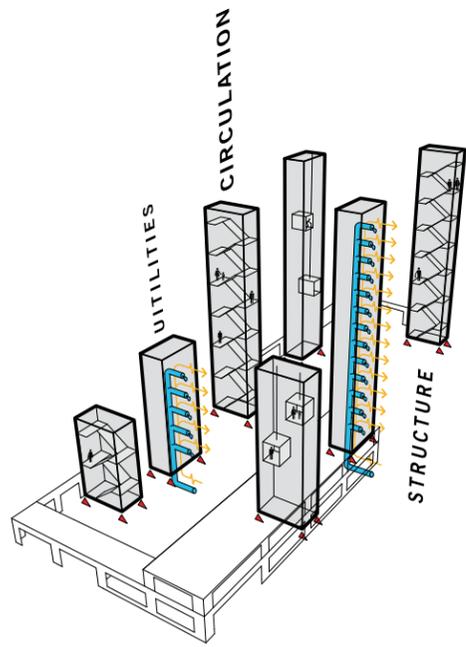
Remediation and Reuse

For many years, Cicero was a city of industry. Years of smelting, refining, and manufacturing left behind a residue of hydrocarbons that seeped into the soil and subsequently crept their way up the food chain.

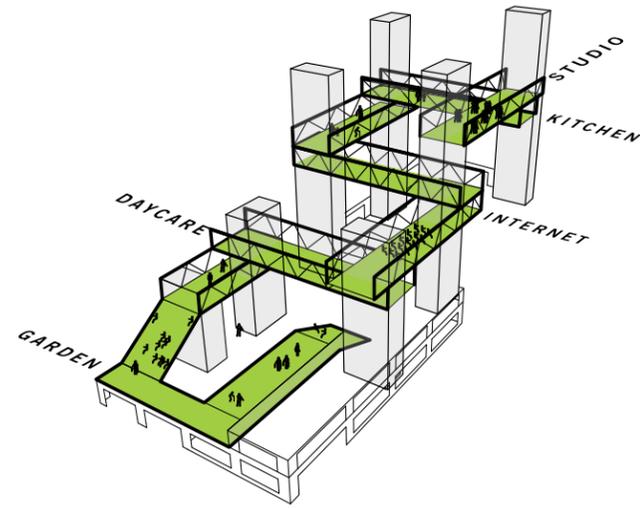
In most cities, the fear of industrial contamination has left former factories, canals, and railyards in a state of informal quarantine, abandoned rather than remediated—a vicious cycle leading to sprawl and further environmental degradation. But many foreclosed factories in Cicero suffer only residual levels of contaminants, opening the door to a less-invasive biological clean up approach known as “in-situ phytoremediation.” By planting and later harvesting toxin-absorbing plants, like poplars and willows, it is possible to filter industrial contaminants typical of the Rust Belt (including heavy metals, pesticides, volatile organic compounds, and assorted hydrocarbons) out of the soil, leaving behind a cleaner healthier site in as little as four or five years.²⁹ We could begin now.

What remains is a wealth of steel, masonry, concrete, and glass that can be salvaged and sometimes recycled intact to create new structures. The Vertical Neighborhoods of our design employ a lattice of reclaimed steel trusses spanning concrete cores to create a network of communal spaces. Rebuilding the neighborhoods creates jobs in the form of small-scale cottage industries and recycling. As the neighborhood develops, additional loops of material, water, and food recycling are formed, reducing energy use and enriching the environment.

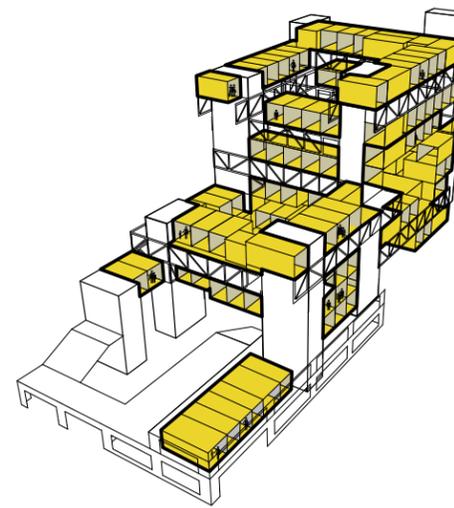
²⁹ United States Environmental Protection Agency, Introduction to Phytoremediation, US EPA, Office of Research and Development, Washington DC (2000).



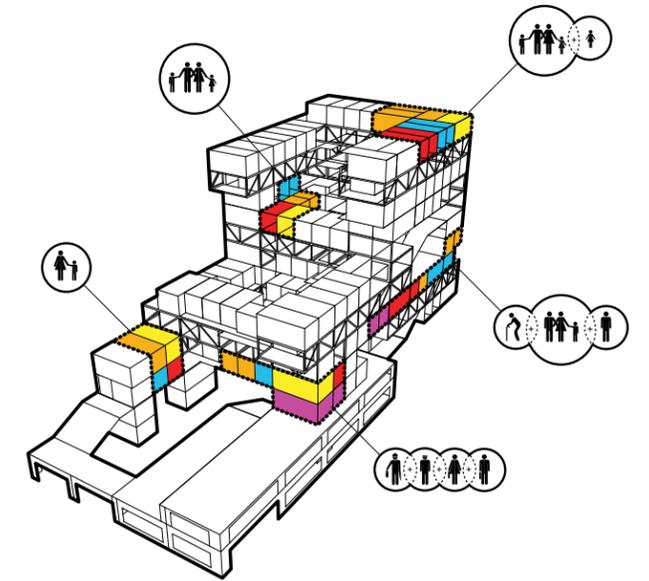
CONCRETE CORES



NETWORK OF
COMMUNITY SPACES



LIVE-AND-WORK UNITS



VERTICAL
NEIGHBORHOODS

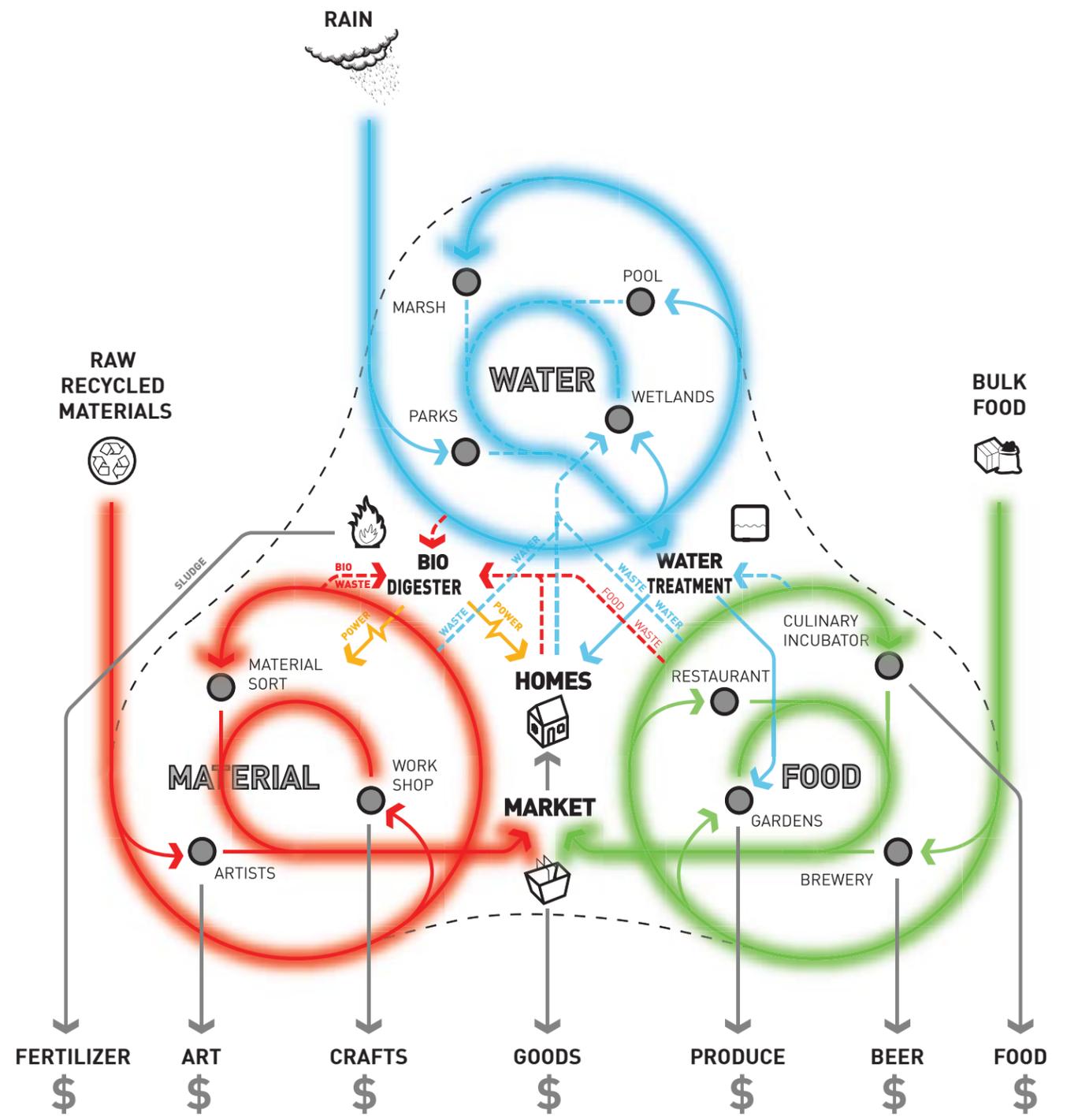
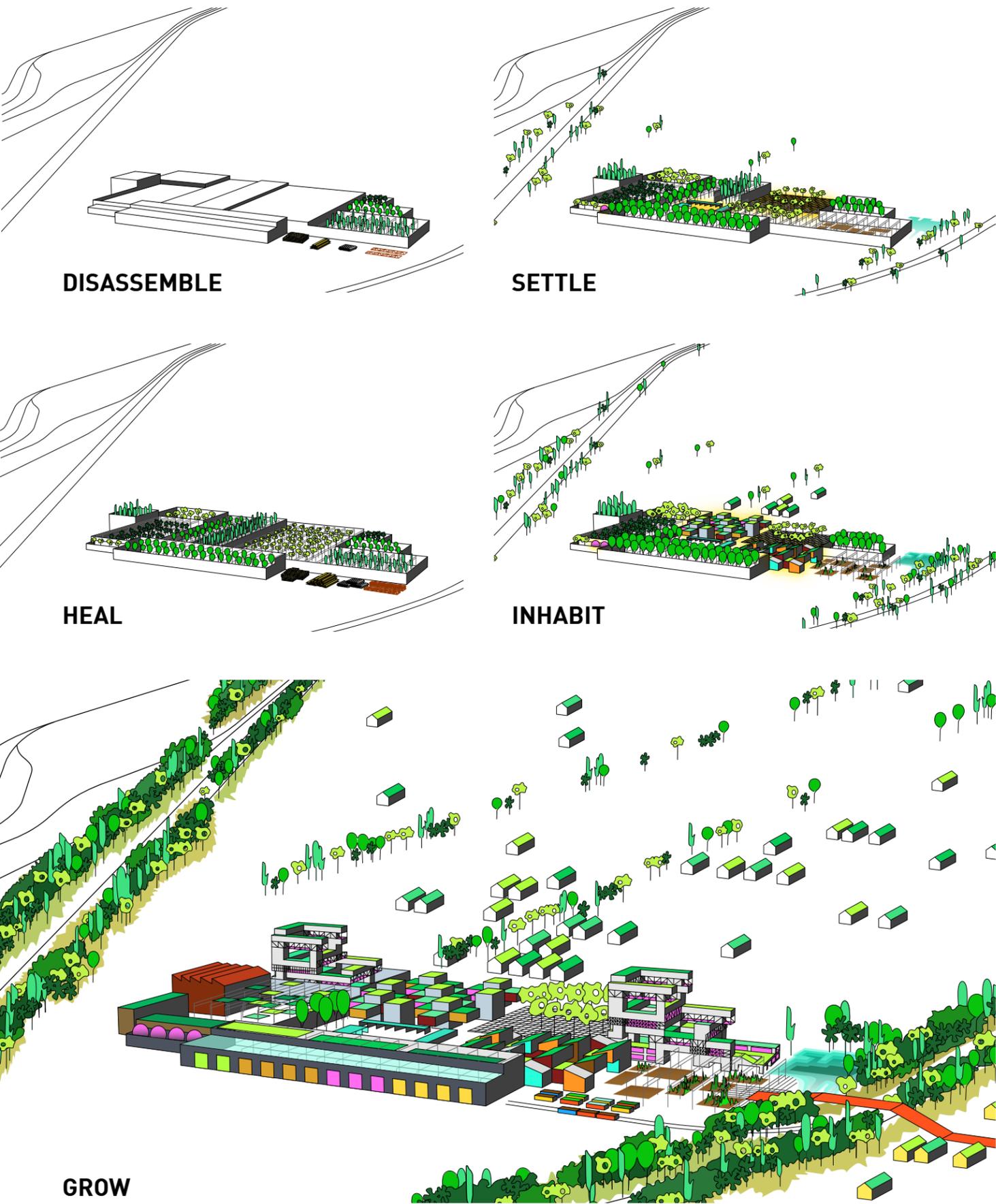
The new, vertical neighborhood employs concrete cores as the primary vertical structure, which contain utilities and circulation. Reclaimed trusses spanning from core to core form a network of shared community spaces. Private live-and-work units are mounted above and below the trusses and can be expanded or contracted as families change.





Residents enjoy access to a variety of gardens and outdoor spaces, including terraces, courtyards, plazas, markets, outdoor workshops, and allotment gardens.





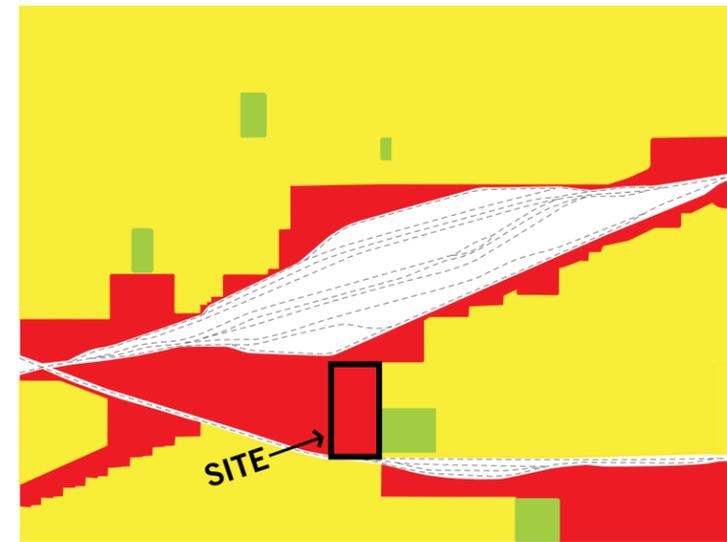
Revitalizing America's suburbs environmentally as well as economically is the urban challenge of our era. The Garden in the Machine closes the loop on energy, water, food and waste while creating economic opportunities for residents.

The Garden in the Machine model showing the mix of live, work and play adjacent to the monoculture of Cicero today.

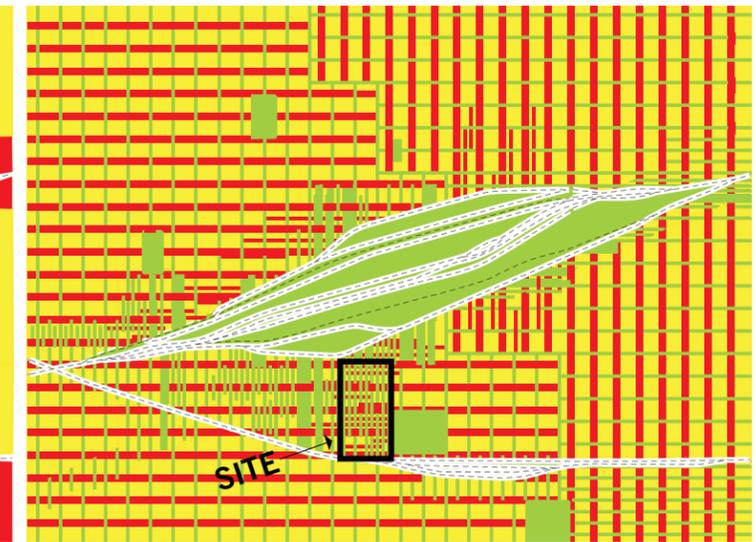


TO
MULTICULTURE

TRANSFORMATION FROM
MONOCULTURE



existing segregated zoning



proposed interwoven zoning

3.3

Enterprise Zoning

Policies for Prosperity

The spatial segregation designed to separate steel mills from cul-de-sacs is several decades out of date and was not historically the case in Cicero. (The gigantic Western Electric plant sat smack in the center of town.) Nevertheless, the town's zoning code rigidly separates living from working and public from private. Starting a business in one's garage—a hallmark of the American Dream, Silicon Valley-style—is explicitly illegal. Other codes enforce separation between buildings and property that are either wholly private (e.g. housing) or wholly public (sidewalks, streets), allowing no communal spaces in between. Cicero's zoning even goes so far as to prescribe the type of family that should live in its housing.³⁰

The Garden in the Machine seeks to reverse these rigid and outdated policies by transforming Cicero into the high-functioning arrival city its residents have never had. Under the current zoning, however, that's illegal—so the code has to go.

³⁰ "Cicero Municipal Code, Appendix A: Zoning, Section 3F," last modified October 23, 2001, <http://library.municode.com/index.aspx?clientId=10551>.

AN ORDINANCE ESTABLISHING ZONING REGULATIONS FOR THE TOWN OF CICERO, ILLINOIS

The zoning ordinance is intended to accomplish certain standards and objectives:

- A. To promote the public health, safety, comfort, ~~morals~~, convenience and general welfare.
- B. To preserve and protect existing uses and values against adverse or ~~unharmonious adjacent uses.~~
- C. ~~To avoid and lessen congestion in the public streets.~~
- D. ~~To prevent the overcrowding of land through regulating and limiting the height and bulk of buildings hereafter erected related to land area.~~
- E. ~~To prevent additions to and alterations or remodeling of, existing buildings and structures in such a way as to avoid the restrictions and limitations imposed hereunder.~~
- F. ~~To provide for the gradual elimination of those uses, buildings, and structures which are incompatible with the character of the districts in which they are located.~~
- G. ~~To divide the area into a number of zoning districts:~~
 - 1. ~~Residential districts, particularly designed to provide maximum protection for single family and two family homes.~~
 - 2. ~~Residential districts, for multiple family dwellings.~~
 - 3. ~~Commercial districts, that recognize the different types of commercial areas that will be needed by the future growth and change of the town.~~
 - 4. ~~Industrial districts, of which there are three: a wholesale and warehouse district; a "light" industrial district; and a "heavy" industrial district for manufacturing which include motor freight terminals.~~

Definitions

~~Family. Not more than two persons not related by blood, marriage or adoption living together as a single, cooking and housekeeping unit in a dwelling unit, but not including sororities, fraternities or other organization.~~

economic security of residents

functioning uses, and to allow a broad mix of compatible uses.

To reduce vehicular congestion and promote pedestrian activity and alternative modes of transit.

To encourage density while preserving open space, public use, and habitats.

To allow additions and alterations.

To restore and preserve existing buildings and structures, and to conserve environmental resources.

To support social and cultural diversity by allowing a variety of housing types and mixed-use programs.

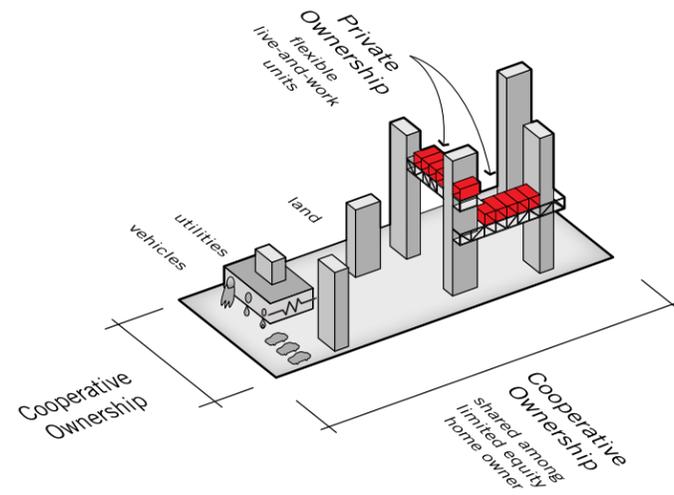
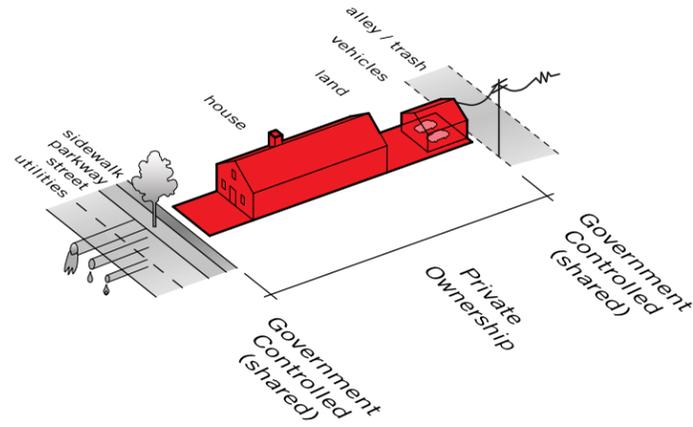
The only use to be segregated from residential, commercial, light industrial, and public uses is a heavy industrial use.

Acknowledge and enable a variety of living types.



20th Century American Dream

21st Century Cooperative Dream



The high cost of a private home includes the subsidies of public infrastructure. Shared equity trusts and co-ops collect these subsidies, passing them along as increased affordability and flexibility.

- 31 Rick Jacobus and John Emmeus Davis, "The Asset Building Potential of Shared Equity Home Ownership," The New America Foundation, January 2010.
- 32 Yesim Sungu-Eryilmaz and Rosalind Greenstein, "A National Study of Community Land Trusts," The Lincoln Institute of Land Policy, 2007.

3.4 Building Tru\$t

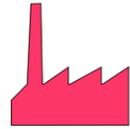
A Limited Equity Cooperative

In order to solve the foreclosure crisis, new zoning and new housing must be accompanied by a new American Dream: a dream disconnected from homeownership. Or to think of it another way, what is "homeownership?" More than an asset, it's really a right we've purchased—a right to a stake in our communities, to belong to them and be transformed by them. As Americans, we prized this right enough to guarantee every private mortgage (no matter how subprime it was) with taxpayers' public money, but we refused to make it truly affordable to everyone.

The Garden in the Machine strives to guarantee this right for future arrivals and current residents. More communal ways of living open the door to more communal forms of ownership, ones without the straitjacketing costs of the single-family home. Our project is a co-op in which residents buy and sell shares according to their changing needs and circumstances. Unlike most co-ops, however, residents may only purchase shares corresponding to the units they occupy, not the land. The Garden in the Machine is a limited equity cooperative (LEC), in which the land and shared amenities are owned by a private trust.³¹

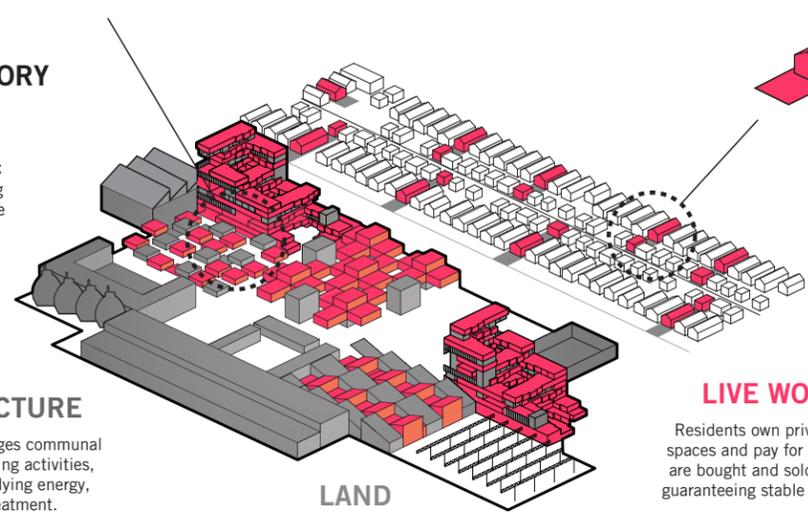
Such trusts retain ownerships in perpetuity, placing a permanent ceiling on the costs of homeownership. Designed as a nonprofit solution to affordable housing, trusts have strict covenants requiring owners to sell their homes or co-op shares back to the trust. Residents may realize gains from sweat equity investments in their housing, but they are otherwise shielded from swings in the real estate markets, and there is always a ready buyer for their homes. Trusts also retain the legal right to financially backstop residents in the event of a foreclosure.³²

Trusts decouple homeownership from commoditized housing. The financial risks are borne by the trust, rather than the homeowner. In return, they earn money from fees and services (such as the energy produced by our project's bio-digesters) to attract investment and pay for infrastructure. The value of the land, meanwhile, stays where it should—in the community.



THE FORECLOSED FACTORY

is purchased by a Limited Equity Cooperative (LEC), remediated, and rebuilt to accommodate communal forms of live, work and play. The LEC strives to guarantee affordable housing to Cicero's current residents and future arrivals.



FORECLOSED HOUSES

are purchased from the banks by the LEC, joining a cooperative network established by the Federal Housing Finance Agency.

INFRASTRUCTURE

The LEC owns and manages communal spaces, revenue-generating activities, and infrastructure supplying energy, water and waste treatment.

LAND

The LEC owns the land, capping the costs of homeownership. It is never permitted to sell, and its board is comprised of residents, neighbors, and public and private officials.

LIVE WORK PLAY

Residents own private live-and-work spaces and pay for services. All shares are bought and sold through the trust, guaranteeing stable prices and liquidity.

proposed ownership model



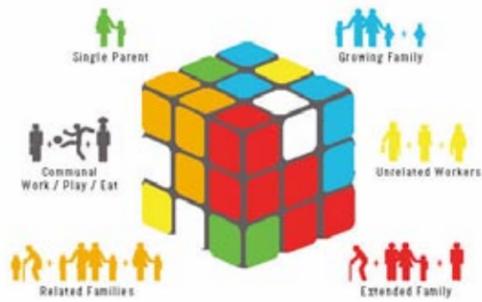
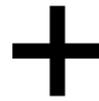
A community garden is adjacent to the vertical neighborhood.



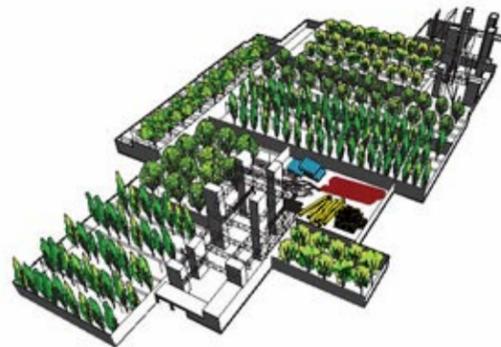
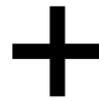
interior courtyard of vertical live/work neighborhood



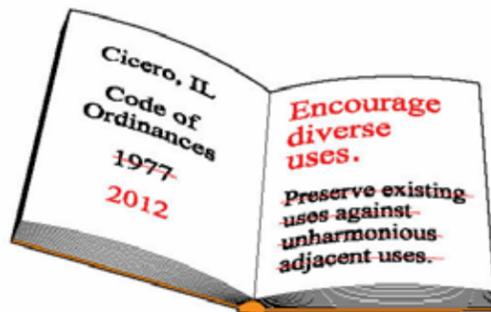
**IMMIGRATION
NATION**



**BUNGALOW
SHUFFLE**

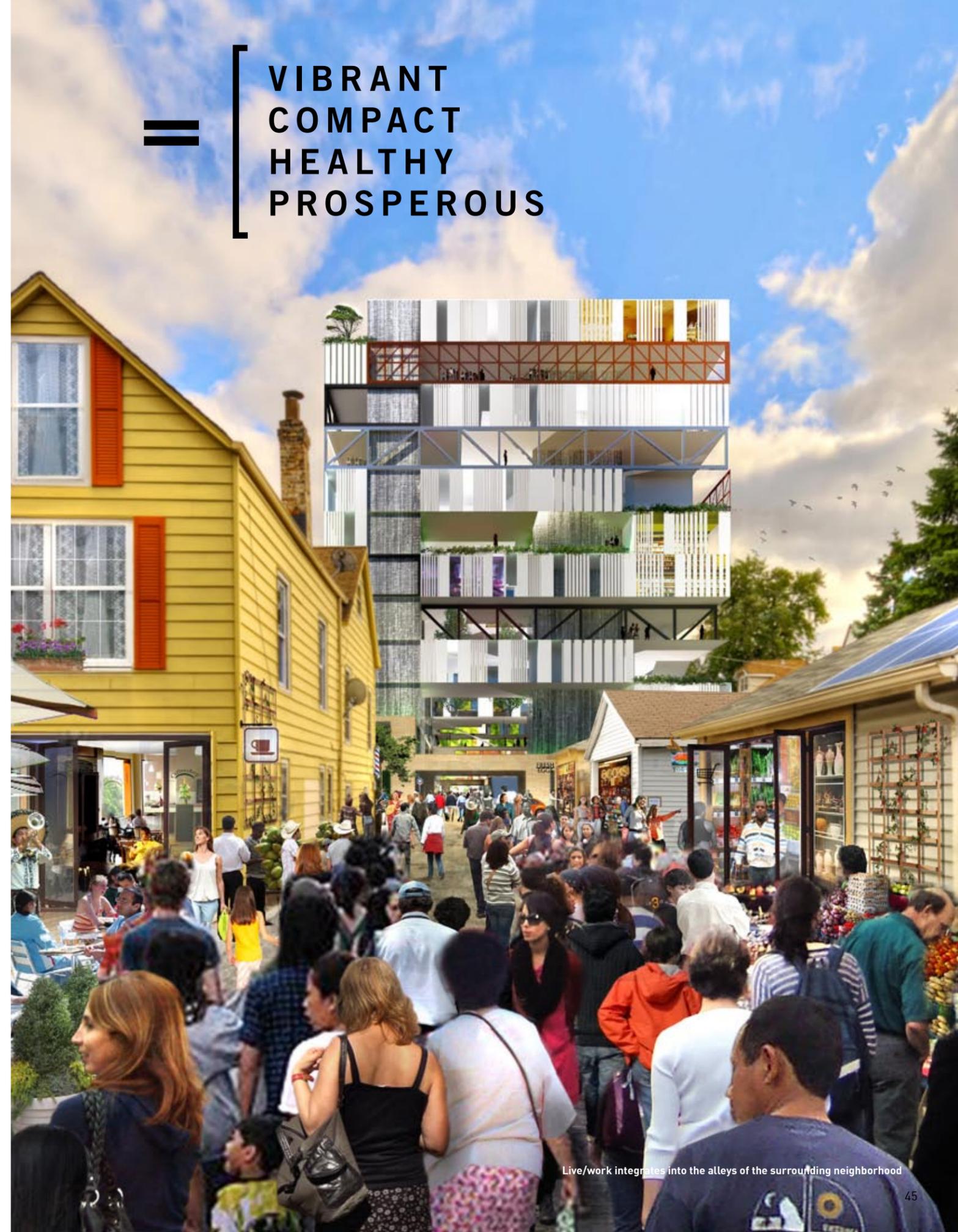


**BORN-AGAIN
FACTORY**



**ZONING AND
OWNING**

= **VIBRANT
COMPACT
HEALTHY
PROSPEROUS**



Live/work integrates into the alleys of the surrounding neighborhood

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