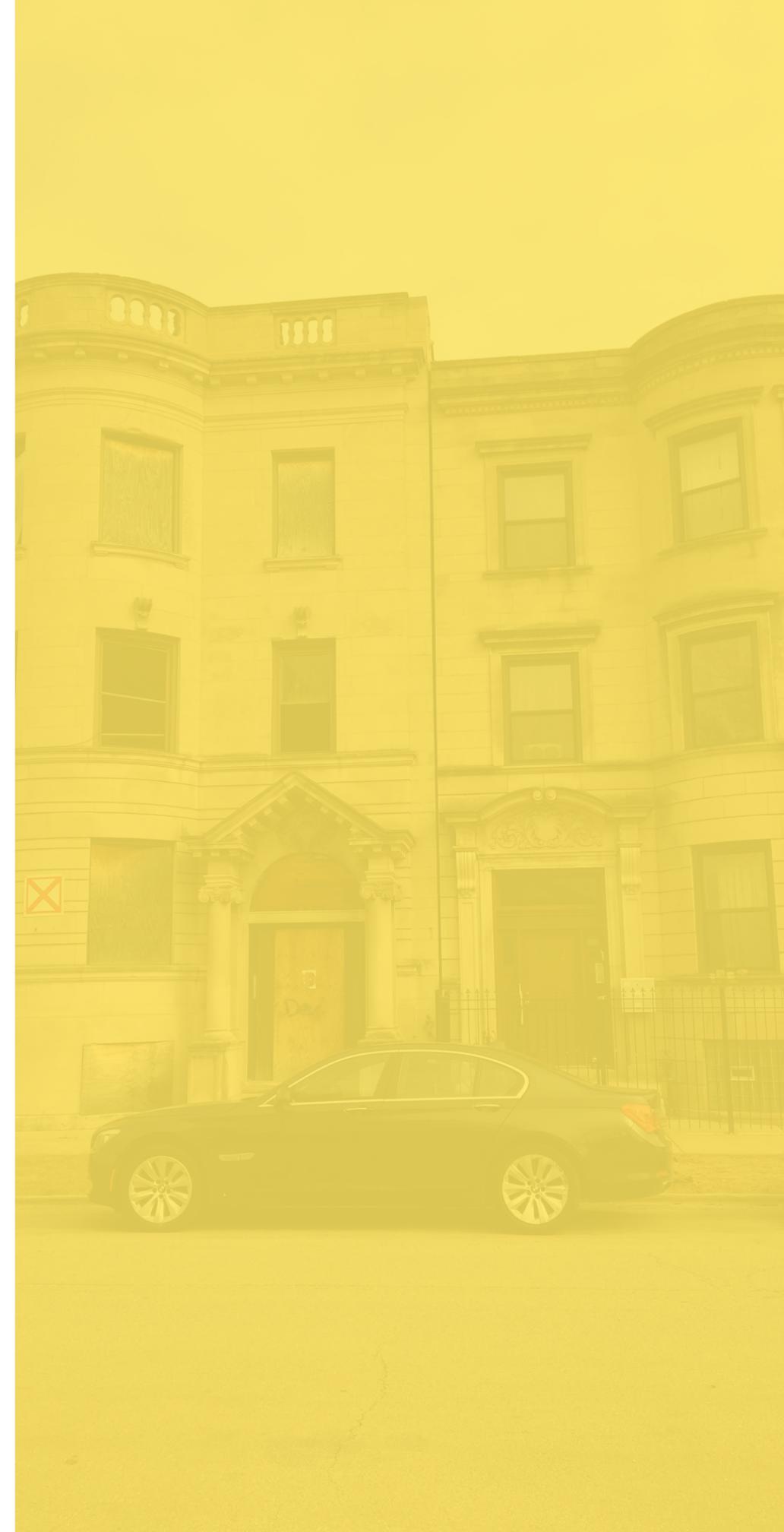

Act Calumet

Activating abandoned properties
for regional development

May 2019



Partners



Sponsors



Collaborators



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Summary

This report was developed by graduate-level students from the IIT–Institute of Design (ID). The work is a result from a 14-week graduate-level course offered by ID. The course is part of an ongoing partnership between ID Calumet Collaborative, the not-for-profit civic organizations based in the Calumet Region. The class was sponsored by Hitachi and Fidelity Labs. This report captures a high-level understanding of several current conditions leading to abandoned properties in the Calumet region, and frames opportunities for reviving unproductive lands.

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IIT Institute of Design (ID) continually challenges what design is and can be. Founded by László Moholy-Nagy in 1937 as the “New Bauhaus,” we focus not just on design itself, but the impact it has on the world around us. For over 80 years ID has ignited designers’ imaginations—evolving design to combine form with human behavior, conquer complexity with clarity, and challenge convention through innovation in pursuit of a more sustainable future.



The Calumet Collaborative is a bi-state nonprofit organization dedicated to achieving inclusive regional prosperity and improving quality of life in the Calumet region through sustainable development. The NGO catalyzes innovative partnerships between Illinois and Indiana stakeholders to advance a thriving Calumet region with a focus on (1) Livable Communities, (2) Economic Opportunity, (3) Environment, (4) Culture and heritage.



ChiByDesign is a Black-owned and people of color led human-centered design firm. Staffed by Chicagoans who care deeply about their home and dedicate their talents to designing the city that everybody deserve, ChiByDesign believes that empowering the people who are most affected by social disparity and environmental injustice with the tools and mindsets of design can unlock limitless creative and effective interventions for more equitable and sustainable futures.



HITACHI

Sponsors

Fidelity Labs rapidly develops new products and businesses to revolutionize the financial wellbeing of Fidelity’s current and future customers. Their passion combined with digital first, human-centered design and agile methodologies create solutions designed to drive transformational shifts and impact at scale.

Over the years, **Hitachi America R&D** has pursued research with leading business partners and research institutions, supporting many backbone businesses of Hitachi including semiconductors, automotive systems, IT platforms and networks. Today, Hitachi America R&D is applying this market/customer-driven approach in developing innovative solutions to lead Hitachi’s “Social Innovation Business” in the Americas.



THE COMMUNITY BUILDERS

Collaborators

Respond Now enhances the quality of life in south suburban communities by working to alleviate hunger and prevent homelessness for people at risk.

The mission of **Community Builders** is to build and sustain strong communities where people of all incomes can achieve their full potential.



KOCO’s organizing approach engages residents in identifying the issues that they want to see addressed, and facilitating the planning, strategizing and training opportunities to aid residents in addressing issues.

Everybody Counts

Everybody Counts develops programs and services identified by people with disabilities as being necessary and appropriate, and to increase community options for independent living through outreach, awareness activities, education and advocacy.



Claretian Associates carries on a rich and collaborative tradition of responding to the needs of South Chicago and its surrounding communities by providing affordable housing and vital services that benefit the safety and wellbeing of our residents and families.

Act Calumet is a part of the project 'The Future of Brownfields'

The Future of Brownfields is an ongoing collaboration between IIT-Institute of Design and the Calumet Collaborative. During the first phase of the project (November 2017 - May 2018), the collaboration proposed five strategies for exploring brownfield redevelopment as critical paths for regional regeneration: leverage assets, empower science, involve residents, strengthen local economies, and build integrated infrastructures.

These strategies were used to inform the prototype of three concrete interventions during the second phase (May 2018- August 2018) :

- **Flag Calumet:** a collectively built modular art installation that gathered data about environmental conditions to increase local residents understanding of and connection with the local environment.
- **Mini Calumet:** a simulation game designed to support local youth to explore alternative governance systems capable of dealing with the socio-ecological challenges of the Calumet region.
- **Act Calumet:** a digital platform for civic empowerment that mediates interactions among residents to optimize local resources.

In its third phase (September 2018- December 2019), the collaboration advanced these micro-pilots by iterating and refining the infrastructures prototyped in phase two, and co-designing alternative models for scaling up implementation and impact. This report refers to efforts underlying the Act Calumet concept.

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GLOSSARY

Assets

An accumulation of the valuable resource includes not only monetary resource, but also physical estates, time, knowledge and capability.

Brownfields

A former industrial or commercial site where future use is affected by real or perceived environmental contamination.

Capital/Stock

Assets in the community system (natural, cultural, human, social, political, financial, and built).

Digital divide

The condition of having or being composed of differing elements: especially: the inclusion of different types of people (such as people of different races or cultures) in a group or organization

Diversity

The condition of having or being composed of differing elements: especially: the inclusion of different types of people (such as people of different races or cultures) in a group or organization.

Equity

Freedom from bias or favoritism; something is equitable when it deals fairly and equally with all concerned.

Fintech

New technology that seeks to improve and automate the delivery and use of financial services.

Inclusion

The leveraging of difference by integrating diverse perspectives and creating a better outcome for all. Inclusion is an invitation that not only accepts differences, but celebrates and embeds them.

Intergenerational

Relating to, involving and/or affecting the generation of humans and non-humans that have lived in the past, are currently alive, and the generation that is yet to be born.

Prototype

Often a physical model with functional features, developed for experimental test.

Resiliency

A measurement of a healthy system's capacity to absorb disturbance and still maintain integrity of function and structure.

Social mobility

Movement of individuals, families, households, or other categories of people within or between social strata in a society. It is a change in social status relative to one's current social location within a given society.

Socio-ecological systems

Coupled human-environment systems, often discussing the interdependence of people, collectives and institutions and the environment where they live.

Sustainable regional development

A process where the economy, environment and ecosystem of the region change and improve in harmony over time, maximizing human welfare within an inter-temporal framework.

Value creation

The performance of actions that increase the worth of assets in the system. These assets can be human as well as non human.

CONTEXT

The Calumet Region is dotted with brownfields.

The Calumet region is a post-industrial area, with approximately 900 square miles, home to over 70 municipalities. The region's boundaries encompass the Southeast side of Chicago, South Cook County and Northwestern Indiana in the United States. This bi-state territory is not only large, but incredibly diverse. The region boasts proud and diverse communities, important natural ecosystems, and a powerful industrial heritage. During industrial development, the prioritization of economic growth over environmental responsibility led to high level of pollutants from industrial effluent and waste that compromised the integrity of the land, water, dunes, and other elements of the ecological landscape of the region.

While the region continues to attract high investments, increasing easy access to transportation, open spaces, and the presence of skilled workers, it also faces complex socio-ecological challenges. Nowadays, the region suffers from environmental contamination, lack of economic interest, dispersed human and social capital, and unproductive manufactured capital. The overall goal of this workshop is to explore if the introduction of new technologies, infrastructures, including digital platforms, and emerging financial services aiming at decentralizing power could provide alternative avenues to empower local residents towards reactivating abandoned properties and vacant land in the Calumet region.

And if so, how? How could new infrastructures decentralize access to property? How should they be incorporated into daily choices and enable more sustainable and equitable livelihoods based on alternative financial systems? What technologies would empower residents to take action in the Calumet region?

As the region builds on available assets toward a vibrant future for people, wildlife and businesses, the Calumet Collaborative and the IIT-Institute of Design are collaborating to develop alternative pathways for implementing new strategies for sustainable regional development.



CONTEXT

Abandoned properties are on the rise.

After years of disinvestment, a patchwork of abandoned industrial, commercial and residential properties has been left behind in the Calumet region. The presence of abandoned properties not only compromises the market value of their surroundings, but also influences the dynamics of those who live in the region. With low density, many areas became unattractive to business. Because less companies are operating in the region, job opportunities also decreased. So did the average household wealth.

Additionally, the more properties are abandoned, the less occupancy in blocks. This vacant condition not only influences the perception of safety that residents and external agents might have, but also reduces the participation in community activities of those living within these vacant blocks. When communities are weaker, the number of crimes tend to rise, which furthers reinforces the reduced occupancy of the block, or worse, the abandoning of the property.

A significant challenge relates to the fact that current ownership models are based on property rights that protects the owner, and prevents local residents from intervening on these sites. Ultimately, these models lead to inadequate solutions for re-injecting resources and life into those properties in a sustainable manner as they rely on external agents with specific interests engaging in slow and

bureaucratic processes, usually with high value being lost through multiple transactions. However, if local residents could be empowered to reactivate these abandoned properties, then living conditions and their surroundings could be improved. So, could the Calumet region.

On the following page we give an overview of the variables that shape and influence the situation of abandoned properties.

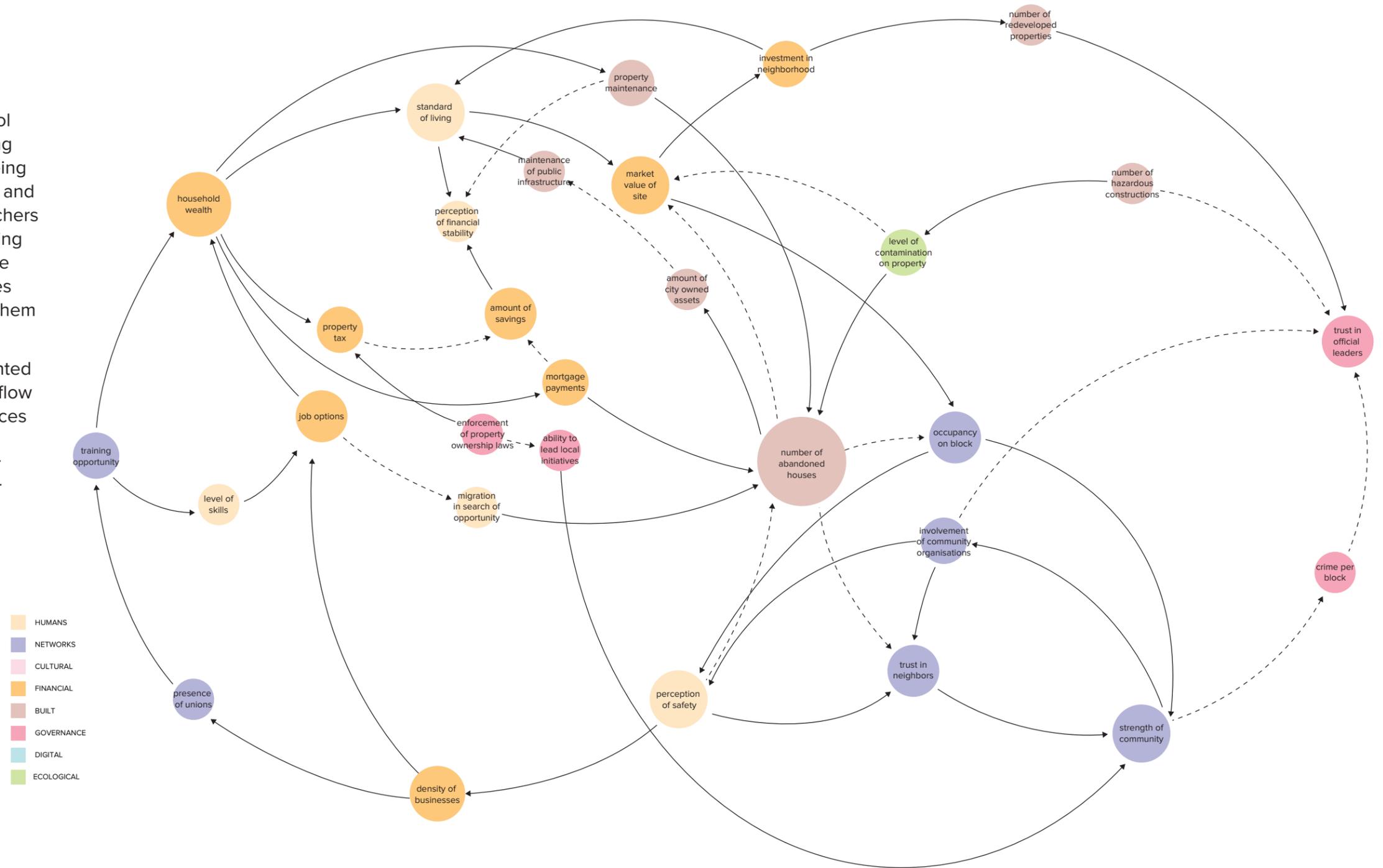
home vacancy rates as of 2011
US Census Bureau



CONTEXT

System dynamics map is a systems thinking tool useful to visualize the multiple variables shaping and influencing the behaviors of the system being analyzed. By engaging with several individuals and organizations from the Calumet region, researchers were able to identify several variables influencing socio-economic conditions that are critical to be considered when understanding how properties are abandoned, and what it take to reactivate them for sustainable regional redevelopment.

In the diagram, barriers to change are represented by the variables that have a large number of inflow arrows as they require multiple types of resources from different variables. Drivers of change are represented by the variables that have a larger number of outflow arrows as they exert greater influence on other variables in the system.

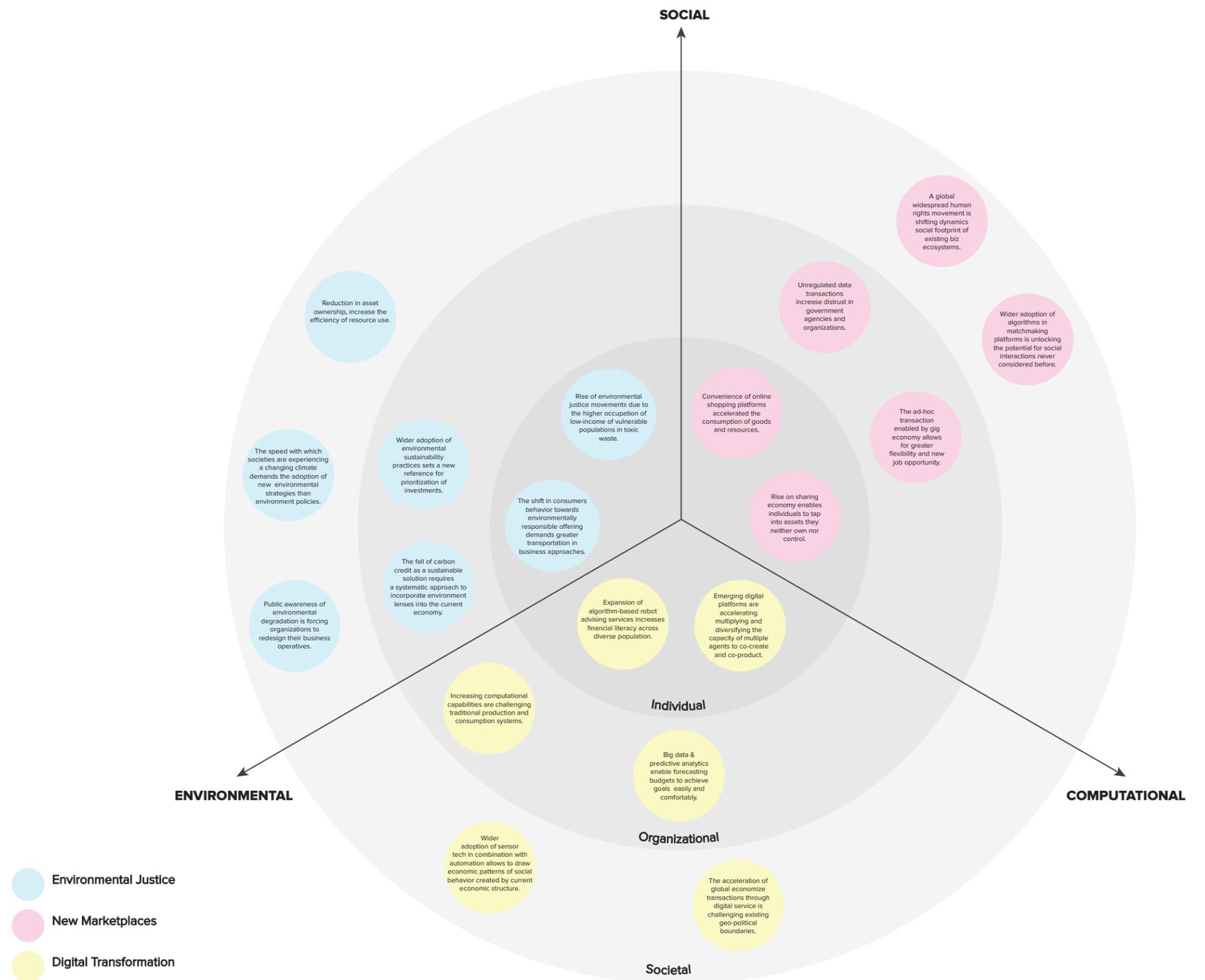


CONTEXT

The morphing landscape of changing economies

Rapid and interconnected socio-technical-ecological shifts are disrupting existing production and consumption systems. The underlying connectivity and confluence of these shifts shape the way that humans interact with one another, and with their surrounding environment. Increased computational capacities, the growing application of sensors, new digital communication platforms, data collection systems, and other mechanisms provide instant feedback on aspects of human daily life, global market dynamics, and the natural environment. In this blurred and ubiquitous landscape, organizations and institutions are adapting to emerging marketplaces, novel sustainability-centered policies are being designed to reduce the speed within which the climate is changing, and new social contracts are being created as a response to the unsustainable and inequitable practices that organizations and current systems of governance are locked in.

Because disruptive technologies are enabling alternative pathways to be explored, leveraging their affordances in the context of the Calumet region became critical to understand how might design contribute in transitions towards new economies. On the diagram, a few of the many trends are clustered in three categories: new marketplaces, digital transformation, and climate change. These trends are indicative of the multiple disruptions happening in social, computational, and economic systems, and are giving rise to new economies.



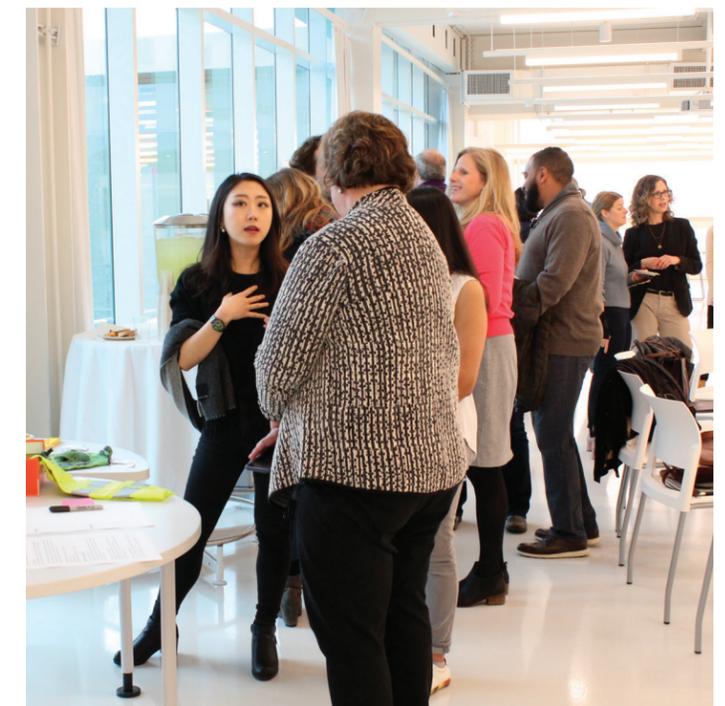
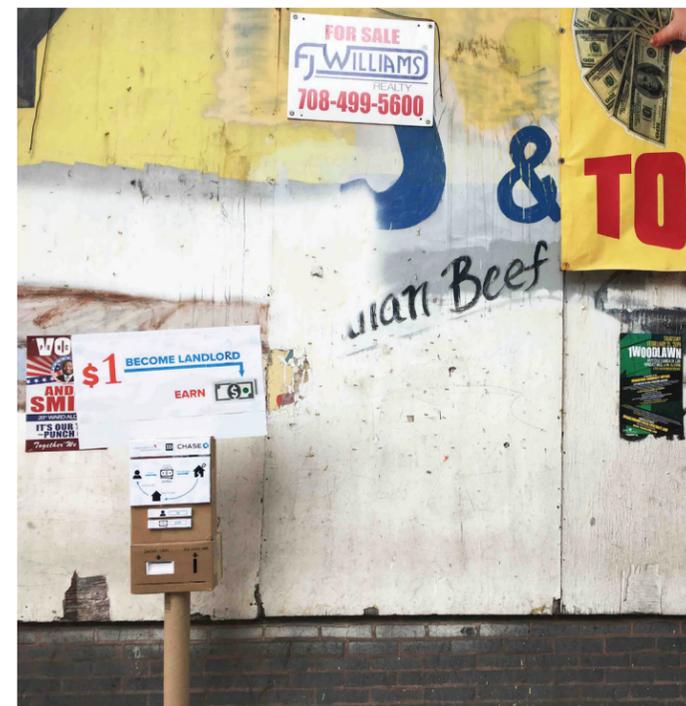
APPROACH

Design approaches as a path to achieve regional redevelopment

While one may never fully understand a complex socio-ecological system in which a challenge is presented, researchers explored multiple methods that allowed them and others involved in the process to expand their own perceptions about the dynamics happening in the Calumet region as individuals were constantly exposed to different components, types of resources and their interactions. Through nonlinear, design-led approaches, researchers were able to uncover complex challenges influencing the redevelopment processes of abandoned properties, especially during the reactivation phase.

The project was divided in four phases. All of them were structured around prototyping activities that explored alternative financial services. These services were intended to respond to social, cultural, natural, political, manufactured, financial, digital, and human implications shaping complex issues when redeveloping properties.

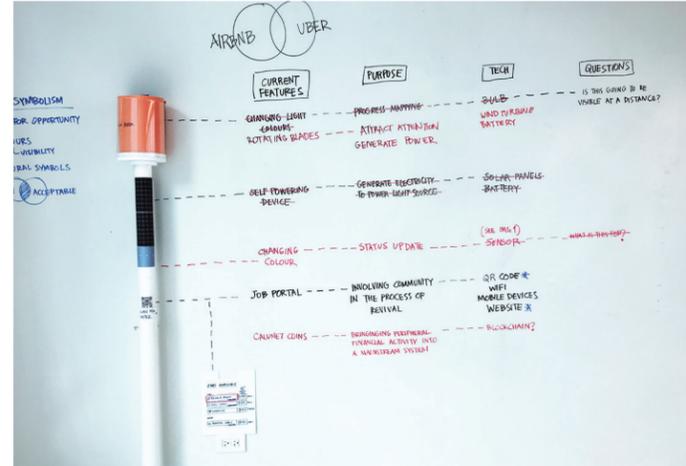
On the following page, we give an overview of the process we followed to arrive at a better understanding of the conditions in the Calumet region.



APPROACH



The class started with activities of ‘featuring’. The team focused on advancing previous work through intensive fieldwork, and through exploring new ways of combining features, system’s affordances, modes of civic engagement, and potential infrastructure formerly selected.



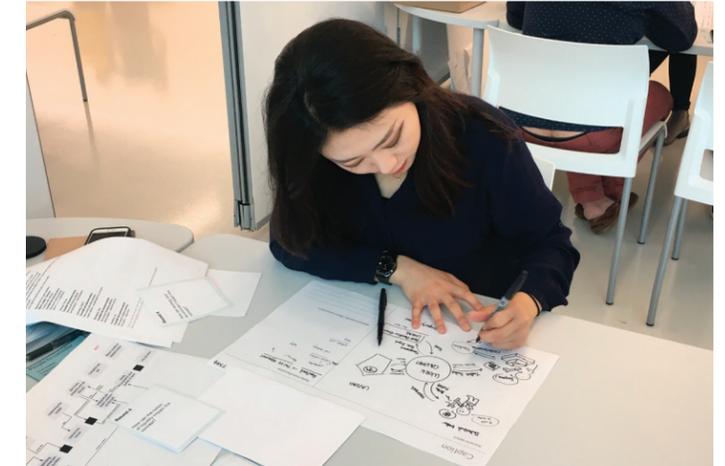
Phase 2

Based on the first rounds of prototyping, the research team and other collaborators looked for alternative and emerging organizational models. In this phase, the team also explored new financial services, novel structures for operations and logistics, emerging technologies, and new marketplaces to situate and integrate the findings from previous experiences. It did so while exploring potential interventions to overcome complex challenges related to the centralization of power in the Calumet region.



Phase 3

In the third phase the team explored ‘scaling up’ processes by leveraging new technological and infrastructure capabilities to increase the intended outcomes of these potential interventions.



Phase 4

Finally, the last phase consisted of ‘envisioning’ alternative sustainable futures of the Calumet region by speculating systems transitions through which abandoned properties and vacant land might unlock more sustainable and equitable livelihoods.

This report shares key learnings from this process, and is intended to guide alternative pathways for reactivating abandoned properties in the Calumet region in the pursuit of contributing towards more sustainable and equitable futures.

Although not extensive, on the following pages we present four learnings that capture some of the complexities involved in reactivating abandoned properties. The surfacing of these complexities allows for new questions to be raised, and with them a new set of possibilities to be explored.

SHORT TERM PROFITABILITY

1 Unsustainable housing decisions made in the past have inhibited the ability of current residents to meet their needs.

Individuals and organizations are increasingly being held accountable for the unjust socio-ecological conditions faced by both the present generation and other generations, being past and future. This not only means that the current generation inherits the consequences made by previous generations, but also that it has to decide what to pass on to future generations. While several conditions are worth carrying, others can't be carried as they might compromise the choices of other generations. The reduced ability that vulnerable and marginalized populations in the Calumet region have to meet their current needs is a reflection of unfair past decisions that must be eliminated.

When it comes to property ownership and occupation, the market freedom that banks and real estate companies once had, enabled many residents of the Calumet region to benefit from mortgages to purchase their own house. The same condition also enabled predatory lending practices, such as the selling of subprime mortgages to unsuspecting home buyers. Overtime, these lending practices led to wide scale defaults of home loans, and can be considered one of

the underlying causes of a nationwide foreclosure crisis.

Yet, this condition is not new. Residents of the Calumet Region have endured multiple economic setbacks over the past 40 years. For example, the closing of the South Works steel plant in South Chicago left 20,000 workers unemployed and many families without a primary breadwinner. Just like steel companies, many other industries also declared bankruptcy or closed in the Calumet region during the first decade of the twentieth century. Many lost their jobs and were stuck with their properties and with their high mortgages, consequently increasing their inabilities to move to different places in search for new jobs. Without being able to sell their house nor pay their debt, unemployed, low-income, and marginalized population living in the Calumet region lost their property, and ruined their credit. These properties were either abandoned, or acquired by banks and real estate companies through auctions and other mechanisms. This scenario represents a common condition in the Region, and reflects the lack of ability of current and future generations to meet their needs.



It is a common sight to see houses marked with a red cross spread across the Calumet region. These homes are structurally weak, making them unfit for occupancy, leading to their abandonment. This also makes the properties undesirable for renovation since most of them are on the brink of collapse, thus prolonging the duration for which they remain abandoned.

How might we enable intergenerational equity?

SEGREGATION

2 The current social fabric poses barriers to an inclusive redevelopment of the Calumet region.

The Calumet region is one of the most segregated areas in the United States. Both, the economic and the racial segregation across the municipalities have posed significant barriers for community development and social cohesion. Abundance of abandoned properties directly impact the sense of belonging, and wellbeing of the residents living in the territory. Under such conditions, the influx of low-income and marginalized populations in the region increases because they have been forced to move to areas with low-market value, especially those with high level of pollution and crime rates. But without diversity, the social capital of residents to the Calumet region becomes limited to those facing similar conditions. Such a situation not only disconnects residents from alternative mechanisms currently being deployed to the development of low-income and marginalized communities, but also feeds the competition between populations to access similar resources and opportunities.

For example, several community-based efforts are being directed to facilitate social cohesion between dispersed populations.

However, more often than not these initiatives don't get much attention because representatives of different populations dedicate their time and knowledge to participate and support activities that directly contribute to their own community. This leads to communities being further isolated, and a lack of trust among diverse populations.

Although significant efforts are being made by community-based organizations, residents of the Calumet region are aware that their neighborhood represents a small piece in a broader patchwork of social and spatial segregation that prevents systemic transformations.



How might we promote cultures of coexistence?

FINANCIAL STAGNANCY

3 Traditional financial services were not designed to accommodate the diverse needs and aspirations of current residents of the Calumet Region.

When companies went bankrupt in the Calumet Region, many workers and residents instantaneously lost their jobs. Few weeks later, the same companies offered similar jobs opportunities for the half of the financial compensation. Some took the jobs, others didn't. Very few might have moved up in their social class. But many lost their quality of life, and started to move out of the region in the search of jobs. In this process, they abandoned their property, even if they were renting or owning it. The lack of financial system, or a service, to accommodate such needs, at the scale that was necessary, brought several implications to the region beyond the impact on the individual's life.

Operating under the logic of the economic burden resting on the shoulder of property owners, banks, real estate and other organizations lost the opportunity to play a significant role in maintaining or even improving the daily life of many low-income and marginalized residents of the region. As consequence, alternative value systems that once were not recognized within current

economic system became more apparent, and started to shape new economic transactions. For example, residents of the Calumet constantly leverage resources other than money to create and acquire value for their own community. By volunteering, participating in social events, organizing and supporting local practices, low-income and marginalized residents crafted their own businesses based on informal value systems. Ever since, the use of people's time, abilities, competences, soft skills, among others, have been recognized as legitimate practices within their own realm of impact. Yet, the underlying financial opportunity is yet to be explored, given the rise of new financial services, and the unsustainable structure of the current economic system within which residents of the Calumet region live in.



When the economy crashed, unemployed Calumet residents started to struggle with daily expenses. As an alternative, several mom and pop shops, and local businesses in the region created new mechanisms for residents to access cash in daily or emergency expenses. This system provides a short-term solution, and also increases residents' resiliency.

How might we enable social mobility in the Calumet region?

CENTRALISED POWER

4 Overtime, the centralization of power within institutions took away the agency that residents once when bringing change to their neighborhoods

When systems of governance struggle to bring welfare reforms and other improvements to the people living in the region, the lack of trust in government institutions and large organizations increases. Alternatively, residents rely on cultural or religious entities for support or propose interventions within their own environment. Nevertheless, local agencies also have their own agenda, tend to be constantly operating with financial constraints, and under the pressure for satisfying funders so that they can continue to live in the next fiscal year. While many organizations have succeeded in overcoming several challenges within the region, residents are increasingly feeling that they are left unheard and their issues unaddressed. Among many, two scenarios can represent such complexity. One relates to individual privacy and safety. The other, environmental challenges.

When it comes to surveillance, physical structures, installations and services are perceived as aggressive interventions to people’s lives. When machines and people

are constantly over watching what people do, individuals become underpowered to live freely in the public realm, and even to intervene in their own environments. Additionally, they feel exposed and concerned about institutions and large organizations having access to their information and making decisions about their lives without their participation.

Moreover, several residents recognize that financial capital will not offset several challenging conditions present in the region, including ecological degradation. Individuals understand that environmental challenges of their surroundings have significantly worsened over the last half century, and that critical elements necessary to restore the ecological health of the area and residents might not be even available anymore. Yet, organizations are not making much progress at the speed and scale that is necessary.

Without expanding the options for and empowering residents to intervene in their own neighborhoods, local residents will not be able to take ownership of improvements in the environment within which they live.



There are many vacant open lots that are maintained by different organizations in the Calumet. But the lots continue to remain vacant without scaling the existing efforts to find alternative uses to occupy the space for the purposes that residents really need. The residents thus feel a lack of trust and underpowered in decision making for the community.

How might we decentralize governance in the Calumet region?

REFRAME

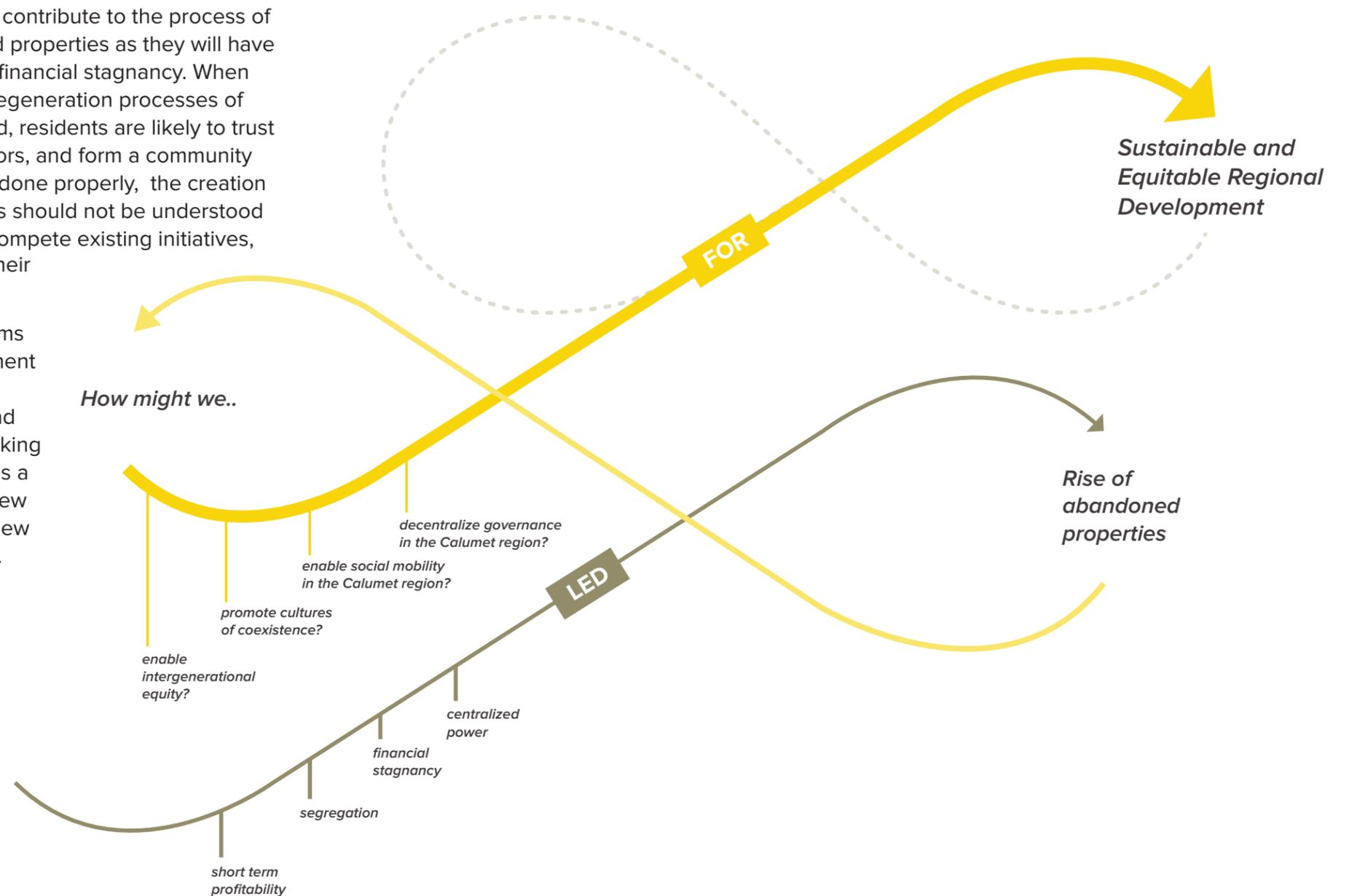
Rethinking the regional redevelopment problem

The Act Calumet project explored how might abandoned properties be leveraged to unlock more equitable and sustainable livelihoods in the Calumet region. Indeed, the region suffers from complex socio-ecological challenges that hinder regional redevelopment, but without understanding how these systemic forces are manifested into the dynamics of daily lives, the well being of those living in both rural and urban areas will continue to be compromised. Although several community organizations, government and non government bodies have made significant progress to improve the quality of life of Calumet residents, the fragmented and centralized institutional approach is not only increasing the competition for the same resources (e.g. individuals participation, funding sources, etc.), but also increasing the lack of trust from residents due to their inability to scale up efforts, and promote systemic transitions.

Nevertheless, residents of the Calumet region are interested in creating and shaping a new economy, one that incorporates alternative value systems in its transactions, consequently understanding abandoned properties as assets for regional regeneration. Critical paths for overcoming socio-ecological challenges related to these unproductive lands require reimagining existing power dynamics and decentralizing current systems of governance. By doing so residents

might be able to better contribute to the process of reactivating abandoned properties as they will have more agency, and less financial stagnancy. When empowered to shape regeneration processes of their own neighborhood, residents are likely to trust more their own neighbors, and form a community around similar goals. If done properly, the creation of alternative processes should not be understood as mechanisms to outcompete existing initiatives, but rather to scale up their efforts by design.

Because existing systems of property redevelopment were not designed to promote sustainable and equitable outcomes, asking new questions becomes a critical step to unlock new possibilities, and pave new paths for better futures.



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Summary

This design research project aimed to raise alternative questions in regards to reactivating abandoned properties, so that existing underutilized and under-realized resources can be converted into assets, and leveraged to bring a better quality of life across the region and beyond. This work in progress can be used to advance future actions, and inform new processes to reactivated abandoned properties and contribute towards more sustainable and equitable futures. Information in this report is more useful under the involvement of experts in design, capable of incorporating systemic approaches to advance some of the contributions of this project.

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