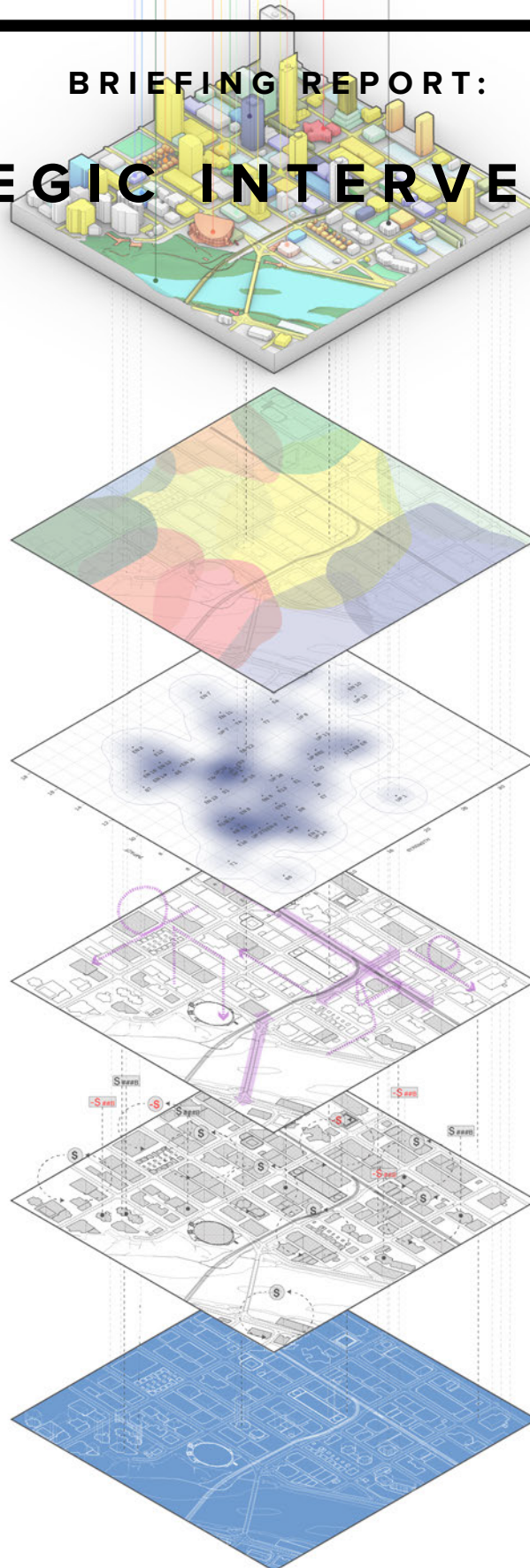


# Civic Commons Catalyst

---

BRIEFING REPORT:

## STRATEGIC INTERVENTIONS





# C i v i c Commons Catalyst

---

BRIEFING REPORT:

## STRATEGIC INTERVENTIONS

This briefing report was prepared by the **Center for Civilization**, a design research lab and international think tank based at the **University of Calgary School of Architecture, Planning and Landscape (SAPL)**.

The Catalyst is being led by the Center for Civilization at the University of Calgary School of Architecture, Planning and Landscape (SAPL) and **Evergreen**; executed in partnership with the **Urban Policy Platform at the University of Calgary School of Public Policy (SPP)**.

This project is made possible through a grant from the **Alberta Real Estate Foundation (AREF)**. The Alberta Real Estate Foundation invests in real estate policy, research, practices, and education that strengthen the real estate industry and Alberta's communities. The Foundation's revenues are generated by the accumulation of interest earned on real estate transactions through licensed real estate brokers. Learn more at [www.aref.ab.ca](http://www.aref.ab.ca).



## Contact Information

### Prof. Alberto de Salvatierra

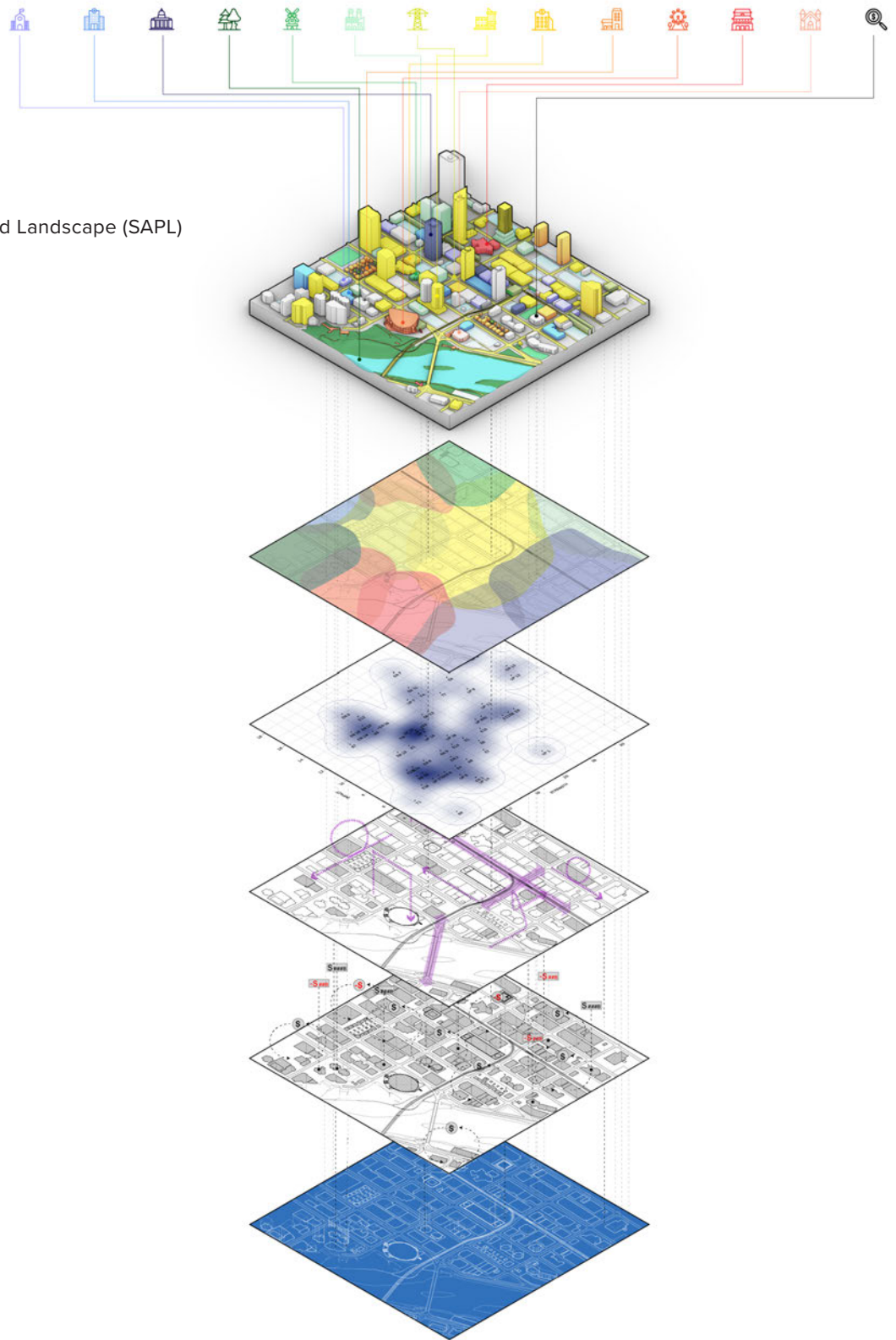
University of Calgary  
School of Architecture, Planning and Landscape (SAPL)

PF 3193, 2500 University Drive  
Calgary, AB T2N 1N4  
Canada

+1.403.220.7843  
[alberto.desalvatierra@ucalgary.ca](mailto:alberto.desalvatierra@ucalgary.ca)

### Center for Civilization

[centerforcivilization.org](http://centerforcivilization.org)



Anagha Patil and Alberto de Salvatierra, Center for Civilization. *Research Structure Conceptual Exploded Axon: Civic Commons Catalyst*. 2021.



# Civic Commons Catalyst

---

## About the Catalyst

In 2020, the **Center for Civilization** at the **University of Calgary School of Architecture, Planning and Landscape (SAPL)** and **Evergreen** laid the foundations of the **Civic Commons Catalyst** (i.e. “**The Catalyst**”)—an **interdisciplinary research and innovation platform embedded with SAPL’s City Building Design Lab**. By strategic design, the Catalyst has been incubated and embedded within the University due to its intellectual capacity and substantive local and regional partnership assets. With the CBDLab and its partner faculties leading an inter- and trans-disciplinary city-building research agenda—and its growing list of civil society and government partners—the Catalyst is consciously designed as vehicle for transformational and long-term change for the real estate and other city-building industries, organizations and sectors. Aimed at taking underutilized spatial assets in Albertan cities and catalyzing them into positive assets for the community that can revitalize their downtowns, the Catalyst is identifying zones of opportunity so that assets can be networked together and help focus strategies for economic development and impact investment.

The Catalyst is also developing and deploying a comprehensive set of methods through a produced catalog of civic assets. **This project complements the work being done by municipalities and industry, and therefore is maximizing the impact and transformational long-term change for both our partner municipalities and the Province of Alberta.** The Catalyst is currently focused on the ~30% vacancy in the downtown core of the city of Calgary while branching out to three new Alberta communities, deploying the research methods and findings to a rural setting—opening up opportunities and strategies for replicability across the rest of the Province. With a catalog, an ideation methodology, and detailed design proposals and partnerships to advance them, the Catalyst is providing a clear and innovative roadmap to engage in economic development and impact investment in downtown cores—providing lasting impact to municipalities and the real estate industry.

**Lastly, the Catalyst addresses all three of AREF’s primary mandates: education of the public and professionals, research on policy and law reform, and advancement of activities that improve the real estate industry.** Through its employment of graduate researchers across the disciplines of architecture, landscape architecture, planning, public policy and business, the Catalyst is contributing to the training of future real estate industry professionals—helping promote a pipeline of young talent with developed core competencies that can advance the sector. This is inline with the *Alberta 2030* long-term strategic plan for Alberta’s post-secondary system.

# Strategic Interventions

## Overview

The strategic interventions presented in the following pages present the culmination of one year of research—concluding Phase I of the Civic Commons Catalyst.

Engendered through a synthesis of the preceding components of the research (Interviews, Horizon Scanning, Public Policy, Finance Innovation, Geospatial Data, and the CCC Catalog), the strategic interventions present new, bold, and innovative ideas for the revitalization of Calgary’s Downtown Core.

**These final strategic interventions are organized around seven scales** (Person, Building, Landscape, Block, Neighborhood, City, and Province) **and are divided into three types: Single Asset, Asset Class, and Asset Cluster.**

The first iteration resulted in 50 strategic interventions. These were further refined, stress-tested and de-risked through additional cross-referencing with potential sources of funding, policy priorities at the federal, provincial and municipal level, and through an initial business-case analysis that would determine potential industry interest and support.

The final grouping—reduced from a selection of 30—present a variety of options at a number of scales. **These 20 strategic interventions each present an opportunity to establish bespoke partnerships, pursue targeted funding programs, deploy specific financial tools, address interrelated policy opportunities, and address emerging signals and trends.**

A special thanks to the 55 M.Arch graduate students of Spring Intersession 2021 course **ARCH 675: Urban Systems** (*City as Civilization: From Ecumenopolis to Res communis*) who—under the supervision of Prof. Alberto de Salvatierra—undertook the exploration and analysis of 16 of 20 of the final strategic interventions. Tackling scales of material flow analysis between the planetary and the municipal, students examined the viability and market context of these ideas—making use of geospatial data and precedent research. Titled *Codex for Civilization in a City*, this project asked, “*Can global materials flows be mined for opportunities for revitalization of the urban at a local scale?*” Or, worded differently, “*What planetary-scale movements and trends can be operationalized to choreograph and reinject new industry—and therefore vibrancy—into a struggling city?*”

## Single Asset Interventions

1. Waste-to-Energy Power Plant
2. Cross-Laminated Timber (CLT) Mill
3. Hyperloop Station
4. Calgary Airport-Downtown-Banff Rail

## Asset Class Interventions

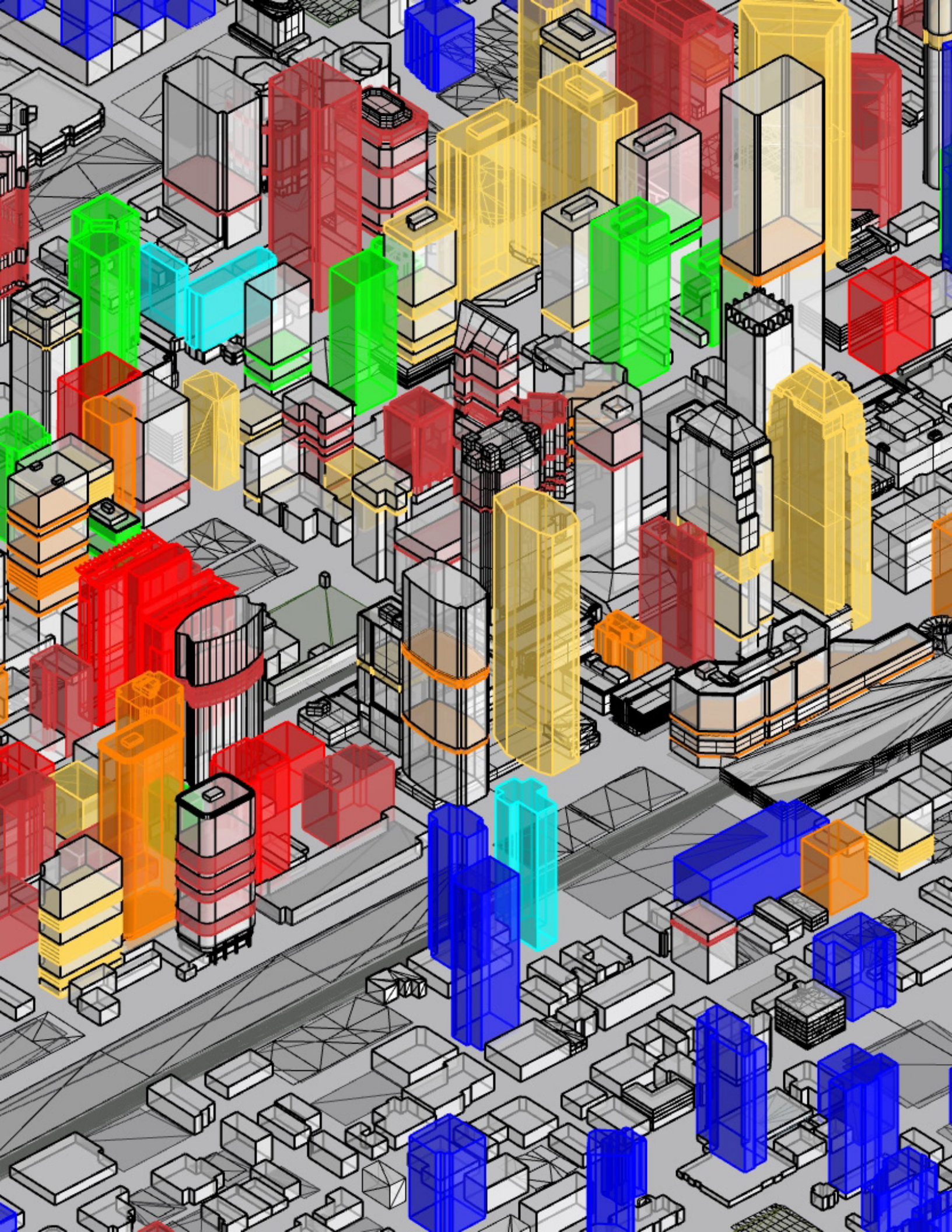
5. Urban Ramblas (Extended Sidewalks/Reduced Road Lanes/ More Patios)
6. Office-to-Residential Conversions
- 7-8. Office-to-Crypto-Mining Farm Conversion and/or Gas Field Crypto Farms
9. Affordable Housing/Green Building Retrofits
10. Beehive Rooftops + Wildflower Gardens Network
11. Office-to-Hydroponic Facility Conversions
- 12-13. Office-to-Data-Center Conversions and/or Data Centers
14. E-Commerce Fulfillment Centers
15. Urban Gardens
16. Parking Lots as City Activators/ “Flex Space”

## Asset Cluster Interventions

17. Innovation Campus + Smart City Strategy (AI/Fin-Tech/De-Fi)
18. Casino District
19. Movie & TV Production Campus/Filming Sets
20. Artist/Rainbow Village

Right: Ji Song Sun and Alberto de Salvatierra, Center for Civilization. *City of Calgary Axon: Office-to-Residential Conversion Analysis*. 2021.







SCALE

50 STRATEGIC INTERVENTIONS

A\_Person

B\_Building

C\_Landscape

D\_Block

E\_Neighborhood

F\_City

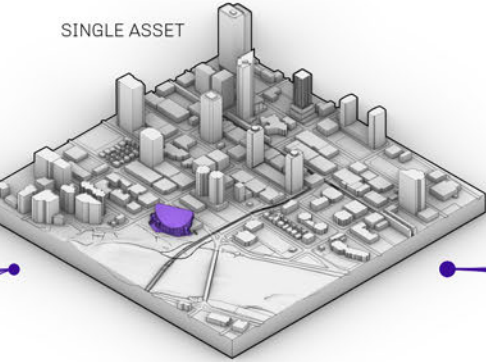
G\_Province

A	Information/Wi-Fi Kiosks
A	Green Alley/Pedestrian Promenade
A	Urban Rambla (Extended Sidewalks/Reduced Road Lanes/More Patios)
A	Children's Playground
B	Office-to-Residential Conversion
B	Office-to-Crypto-Mining-Farm Conversion
B	Flexible Workspaces/Offices (for Digital Nomads)
B	Flexible Workspaces/Offices (for WFH Workers)
B	Affordable Housing/Green Building Retrofits
B	Solar Energy (PV Panel) Farm
B	Homeless Pods
B	Park-through-Demolition
B	Smart Parkade (Driverless Cars Strategy)
B	Day Care + Elderly Housing
B	Office-Tower-to-Elementary School Conversion
B	Vertical Rooftop Park
B	Community Makers' Space
B	Office-to-Hydroponic-Facility Conversions
B	Office-to-Data-Center Conversions
C	Stormpond/Stormwater Infrastructure
C	Revegetating Riparian Zones and Docks
C	River Park
C	Daylighted Park
C	Public Beach (along the River)
C	Public Amphitheatre
D	Beehive Rooftops + Wildflower Gardens Network
D	Fin-Tech District
D	Eco-Village/Commune
D	AI Tech Campus/Innovation District
D	Waste-to-Energy Power Plant
D	Geothermal Energy Station
D	Outdoor Food Truck Court
D	E-Commerce Fulfillment Centers
E	Farmers' Market
E	Casino District
E	Movie & TV Production Campus/Filming Sets
E	Rainbow Village
E	Artist Village
E	Distillery District
F	Urban Gardens
F	Solar Parking Lots
F	Electric Car Charging Stations
F	Green City Strategy/Tree Avenues
F	Parking Lot as City Activators/"Flex-Space"
F	Electric Streets
F	Gallery Network in Plus 15
F	Cross-Laminated Timber (CLT) Mill
F	Data Centers
F	Hyperloop Station
G	Calgary Airport-Downtown-Banff Rail

## TYPES OF SI

## 30 STRATEGIC INTERVENTIONS

SINGLE ASSET



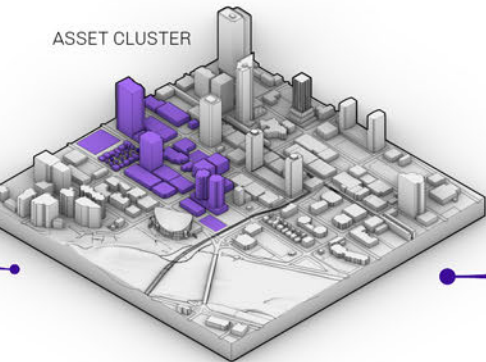
1	Smart Parkade (Driverless Cars Strategy)	
2	Day Care + Elderly Housing	
3	Office-Tower-to-Elementary School Conversion	
4	<b>Waste-to-Energy Power Plant</b>	1
5	<b>Cross-Laminated Timber (CLT) Mill</b>	2
6	<b>Hyperloop Station</b>	3
7	<b>Calgary Airport-Downtown-Banff Rail</b>	4

ASSET CLASS



8	Green Alley/Pedestrian Promenade	
9	<b>Urban Rambla (Extended Sidewalks/Reduced Road Lanes/More Patios)</b>	5
10	<b>Office-to-Residential Conversion</b>	6
11	<b>Office-to-Crypto-Mining-Farm Conversion and/or Gas Field Crypto Farms</b>	7, 8
12	Flexible Workspaces/Offices for Digital Nomads + WFH Workers	
13	<b>Affordable Housing/Green Building Retrofits</b>	9
14	Homeless Pods	
15	Park-through-Demoliton	
16	<b>Beehive Rooftops + Wildflower Gardens Network</b>	10
17	Farmers' Market	
18	<b>Office-to-Hydroponic-Facility Conversions</b>	11
19	<b>Office-to-Data-Center Conversions and/or Data Centers</b>	12, 13
20	<b>E-Commerce Fulfillment Centers</b>	14
21	<b>Urban Gardens</b>	15
22	Solar Parking Lots	
23	Green City Strategy/Tree Avenues	
24	<b>Parking Lot as City Activators/"Flex-Space"</b>	16

ASSET CLUSTER

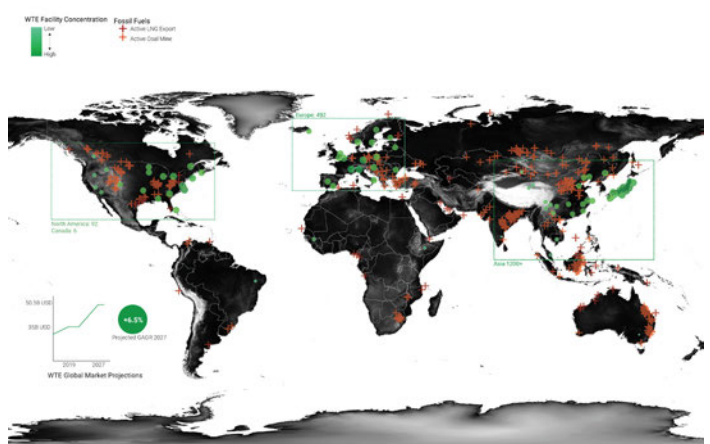
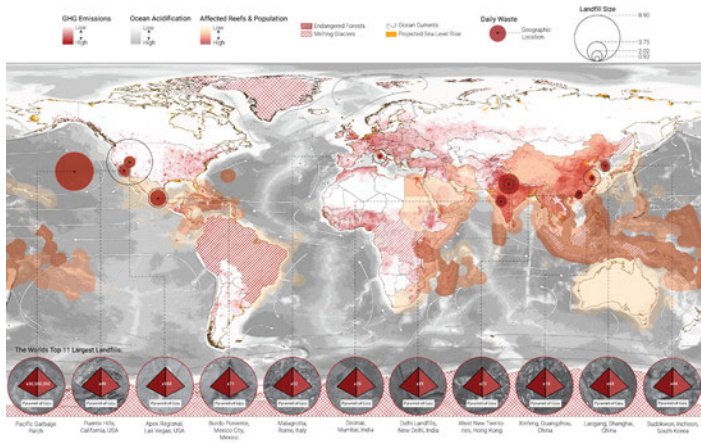
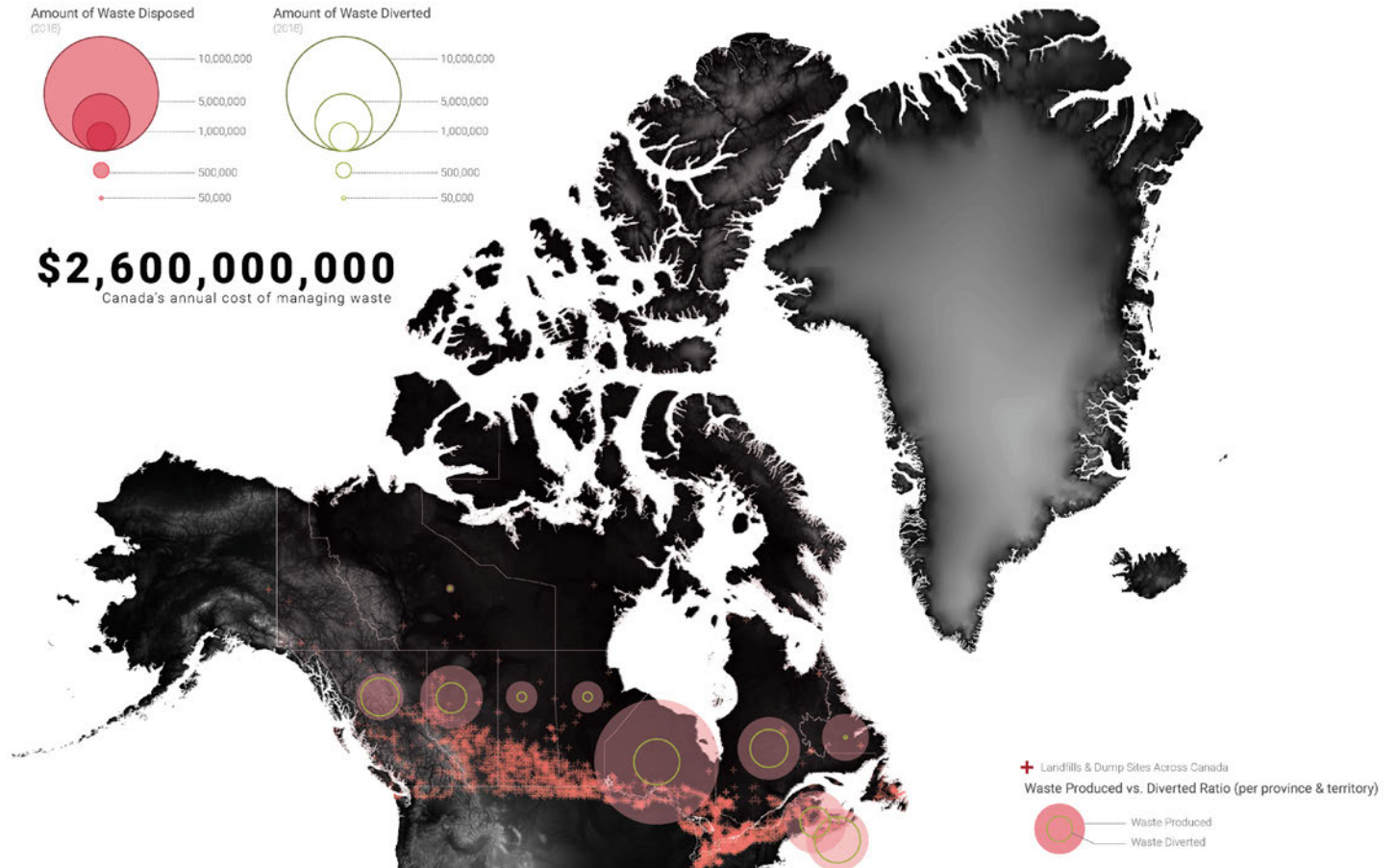


25	Eco-Village/Commune	
26	<b>Innovation Campus + Smart City Strategy (AI/Fin-Tech/De-Fi)</b>	17
27	<b>Casino District</b>	18
28	<b>Movie &amp; TV Production Campus/Filming Sets</b>	19
29	<b>Artist/Rainbow Village</b>	20
30	Distillery District	



# No. 01, Single Asset

## Waste-to-Energy Power Plant



Jennifer Choi, Ashley Elias, and Neve Toth. *Codex for Civilization in a City: Trash, Maps*. 2021.

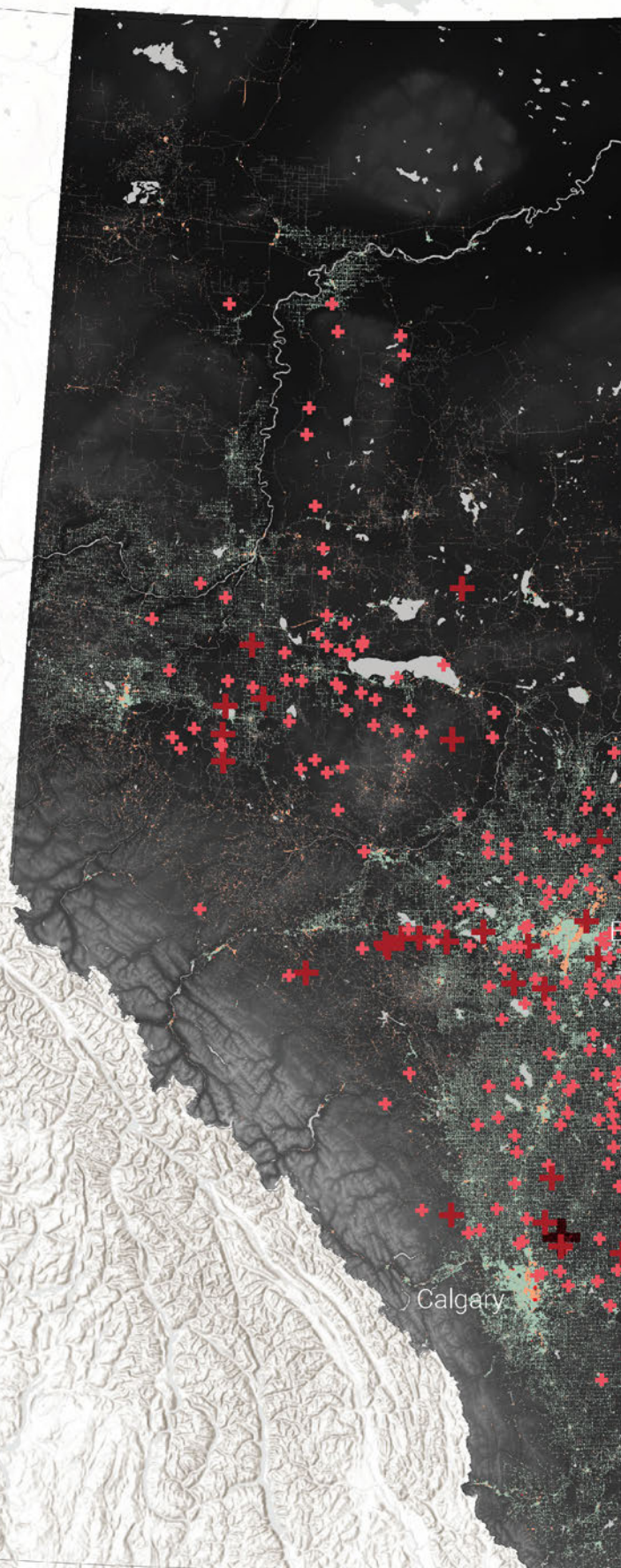






**10,000+**  
Landfills in Canada

**450+**  
Registered landfills in Alberta

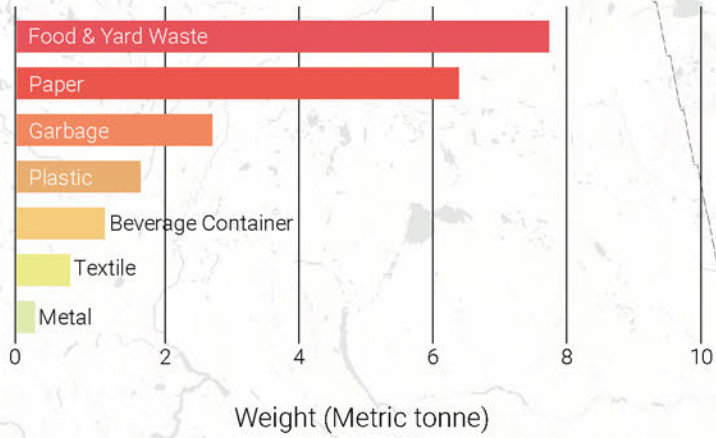




# Landfills & Dump Sites Across Alberta

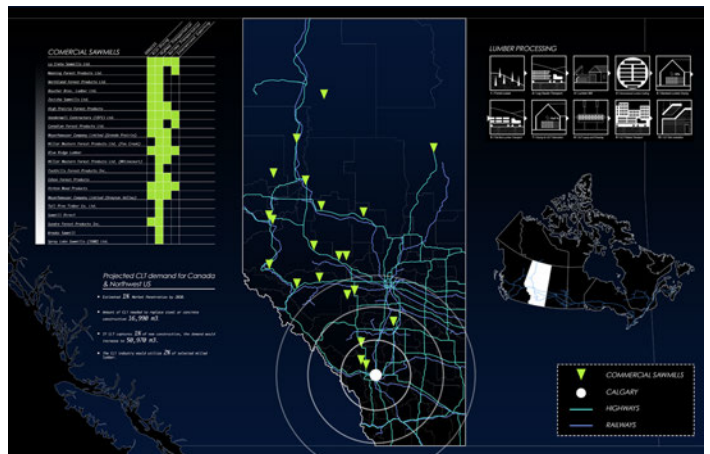
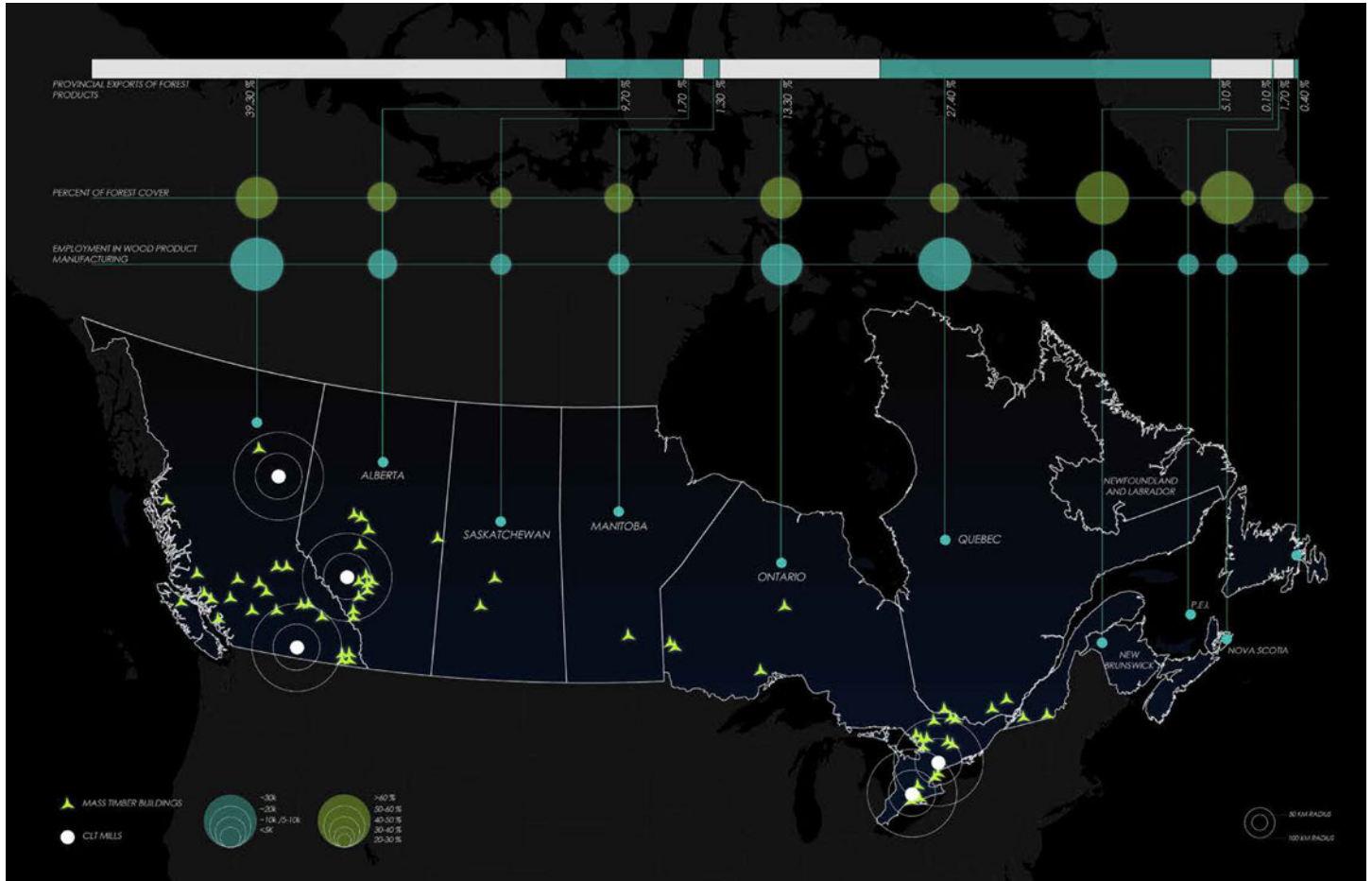


## Alberta Annual Waste Material Breakdown (2018)



# No. 02, Single Asset

## Cross-Laminated Timber (CLT) Mill

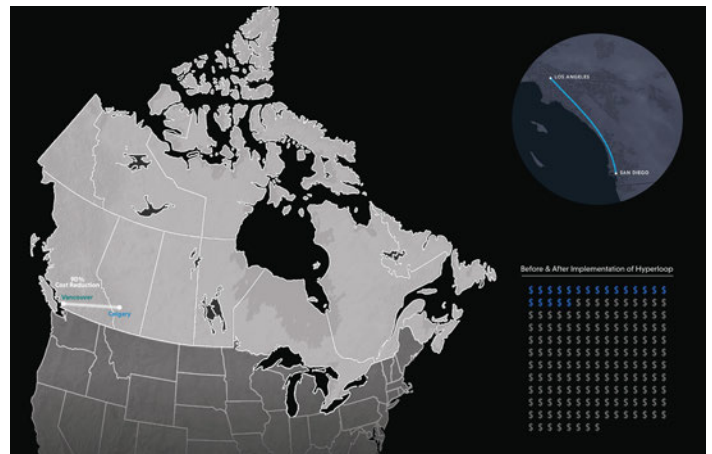
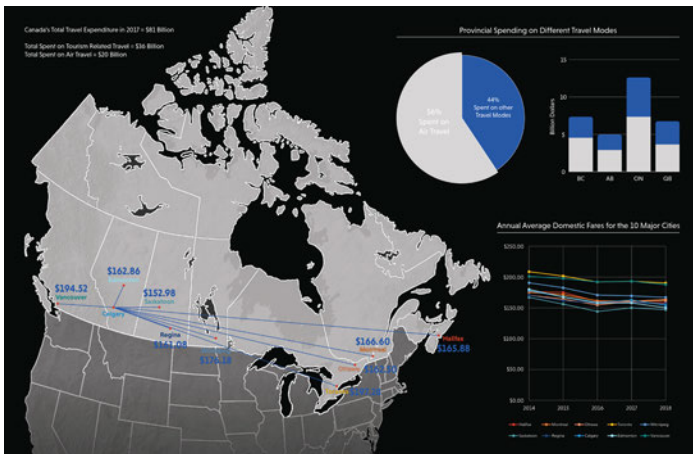
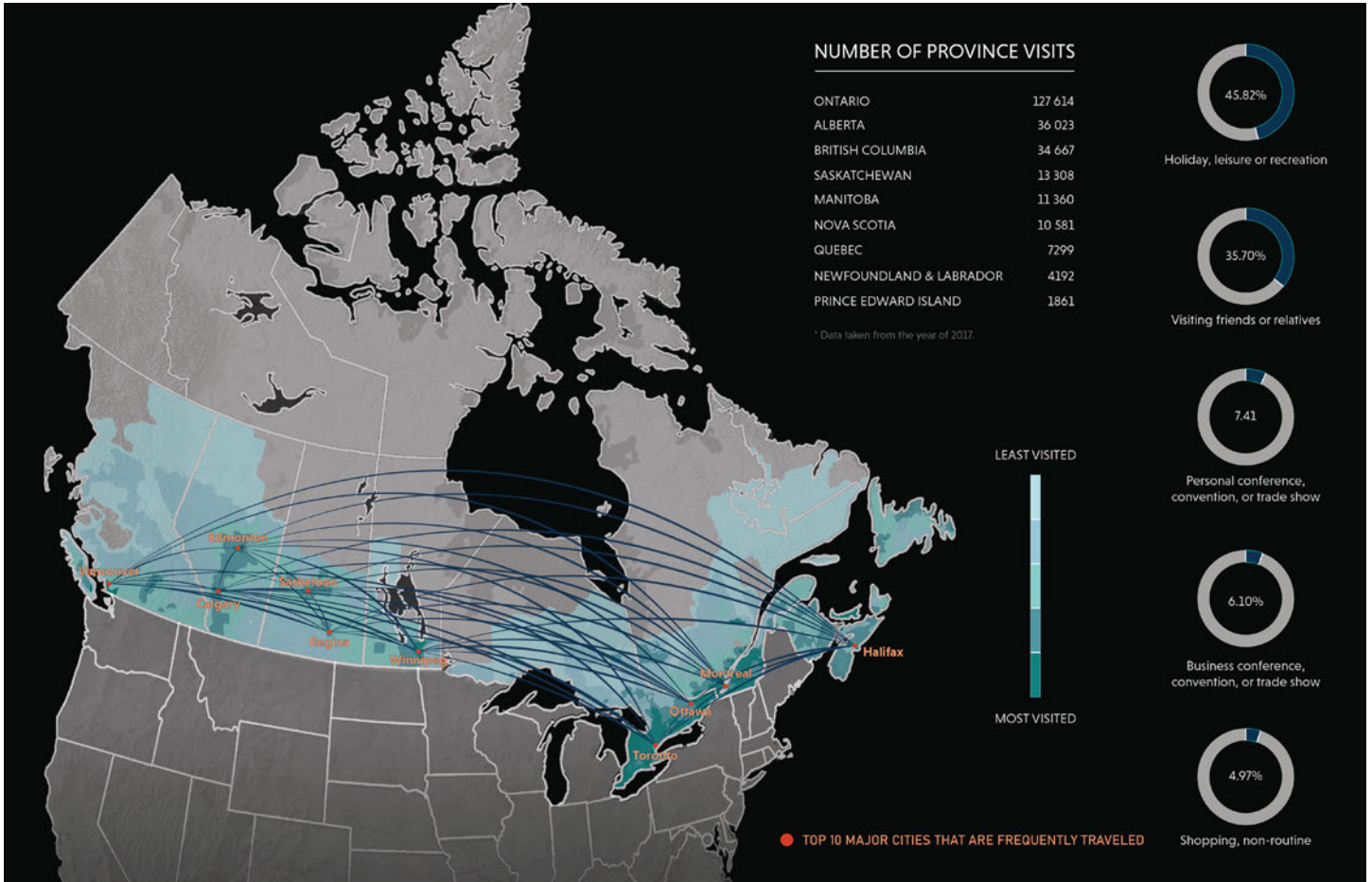


Ben Harrison, Pragma Salhan, Chagan Wang, and Boxu Zang. *Codex for Civilization in a City: Timber, Maps*. 2021.



# No. 03, Single Asset

## Hyperloop Station

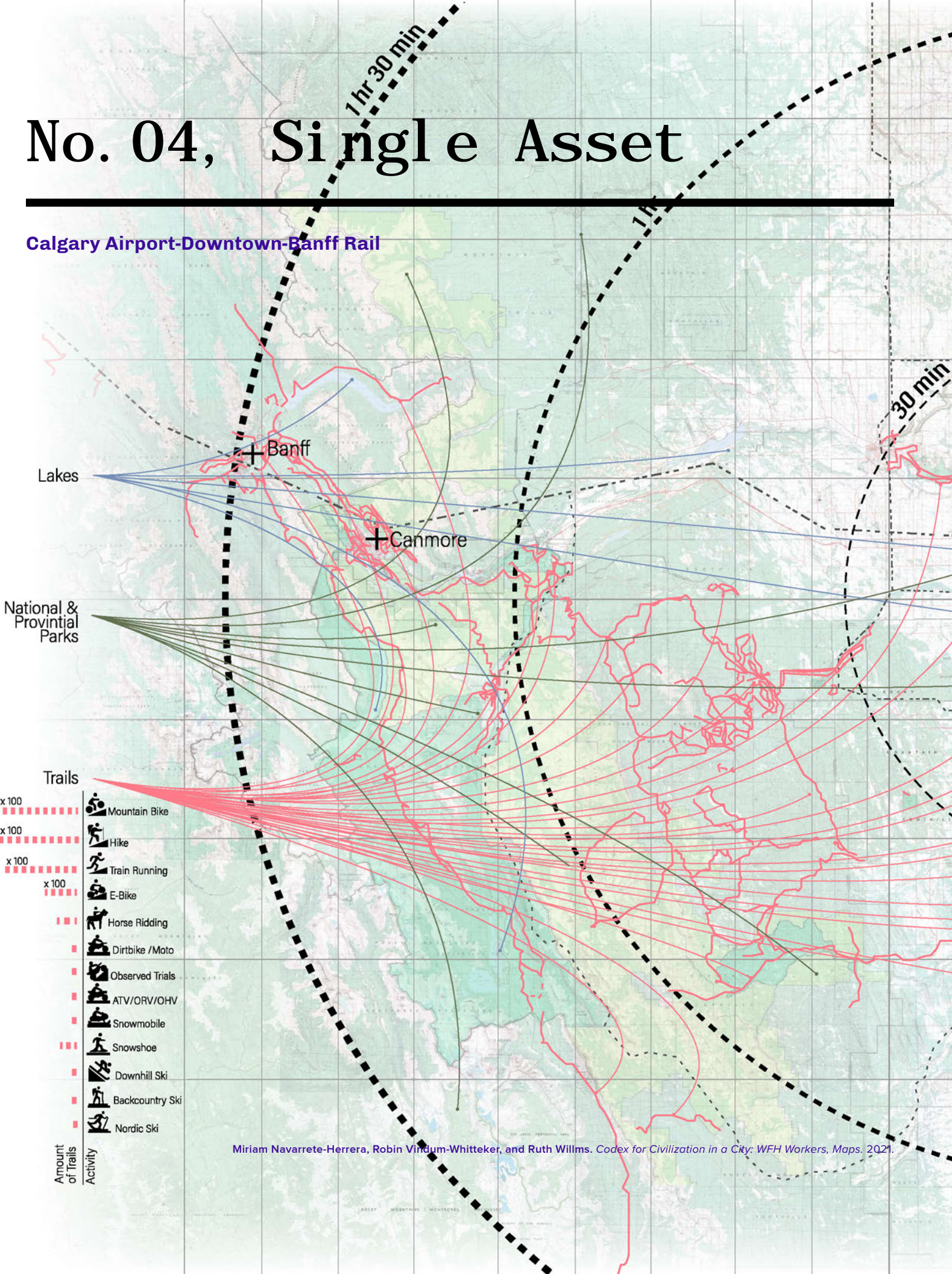


Brooklyn Hofmann and Jenny Li. *Codex for Civilization in a City: Commuters, Maps.* 2021.



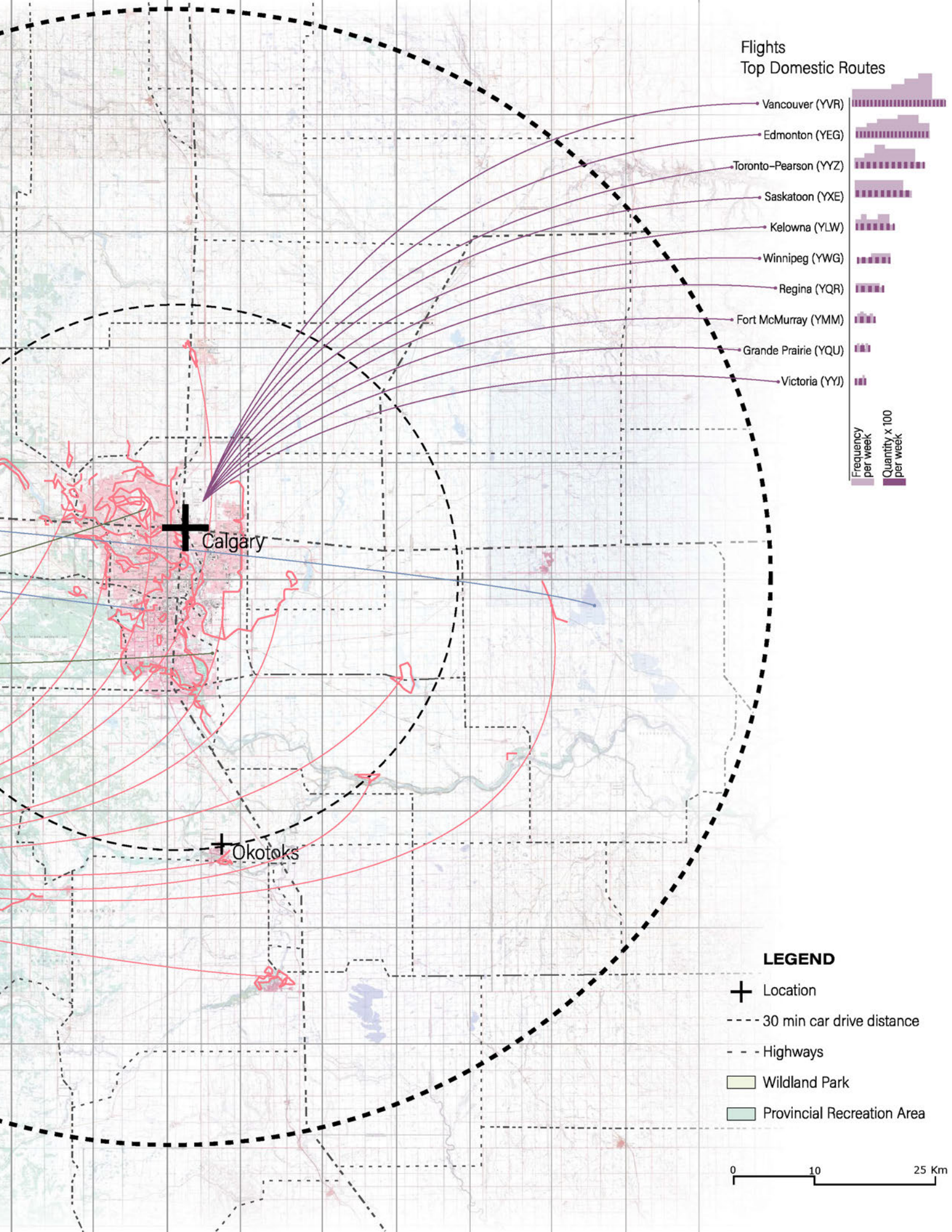
# No. 04, Single Asset

## Calgary Airport-Downtown-Banff Rail

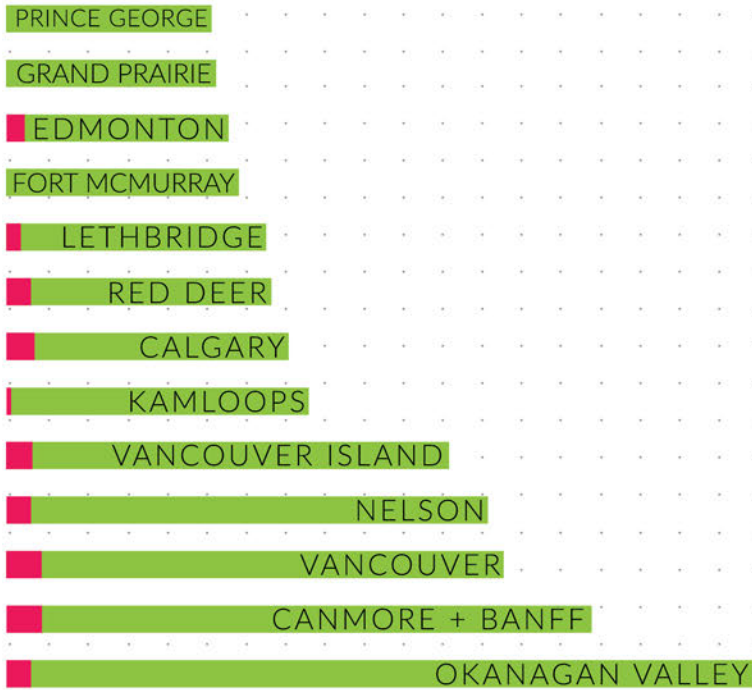
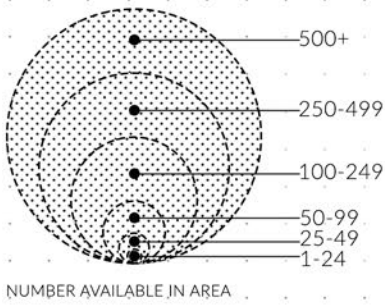
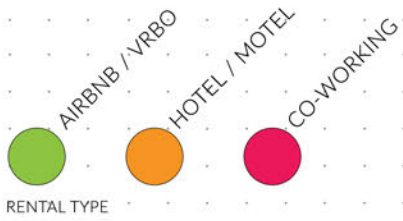


Miriam Navarrete-Herrera, Robin Vindum-Whitteker, and Ruth Willms. *Codex for Civilization in a City: WFH Workers, Maps*. 2021.



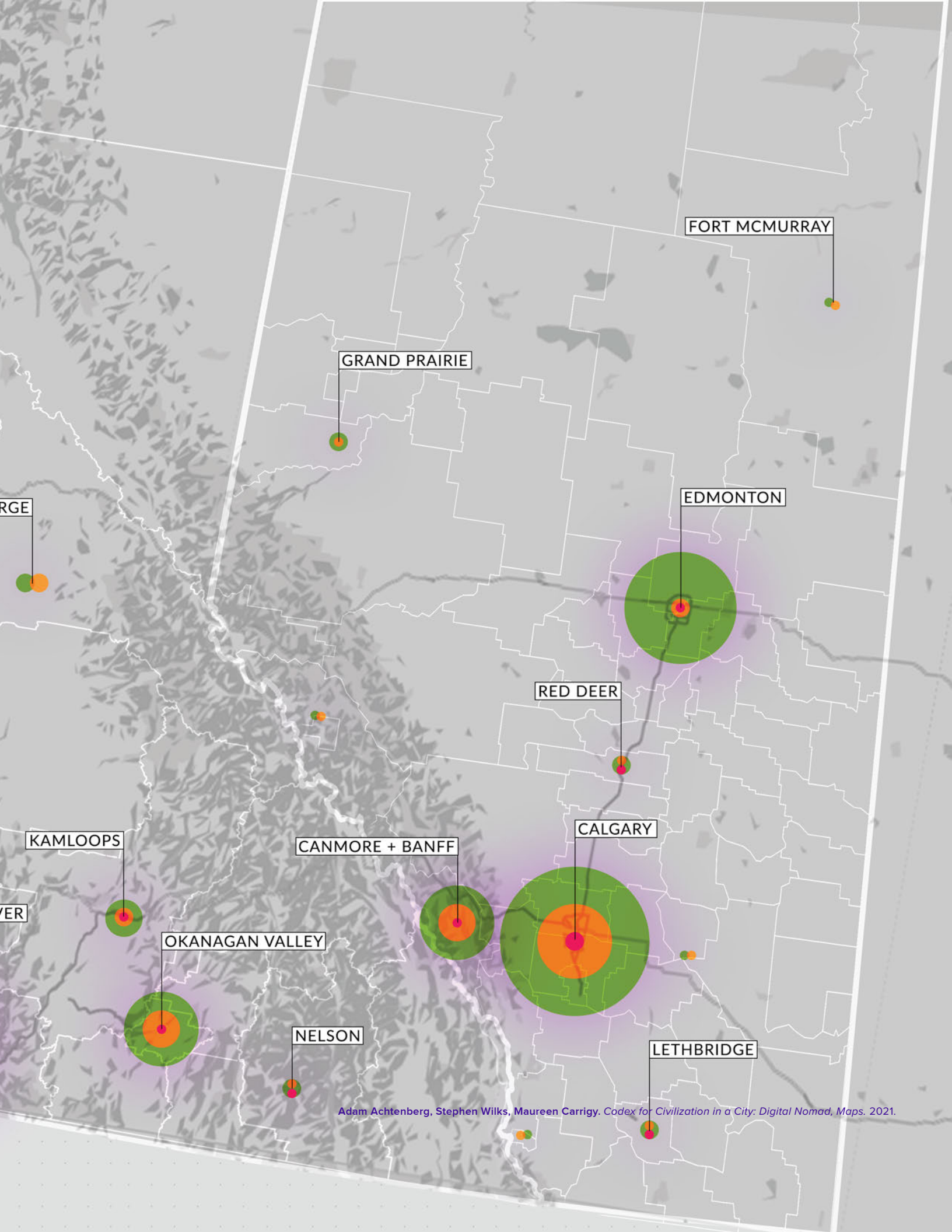






NOTE:  
 DATA BASED ON ONE (1) MONTH MINIMUM AVAILABILITIES FOR ONE (1) PERSON FOR AIRBNB, VRBO, HOTEL + COWORKING SPACES AVAILABILITIES DURING AUGUST + NOVEMBER OF 2021. AIRBNB + VRBO ACCOMMODATIONS BASED ON RENTAL OF ENTIRE HOME OR PRIVATE ROOM, REQUIRING AT MINIMUM: FREE WIFI, DESIGNATED DESKSPACE, HEATING, AND WASHER + DRYER. HOTELS REQUIRED AT MINIMUM: FREE WIFI.



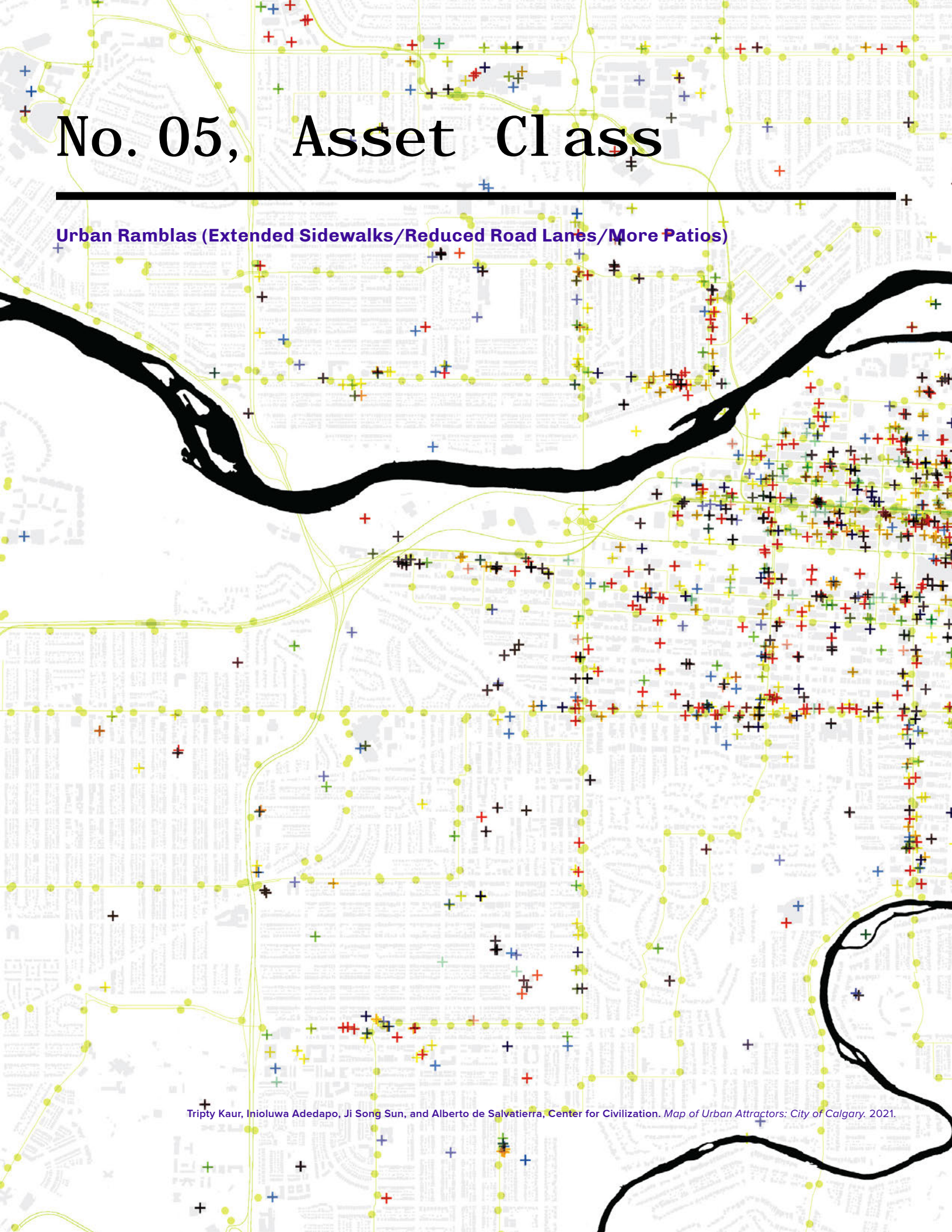


Adam Achtenberg, Stephen Wilks, Maureen Carrigy. *Codex for Civilization in a City: Digital Nomad, Maps*. 2021.

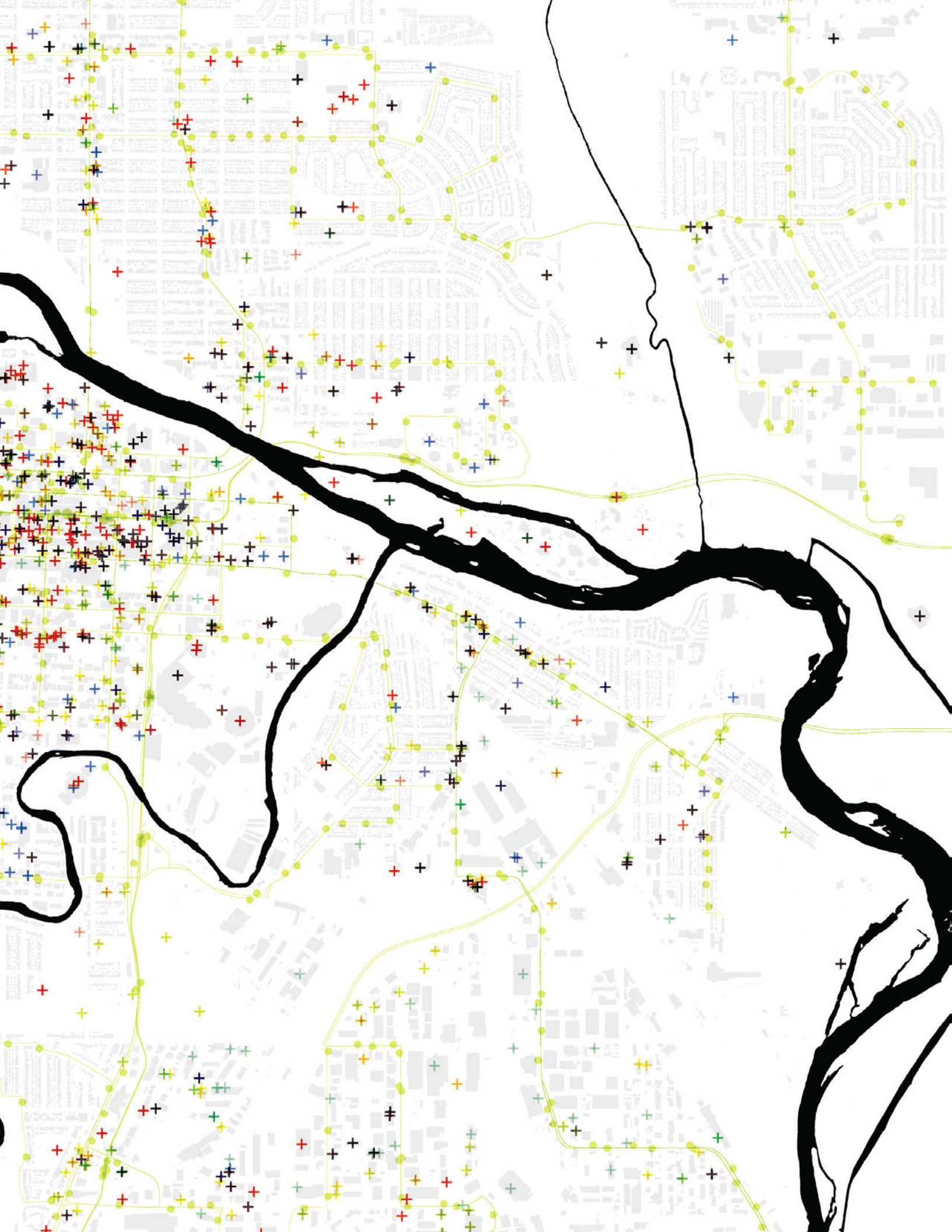


# No. 05, Asset Class

Urban Ramblas (Extended Sidewalks/Reduced Road Lanes/More Patios)



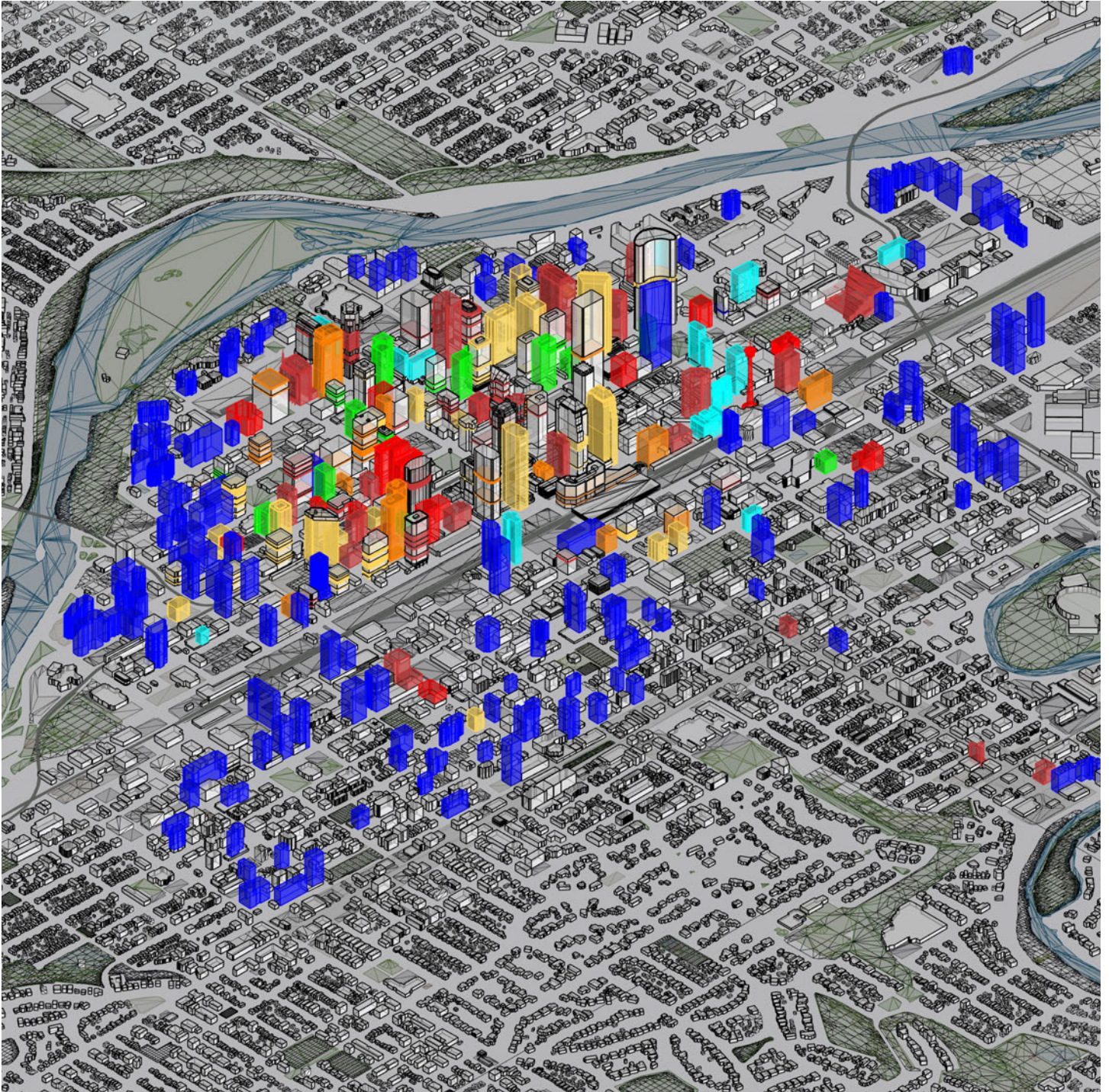






# No. 06, Asset Class

## Office-to-Residential Conversions

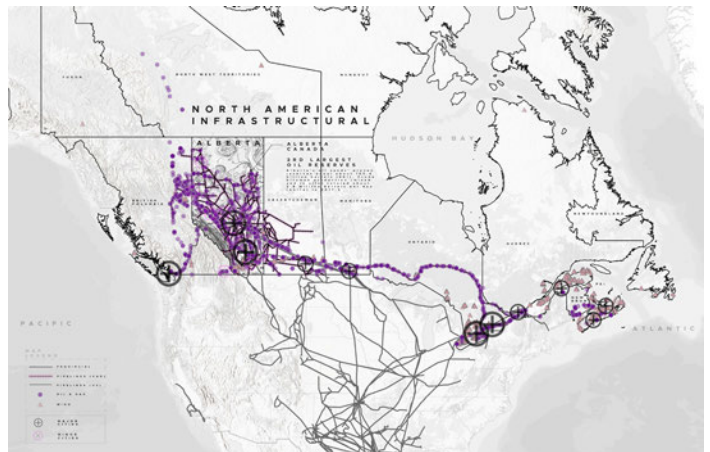
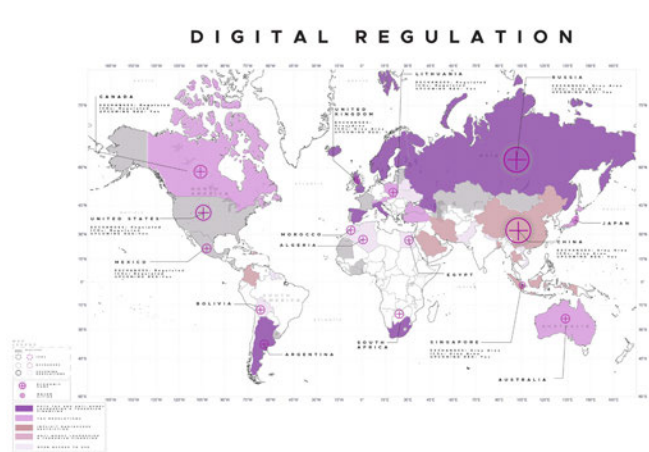
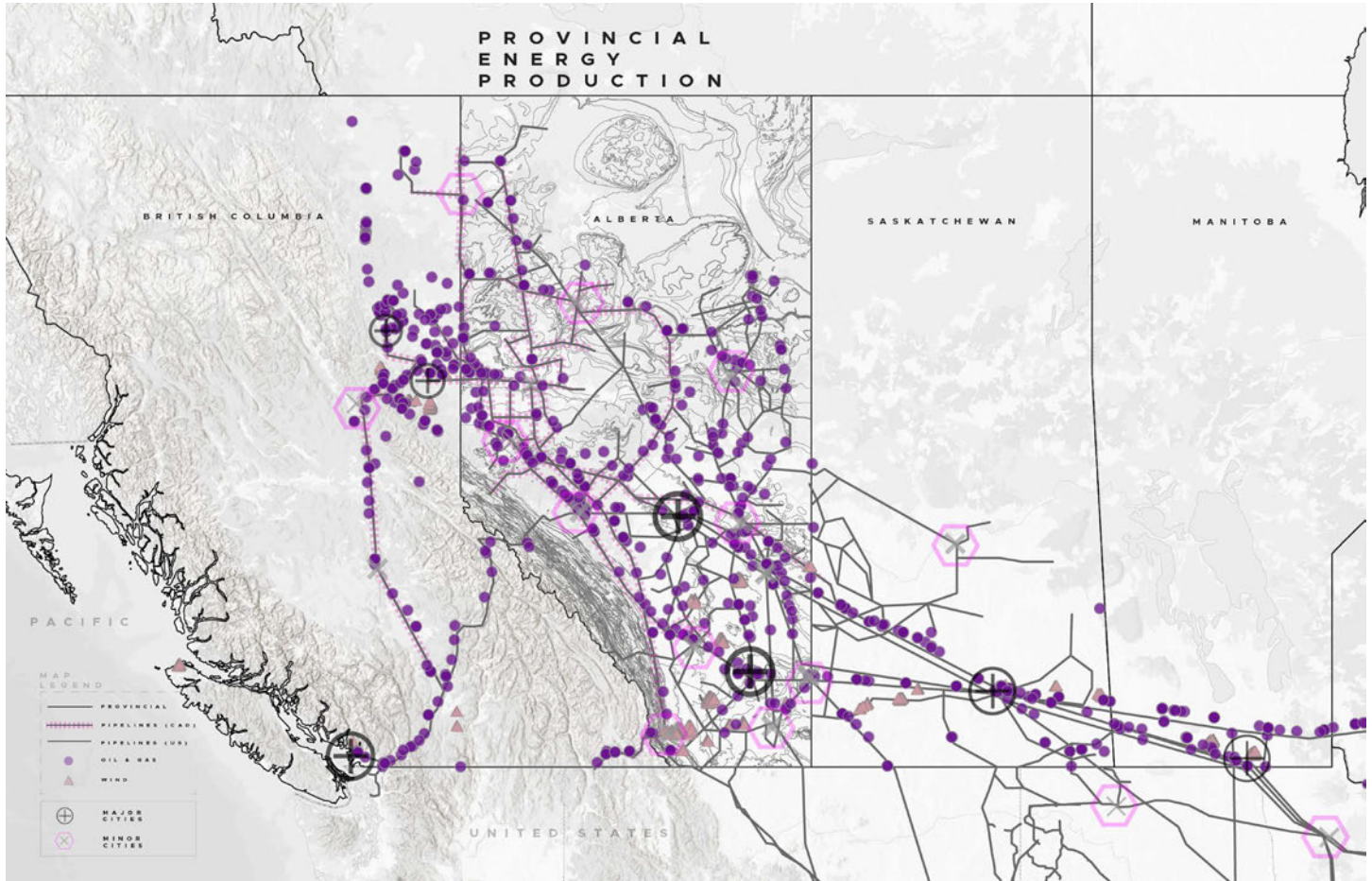


Ji Song Sun and Alberto de Salvatierra, Center for Civilization. *City of Calgary Axon: Office-to-Residential Conversion Analysis*. 2021.



# No. 07-08, Asset Class

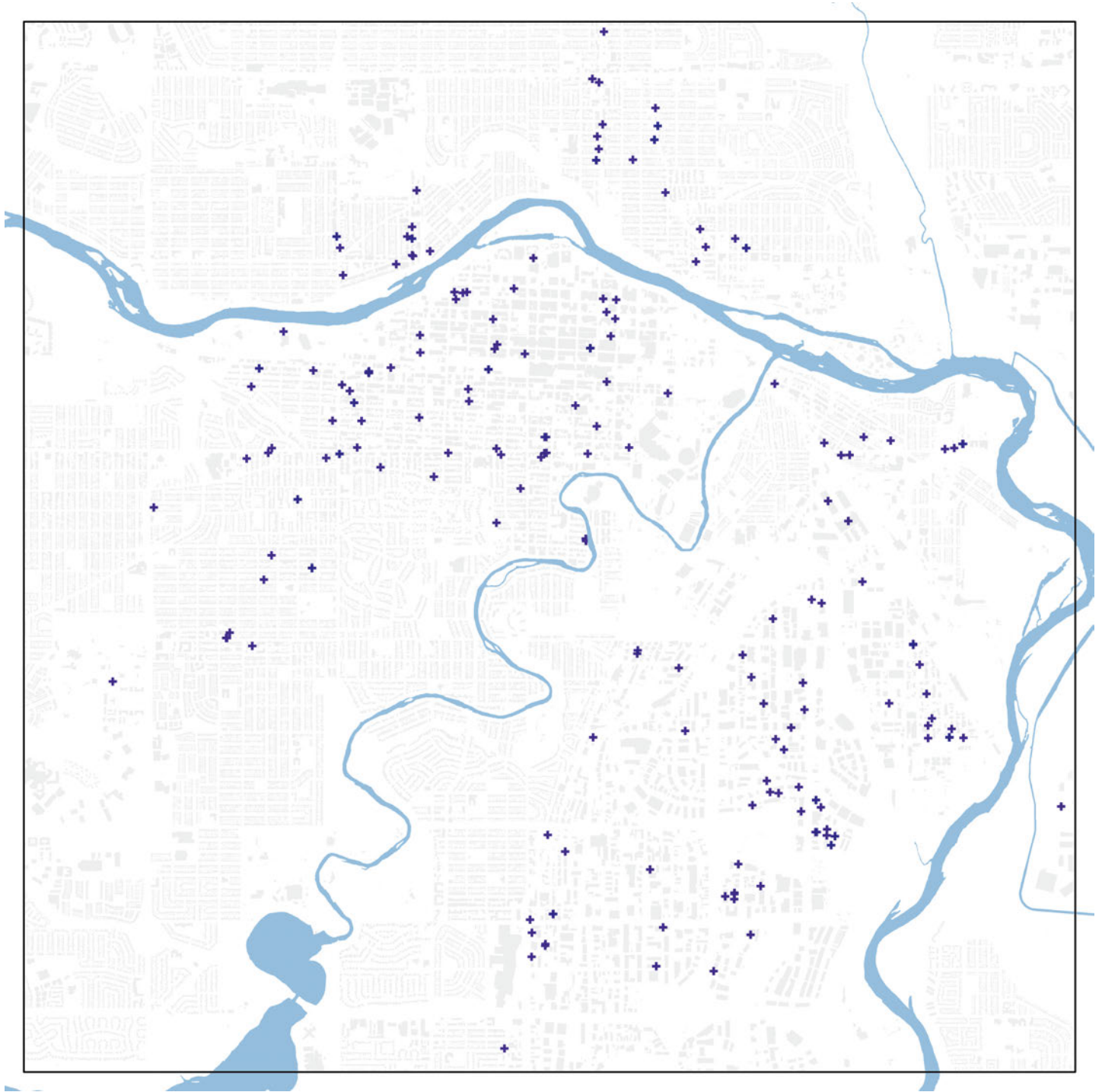
## Office-to-Crypto-Mining-Farm Conversions and/or Gas Field Crypto Farms



Connor Chow, Marshall Evens, and Mac McGinn. *Codex for Civilization in a City: Cryptocurrency, Maps*. 2021.

# No. 09, Asset Class

## Affordable Housing/Green Building Retrofits

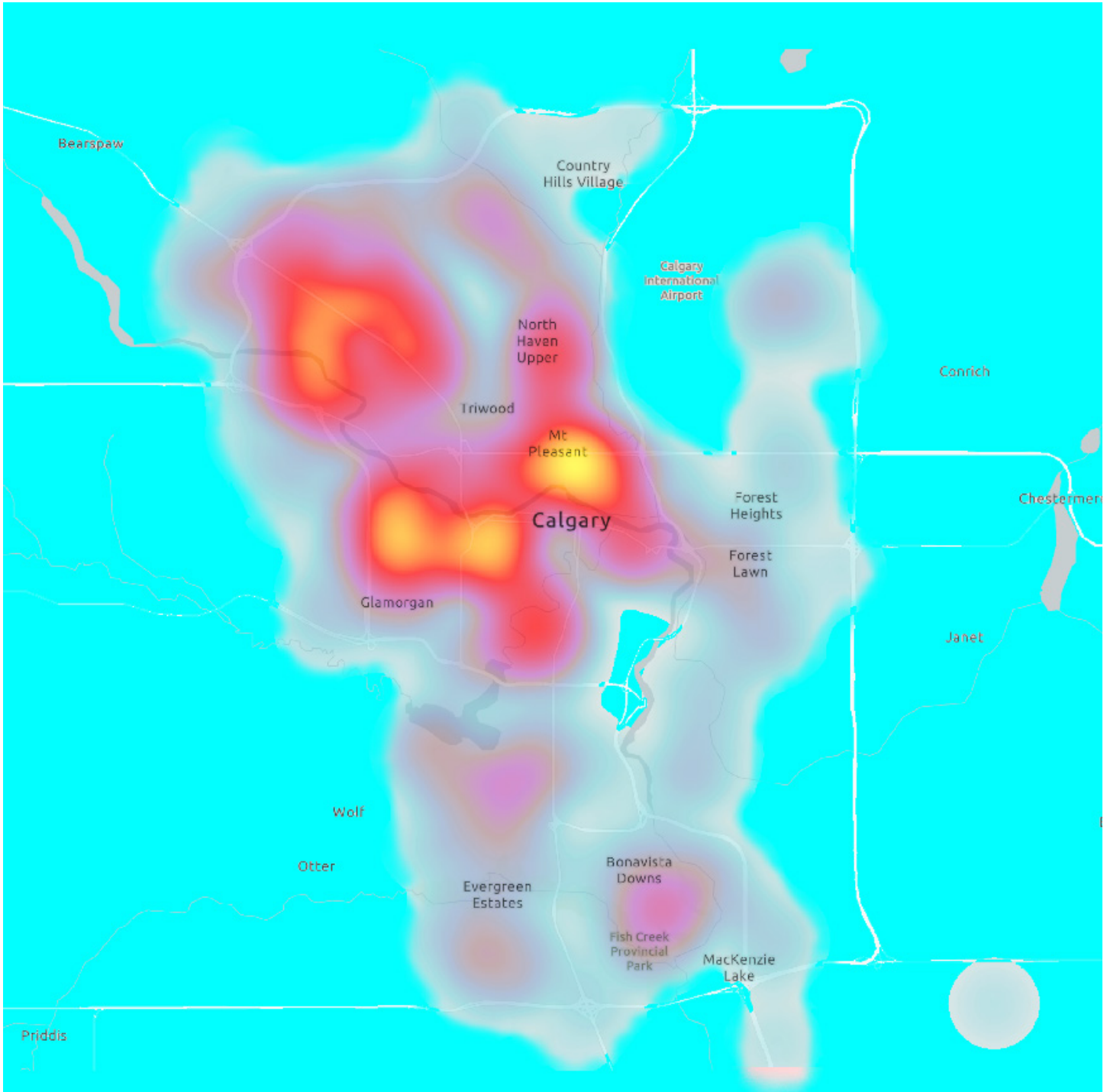


Tripty Kaur, Inioluwa Adedapo, and Ji Song Sun, Center for Civilization. CCC Catalog: Non-Office Tower Vacant Buildings. 2021.



# No. 10, Asset Class

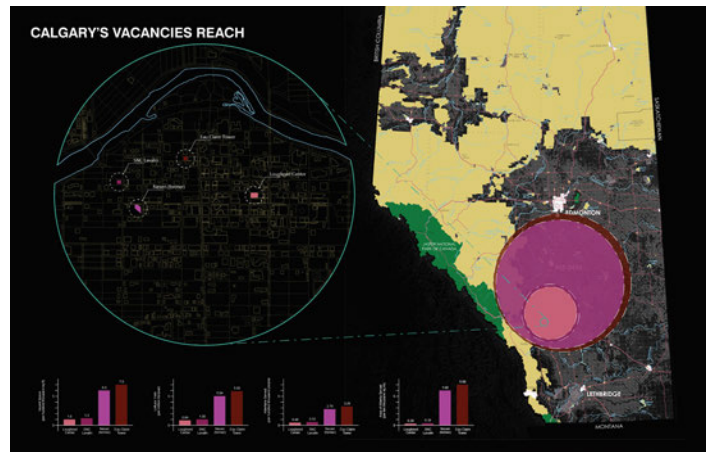
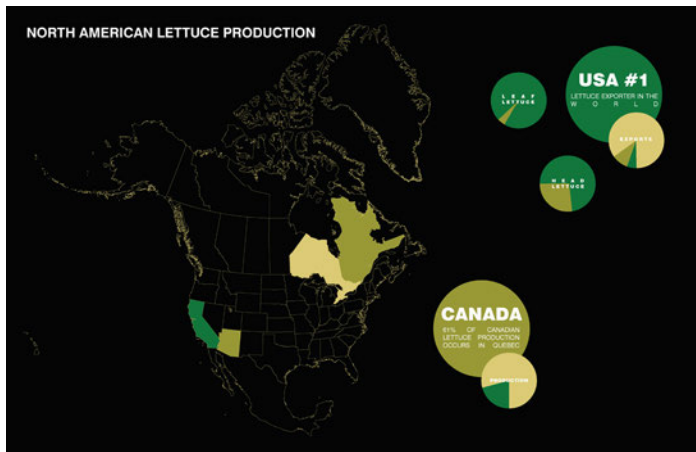
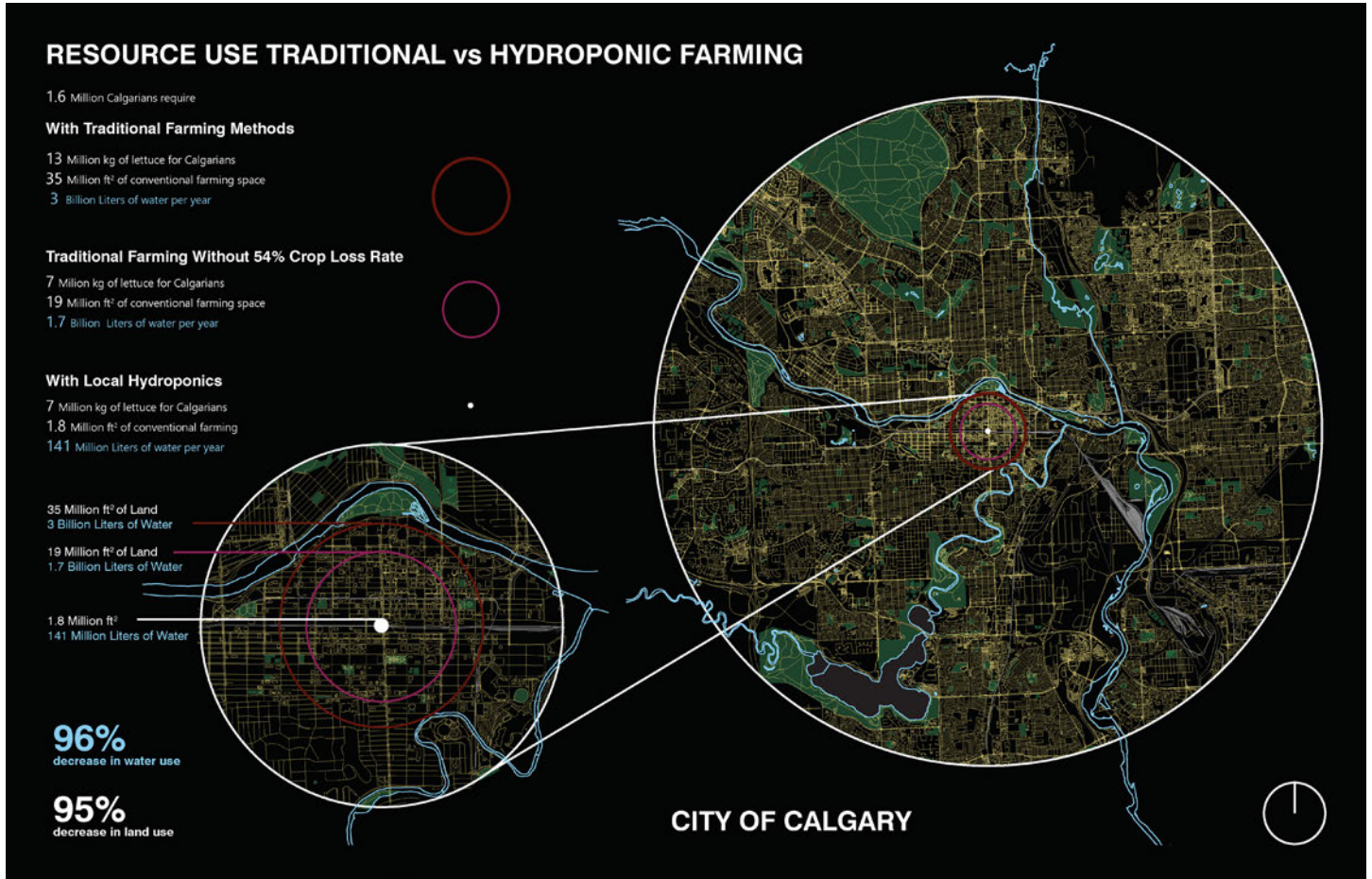
## Beehive Rooftops + Wildflower Gardens Network



Ioana Palade. *Codex for Civilization in a City: Honey, Maps*. 2021.

# No. 11, Asset Class

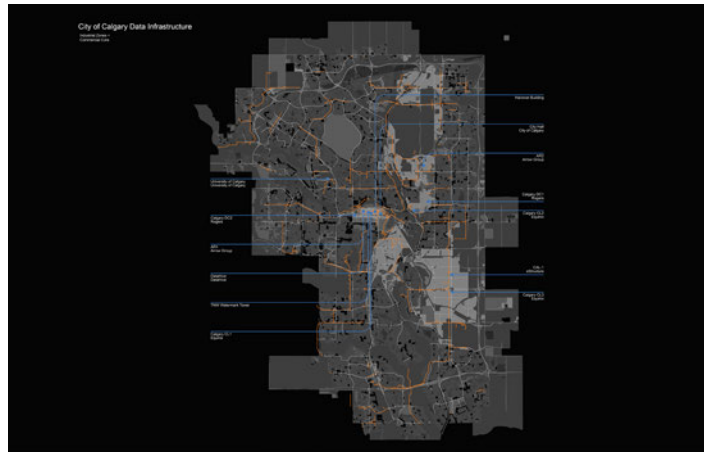
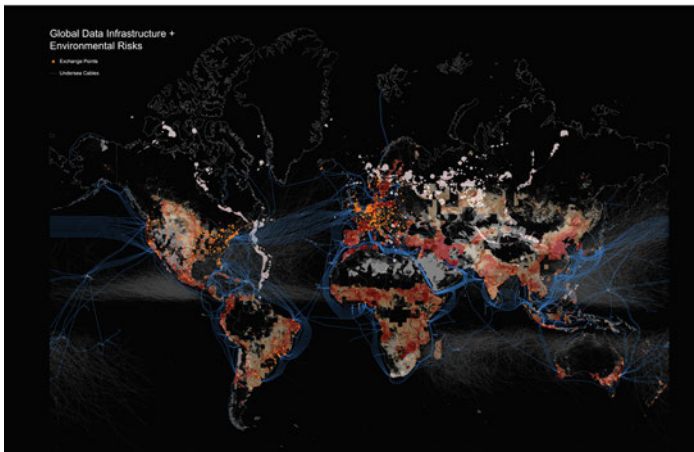
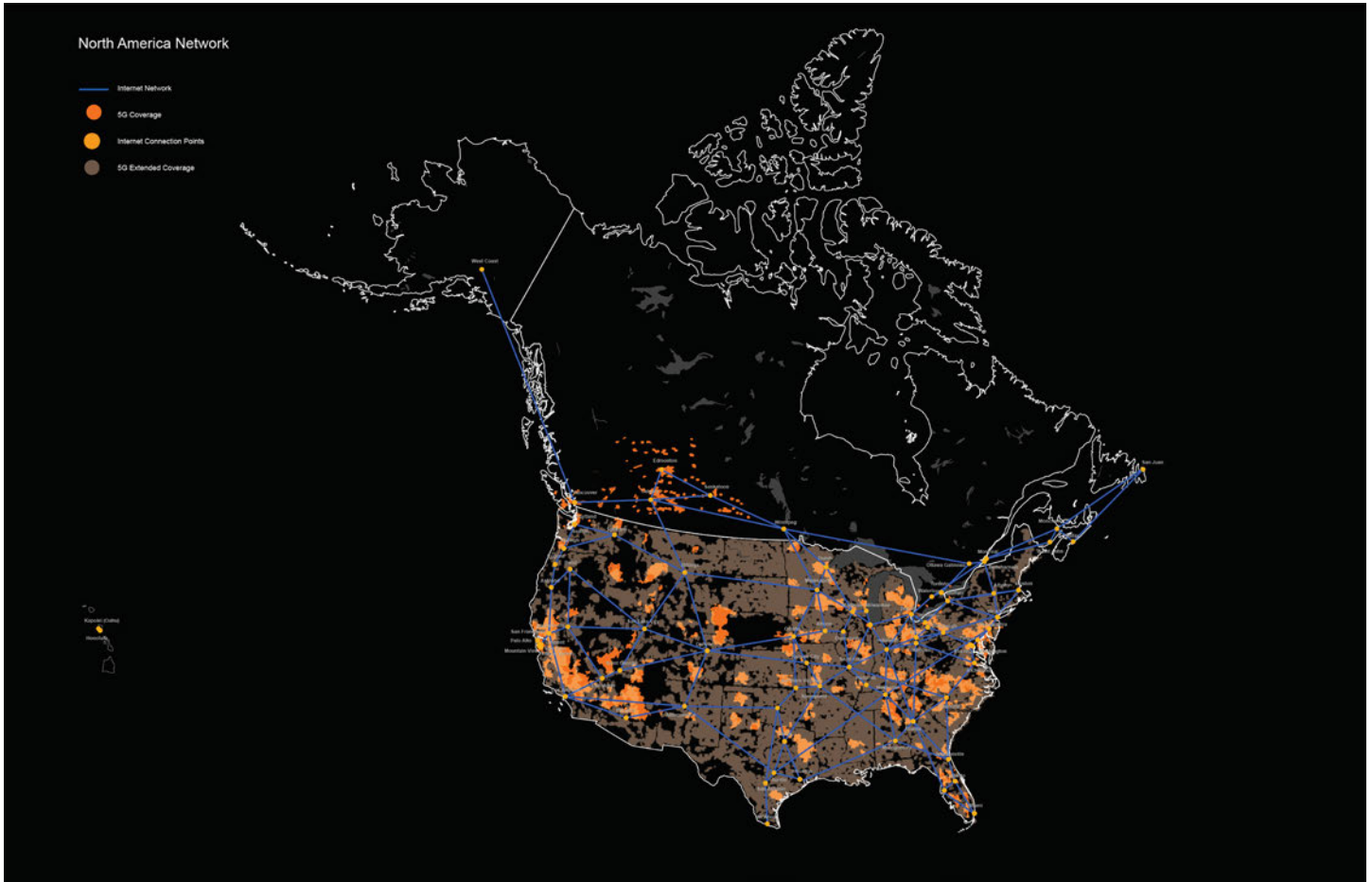
## Office-to-Hydroponic-Facility Conversions



Mac Garvin, Rhea Jenkins, and Alex Neumann. *Codex for Civilization in a City: Lettuce, Maps*. 2021.

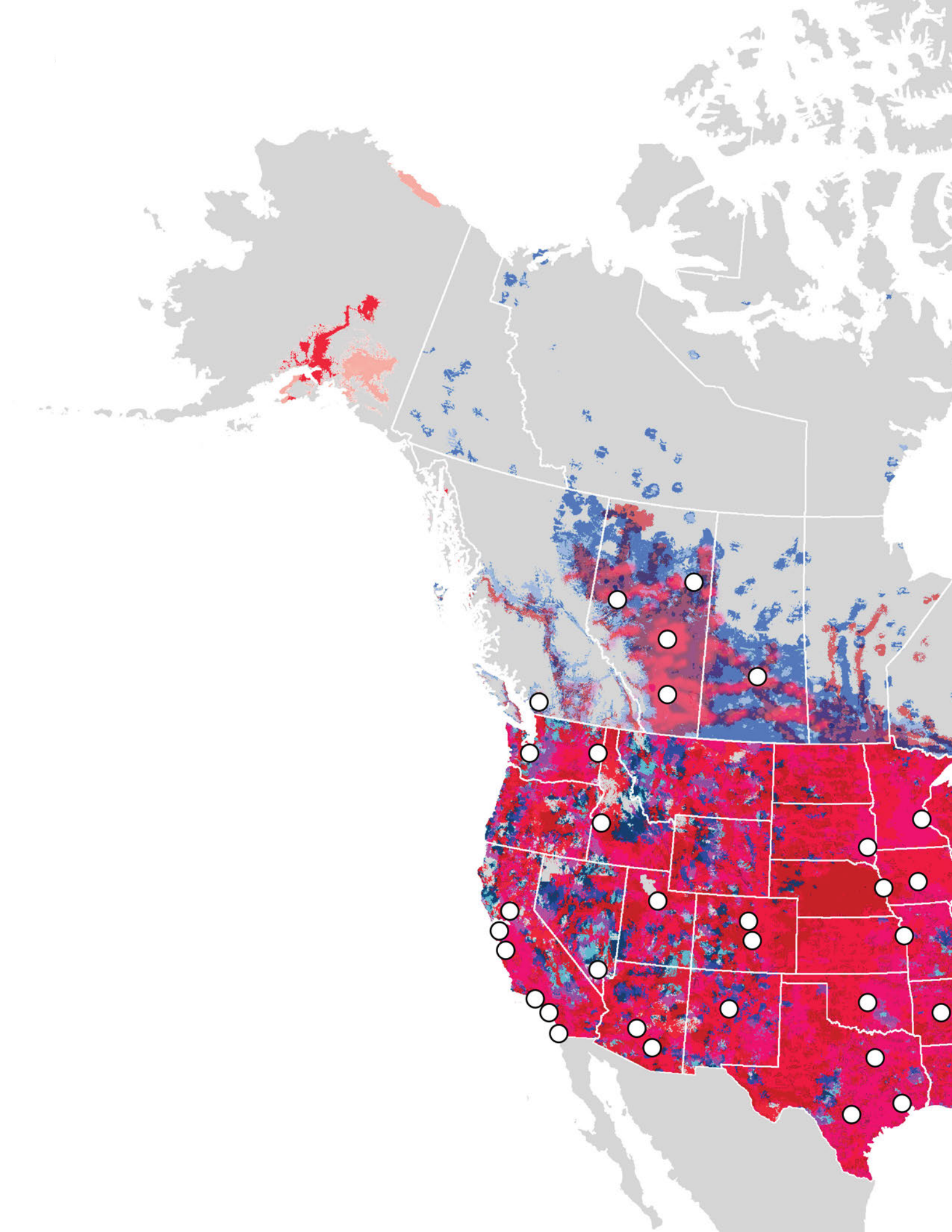
# No. 12- 13, Asset Class

## Office-to-Data-Center Conversions and/or Data Centers

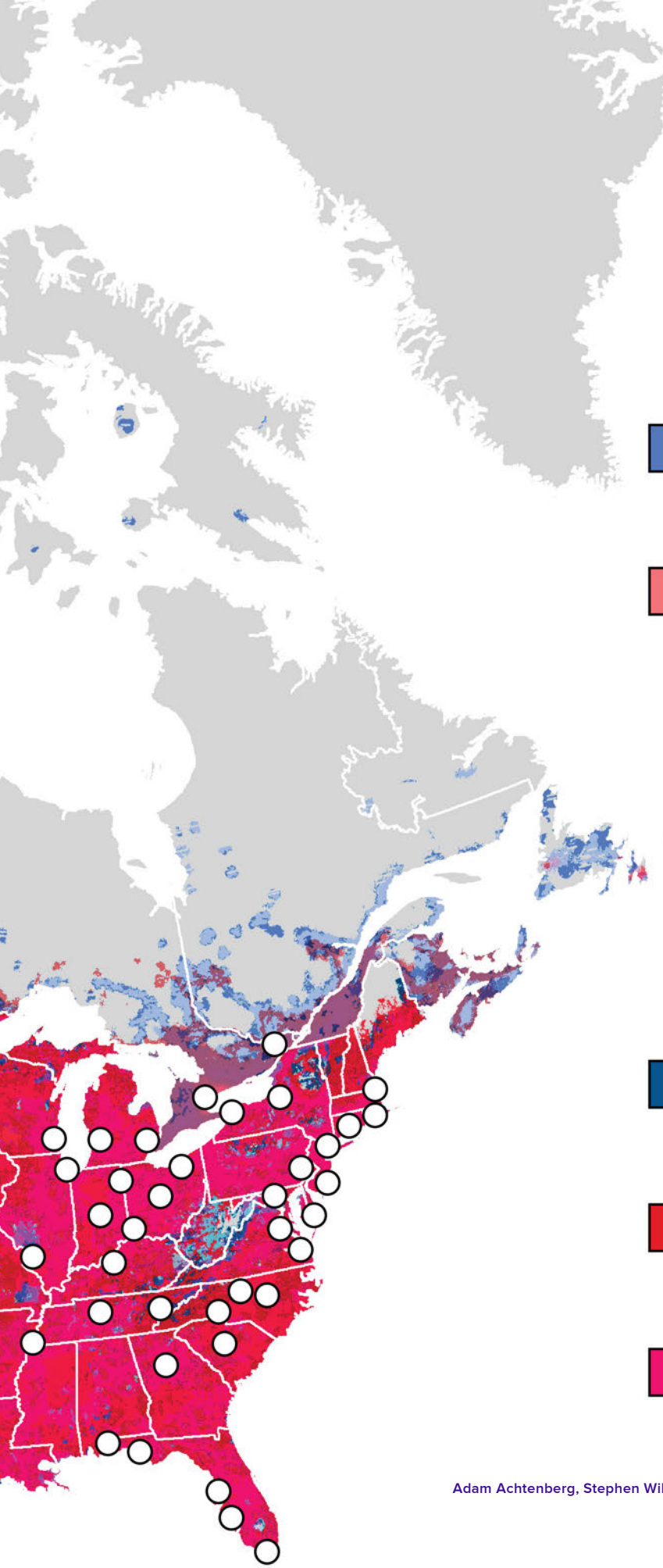


Armaghan Divanei, Evan Dodds, and Rujuta Nayak. *Codex for Civilization in a City: Data, Maps*. 2021.









**BELL**

5G, 4G LTE



**ROGERS**

5G, 4G LTE, HSPA+



**5G HOT ZONES**



**AT&T**

5G+, 5G, 4G LTE



**VERIZON**

5G Ultra, 5G, 4G LTE

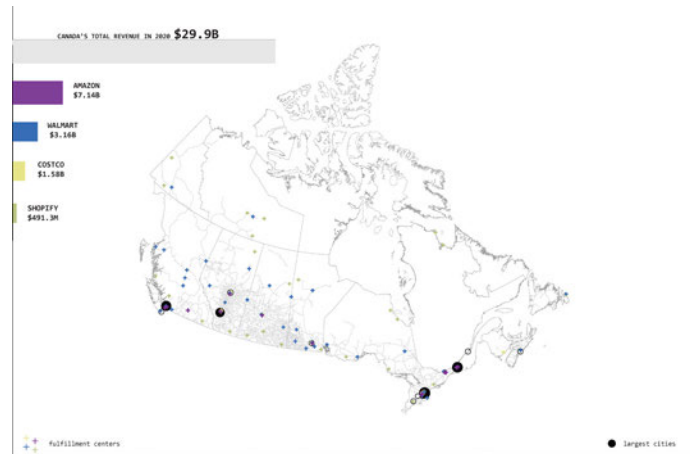
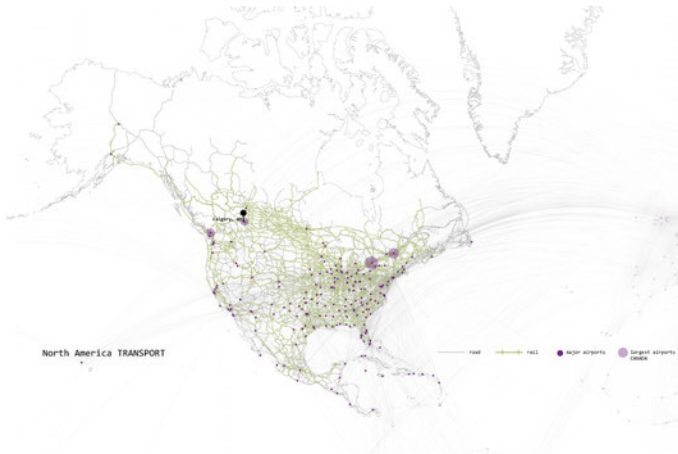
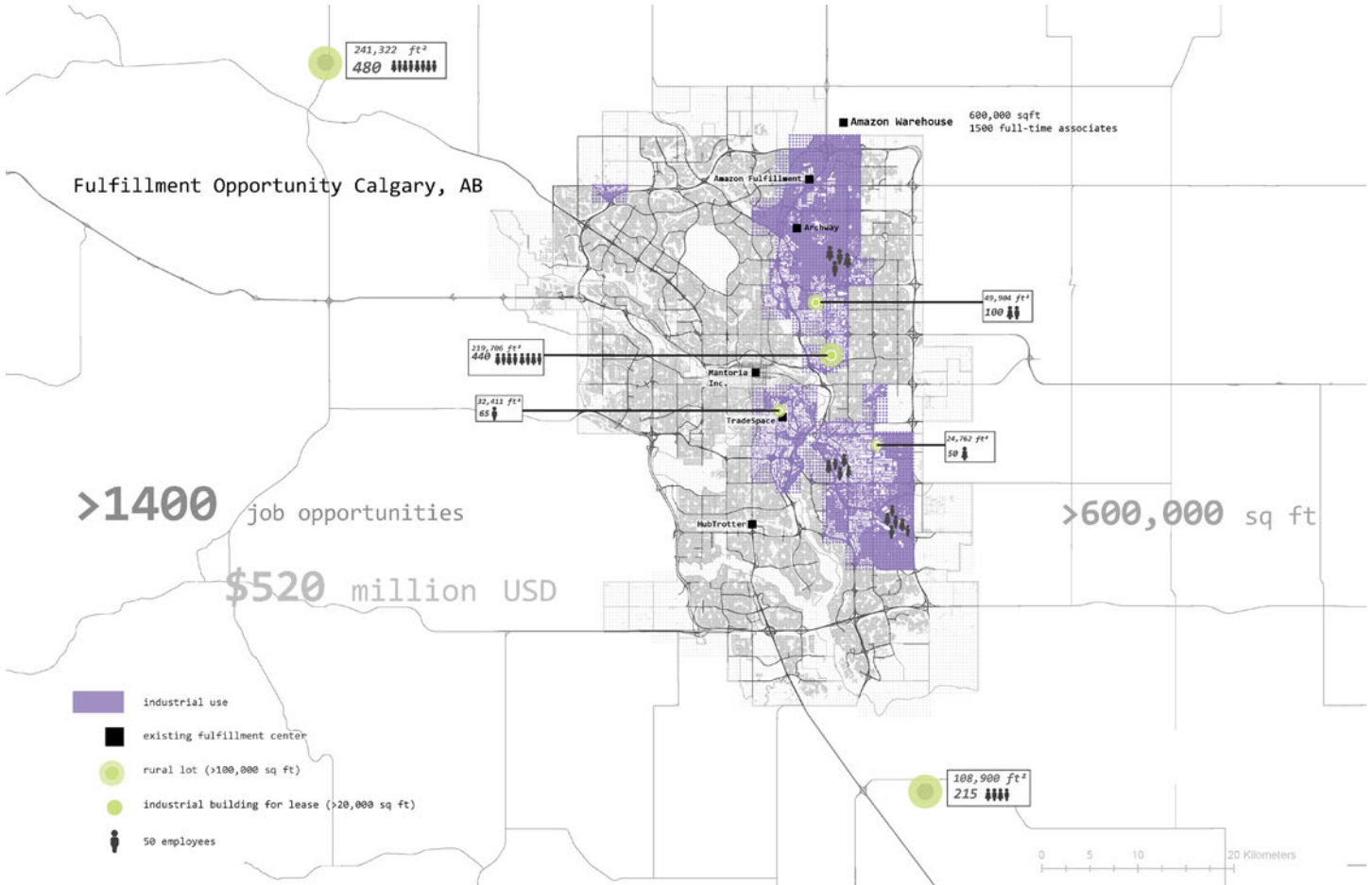


**T-MOBILE**

5G, 4G LTE

# No. 14, Asset Class

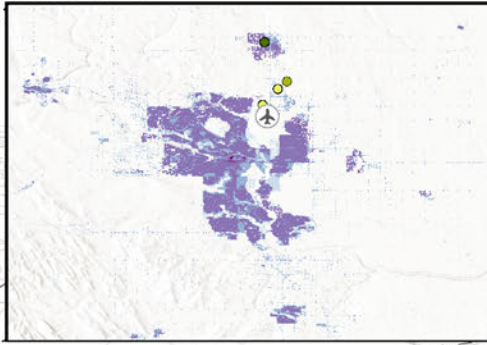
## E-Commerce Fulfillment Centers



Daniela Bohorquez, Angelina Caixeiro, and Karen Ajala. *Codex for Civilization in a City: E-Commerce, Maps*. 2021.



CALGARY, AB, CAN  
POPULATION: 1.624 Million  
AMAZON FC: 2

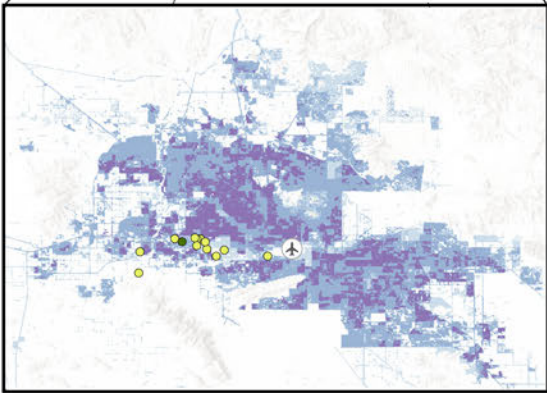


UK  
\$86.45 BILLION

CANADA  
\$29.9 BILLION

UNITED STATES  
\$504.58 BILLION

PHOENIX, AZ, USA  
POPULATION: 1.633 Million  
AMAZON FC: 10



MAP LEGEND

 PERCENTAGE OF E-COMMERCE MARKET

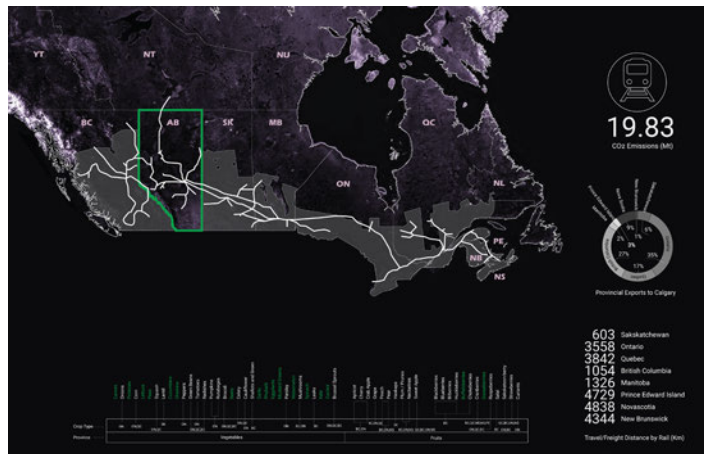
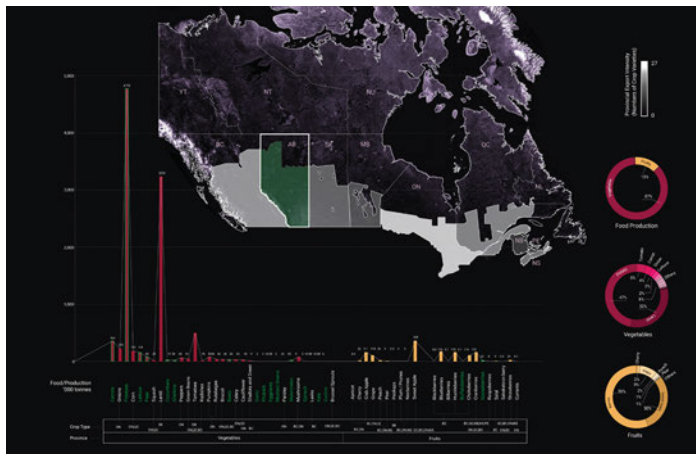
 POTENTIAL REVENUE GROWTH IN THE NEXT 5 YEARS

 AMAZON FULFILLMENT CENTERS

 BUSIEST INTERNATIONAL AIRPORTS

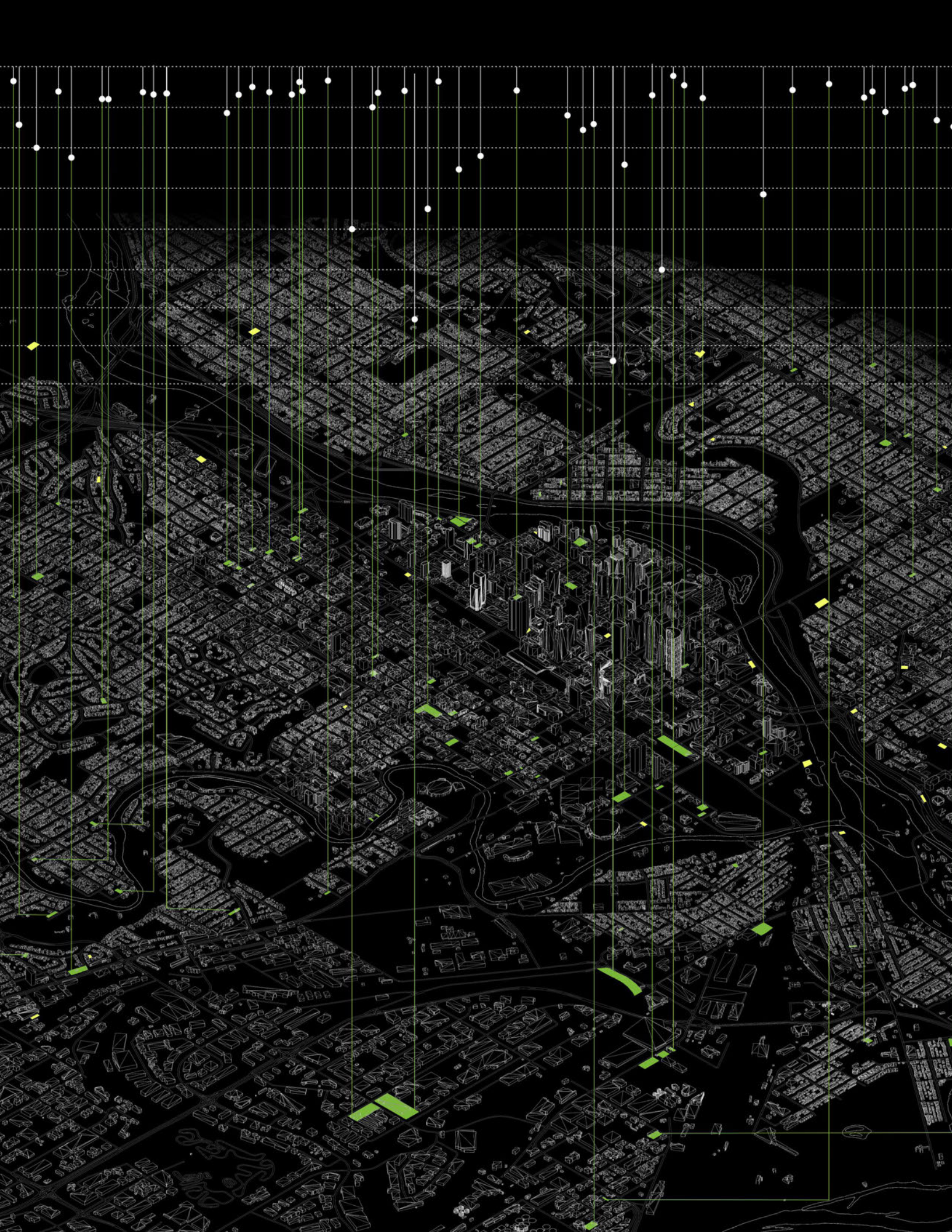
# No. 15, Asset Class

## Urban Gardens



Inioluwa Adedapo, Obinna Ekezie, and Rayhan Muniff. *Codex for Civilization in a City: Produce, Maps*. 2021.







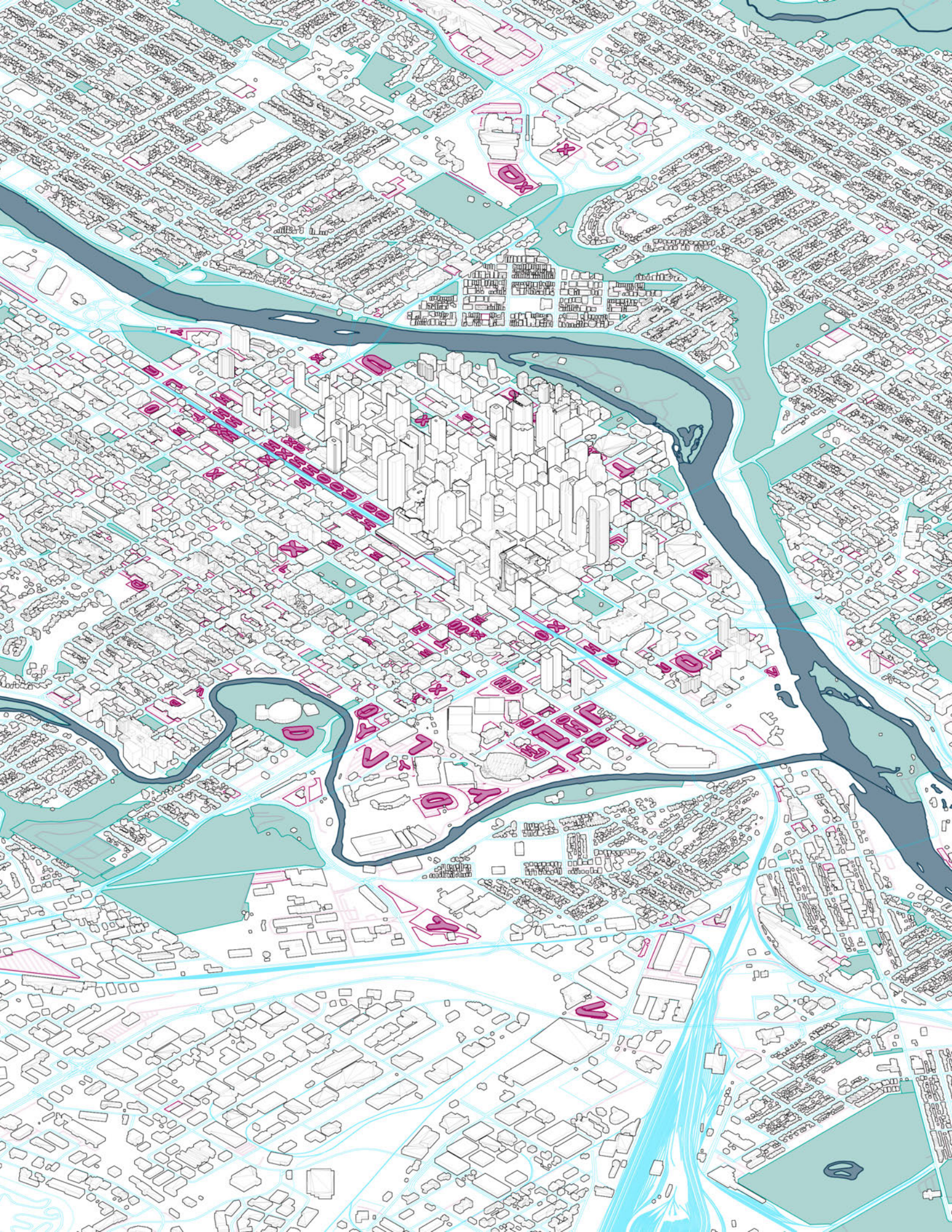
# No. 16, Asset Class

## Parking Lots as City Activators/"Flex-Space"



Alberto de Salvatierra and Dan Hapton, Center for Civilization. *Soft City, Soft Haus*. 2020-2021.













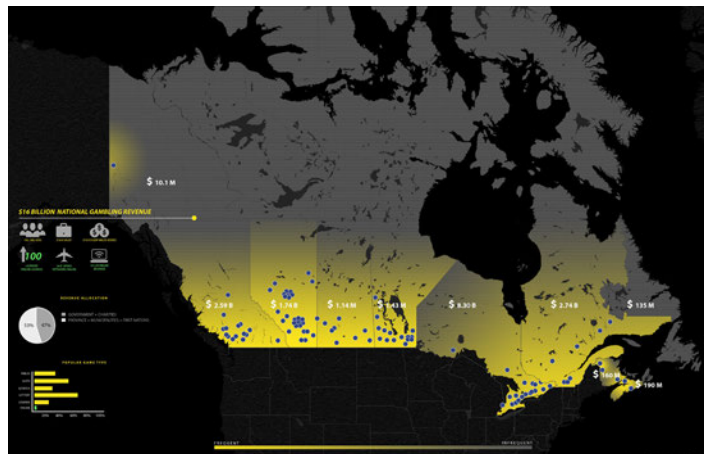
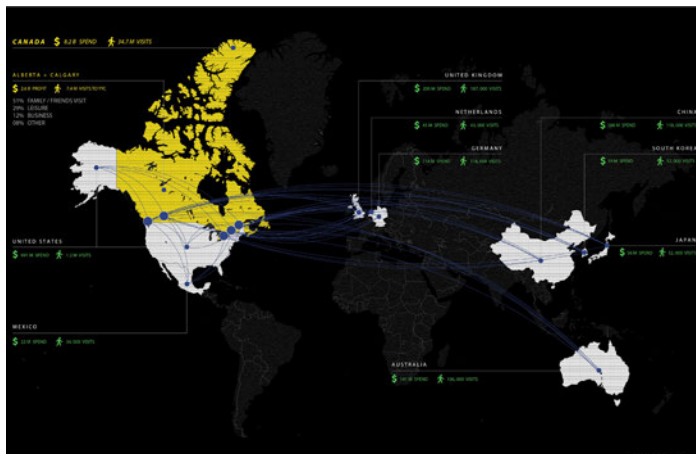
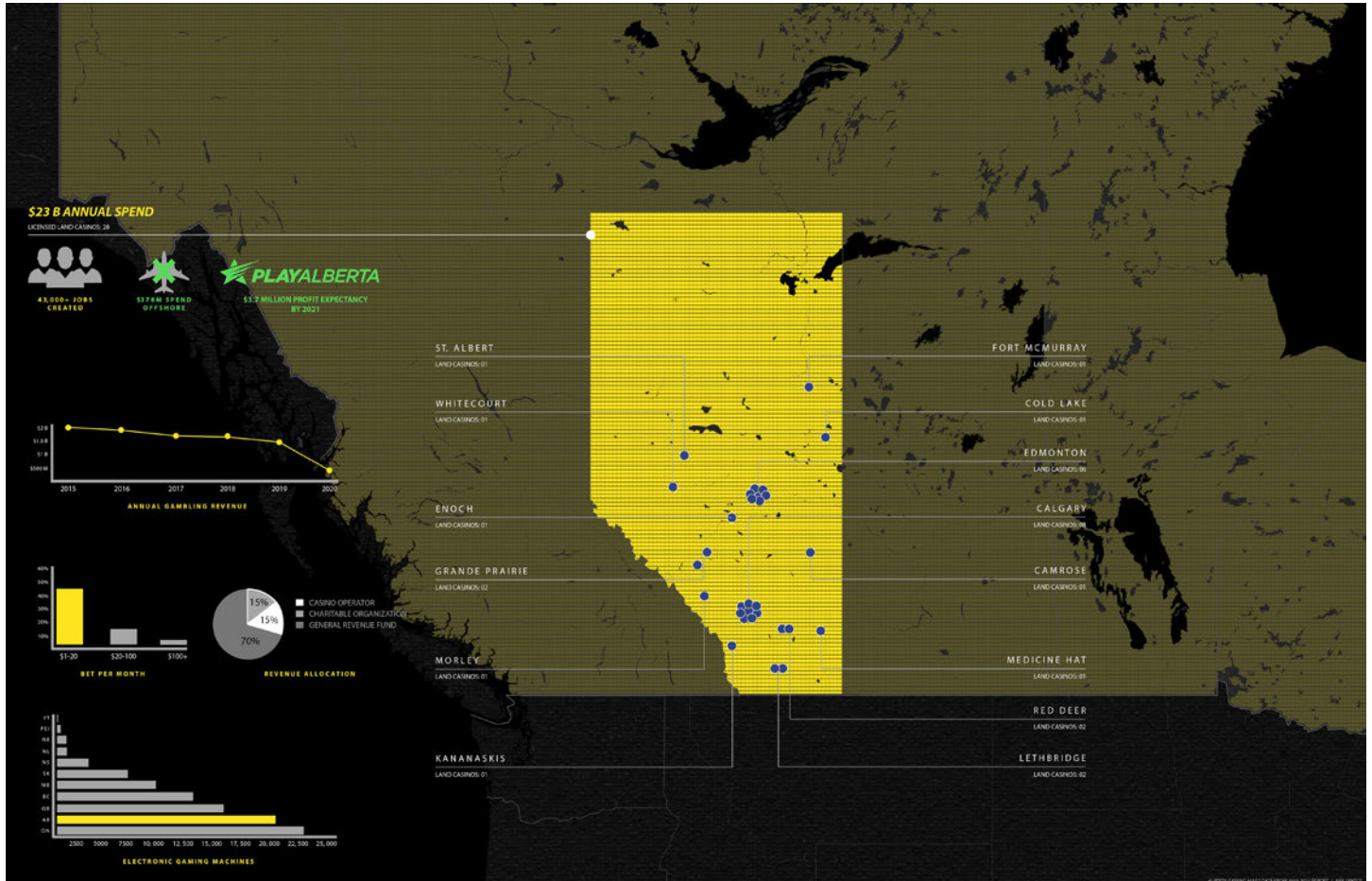






# No. 18, Asset Cluster

## Casino District

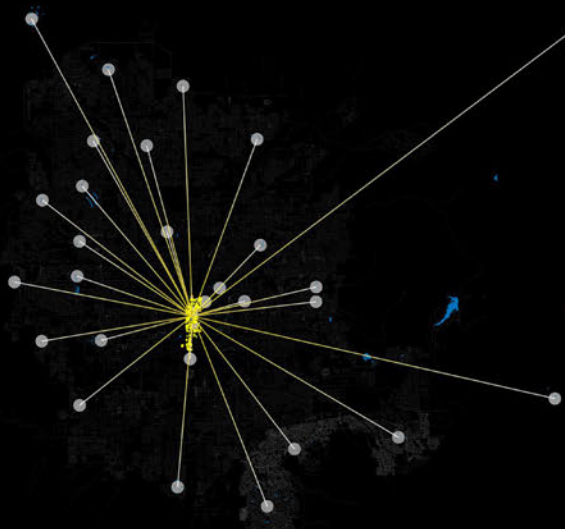


Adam Majer, Mia Santos, and Brendan Webb. *Codex for Civilization in a City: Gambling, Maps*. 2021.





NOT FAR FROM THE STRIP



GOLF



Fashion Show Mall

Las Vegas Convention Center

Harrahs

Ballys

Flamingo

Treasure Island

The Linq

Ballys

57.84

MGM Grand

Caesars Palace

New York New York

Luxor

Mirage

2.278  
*bln*

Excalibur

E - Sports Infused



Over 4000 Rooms



Hotel/Casino

Hotel/Casino/Entertainment

Hotel/Casino/Entertainment/Sports/

Convention Center

Shopping

Sports



TYPOLOGY

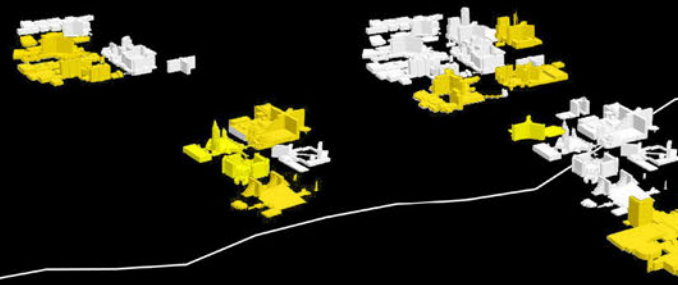
LAS VEGAS STRIP  
FINANCIAL DATA

0.319  
*bln*

1990

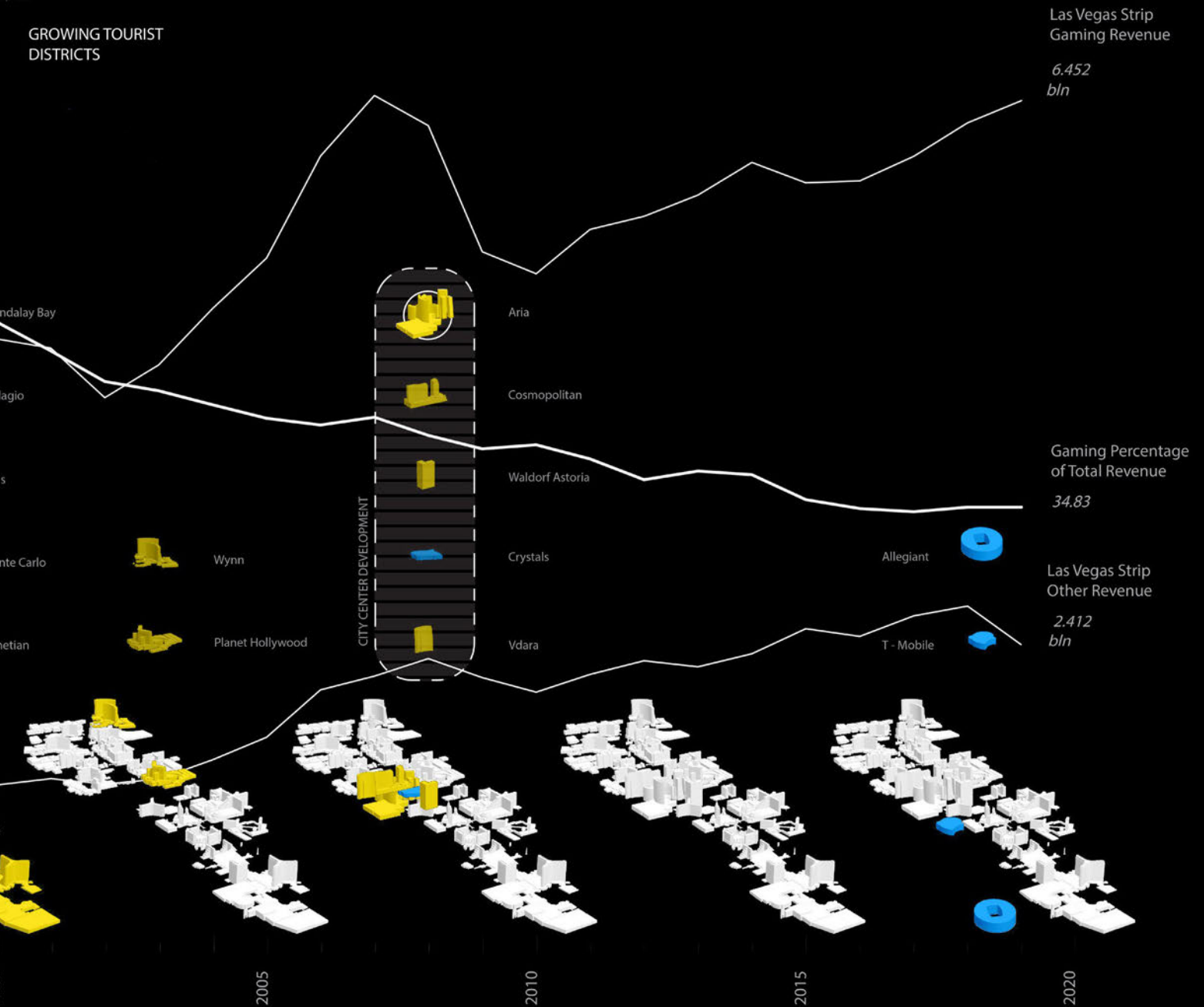
1995

2000



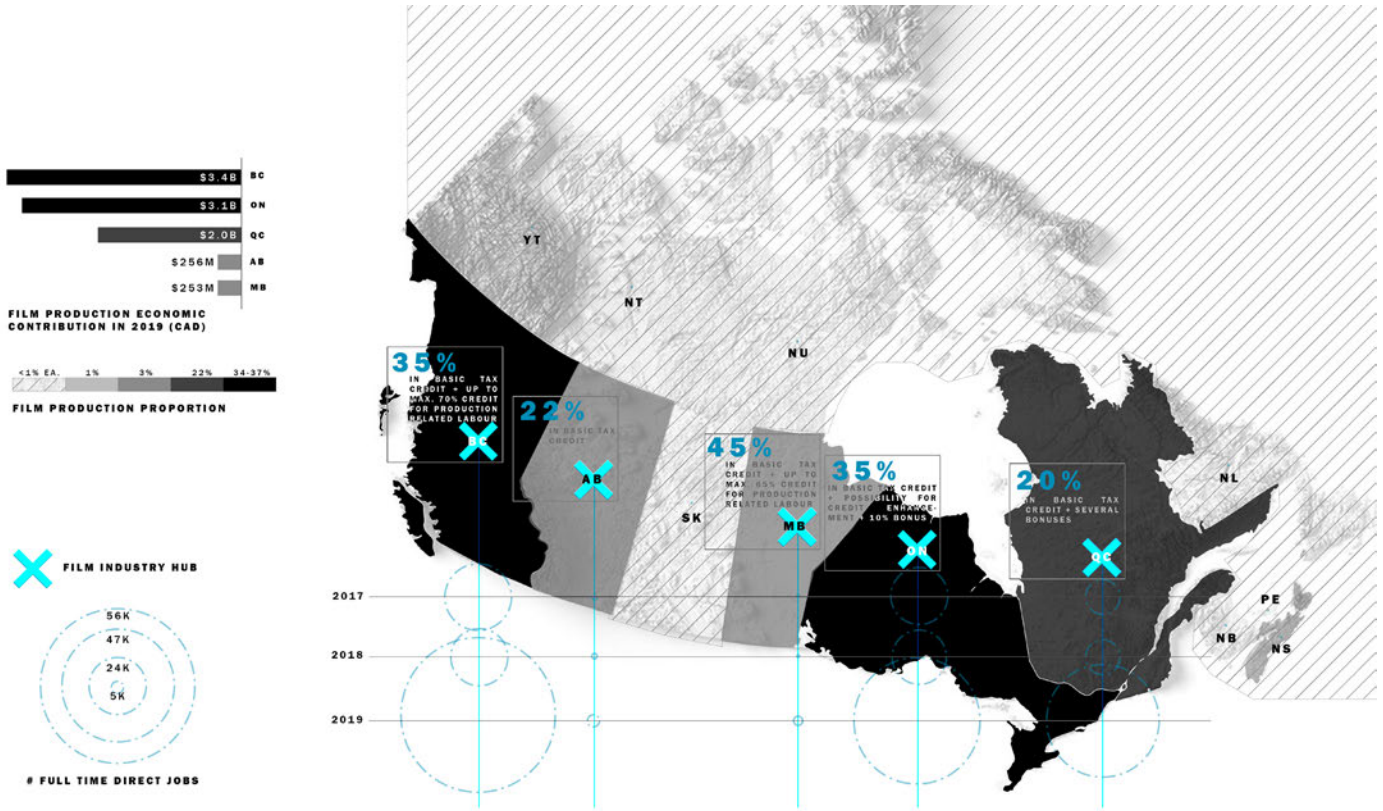


A look into the physical growth of the Las Vegas Strip over the past 30 years reveals that the replacement of smaller scale hotel and casino combinations with mega – developments is tied to the strengthening of its non-traditional gambling assets, including recent arena additions for new professional sports teams and the introduction of a dedicated e-gaming facility. The financial data of this time period, reveals that this diversification strategy has been incredibly symbiotic, with traditional gambling revenue nearly tripling, while nearly halving the reliance of the Strip on traditional gambling for income.

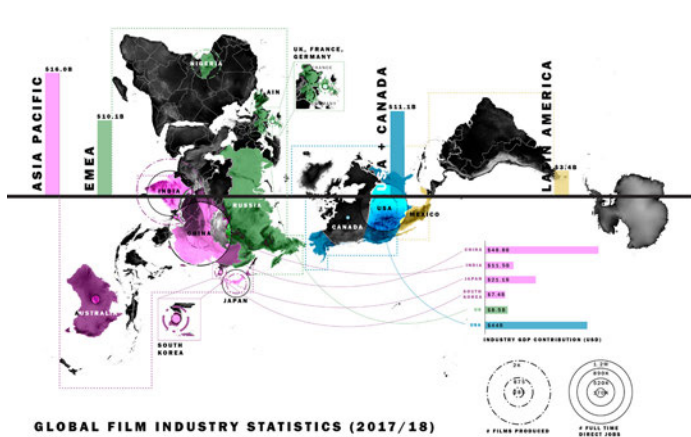


# No. 19, Asset Cluster

## Movie & TV Production Campus/Filming Sets



### CANADIAN FILM INDUSTRY STATISTICS (2017-2019)

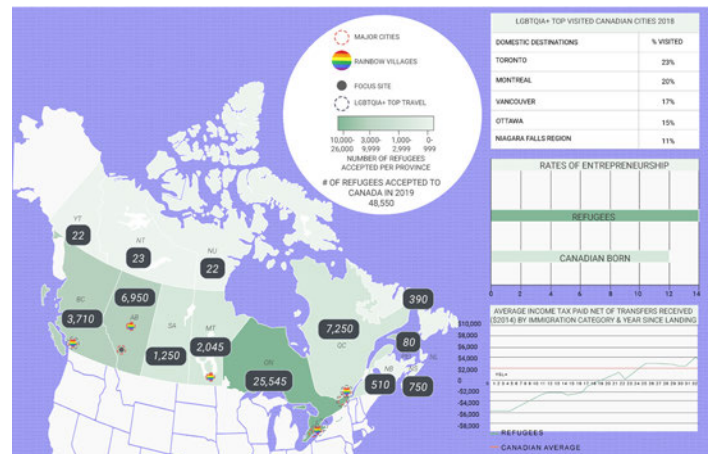
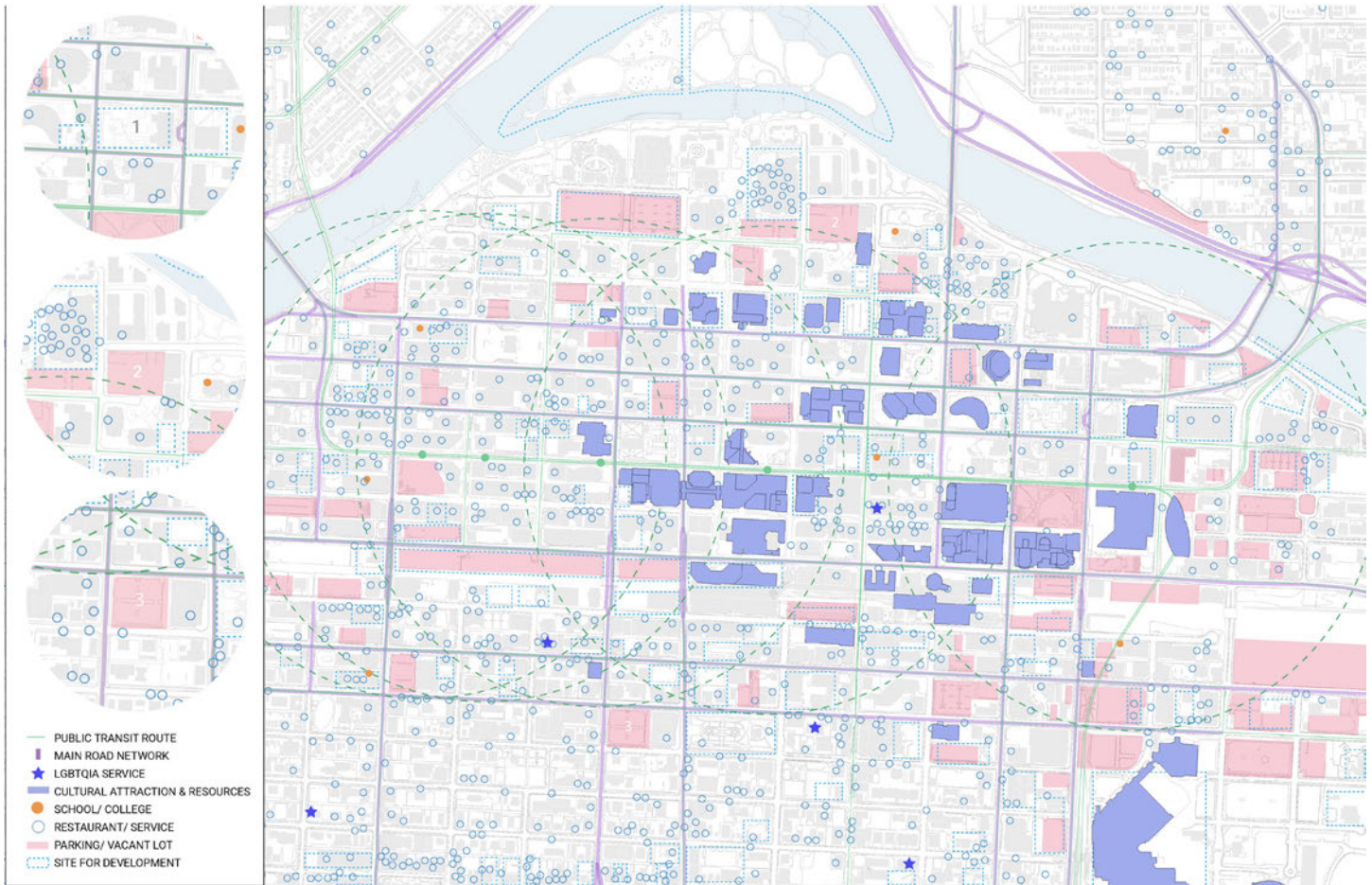


Candice Cheah, Maria Grygoryeva, and Faith Lynch. *Codex for Civilization in a City: Movies & TV, Maps*. 2021.



# No. 20, Asset Cluster

## Artist/Rainbow Village



Rebecca Choi, Natalie Sandelli, and Erika Sieweke. *Codex for Civilization in a City: LGBTQIA+ Immigrants, Maps*. 2021.

