

UE X : EXPERIENCE DESIGN

CIRCULAR CITY



The seminar UE X - Experience Design explores the notion and practices of experience design by analyzing, mapping, and questioning the experience of contemporary urban life and developing urban apps and interfaces to facilitate the transition from a linear to a circular city.

Cities, home to more than half of the earth's population and the source of more than two-thirds of globally produced waste, increasingly threaten our planet. Circular cities address the fundamental flows, i.e., people, matter, information, energy, traffic, and how waste is collected and re-entered into the value chain. However, the lack of understanding of the experiential dimensions of these flows hinders the ideas from being successfully realized.

How can we integrate the awareness of circularity into everyday life? What new experiences become possible? How can a digital interface raise awareness of issues such as climate change, data privacy, and urban health, as well as promote citizen-involvement and social equity? We will critically examine the city's existing distribution and consumption practices, analyze the touch points, and propose

alternative solutions and proof-of-concept prototypes (demonstrators).

The seminar will combine students from both IC and ENAC to work together in a real interdisciplinary process. The course will be conducted through weekly mini-workshops to guide the student through each step of the design workflow. The theoretical underpinnings and methodological application of AI will be introduced and discussed.

The first half of the semester will examine the status quo and include a rigorous mapping and critical analysis of the actors involved, the spatial-temporal flows, and the key touchpoints of a chosen experience. The second half of the semester will focus on redesigning that experience. AI driven interfaces and augmented urban artifacts will be considered as possible alternatives to reconfigure the senses of perception, redistribute time, and re-orchestrate the configuration of social, emotional and spatial experiences in the augmented city. The course will culminate in a final experience design proposal using the city of Lausanne, as a case study or living laboratory.

06.2018

GUEST EDITED BY
ELLEN MACARTHUR

**NATIONAL
GEOGRAPHIC**



**PLANET OR
PLASTIC?**

**18 billion pounds of
plastic ends up in
the ocean each year.
And that's just the
tip of the iceberg.**

*"Plastics are man's inherently
bad. It's what we do,
or don't do, with them
that counts."*

— SYLVIA EARLE
NATIONAL GEOGRAPHIC
EXPLORER-IN-RESIDENCE

Planet or Plastic
June 2018 National Geographic

A BRIEF HISTORY OF WASTE

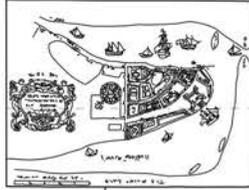
FOR MILLENIA HUMANS HAVE PRODUCED WASTE. HOWEVER, THE ROAD TO REUSING REFUSE HAS BEEN ONE PAVED WITH INCREMENTAL STEPS OF TECHNOLOGICAL ADVANCEMENTS, THE RISE OF NEW MODELS OF OPERATION, VISIONARY ADVOCATES, AND POLICY CHANGES, OFTEN SPURRED BY SIGNIFICANT EVENTS THROUGHTOUT HISTORY.

4 million
tn/day



250
Archeological discoveries show that the Maya recycled their inorganic waste into fill for building projects.

1340-1350
The Black Death spreads to Central Europe and North Africa, resulting in an estimated 75 million deaths worldwide, (30-60% of Europe's population).



1657
New Amsterdam (now New York) passes a law against dumping waste in the streets.

1690
Rittenhouse Mill, America's first paper mill, opens in Philadelphia and makes paper from recycled cotton, linen, and used paper.

1848
The Public Health Act of 1848 begins the process of waste regulation in Britain.

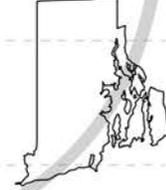
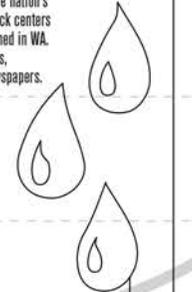
1889
In Washington, DC, a health officer reports that "Appropriate places for [refuse] are becoming scarcer year by year, and the question as to some other method of disposal... must soon confront us."

1932
Austrian inventor Jacob Ochsner & French inventor Fermand Rey begin building hydraulic rear loader compactor trucks in Europe.

1965
The first federal solid waste law, the Solid Waste Disposal Act, authorizes research and provides for state grants.

1974
The first citywide use of curbside recycling bins occurs in University City, MO (collecting newspapers).

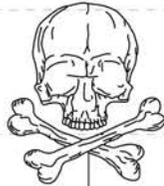
1986
Rhode Island enacts the nation's first statewide mandatory recycling law, including aluminum and steel cans, glass, newspapers, and #1 and #2 plastic. Citizens and businesses are required to separate recyclables from trash. Fresh Kills on Staten Island, NY, becomes the largest landfill in the world.



3 million
tn/day



1500 BCE
Archeological evidence shows that in the Cretan capital, Knossos, the Minoan people created dump sites where waste was placed in large pits and covered with earth.



2 million
tn/day

1 million
tn/day

500 BCE
The Athenians institutionalized techniques similar to those used in Crete by mandating that waste be deposited no less than one mile from the city and banning the dumping of refuse in city streets.

1739
Benjamin Franklin leads an effort to petition the Pennsylvania Assembly to stop commercial waste dumping in Philadelphia and remove tanneries from Philadelphia's commercial district, which some historians consider the beginning of the environmental movement.

1776
The first metal recycling in the US occurs when patriots in New York City melt down a statue of King George III and made it into bullets.

1864
Health officials in Memphis, TN, hypothesize a possible correlation between the spread of yellow fever in the Memphis area and the garbage being dumped throughout the city. To reduce the threat of disease, residents are told to take their garbage to specific locations on the edge of town.

1885
The first American garbage incinerator is built on Governor's Island, NY. Over the next two decades, nearly 200 garbage incinerators are built throughout the US.

1905
New York begins using a garbage incinerator to generate electricity to light the Williamsburg Bridge.

ASCE

1959
The American Society of Civil Engineers publishes a standard guide to sanitary landfilling that suggests compacting the refuse and covering it with a layer of soil each day.

1970
The US celebrates the first Earth Day on April 22. The Resource Recovery Act amends the Solid Waste Disposal Act and requires the federal government to issue waste disposal guidelines. The Clean Air Act establishes federal authority to fight urban smog and air toxins. The new regulations lead to the closure of many incinerators that could not adequately control their air pollution. The U.S. Environmental Protection Agency is created.



2000 BCE - 0

0 - 1500

1500 - 1850

1850 - 1900

1900 - 1950

1950 - PRESENT DAY



'Lithium Fields' in the Salar de Atacama salt flats in northern Chile
Tom Hegen



Kids playing with a dead whale in the Philippines. AP
AGENCE FRANCE-PRESSE, 2019

“Shareable” goods account for about a quarter of household expenditure and a third of household waste. If sharing models could be operated under the most favourable conditions, savings of up to 7% in the household budget and 20% in terms of waste could be achieved.



Netil Market's Yard Sale
<https://www.timeout.com/london/shopping-and-style/the-yard-sale>



Antique store

<https://www.24heures.ch/beaulieu-en-palais-du-beau-et-de-lancien-735624018601>

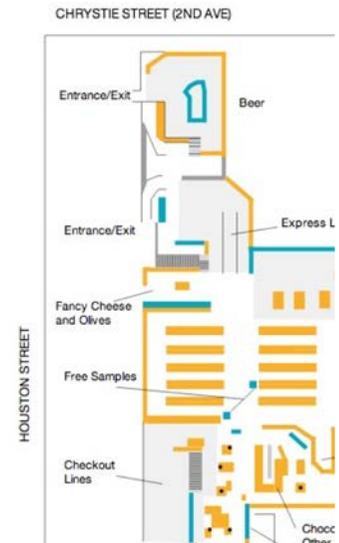


Lost In the Supermarket:

Love and Loneliness in the Bowery Whole Foods

One of the more often referenced cliché locations for New York Missed Connections is the grocery store, specifically any Whole Foods in Manhattan. This typical type of Missed Connection, and the mockery of it, refers to one of the easiest to mock demographic of the Missed Connections community: conscientious, overeducated, excessively groomed, well-to-do young urban professionals. The Whole Foods Missed Connection is a trope that combines criticism of both the shallowness of both the New York dating scene and of expensive feel-good organic food shopping.

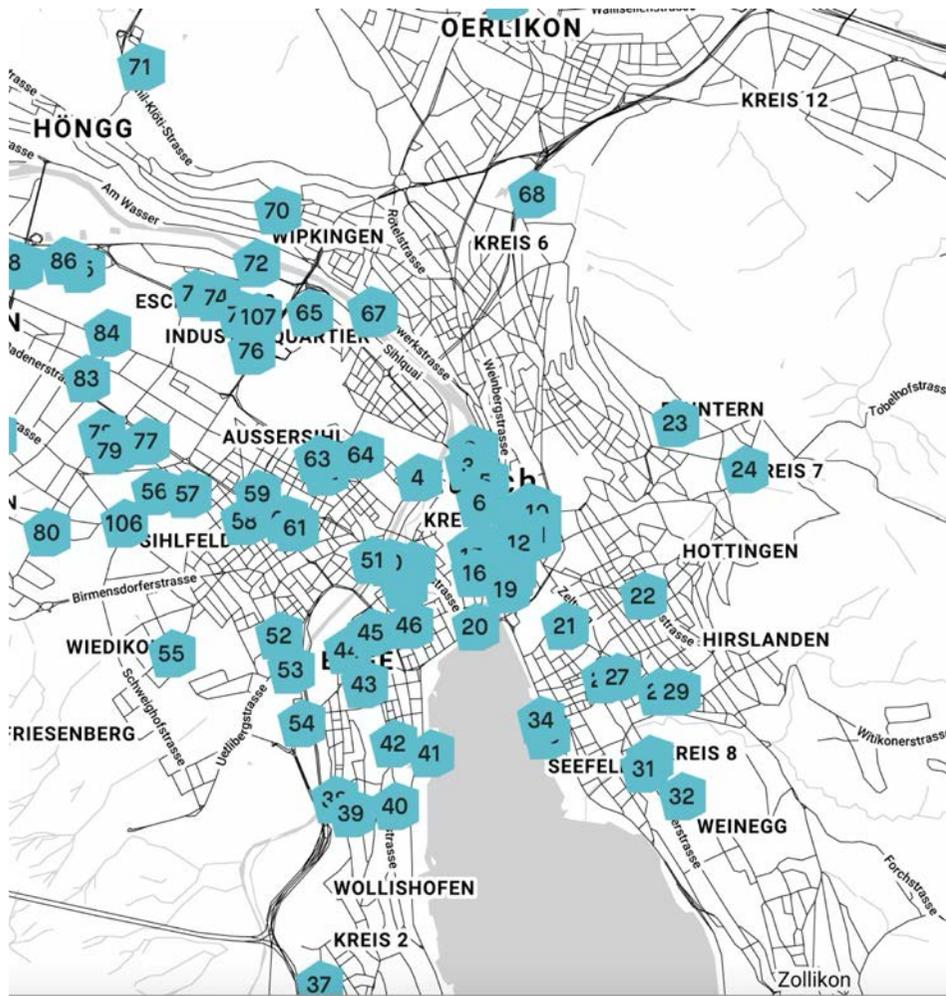
For such a frequently satirized scenario, it doesn't actually happen all that much. Among settings that are neither on public transportation nor in the street, grocery stores are the fifth most common setting for Missed Connections. What's interesting about this percentage is that everyone (or, theoretically everyone) goes to the supermarket at some point—not everyone has a gym membership, not everyone drinks or goes to bars, but we all eat, and we have to get food from somewhere. And, stereotyping aside, among grocery stores surveyed thus far, the Whole Foods located at the corner of Houston Street and the Bowery is the most common site of grocery store Missed Connections. We set out to identify some factors that might contribute to the associations that this store has with Missed Connections and why shoppers might be looking for something more than fair trade organic coffee in its aisles.



Center for Missed Connections - Mapping Loneliness - 2009-11 - Ingrid Burrington
lifewinning.com/projects/center-for-missed-connections/



Recovered building components
Hilda Weges



ERFAHREN

PLANEN

OPEN HOUSE FAMILIE

← zurück



23 MEHRFAMILIENHAUS FORSTERSTRASSE 38

Das Mehrfamilienhaus an der Forsterstrasse liegt in einem dicht begrünten Villenquartier in unmittelbarer Nähe des Stadtzentrums. Die Grösse und Situierung des Gebäudes wie auch die strukturelle Auflösung des Baukörpers ist ein Versuch, restriktive baugesetzliche Vorgaben dieser Wohnzone in eine architektonische Logik zu überführen, um aus vereinzelt, unzusammenhängenden Gestaltungsvorschriften eine architektonisch verständliche Einheit zu schaffen.

Die massiven, tragenden Wandscheiben dieser offenen Gebäudestruktur gliedern den Raum ohne ihn zu unterteilen. Sie ermöglichen ganz unterschiedliche Durchblicke und Lichteinfälle innerhalb des Grundrisses. Es gibt keine dienenden und bedienten Räume; es gibt keine Hierarchie oder Differenzierung von unterschiedlichen Bereichen der Wohnung und alle Räume sind gleich konstruiert und materialisiert. Das Grün der Bäume, der seitliche Lichteinfall setzen sich in den Spiegelungen der glatt geschalteten, fugenlosen Betonwände bis in den innersten, introvertierten Wohnbereich fort. Die Härte und Stringenz dieser Wandscheiben ist nicht das Ziel des Entwurfes, sondern lediglich ein Mittel zum Zweck, in dem begrenzten, gefangenen Außenvolumen eine vielfältige, reiche Innenwelt zu schaffen.

ADRESSE

Forsterstrasse 38
8044 Zürich

In GoogleMaps öffnen →

ÖFFNUNGSZEITEN

Samstag

Gemäss Führungen

Reservation erforderlich

FÜHRUNG MIT RESERVATION

Sa 26 Sep 13:00–13:30 (0 freie Plätze)

Sa 26 Sep 13:45–14:15 (0 freie Plätze)

Sa 26 Sep 14:30–15:00 (0 freie Plätze)

Sa 26 Sep 15:15–15:45 (0 freie Plätze)

RESERVIEREN

Für Reservation bitte mit Benutzernamen anmelden →

Oder als neuer Benutzer registrieren →

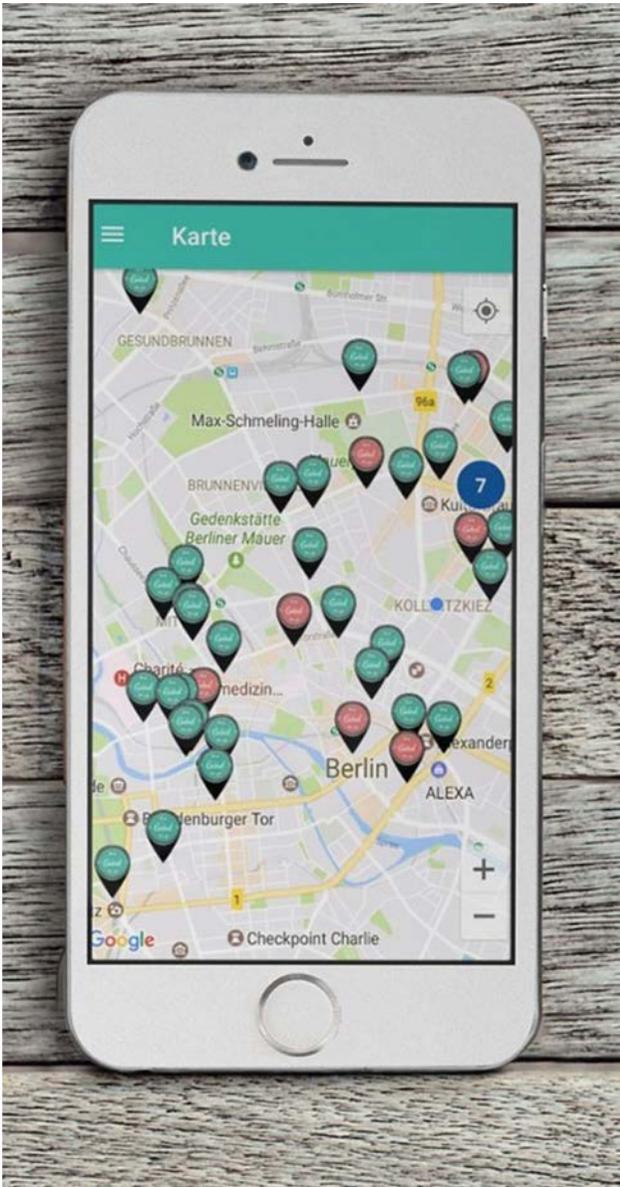
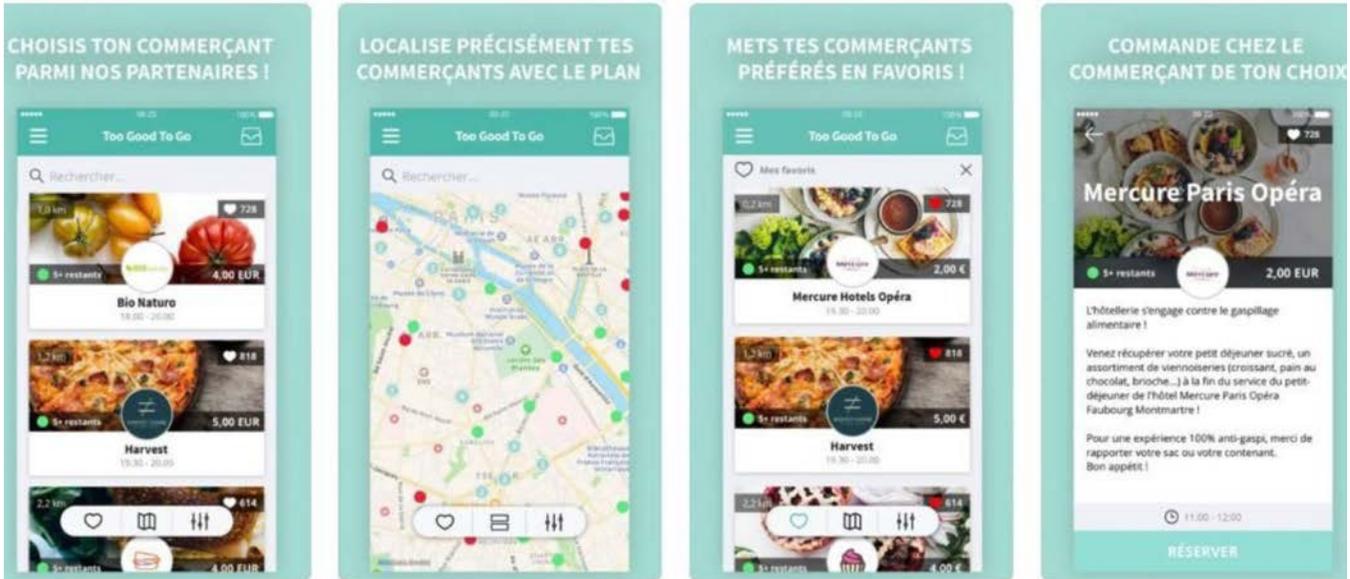
Mit Catherine Dumont D'Ayot: In der oberen Etage gibt es eine Einführung. Danach kann die Gruppe in geschlossener Formation die untere Wohnung der Künstlerin Hanna Roeckle besichtigen.

ÖFFENTLICHER VERKEHR

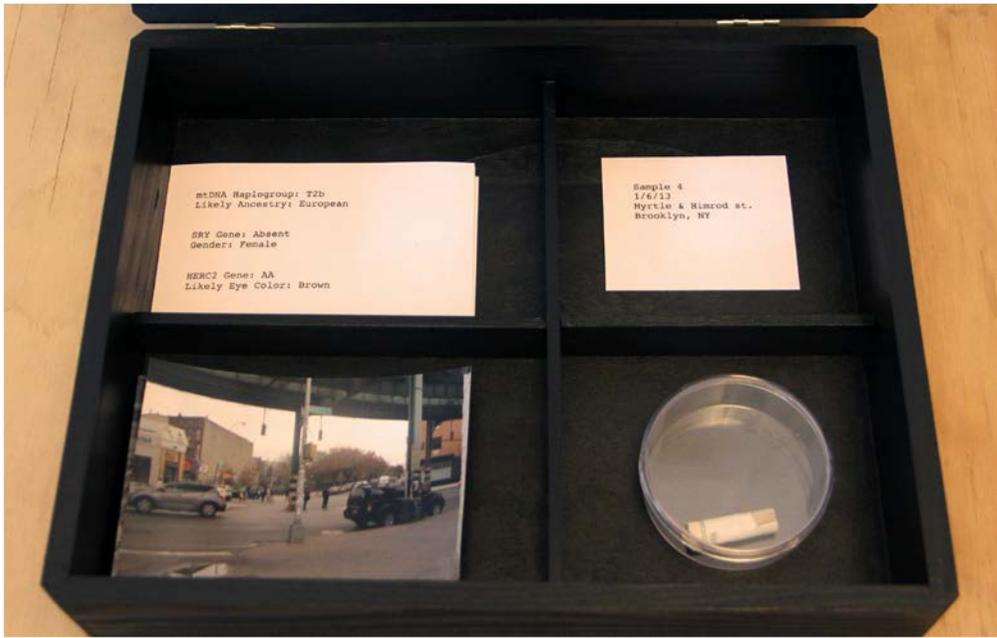
Bus 33 und Tram 6 bis
Toblerplatz



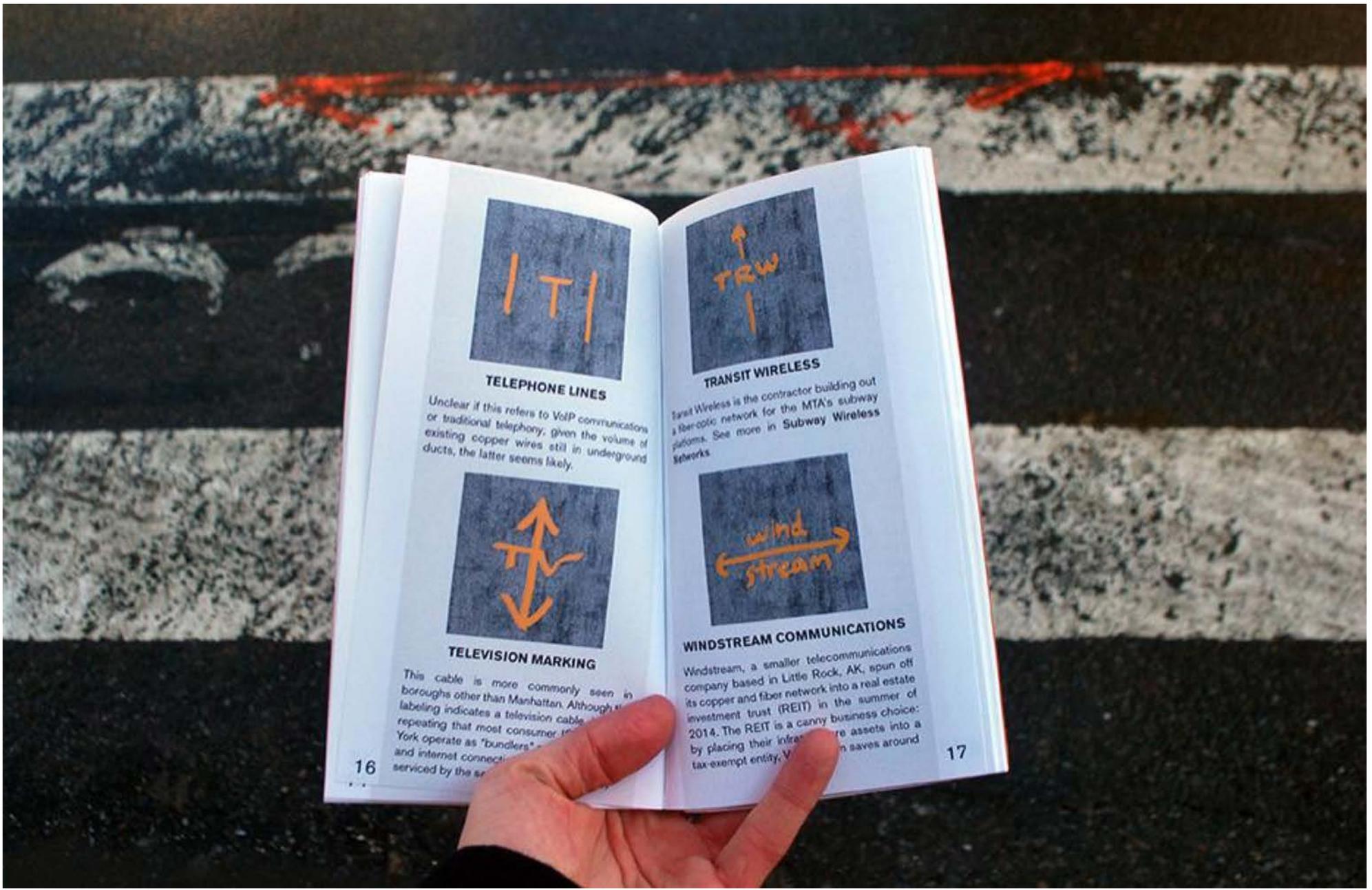
Grassrooted - Food Waste reduction subscription
grassrooted.ch



Too Good to Go - “Anti-Waste Food App”
toogoodto.go.org



Stranger Visions - Facial Reconstruction from DNA on Chewing-Gum and Cigarette Butts - 2012-13 - Heather Dewey Hagborg
deweyhagborg.com



TELEPHONE LINES

Unclear if this refers to VoIP communications or traditional telephony, given the volume of existing copper wires still in underground ducts, the latter seems likely.



TELEVISION MARKING

This cable is more commonly seen in boroughs other than Manhattan. Although the labeling indicates a television cable, it is repeating that most consumer ISPs in New York operate as "bundlers" of television and internet connections. It is likely serviced by the same provider.



TRANSIT WIRELESS

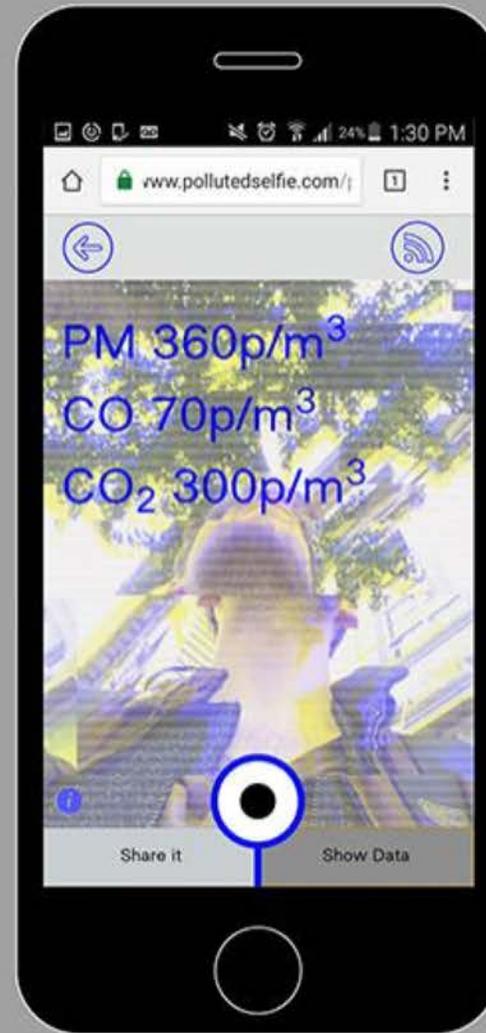
Transit Wireless is the contractor building out a fiber-optic network for the MTA's subway platforms. See more in [Subway Wireless Networks](#).



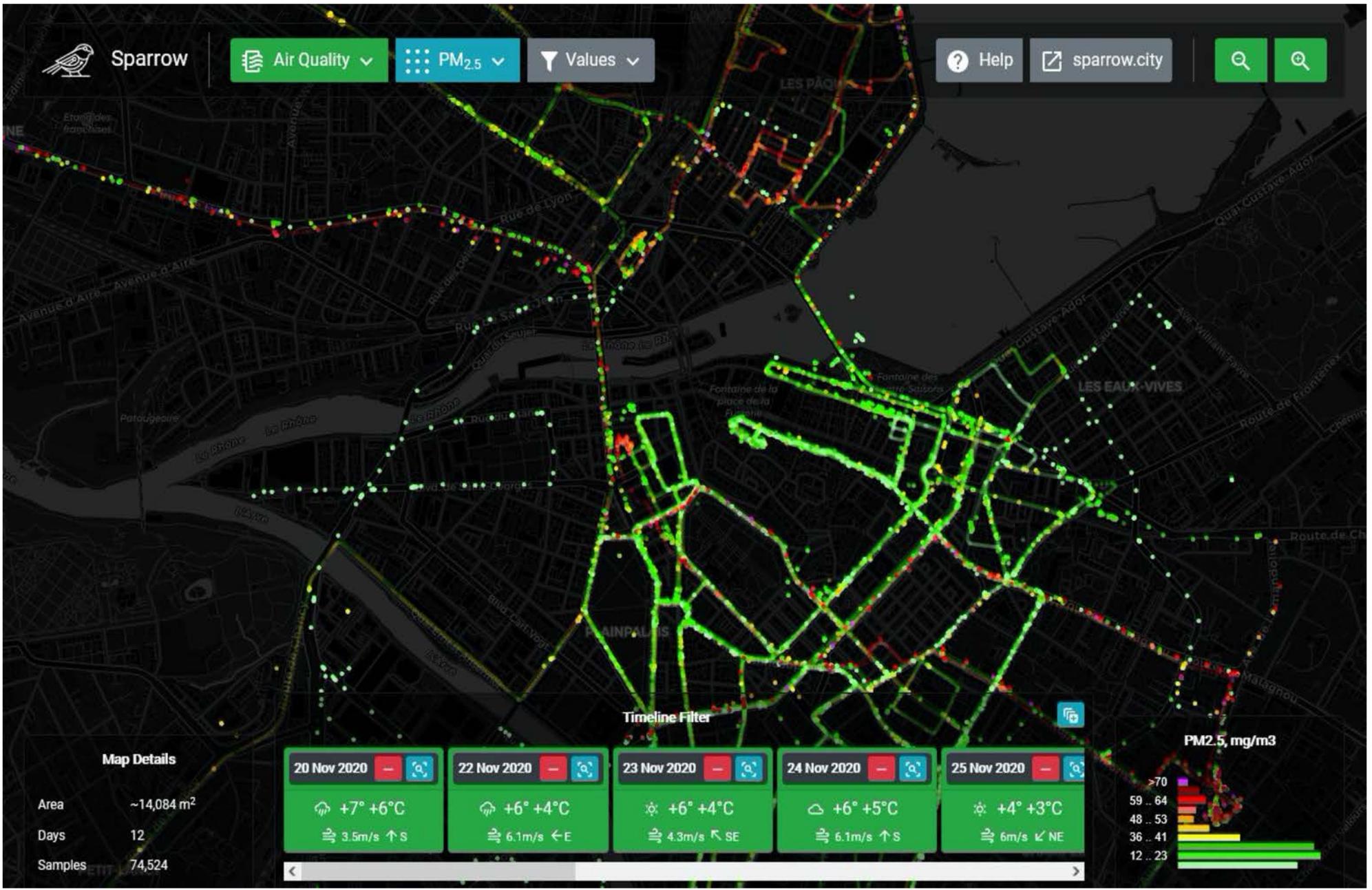
WINDSTREAM COMMUNICATIONS

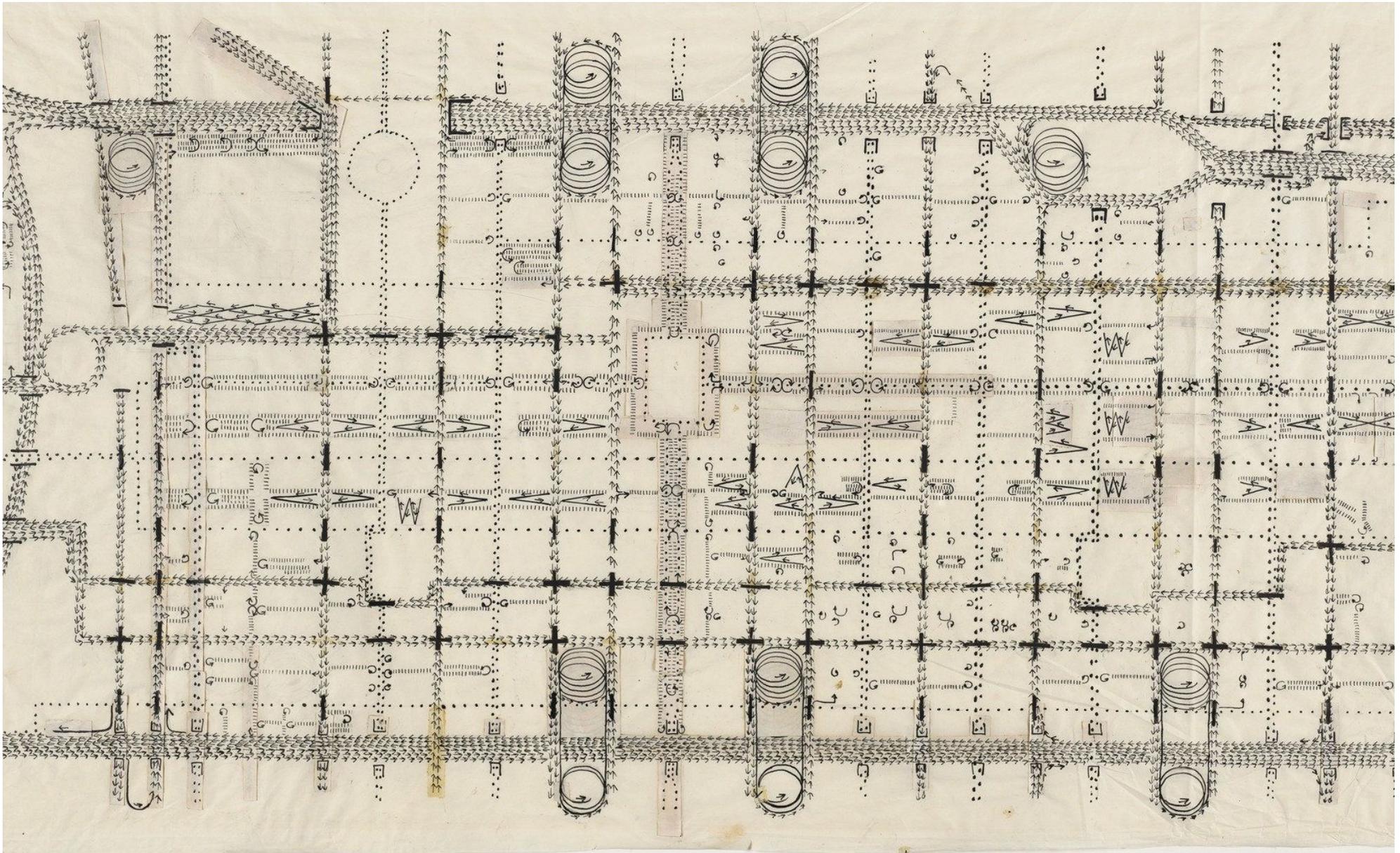
Windstream, a smaller telecommunications company based in Little Rock, AK, spun off its copper and fiber network into a real estate investment trust (REIT) in the summer of 2014. The REIT is a carry business choice: by placing their infrastructure assets into a tax-exempt entity, Windstream saves around

Networks of New York - Revealing Internet Infrastructure - 2014-16 Ingrid Burrington
lifewinning.com/projects/networks-of-new-york/

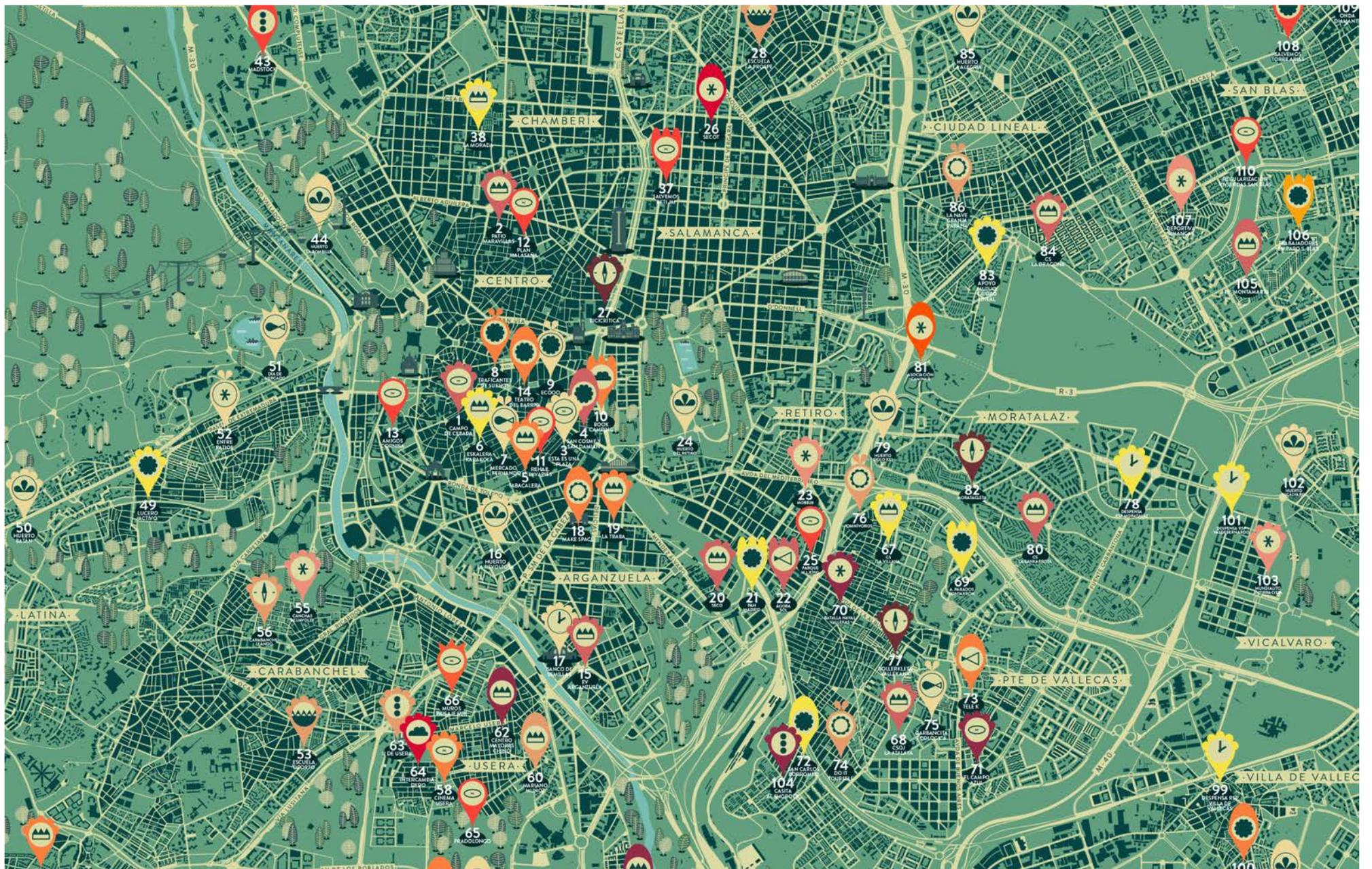


Polluted Selfie / LDF
Fragmentin, 2017

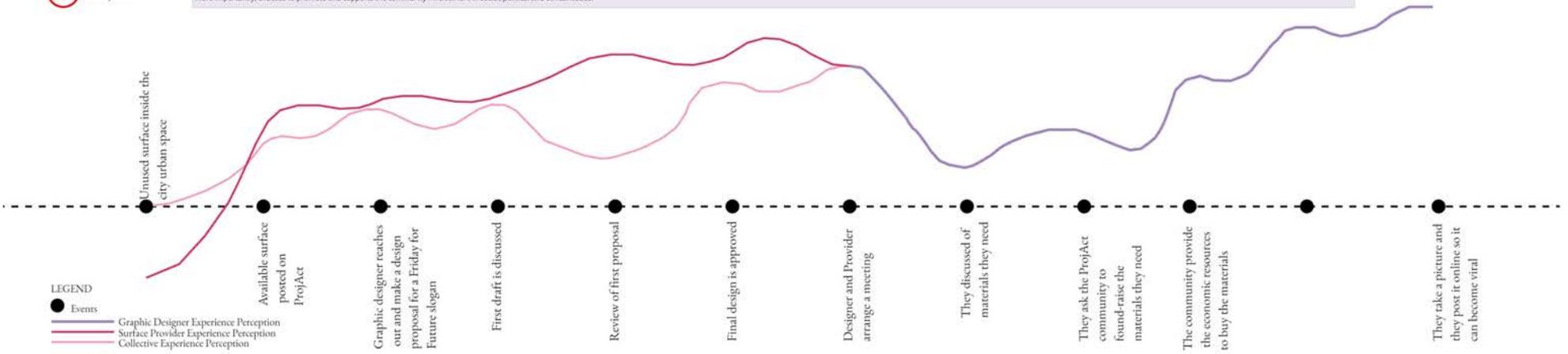
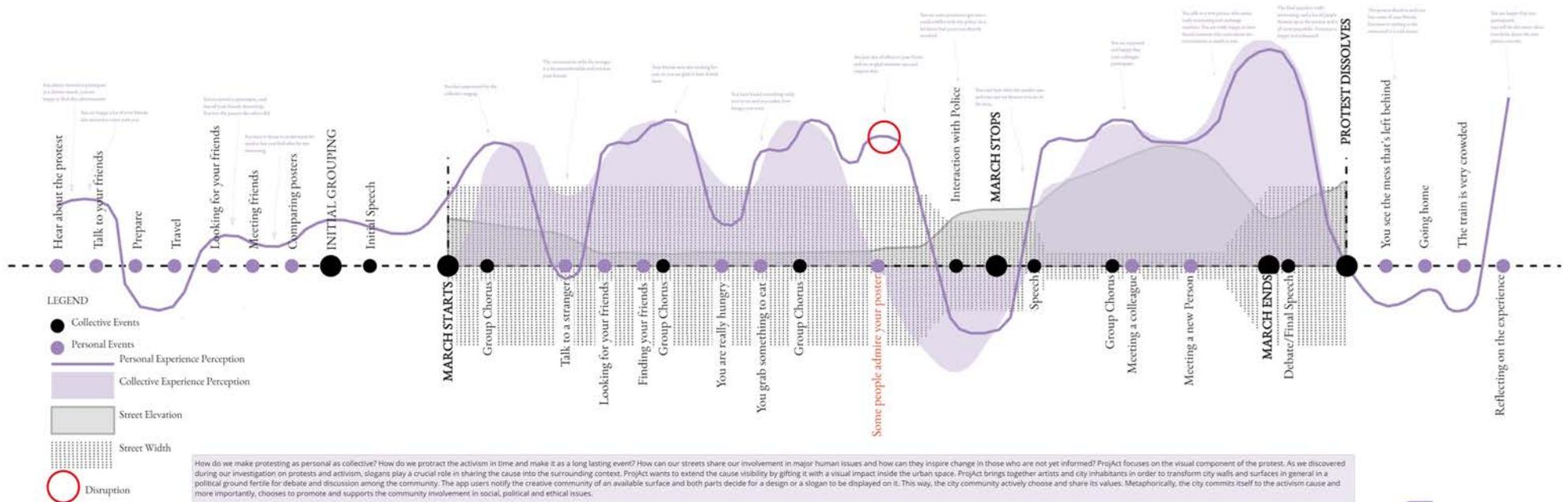




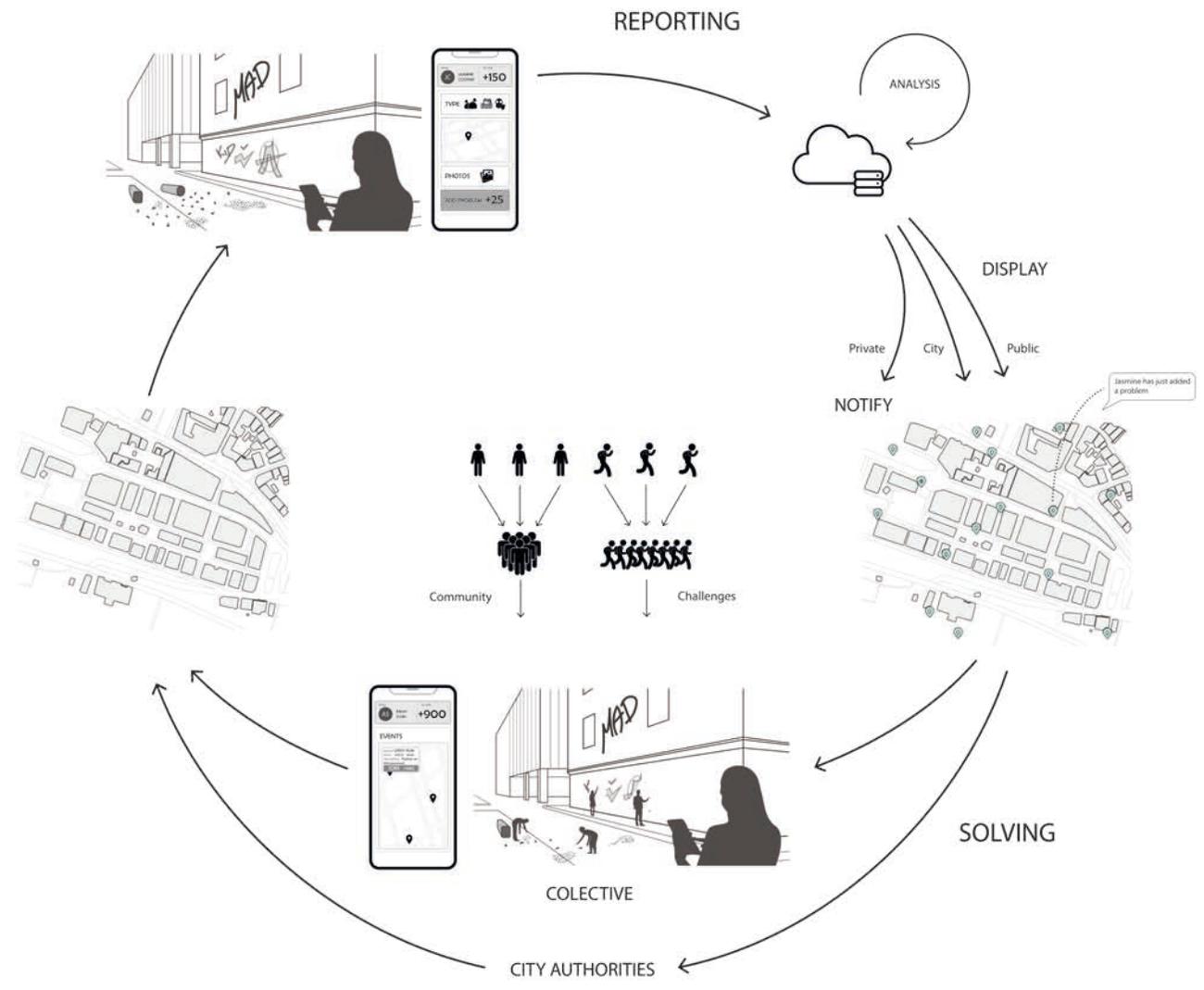
Philadelphia Flow Study
Louis Khan



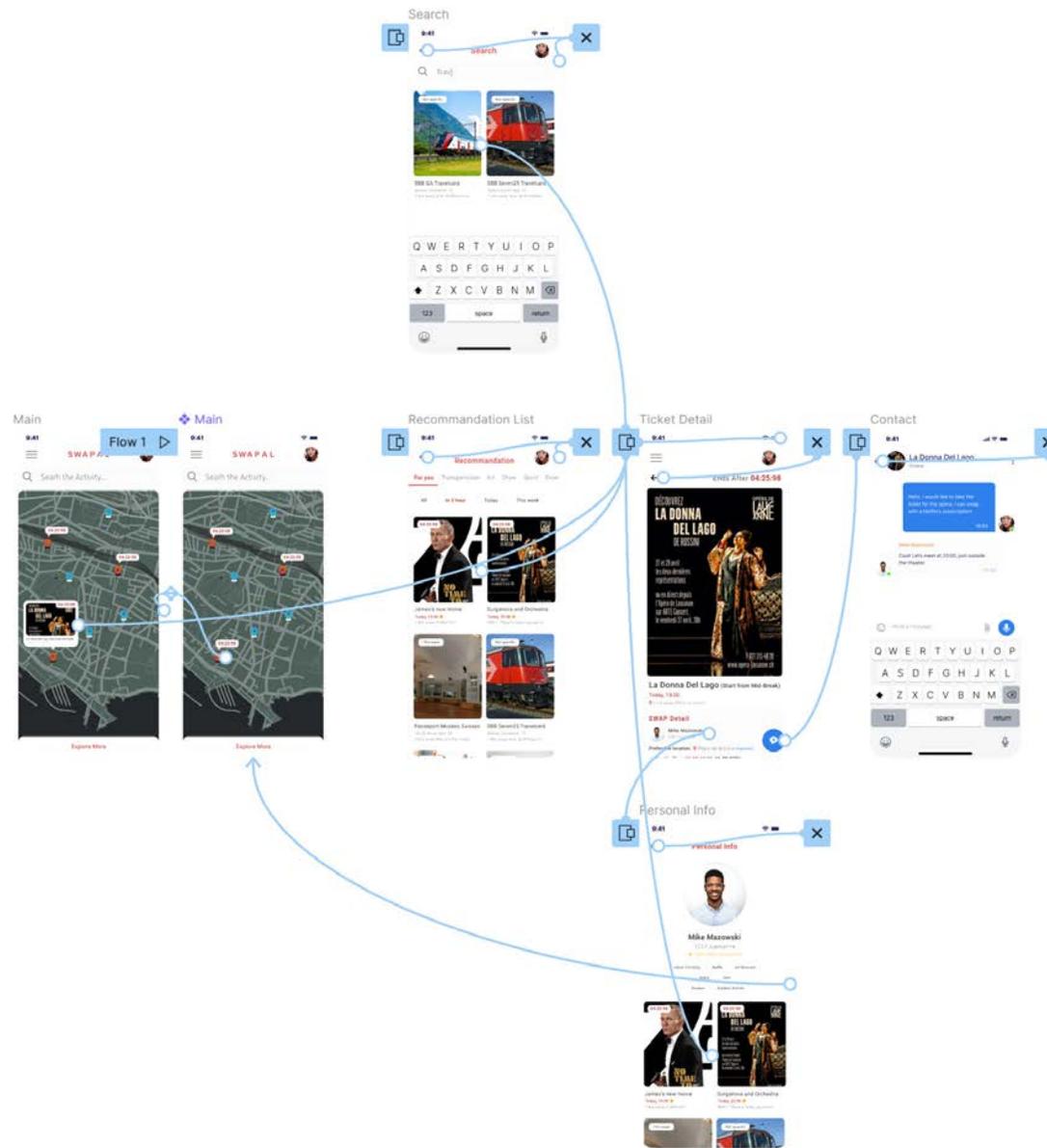
Participatory map of Madrid's collective initiatives
 LYS VILLALBA



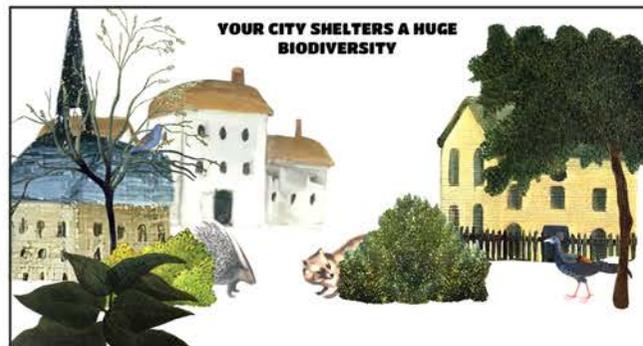
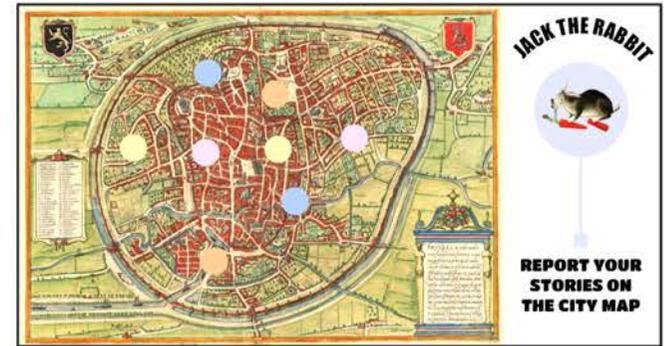
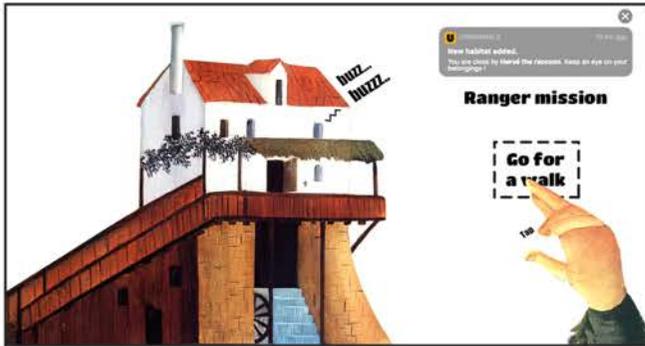
Experience Map – To Protest
MxD lab – UE X 21

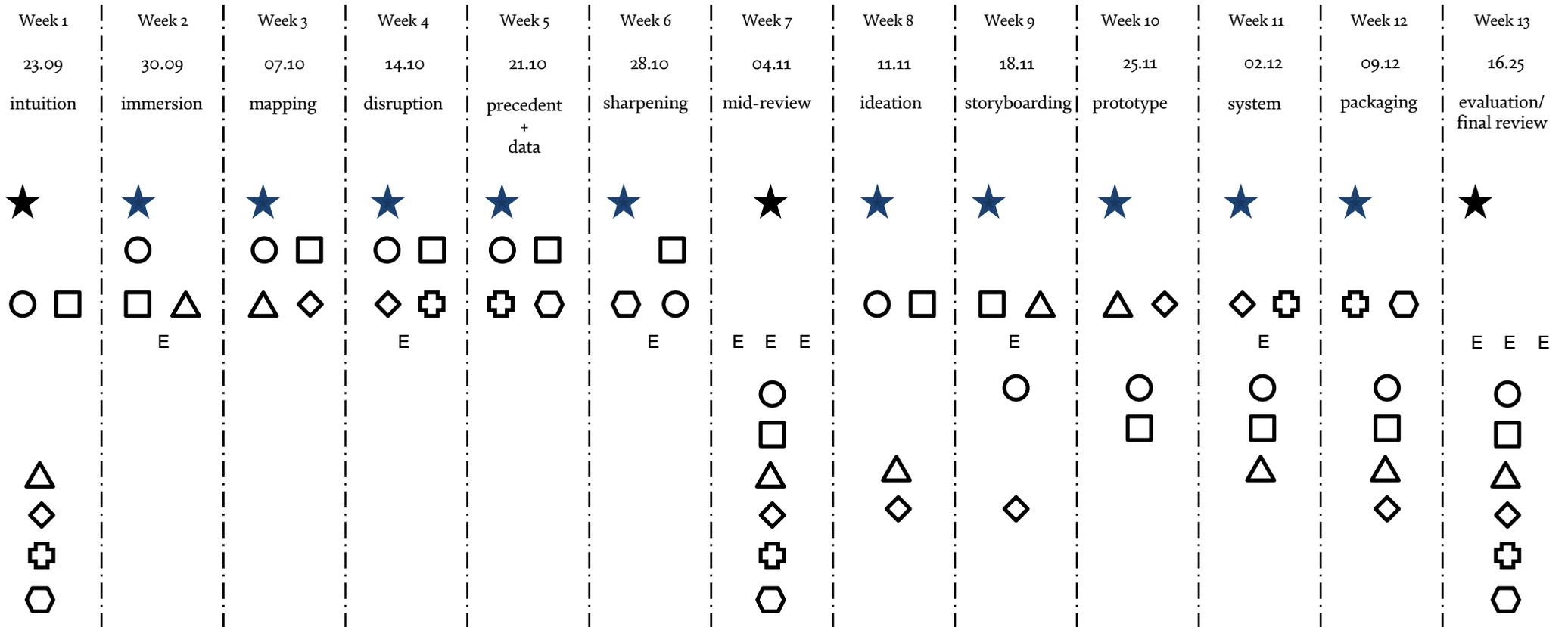


Systems Diagram – To Clean (MessHunter)
 MxD lab – UE X 21

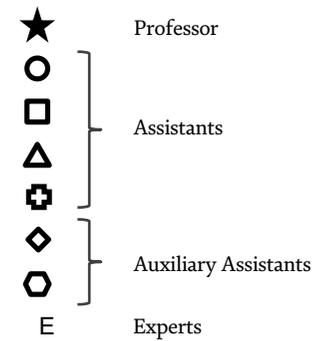


Prototype – To Swap
MxD lab – UE X 21





UE X Schedule 2022
(Dates are subject to change).



13.15	Introduction
13.30	Previous workshop feedback
14.15	Break
14.30	Lecture + next workshop intro
15.15	Break
15.30	Workshop
	Workshop
17.00	Break
17.15	Progress review/feedback
18.00	

Keywords

design thinking, ethnography, prototyping, assumption testing, visual thinking, convergent thinking, divergent thinking, collaboration, visual thinking, value propositions

Media x Design Laboratory

Prof. Jeffrey Huang, Mikhael Johanes, Mathias Bernhard, Christina Doumpioti, Christoph Holz, Alex Sadeghi, Frederick Kim, Marcela Delgado, Gianna Ledermann