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# **OVERVIEW**





# CONTEXT



#### **Bottle Bill, 1983**

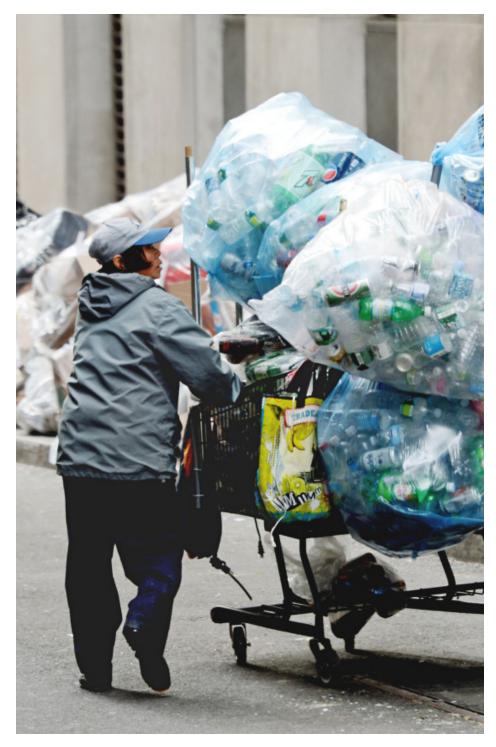
The term "bottle bill" is actually another way of saying "container deposit law." A container deposit law requires a minimum refundable deposit on beer, soft drink and other beverage containers in order to ensure a high rate of recycling or reuse.

Bottle bills create a privately-funded collection infrastructure for beverage containers and make producers and consumers (rather than taxpayers) responsible for their packaging waste. There are many other reasons to institute a bottle bill, which are described in the section "Benefits of Bottle Bills."

With so many recyclable materials out there, people wonder why it's worthwhile to focus on beverage containers only. One reason is that beverages compose 40-60% of litter. A deposit encourages people to return these containers, keeping them off the streets and out of the waterways and wilderness. According to industry estimates, one-third of beverages are consumed on the go—away from the home recycling bin and often in places where recycling is not available. The refundable deposit helps ensure that these containers are saved and recycled. In addition, recycling beverage containers rather than manufacturing new ones prevents the consumption of enormous amounts of energy and the emission of great quantities of greenhouse gas emissions.

#### Canning: An Unintended Consequence

But when the law was passed, no one expected that thousands of unemployed or retired people would be the ones doing most of the redeeming, turning it into a new means of livelihood and creating a new subculture.



# **Ecosystem of Canning**

**Canners** are men and women who earn their daily bread by collecting NYC's bottles and cans and redeeming them.

Bottle Bill The term "bottle bill" is actually another way of saying "container deposit law." A container deposit law requires a minimum refundable deposit on beer, soft drink and other beverage containers in order to ensure a high rate of recycling or reuse.

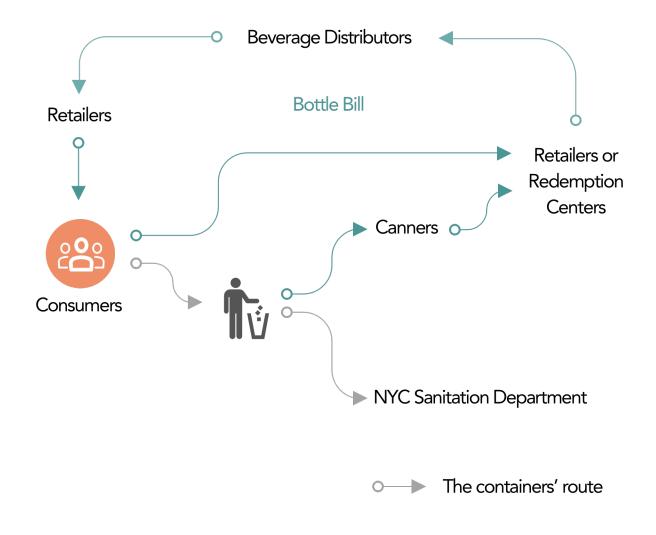
**Retailers** such as supermarkets or bodegas, buy beverages and pay the distributor a state-mandated 5-cent deposit per container.

**Consumers** buy the drinks and on top of the purchase price pay 5 cents per container. The consumer either returns the empties to redeem the deposit or tosses them in a garbage can or recycling bin, where they are picked up by city sanitation crews or by enterprising canners.

**NYC Sanitation Department** workers send bottles and cans

to Sims Municipal Recycling, which has a contract to process recyclables and share the revenue with the city.

Redemption Centers, canners take their wares to these centers that pays them the 5-cent deposit per container. They then call a beverage distributor, such as Coca-Cola, Nestlé or Manhattan Beer Distributors, to pick up its bottles or cans at his warehouse. By law distributors must pay redemption centers the 5 cents plus another 3.5 cents per item to help cover his overhead.



# DESIGN PROCESS



# Ethnographic Research

#### Approach

We used a user-centered approach to problem understanding and research and spent a lot of time volunteering and canning with the canners, learning about their life and work and listening to their needs.

#### Methodology

Interviews, shadowing, participatory activities, contextual inquiry, observation

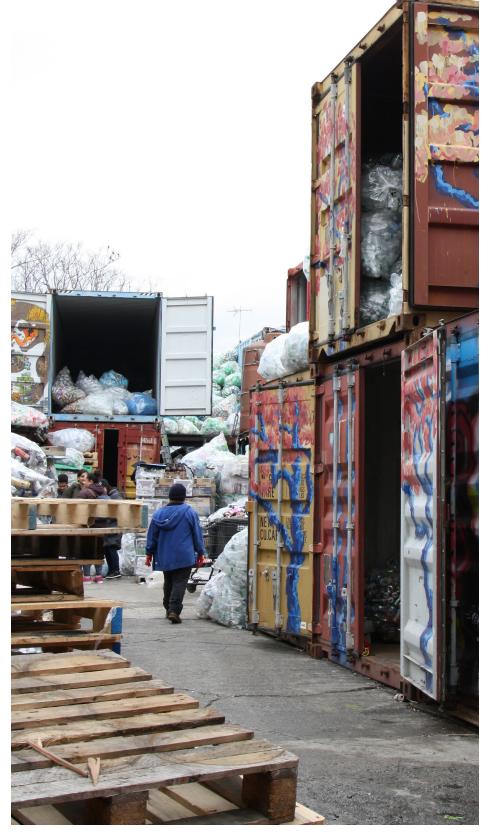
#### **Timeframe**

September 2017 -February 2018

#### **Partner**

We partnered with Sure We Can, a redemption center founded in 2007 to provide canners a welcoming place to redeem and connect with others engaged in the same endeavor. SWC is the only non-profit homelessfriendly redemption center in NYC. SWC was founded by canners for canners. A group led by Ana de Luco and Eugene Gadsden, started SWC to improve their working and living conditions, and address the hardships of those who make a living by collecting and redeeming discarded cans and bottles. SWC has grown each year, and in 2015 processed approximately 10 million cans and bottles for redemption. Today, SWC's more than 400 canners have a place to store, organize, and exchange what they have collected.

Apart from Sure We Can, we also interviewed at another redemption center in Brooklyn



called Thrifty. From there we learned that some canners earn more than \$100 per day while others earn only several dollars.

#### **Demographic**

From the website we knew, in SWC, 30% of canners are Asian (mostly Chinese), 40% are Hispanic, 20% are African American, others are Caucasian.

#### Learning

We started our research by volunteering with canners at Sure We Can. At first, even for offering to help we got rejections. Sorting needs a certain level of knowledge and understanding, and people think it's better to do it themselves than teach us. But slowly canners warmed up. David, a young Hispanic boy, was happy to teach us and introduce us to his mother, Maria. Soon more canners started accepted our help. While sorting, we started asking questions to know the canner better. Usually, after helping them for a few hours, we would request a

10-20 mins interview. Maria has been doing this for eight years, but she can't speak English. So David who has grown up in the USA is our translator. Language was one of our most significant barriers in the research phase. Since Chuyao is Chinese, we thought that the language advantage would make our research with the Chinese canners easier. However, we found that most of the Chinese canners don't speak Mandarin and are above the age of 65. They are hard to reach out to, very alert and don't trust easily. Hispanic canners don't speak English and nor do Caucasians, from East Europe. American English speaking canners were the minority. Time was another barrier. Canners are always very busy sorting their cans in SWC, and it requires a high level of

concentration to sort and count.

After they finish their sorting,

they are in a hurry to leave to

collect more cans or attend to

other household chores.

#### **Interviews**

Several canners speak English. We interviewed Maria, Pedro, Eugene, Wade, Pierre and our research is limited to the Hispanic and African American canners. Apart from interviews we also went canning with some of these canners. Doing the process from start to end helped us understand and contextualize this work. We learned that timing and location are everything and that different canners had different preferred areas of work and strategies. Before this, we had never thought of canning as a planned job. It helped us get buy-in and bond with the community. With the friendship also came questions about our project and what we were trying to do.



#### **Canners' Journey**

#### **Collecting**

Collecting is the process of collecting cans and bottles for 5¢ deposit from the streets, trash cans, curbside, bars or residential buildings. The process of collecting is different in different neighborhoods like Manhattan and Bushwick. Popular places have a lot more people and hence a lot more cans and bottles to collect. In these areas, typically canners dig through the trash bins. However, in not so popular neighborhoods, there are fewer trash cans on the street. In these areas, canners usually go through recycling and trash bags. While going through residents' curbside bags, canners have to be very careful so as not to break the bag and leave the sidewalk just as they found it. They also need to have a clear understanding of what is redeemable and what is not. Some brands are not

redeemable, while others not redeemable in NY. Some brands like Poland Spring have different versions in a different state. The versions that sell in other states are not redeemable in NY.

#### **Sorting**

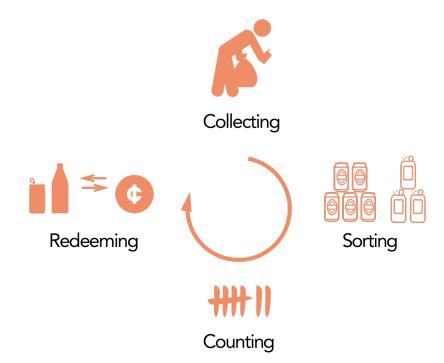
Sorting is the process of sorting cans and bottles distributor wise. Most redemption centers have employees to sort the containers. When distributors take back their containers, they pay an extra 3.5¢ per piece as a handling fee. This 3.5¢ is how most redemption centers earn money. Sure We Can is an exception that they provide the space for canners to sort their cans so that they can earn an extra 1.5¢ per piece. Sorting is not an easy process as each distributor has a lot of different brands. No specific logo or sign shows that they are from the same distributor. So canners have to remember which brand is from which distributor and usually as each other this information at SWC.

#### Counting

Counting is the process of counting cans and bottles. In other redemption centers counting is not required. Payment is according to the number of containers brought. In Sure We Can, however, they expect 144 cans or bottles from the same distributor for the sake of easy calculations.

#### Redeeming

Redeeming is the process of exchanging cans and bottles for cash. There are two ways in which canners can redeem in the city, either at the supermarket or at the redemption center. By law, every retail chain that is in more than 10 locations in the city has to take back returnable containers of the brands they sell. These retail outlets either have vending machines or shop assistants to take the containers. However, they want customers, not canners, so they make the redeeming process harder by letting each canner can only redeem 100 bottles at a time and canners can just come at 3-5am. The machine is not always in running condition, and the shop assistant is not always available to take the bottles. As a result, canners prefer to go to redemption centers. However, there are approximately 20 redemption centers in NYC and only two in Manhattan. Running a redemption center is hard because the handling fee has been the same. However, worker wages have gone up.



#### **Insights**

- 1# Canning is hard work and canners consider this their job
- 2# Canners are an extremely diverse group of people
- 3# The NY City's Curbside Recycling Program and NY State's Returnable Contaier Law compete for the same materials
- 4# Canning helps divert recyclables from trash
- 5# There is not much information about canning



# Initial Problem Statement

Canning is a low barrier to entry profession, and in a lot of cases, it's the only job canners are eligible to do. Canning is laborious, time-consuming, pays less and there is no support from stakeholders. It requires them to work long hours in harsh physical conditions and benefits the environment by diverting recycling from landfills. However, it doesn't provide access to better growth opportunities and support from beneficiaries.

We hypothesize that by reducing the time canners currently spend on canning (for the same income) and with support from beneficiaries, canners can get time and access to better growth opportunities.

We want to connect canners with people who think they are hardworking and diligent. These people can give canners their cans and bottles and might also recommend their canner to local businesses, and canners are more likely to get a job.

We designed a card sorting activity to understand what better opportunity and access to financial stability means to a canner. We translated these cards into Spanish and Chinese as well. When canners were waiting for their cash, we asked them to rank the cards in order of preference. We were sure that this would prove our assumption that most canners wanted other jobs. However, to our surprise, nobody picked 'want a job.'



#### **New Learning**

By probing deeper, we understood that canners don't want a job be cause they know their limitations and that because of their circumstances nobody would hire them. Many canners face economic, emotional, educational and language barriers that limit their possibilities for full

#### participation in society.

Either because of their physical condition, age or education or because they are on social security which limits their working hours. Most people we interviewed have social security which means most of them are legal immigrants. They don't want to give up the social security for fear of not finding full-time work. Canning is a low barrier and gives them the flexibility to supplement or generate income. It allows them to make the remaining money to pay rent or save for their grandchildren.

#### Canning is a solution

We realized that canning is not the problem, it's their a solution. Canning helps canners support their family with dignity. For older canners, it allows them to be independent and not a burden on their children.



#### **Systemic Research**

#### Political Factors DSNY

NY State supports Container Deposit Law, also known as the Bottle Bill and NY City promotes the Curbside Recycling Program and both these programs compete with each other for the same recyclables.

"Scavenging wastes taxpayer money earmarked for curbside recycling and jeopardizes the jobs of the city's unionized sanitation workers. Though he declined to give specific figures, Lange said that the loss of curbside redeemable to canners forces the sanitation department to take money out of other budgets to make up for what is not collected." Robert Lange, director of the city sanitation department's recycling operations.

We learnt that "Except for an authorized employee or agent of DSNY, it shall be unlawful for any person to disturb, remove, or transport by motor vehicle any amount of recyclable material placed out at curbside, within the stoop line, or in front of the premises for collection or removal by DSNY."

We found out that the city wants the materials to go to SIMS so that they can reduce their cost of waste management by selling the recyclables.

Former mayor Bloomberg attempted to do away the Bottle Bill in 2002. He said: "If we're going to help the homeless, there are better ways than having them go through our garbage."

#### **Distributors**

When bottles and cans aren't redeemed, distributors get to

keep 20% of the deposit and return the other 80% to the state. New York makes about \$100 million in revenue annually from unredeemed bottles and cans. Approximately \$20 million goes to environmental programs and the rest to the general fund. For distributors, they also wish the city can get the containers as if it's redeemed they have to pay 8.5¢ if it's un-redeemed they only need to pay 3¢. So they have been lobbying the government to give up the Bottle Bill.

#### **Single Stream Recycling**

According to the press, NYC will switch to a single-stream recycling system by 2020. This change will make the canners work harder.

#### **Social Factors**

"Immigrants, especially undocumented immigrants, are excluded from a lot of programs that might help people so when you're really pushed to the edge, collecting cans might be all that you can do," David Kallick, senior fellow, and director of the Immigration Research Initiative at the Fiscal Policy Institute

#### **Environmental Factors**

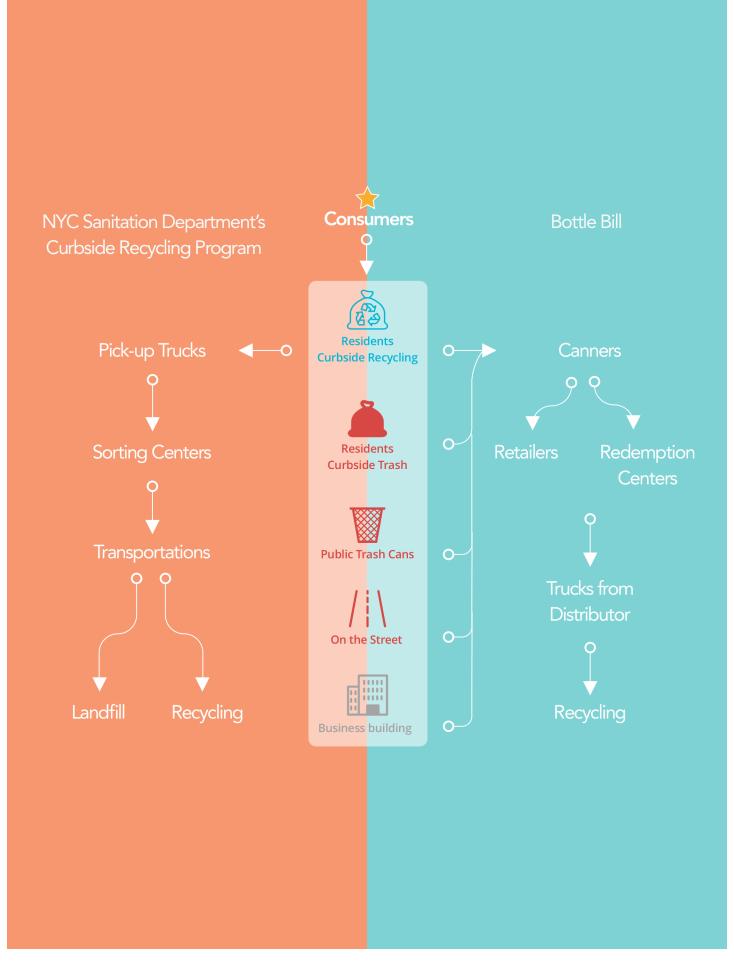
"There are people on the street that are helping us get toward recycling goals that we might be proud of," said Councilman Antonio Reynoso, a Brooklyn Democrat. "But our system doesn't track their contribution."

#### **Our Argument**

The activity of canners aligns with the city's goals, as it contributes to retrieve materials or recycling. Nonetheless, the monetary value attributed to certain discarded materials creates tensions between the existing systems. The containers collected by the canners reduce the revenues that the city would receive by selling these materials to the recycling industry. Moreover, the city authorities argue that, by collecting from the curbside, canners are stealing from DSNY's property. However, there are incongruences in these claims. First, the right of the city authorities to claim property over waste is debatable. Second, even though city authorities might have a coherent argument about the collection cost, it only focuses on the economic aspects and thereby neglects the social benefits of the activities that the canners engage in. This controversial dispute between the city and canners over NYC's valuable recyclables opens the ground for a discussion about waste management in the city. The work of canners has not been taken into account in the city's plans to achieve the Zero Waste goal.

#### **Working Together**

There is research to prove that it is important for both the systems to work in tandem with each other to achieve the highest recycling rates. "Not only are combined curbside and deposit systems more effective than curbside recycling programs alone, the materials collected through deposit programs are of a much higher quality than materials collected through curbside recycling programs. "Bottlebill.org.



#### The Problem

Canning is the solution for survival for more than 7000 people in the City. They not only feed their family by canning, they also divert a huge amount of recyclables from the trash that would otherwise end up going to the landfill because the trash is not recycled by the city.

# But they are not valued by key stakeholders -

The City blames canners for collecting recyclables from the curbside recycling bags because it means less income for the City. They ignore the contribution of canners in diverting recyclables from the trash and the social aspects of what this activity adds to the canners life.

- 2. The general public are indifferent to canners and they don't think canning is a serious job.
- 3. Canners have been marginalised and stigmatized for such a long time that they don't see their own value.

# We found there are two major gaps between this two sides, and because of which canners are not valued -

- 1. There's no research to prove canners' contribution environmentally and economically.
- 2. There's no communication to share a new perspective so people continue to perpetuate on misconceptions.



#### **Hypothesis**

So then our problem became if canning is so vital for canners, how might we protect canning as a job for canners?

Currently, the city and people don't see canning as valuable. Canners contribute to our recycling goals by diverting recyclables from the landfill. However, the city criminalizes them instead of acknowledging their contribution. If we can shift peoples' perception of canners, make them realize canner's value, canning can become a social norm, and the government has to consider the role of canners in waste management decisions. We can shift people's perspective if we make them aware of the canners contribution.

#### **Idea Generation**

We brainstormed a wide range of ideas from providing a hook for residents to separate and hang their cans out for canners to events like trash run and a scavenger hunt. We imagined what it would be like for canners to have uniforms or put a sensor on their cart. While a lot of these ideas had potential, we decided to start by prototyping a Recycle Walk with Canners.



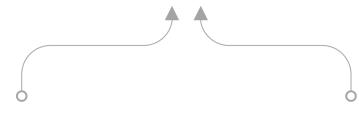
# Success would look like

We believe, if we can shift the public perspective and inspire more research on canners, we can influence government's perspective. If government can see canners' value, ultimately we can advocate to integrate canners in the solid waste management system as local recycler.

Integrate canners in the solid waste management system as local recycler



Shift government perspective



Shift public perspective Inspire research to get data on canners' contribution to recycling





Inputs	Activities	Outputs	Outcome
Walking tour	Pre-event survey	Number of participants from different fields joined	Know how many participants have the potential to bring about change
Walking tour	Canners share their story	Number of canners who share their story  Number of particpants who hear the stories	Humanize canners
Walking tour	Bias cards	Number of participants who's perspective shifted	Humanize canners
Walking tour	Tour of Sure We Can	Number of particpants toured Sure We Can	See the amount of recyclables diverted Interest in research
Walking tour	Canning with the canner	Number of particupants who went canning	Safe space for interacting 1:1 with a canner See that canning is hard
Walking tour	Post event survey	Number of participants that had a good experience  Number of participants who learned something new  Number of participants willing to pay for the tour	Invite family and friends

#### **Prototypes**

#### You CAN Say Hi!

You CAN Say Hi was to be a platform that inspires interaction with your canner by simple prompts like - You can say hi!, You can say hi and go for a walk... We created a Facebook page called 'You CAN Say Hi' to create awareness and reach out to people.

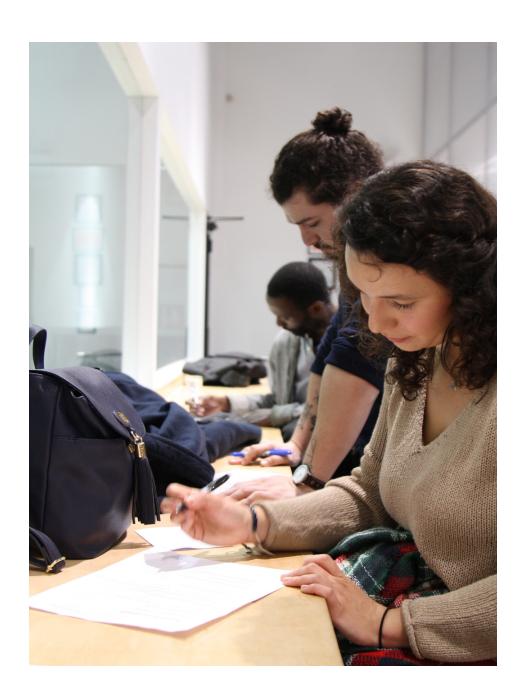
Our first prototype was Recycle Walk; we posted it on Facebook. We planned the walk in and around Sure We Can. We created an agenda, prepared maps explaining the recycling system and the role of canners and invited Wade, an American canner to host the walk. We decided to guide the tour because we wanted to test our content and gauge the interest levels. Alas! It started raining on the day of our prototype. Only one participant joined the tour because he had planned to volunteer at Sure We Can that day and he brought two friends. We had three guests on that day. The role of the canner was to speak with the guests and share his opinion. We did not provide much structure or planned a script for him.

#### What worked well

- 1. Participants really enjoyed the conversation with the canner
- 2. The interaction was very powerful
- 3. The facts shared were new for information for the participants
- 4. Participants took time to share very detailed feedback with us

### What we needed to improve

1. Be clear about the message











we want people to get

- 2. Participants ended up thinking that canning is very profitable and that canning is an excellent business to have
- 3. We also got feedback that they would have liked to experience canning
- 4. We realized that we need to define our audience to reach them

We realized that the canner we chose was not a traditional canner as he is young, educated and chose to can because he could earn more money by doing this and didn't need to work for anybody. He usually cans in Manhattan and not familiar with how and where to can around Sure We Can.







#### My Local Recycler

For the second and third prototype, we created "My Local Recycler" By using "My Local Recycler" we wanted to get people's attention by focusing on recycling and environmental sustainability.

#### Messaging

We spent a lot of time testing our messaging with potential participants. To check which time works better for people, we held two walking tours on the same day.

#### **Walking Tour**

For this walk, we connected with Pierre, an experienced canner who is also on the board of Sure We Can. He spoke more from a traditional canners' perspective as compared to Wade. We designed specific activities and restructured the tour.

#### Meet and Greet

Participants stand in a circle and introduce themselves, the loop ends with the canner who shares his story - how and why he started canning.

#### Bias Cards

We wrote out common biases; each participant had to pick up a bias card, and we created a safe space to ask sensitive questions to canners during the tour.

#### Tour SWC

Participants get to see a redemption center in action, get introduced to other canners and get to know the amount of waste diverted by canners.

#### Canning

We provide gloves and bags to all the participants, and the canner takes the participants on a short walk to show them how he cans. On the way, the canner will talk about how he can, and soon the guests will start asking questions, and the canner will tell stories to answer it.

#### Share Out

Participants come back and share one new thing that they learned or something that changed for them.

#### **Promotion**

For this tour we identified our audience and spent a lot of time promoting our event. We sent out over a 100 invites and reached out to people via Facebook groups related to recycling and environmental sustainability, Eventbrite and fliers at green markets. Our hope was to reach out to people who were studying or working in sustainability, policy and design.





#### with your Local Recycler

Ever wonder what they are doing? It's way bigger than you think. Join us on an NYC walking tour to find out why! You will enjoy a behind the scenes look at a hidden recycling hub and put names behind the faces of the people who make your trash disappear!

> Sure We Can 219 McKibbin Stree

Saturday March 31, 2018 10:00am–11:30am OR 12:00pm–1:30pm

FIND US ON FB@ My Local Recycler REGISTER AT: tiny.cc/tk74ry



#### What worked well

- 1. 12 participants showed up, we learnt that more participants chose the time slot post noon.
- 2. We got great feedback
- 3. Quality of interactions was rich
- 4. The tour sparked interest in projects

# What we needed to improve

- 1. Better control over time
- 2. Have Pierre focus on specific topics
- 3. Provide more context and background about the problem
- 4. Actionable next steps for people to take
- 5. Recording feedback







# INTERVENTION



# A walking Can Surversation

# A Walking Canversation

For canners to be seen as contributing members of society, we built a walking tour with a mission to change the way New Yorkers see canners.

#### **Audience**

We don't believe that any community is voiceless, they just need the right stage and an audience willing to hear them out. Our audience is students and professionals in sustainability, policy and design who value recycling, do research projects and have the ability to influence policy in the long run. Our sweet spot is that New Yorkers love to uncover their city. What better way that to go canning with your canner?

#### Goal

The goal of the tour was for people to gain:

- 1. Clarity on the current recycling system and the role of canners
- 2. Shift biases through honest conversations
- 3. Experience canning first hand

#### How does it work?

- 1. Meet and Greet
- 2. Bias Cards
- 3. Tour SWC
- 4. Canning
- 5. Share Out







#### Result

The tour sparked a lot of interest in projects with canners as well as made people see canners differently. The rich interactions and demand that the tour generated shows that it has potential to change the way New Yorkers see canners as well as the potential to be financially sustainable.

"I am going to volunteer my time to unionize canners in order to create a case for policy change" - Participant

"I am inspired to create a documentary" - Participant

"I used to think all canners are homeless or drug addicts, this has changed everything I knew" - Participant

"You created an alternative for people to open their minds to other realities" - Ana, Founder, Sure We Can

"I enjoyed sharing my story, we (canners) need more people like you to come in and help us change peoples' minds" -Pierre, Canner



16%

Research projects

Started or in the process of starting research projects

80%

Think of canners positively after the tour

More informed and willing to recommend the tour to friends and colleagues

80%

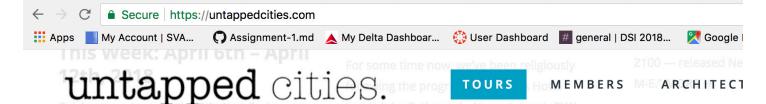
Willing to pay for this tour

Additional income for canners

\*Sample size = 25

#### **Article**

The tour was published in a New York sightseeing company and helped spread the word about the final tour.



and discover the hidden history of our city.

Here's what's in store: MORE →



ARTS & CULTURE / NEW YORK 04/06/2018

#### Join a Walking Tour of a Hidden Recycling Hub With Local Recyclers

Join a behind-the-scenes tour at a hidden recycling hub as local recyclers share details about how the recycling system works and their journey to recycling. MORE →

Flight Center, a midcentury marvel by architect Eero Saarinen. In anticipation of its opening, we're taking a look back at Saarinen's distinctively modernist U.S. embassy (officially the U.S. Chancery) in London, which opened in 1960 at a high ... MORE →



ARCHITECTURE / NEW YORK 04/05/2018

Brooklyn Army Terminal to Get 100,000 Sq Ft Solar Garden for Local Community

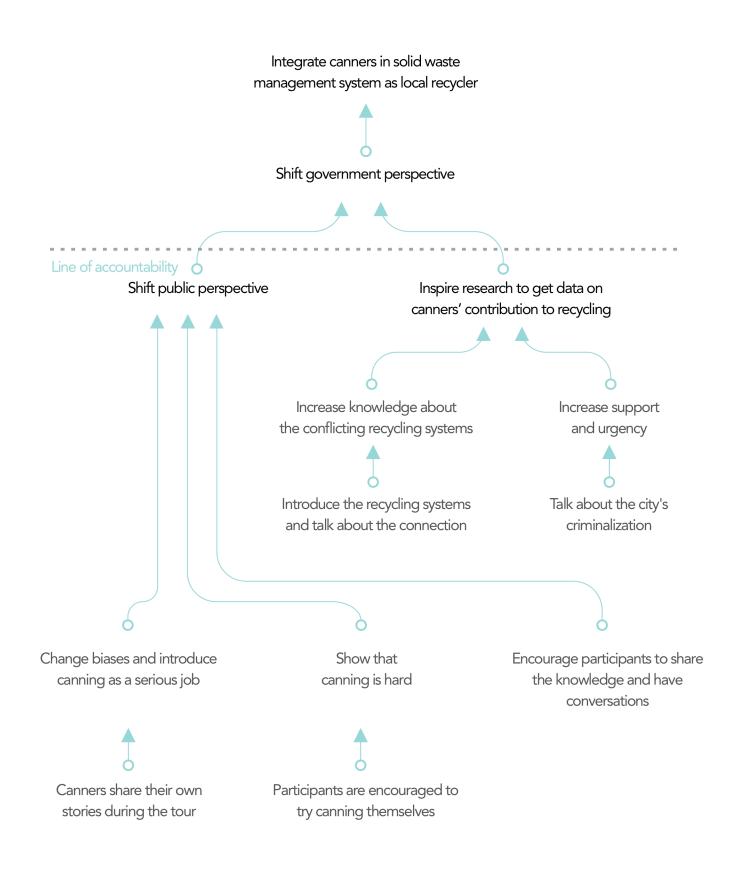


ARCHITECTURE 04/06/2018

#### Inside the C the new Do Williamsbur June

On June 10th, Domir Williamsburg will op Yesterday, we got a under construction.

#### **Theory of Change**

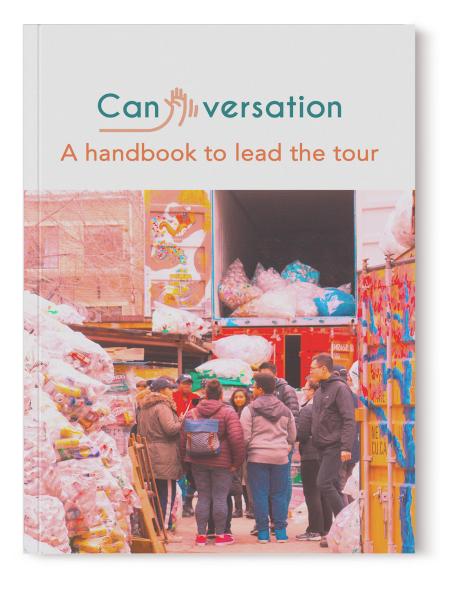


#### **Next Steps**

There was a lot of interest to continue the tours and we are in conversation with Sure We Can to take this forward.

Imagine what it would look like if we had a tour in every neighbourhood? Imagine if people could work on this to shift the policy.

Our ultimate goal is for people to see canning as work and the city's to work together with canners as allies and not violators.



#### Learning

#### Courage

8 months ago when we started our thesis project, we never imagined that two people who care about recycling and issues of environmental sustainability would be working towards social inclusion of an under researched community that works in the grey areas of legality. The process gve us the courage to stand up for what we believed in.

#### **Get dirty**

We truly understood and bonded with the community only after we started canning with them. It that really helped us build trust and empathy.

#### Ask for help

We reached out to a lot of people in seemingly related as well as unrelated speheres of the project but in the end this really helped us put the pieces together and made us very comfortable asking for help.

#### Trust the process

There were times when we felt that we were going in circles and were really far away even from the problem forget about the solution but we hung in there until we found answers in the most unusual places.







Thesis Project by Ishita Jain & Chuyao Geng

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