

#### **ABSTRACT**

#### **Background**

Food decisions and food related behaviors involve a complex expression of motivations and are dependent on many concurrent factors. Food's interwoven relationship with culture, health, class, income, and education make it a compelling representation of identity.

#### **Objective**

Our design team spent five weeks conducting research and synthesis in Austin, Texas to gain a better understanding of the factors that influence food behaviors in low income communities and identify opportunities for improvement through design. By researching at-risk populations, extremes are more readily exposed and the chance for social impact through design is greater.

#### Methods

Our research team went into homes, disrupted meals in restaurants, shadowed shopping trips, and fed people from a school bus. We conducted intentionally subjective, qualitative research in context with 10 participants to gain a richer view of their behavior and motivations and ultimately provoke new understandings for ourselves.

#### Results

Design synthesis revealed an important duality with food interactions that is especially relevant for at-risk populations. Food is both fleeting and persistent. This is true in a visceral sense: meals add up over time to define our nutritional health. Perhaps less obvious, the seemingly trivial process involved in making every day food decisions accumulates over time into food-related social roles. These food roles significantly contribute to our identities. For at-risk individuals who lack autonomy over food choice and for whom interactions with food are often dehumanizing, absorbing a dehumanized food role is toxic to their identity.

#### Conclusion

Without authority over food choices, people are reduced to what they are willing to accept or deny. In parallel, established food roles become a persistent part of our identity. So when many choices are restricted, as is the case in low income communities, food choice becomes a vehicle for humanization. Therefore, meaningful choice is an essential element of food interaction with populations in need.







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Our design team's professional background experiences include design, software development, web programming, interactive media project management, large-scale mechanical system design, product engineering, math and physics education.



#### FOCUS STATEMENT

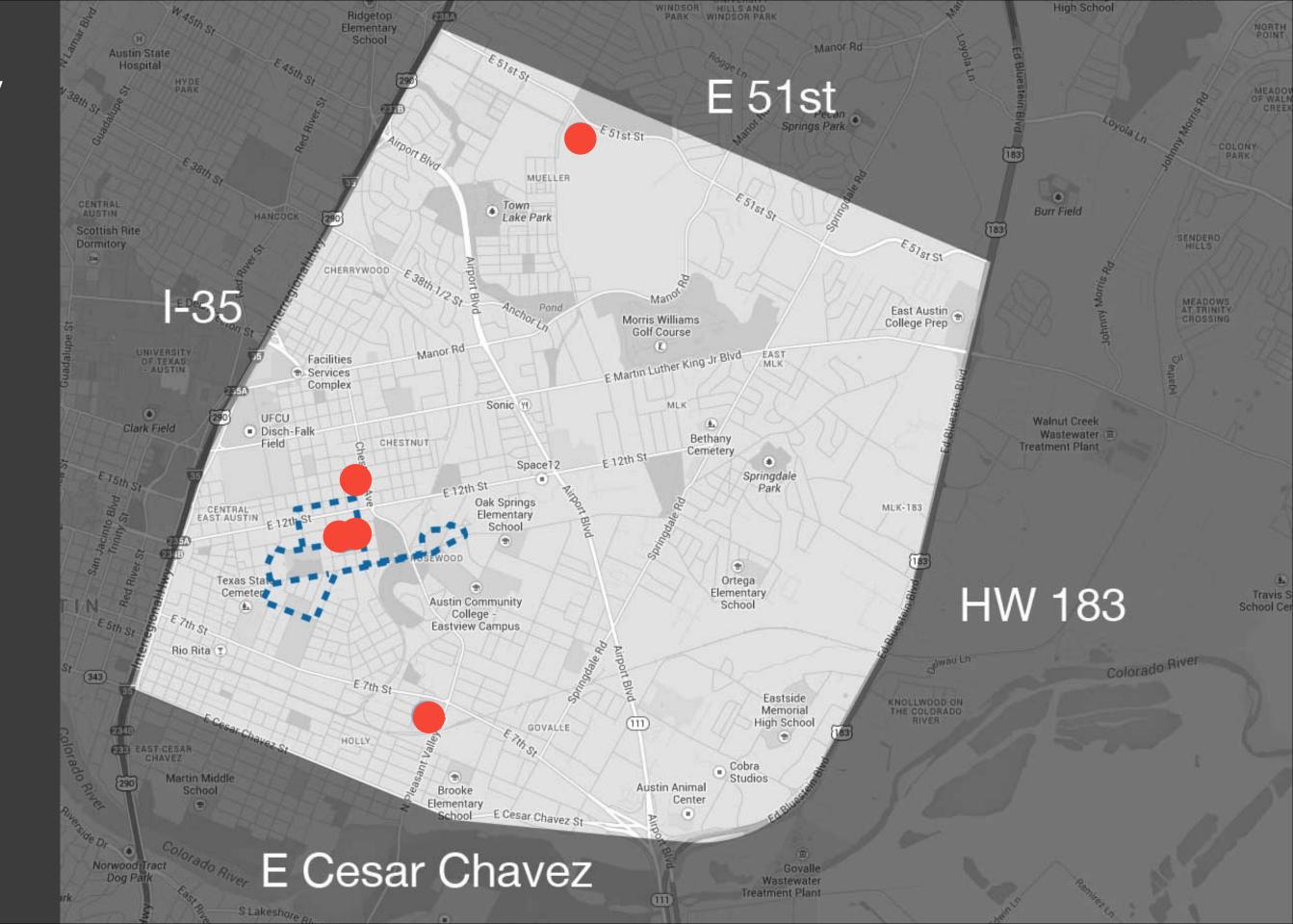
# Identify and understand the emotional and cultural factors that influence food behaviors in low income communities.

- A focus statement guides and gives direction to the research phase.
- Throughout research the focus statement helps the design team recenter as they explore the problem space.
- "Low income communities" refers to people that live and interact in areas that have a high density of low income individuals and households.

#### **Eastside Community**

Research activities were conducted on the Eastside of Austin, TX

- Interstate 35 has traditionally separated Austin into East and West. West Austin is composed of predominantly white, affluent neighborhoods while the Eastside has, historically, been home to lowincome black and hispanic communities.
- The Eastside is being rapidly gentrified as the population of Austin booms and the affluent of West Austin push East.

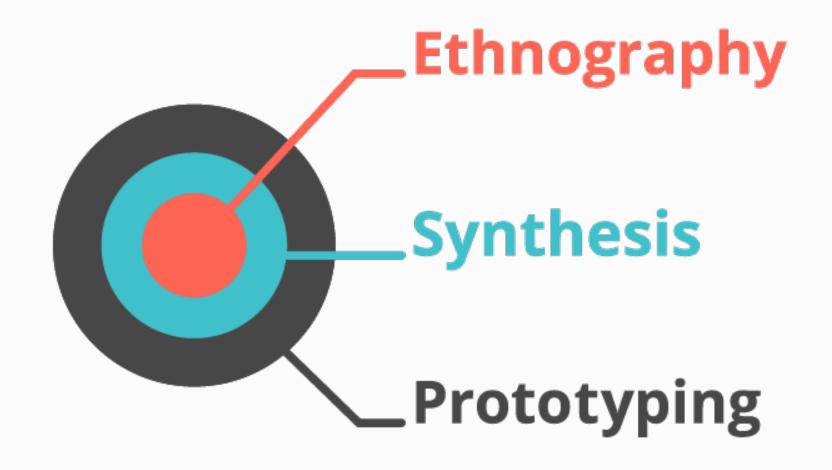


#### **Design Process**

We approach the design process in three phases:

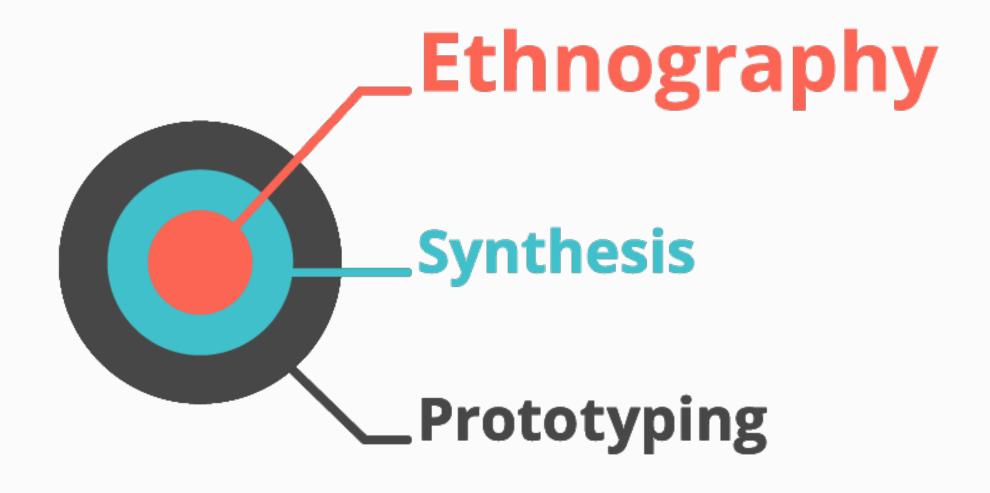
- **Ethnography** an empathetic research process to inform our intuition.
- Synthesis a sense making process built on the intuitive understanding that produces new insights relevant to the problem space.
- **Prototyping** a new product or service idea that addresses relevant insights and is rapidly refined through testing and iteration.

Note: this work was taken through the Ethnography and Synthesis phases only.



#### **Ethnography**

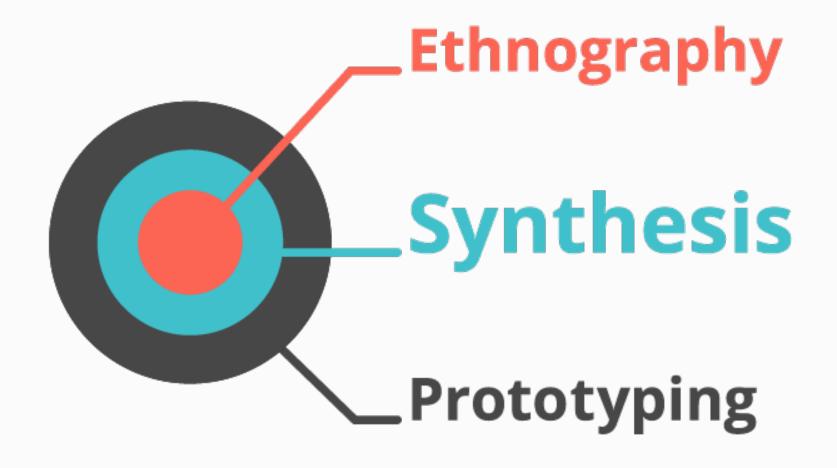
- Our team went through an intensive two-week research phase.
- Our research was highly subjective. The goal was not to verify or prove, but rather to provoke ourselves as designers. We wanted to rapidly inform our intuitive understanding of the problem space.
- Each interaction with a participant in the field was documented through audio recordings, photographs, and observational notes.
- Each inquiry was then transcribed word for word.





#### **Synthesis**

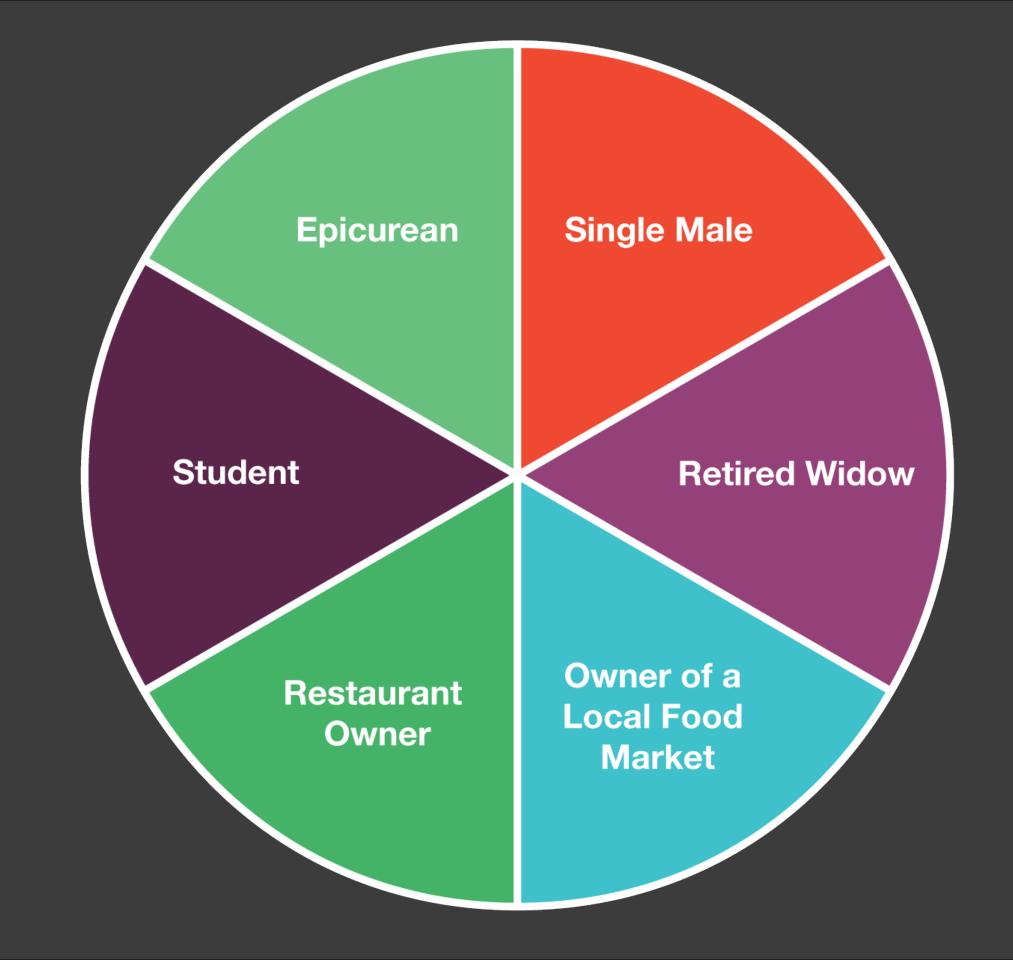
- In Synthesis the goal is to make sense of the dense data gathered during research.
- Over the course of three weeks we pushed all the data into physical representations, identified patterns and then generated new ideas.
- This process is judgmental and highly influenced by each designer's frame of reference and experiences.
   The rich mental models that are built from ethnographic research contribute greatly to the designer's ability to stretch the data in different directions and generate new connections and insights.





#### **Participants**

- Our design team connected with participants in ways that mirror a short term mentorship. Our methodology encouraged them to teach us about something they have a great expertise in... themselves.
- We touched on many different areas and connected with a variety of individuals in the problem space in order to create a broad and rich mental map.
- Please refer to the <u>Participant Appendix</u> for more detail.



# RESEARCH METHODOLOGY Informing Our Intuition

#### INTERVIEWS

Brief 30 minute to hour-long conversations with individual participants or groups.

#### **Connections Through Conversation**

- Interviews are an easy way to learn about people from their point of view. Conducted in homes and restaurants, these conversations helped lead us to greater insight into our participants behaviors and motivations.
- Due to the straight-forward nature of interviews we tried to utilize open-ended questions and formats that allowed are participants to become story-tellers, allowing them to teach us about their experiences and perspectives.

# CONTEXTUAL INQUIRIES

A method borrowed from anthropology, that places the researcher in context to observe behavior and interactions.

#### **Understanding Through Observation**

- Contextual inquiries places us in situations where we are able to observe our participants behavior in food-related activities.
- Behavior is only revealed in context due to the ingrained nature of behavior, most participants wont articulate them through the interview process alone.
- Immersive experiences reveal prompts and moments for insightful conversations with our participants.

# **ARTIFACTS**

Documents, probes, and photographs that we took away from our research.

## Representation Through Record

- Throughout our research we collected a number of documents and artifacts related to food behavior and culture including: shopping lists, photographs, and cultural probes in the form of food journals that our participants filled out over the course of a week.
- These food journals gave our participants an opportunity to share the minutia of their eating habits over several days revealing many of the thoughts and emotions that went along with these decisions.

# SYNTHESIS METHODOLOGY

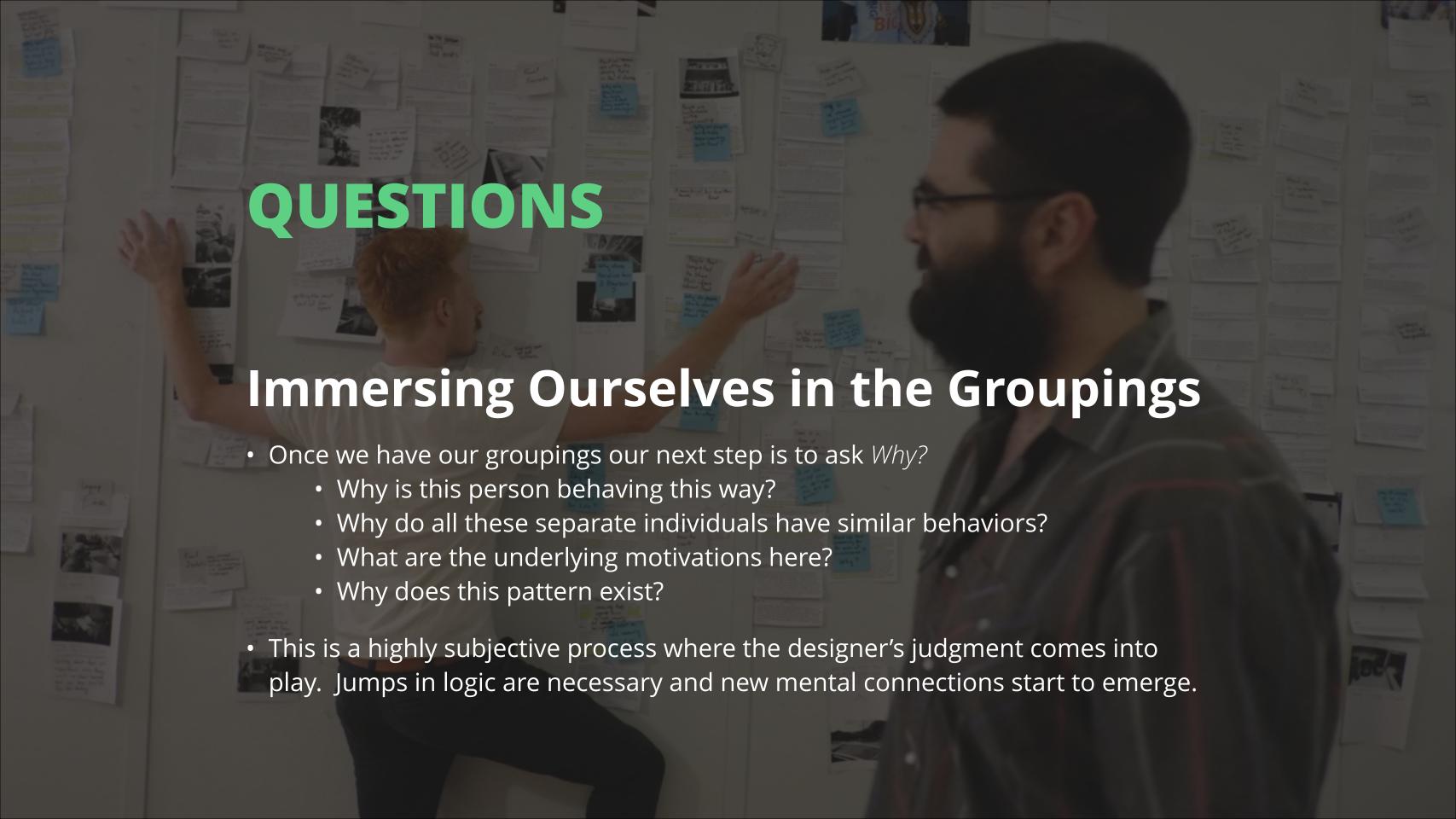
Making Sense of the Data



Turning the research into a physical environment that can be manipulated.

## Itemizing the Data

- The first step of synthesis is to take all our interview transcriptions, and itemize them in the form note cards with individual quotes and statements and identifying codes.
- These cards are pinned to the wall along with photographs, notes, artifacts and all the other research data that we collected. We do this so that all the research is visually represented in one space while each atomic piece of data can be easily repositioned.



#### INSIGHTS

A new connection formed through questioning and reframing our mental models.

#### **Provocative Statements of Truth\***

- Insights are distinct from an observation in that it attempts to make a meaningful explanation about behavior.
- Insights are the result of a highly subjective process invoking adductive leaps in logic: data pushed through the frame of the designer meant to provoke new implications and ideas for designs.

\*That may be wrong.

## Insight

Without authority over food choices, people are reduced to what they are willing to accept or deny.

I heard a grown man say one day... "I'm sick of these sandwiches." He's homeless and look what somebody else said, "But you're homeless. You ain't got no choice."

-Participant L



#### Persistent Lack of Choice

When we look at our two initial insights together:

- What happens to an individual when their choice is repeatedly reduced to acceptance or denial?
- What happens when people are divorced from a basic human problem solving skill over a long period of time?

This situation isn't uncommon for the poorest members of our community. When we look at the impact this frame has on an individual that is of the overlap of these two themes, we start to understand why Participant L sacrifices so much of her time and resources to feed people who can't afford to pay out of the back of her restaurant.

#### Persistent Lack of Choice

#### Insight

Without authority over food choices, people are reduced to what they are willing to accept or deny.

#### Insight

roles become a persistent part of our identity.

# Insight

When options are restricted, food choice becomes a vehicle for humanization.

You do have a choice, whether you're homeless. If people get out there with the choices that they can have, life is a buffet.

-Participant L

#### Design Implication

# Choice is an essential element for food interaction with populations in need.

- The humanizing effect of choice is not limited to the Eastside of Austin, TX.
- About 870 million people are hungry worldwide. (United Nations Food and Agriculture Organization)
- Food decisions can feel fleeting and food solutions are often temporary in nature. Not surprisingly often efforts to address hunger are only aimed at supplying resources without regard to the effect of the quality and presentation of food on the recipient.
- With so much of the world's population lacking food autonomy, incorporating meaningful food choice has the potential for broad impact.

#### **Contact**

Please contact us with any inquiries into our research, methodology, or insights.

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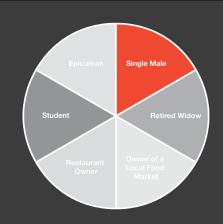
You can find out about other projects we are working on by reading the <u>ac4d blog</u>.

# Summary

- Without authority over food choices, people are reduced to what they are willing to accept or deny.
- Established food roles become a persistent part of our identity.
- When many choices are restricted, as is the case in low income communities, food choice becomes a vehicle for humanization.
- Choice is an essential element of food interaction with populations in need.







#### Single Man

Participant Q

Male, Age: 20-30

Occupation: Student, Semi-Pro Basketball Player

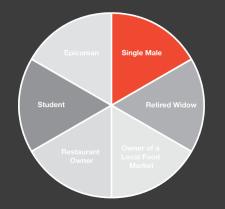
Participant Q is a full time student at a university in a nearby town, but he travels home every weekend to stay with his grandmother. Talking to Q you get to understand what a large part of his life his family is; a big part of that revolves around food. He is an avid consumer, when Q talked to us about his favorite places to eat he named off a dozen places near by. Food is a major part of his life - both in a daily regard, but also in a familiar respect.

Basically, anything my grandma makes, I'm gonna eat.





#### Single Man



Participant D

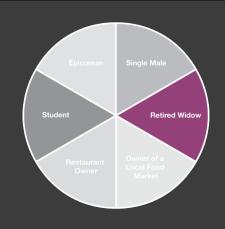
Male, Age: 40-50

Occupation: Artist

Participant D is a local figure in the community. Most of his neighbors simply call him 'Uncle D'. D has a history of inconsistent income and access to food. Now that he's more established and stable he is looking for ways to help out his community.

You know, and I think sometimes that comes from... if they may have been raised in a family where, you know, if you didn't eat all your food, it wasn't there when you got back.

- D



#### **Retired Widow**

Participant V

Female, Age: "Don't Ask"

Occupation: Grandmother

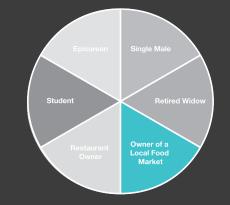
Participant V is a provider in all regards. She has raised three generations of children. When we talked to V about food she said that she doesn't really care much about it anymore. When she was growing up food was a huge part of her life but now that she's older her interest has dwindled - except when it comes to her family. She is always prepared to have a meal ready for her kin, even resorting to keeping a stash of treats and popsicles in a secret fridge to give to her grandkids when they visit.

I don't cook every day no more... Unless they say, 'you gonna cook granny?' then I might





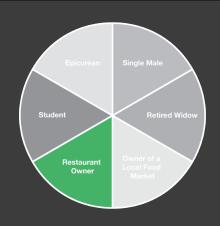
# Local Food Mart Owner



Participant A
Male, Age 30-40
Occupation: Local Food Mart Owner

Participant A is more conscious about what he consumes these days and spends his time raising awareness about healthy eating. After realizing that he lived in a "food desert", a place that has a lot of fast food or unhealthy food options but a noticeable lack of fresh food options, he opened up his food mart.

Our mission... is to serve this community, to make fresh food available and accessible and obvious to the neighborhood that we are serving, while still trying to run a business that makes some money, so that it can survive.



#### Restaurant Owner

Participant L

Female, Age: "Don't Ask"

Occupation: Restaurant Owner, Philanthropist

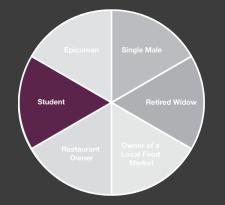
Participant V is a local restaurant owner and philanthropist. She uses the proceeds she makes from the front of her restaurant to feed the homeless out of the back of her restaurant. Most days she loads up hot pots of food into her school bus which she drives around the local projects - feeding mostly children. She describes her work as a process of working through pain. She is a deeply religious person.

You do have a choice, whether you're homeless. If people get out there with the choices that they can have, life is a buffet.





#### Student



Participant K

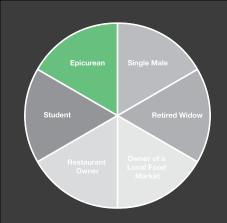
Female, Age: 20-30

Occupation: Graduate Student

Participant K is a graduate student at a local university both money and time are major concerns when it comes to food. K lives in a five person home and talked about the struggles of finding her own space and maintaining ownership of her food in a shared space.

"We've gotten lazy about making sauce because it takes a lot of time, and a lot of fresh ingredients. This year, in particular for me is a very time limited year. Trying to finish up, trying to stay simple... it honestly doesn't matter what I eat"

- K



#### Epicureans

Participant E
Male, Age 50-60
Occupation: Professor, Landlord

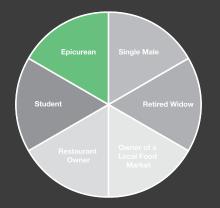
Participant E is a traveler, the nature of his work takes him around the world. As a result he has an open and curious approach to food. For him food is as much the experience as it is the sustenance. He talked passionately about the authenticity of the food experience.

I'm a food junky. I love food. What I like to do is try the indigenous food of wherever I'm at because I know they know how to do it right. They probably get great ingredients and they know how to prepare it, that to me is the spice of life.





#### Epicureans



Participant S & J

Males, Age: 20-30

Occupation: Engineers

Participants S and J are working engineers; for them convenience and quality are their primary food concerns. For the last few months they have been spending every Sunday cooking steaks with each other and going out to new restaurants. They see food as a bonding experience.

I think inviting a friend over to cook kind of forces you to learn. I want to get to this point where we cook something new every time, like whip up some recipe online and then just, over time you develop the experience, and in the end you just know how to cook.



# Individual Identity

Singular food decisions are fleeting, but when added together they make up a significant part of our identity.

Established food roles become a persistent part of our identity.

Food isn't solely about sustenance, it also represents individual control.



Food is fundamental - we all have to eat. How we go about fulfilling this daily need is a reflection of who we are. At the same time the decisions and roles we make around food further shape our identity. We aren't just what we eat but how we eat.

# Community Identity

Lack of food options degrade the community identity and as a result, degrades the individual identity.

In food deprived situations, individuals can still take on selfless roles and find pride through their food decisions in the context of the community.

When many choices are restricted, as is the case in low income communities, food choice becomes a vehicle for humanization.



While food is an extremely personal experience it doesn't exist in isolation. We are shaped by our community. It might be the practical aspects of what food options are available near you. It's also the relationship other members of the community have with food and how those close to you see food.

# Recipient Identity

Recipient - an individual who's choice is restricted to either the acceptance or rejection of proffered food.

Without authority over food choices, individuals are reduced to what they are willing accept or deny.

Food decisions are an outward expression of our identity. A decision to not take food is a food decision and a reflection.



For those members in our at-risk communities food represents an even more precarious role in their daily lives. For many of these individuals, food has been reduced down to a single yes or no question, "Will you eat this?"