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# Urban Rangers: The Scope of Medellin through Informal Waste Collection

Christina Rubino  
*Syracuse University*

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# Waste Collectors: Urban Rangers

*The Scope of Medellin through Informal Waste Collection*



Christina Rubino

**Waste Collectors: Urban Rangers**  
**Christina Rubino**  
**Jiong Wu with Lori Brown and Matthew Celmer**  
**December 2018**  
**Syracuse University School of Architecture**

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Name: Christina Rubino  
Title: Waste Collectors: Urban Rangers  
Subtitle: The Scope of Medellin through Informal Waste Collection

Statement:

Waste Collectors: Urban Rangers proposes that looking at Medellin through the scope of an informal waste collector allows for the visualization of the relationship between the user and distribution of repurposed values in the city. The analysis focuses on the existing infrastructure and legislation that frames this practice; it provides a critique of current working elements that could be designed to function as a network to assert a new spatial agency with user specificity. This thesis uses the scope of the waste collector, an urban phenomenon, to reexamine the city of Medellin and its legislative practices regarding this issue. Addressing problems in current proposals to reframe and rationalize the informal and freelance (determined by user) practice of waste collection through master planning techniques is supported by tracing the user. Top down planning disregards user specificity and imposes interventions without taking consideration for optimization at the scale of the user. Tracing the subject allows this research to show the relationship between the formal and informal in relation to collection, the interference of the government's process of formalizing this practice, and optimized and desired collection findings and exchanges.

What if there were a mode of physical intervention that was made to aid this practice as opposed to legislative intervention? Medellin has rewritten its city narrative through an architectural mode, and waste collection should not be excluded from this account. Waste Collectors: Urban Rangers will explore how physical operations at the scale of the waste collector can enhance and magnify the waste collector's urban environment through tangible resources to magnify the notion of informal collection.

Waste Collectors: Urban Rangers proposes that interventions regarding networks of waste collection structures have the potential to benefit the user and speak to the ongoing changes within the context. This proposal is a critique on the current conditions regarding waste collection in Medellin. By understanding the user and their capacity to circulate the city, structural framework for work spaces can form a network; this network will ultimately inform the existing social construction of the waste collection practice and use urban experience to inform design decisions.

Advisor: Jiong Wu  
Advisory Group: Contested Spaces



Image 1  
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## Thesis Claims

informal waste collector allows for the visualization of the relationship between the user and distribution of repurposed values in the city. The analysis focuses on the existing infrastructure and legislation that frames this practice; it provides a critique of current working elements that could be designed to function as a network to assert a new spatial agency with user specificity.

This thesis uses the scope of the waste collector, an urban phenomenon, to reexamine the city of Medellin and its legislative practices regarding this issue. Addressing problems in current proposals to reframe and rationalize the informal and freelance (determined by user) practice of waste collection through master planning techniques is supported by tracing the user. Top down planning disregards user specificity and imposes interventions without taking consideration for optimization at the scale of the user. Tracing the subject allows this research to show the relationship between the formal and informal in relation to collection, the interference of the government's process of formalizing this practice, and optimized and desired collection findings and exchanges.

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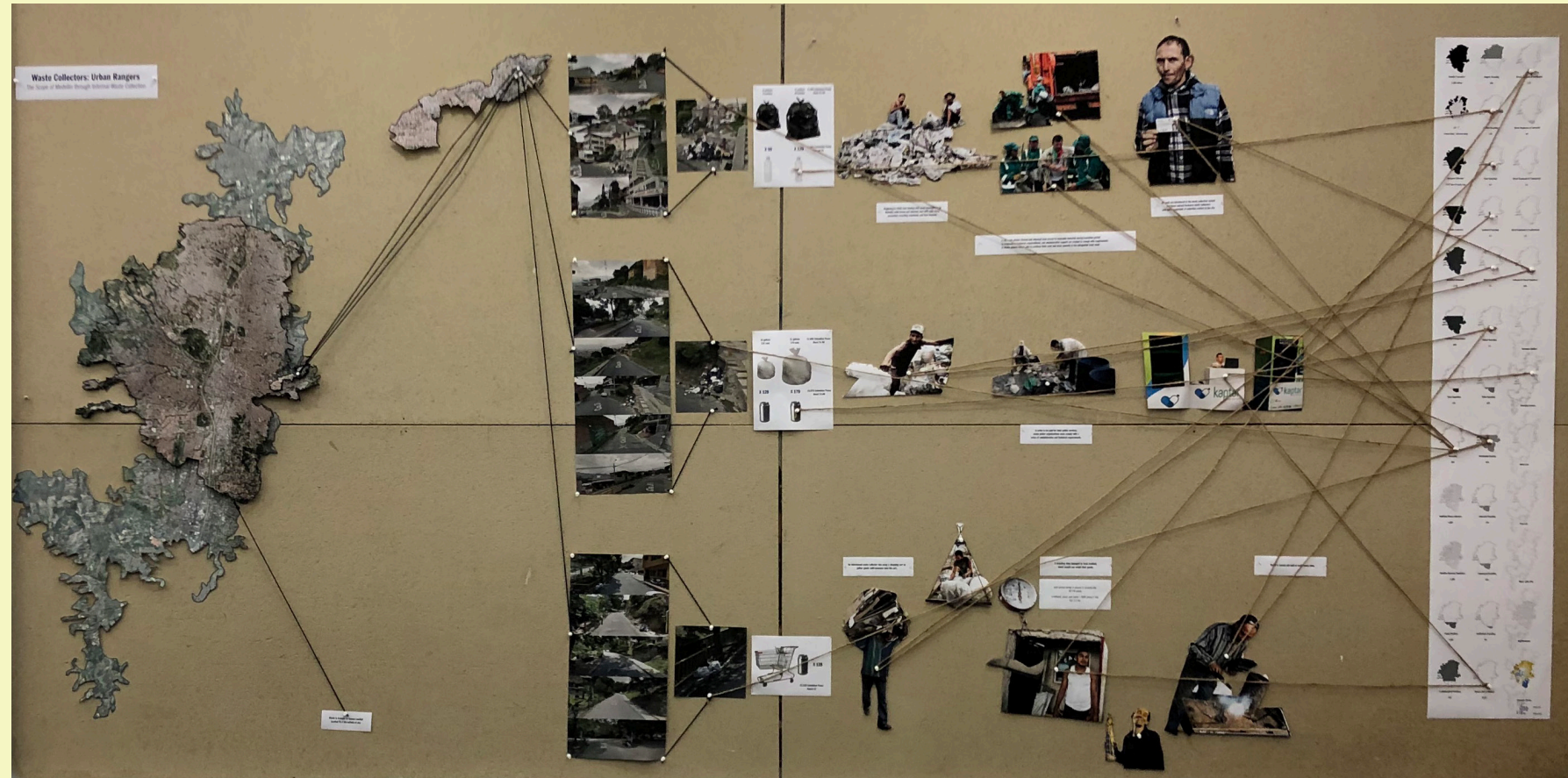


Image 2  
6

## Grounds for Investigation

The city of Medellin has undergone significant transformations within the past 20 years. Once labeled as the most dangerous city in the world, Medellin has grown to establish itself as an illustration of how architectural and infrastructural interventions can provide social and economic change to an urban environment. These interventions have proven to be positive and beneficial as crime rates and poverty have decreased, while elements such as tourism and literacy have increased; as a result, Medellin has received titles of being proclaimed one of the world's most innovative cities. Projects such as urban escalators, metro cable car lines, tramway lines, and technology and education centers situated within the informal settlements have provided connections and more subtle thresholds between the formal and informal. Additionally, providing equal facilities and dispersion of resources have promoted greater community development, especially within the informal zones.

Waste collection in Latin America, and specifically in Medellin, often provides a 'freelance' income to those dwelling in informal settlements or within the streets of the city. Amidst the physical transformation lead by the Medellin government, legislative changes have also been imposed to reshape the process of this urban phenomenon. Informal waste collection (gathering recycled items to be exchanged for a value less than their initial cost) is a labor that involves knowledgeable and strategic movement throughout thresholds and zones in a city. Elements of waste collection include various modes of circulation in order to reach desired destinations, transportation and collection methods of goods, and sites for exchange of the collected items. Waste collection in the context of an informal settlement often involves circulation by foot and public transportation, collection without vehicles, and daily exchanges of collected items in order to provide immediate income. Current legislation complicates this process through modes of formalization and dependence on resources, not made directly available to those that identify as waste collectors. Because waste collection involves movement and calculated metropolitan activity, what if there were a mode of physical intervention that was made to aid this practice as opposed to legislative intervention? Medellin has rewritten its city narrative through an architectural mode, and waste collection should not be excluded from this account.



Image 3  
8



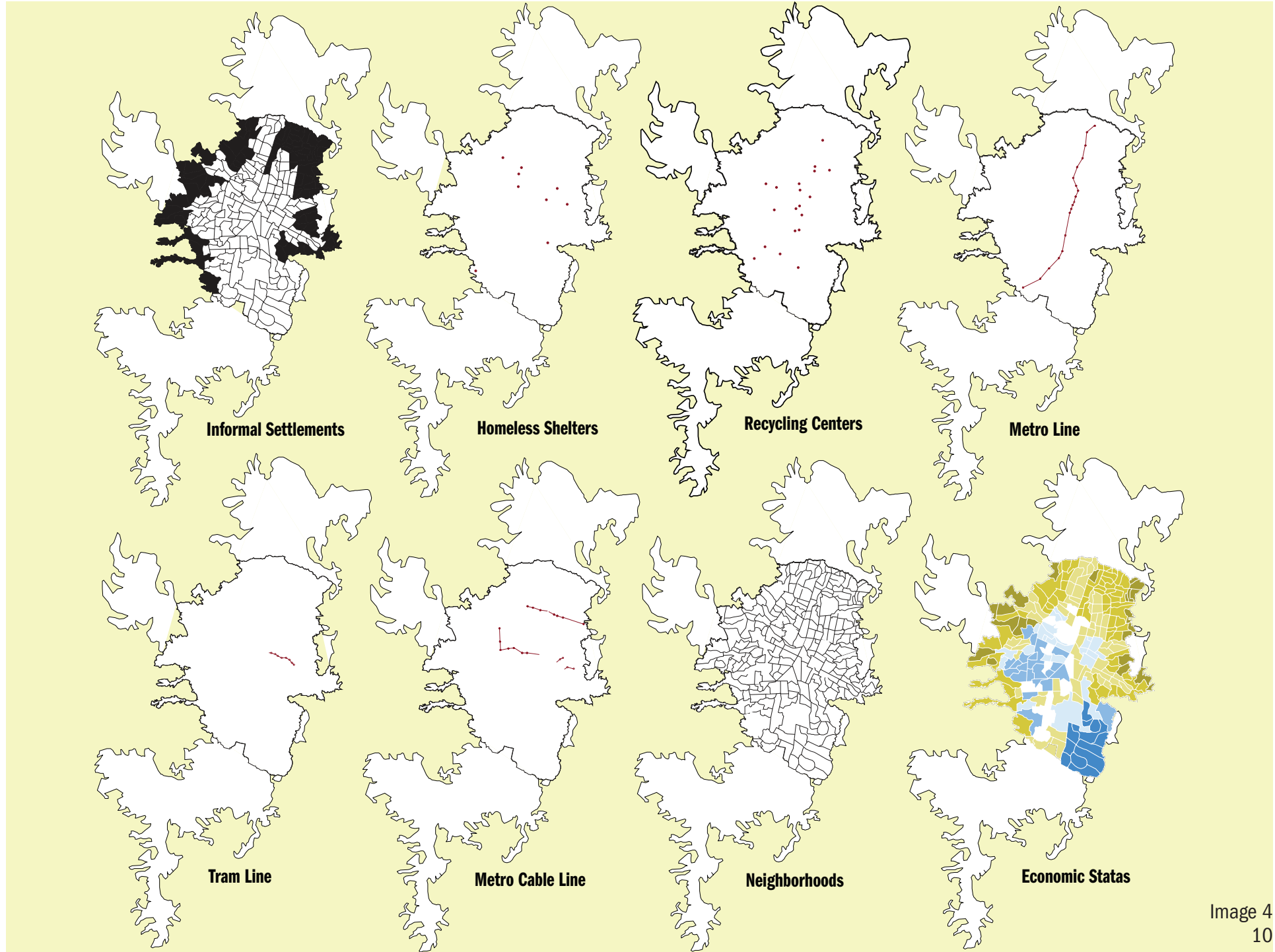


Image 4  
10

# Key Elements of Waste Collectors: Urban Rangers

## Identifications

### Context: Medellin

Identifying and understanding the context includes visualization of an informational data set. This data includes values that help to understand location specific elements including formal and informal waste collection processes, content of recycled materials, and the urban components of Medellin that influence this practice. It links the relationship between the desire in particular goods and their value/use in exchange.

### Condition: Waste Collection

Identifying and understanding the condition includes the role of the government in waste collection. Acknowledging the nature of the conditions surrounding formal and informal waste collection practices in Medellin is displayed at the scale of the city and at the scale of the subject. The insertion of ongoing legislative changes to the informal practice shows the top down interference with no regard for the user.

### Subject: Waste Collector

The subject of the waste collector must be exploited in an informative way that is able to produce an understanding of their role as citizen in Medellin. The subject is the primary source of the research portion and an understanding of subject as a network of cells is visualized in both mapping and narrative collage. The subject is linked to both the context and the conditions that make up informal waste collection in Medellin.

### Problem: Lack of User Specificity

The problem of disconnect between user and procedure is traced through the research. The presentation of these findings exists as a numeric and narrative based data set that inform how the context and condition should have intervention that prioritizes the subject. Tracing highlights the lack of relationships that exist between these elements.

## Process + Findings in Framework Development

Waste Collection: Urban Rangers began its research by isolating urbanistic and programmatic components in various case studies dealing with physical and social frameworks. Based on these projects and their individual elements, it was found that projects beginning at the scale of the neighborhood were able to become expansive and complex, resulting in ongoing conversations with their urban environment. Conversely, the master plans were seen to complicate urban matters and result in self implosion over self-growth. From these findings, the research was directed to interventions at the scale of neighborhood development. Planning from cellular scopes within the informal context of Medellin lead to a study regarding street dwellers, specifically individuals occupying both formal and informal zones- this user, being the waste collector.

The subject of the research is the waste collector. Their lives are documented through various interviews, small scale waste collection unions, and narratives surrounding street dwellers. These narratives are the vital components to understanding the life and movement of Medellin via this selected scope. They display the modes in which day to day operations are run amongst waste collectors and the resources both available and absent to the specific user. Pairing this social analysis with the context of the research provides an understanding and the ability to critique the proposals to restructure this practice. The context of the research organizes information explaining the cycle of waste, specifically recycling, in Colombia and how this process is specific to Medellin. This act of collection exists within the condition of the government and its rationalization of the practice. Waste Collection: Urban Rangers presents its findings in two scopes of the city- that of the life of the waste collector and that of the city as a data set.

The main representation technique to be deployed in the graphic display of research is tracing. Tracing the subject through individual narratives will include mapping and character descriptions through the modes and methods of waste collection. This will allow for conclusions to be drawn that will provide information regarding urban experience and will show the existing and missing elements to the urban infrastructure necessary at the scale of the waste collector.

### Trying to Understand Slumification: A Matrix of Possibilities

Images and diagrams are not to scale

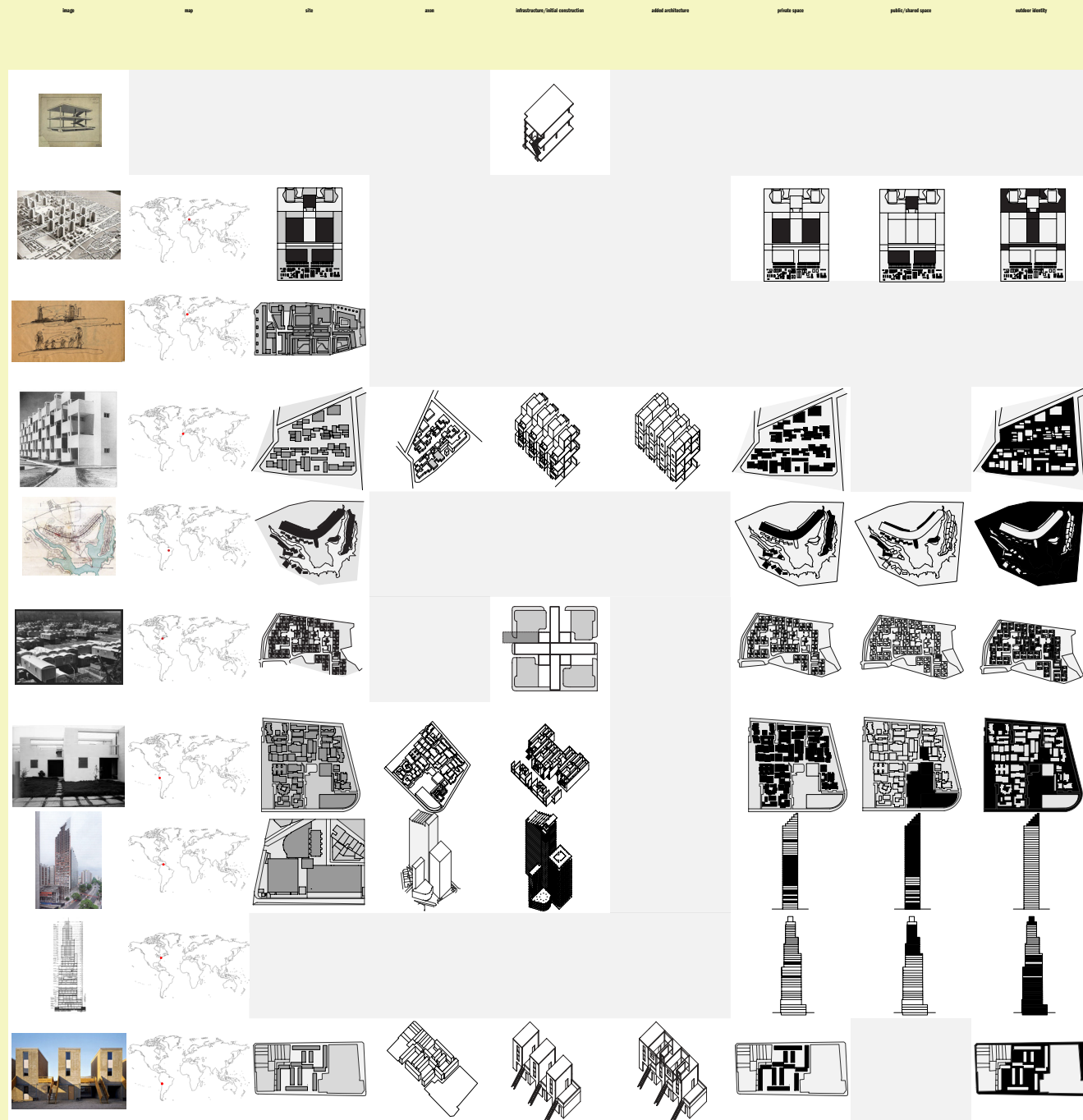


Image 5  
12



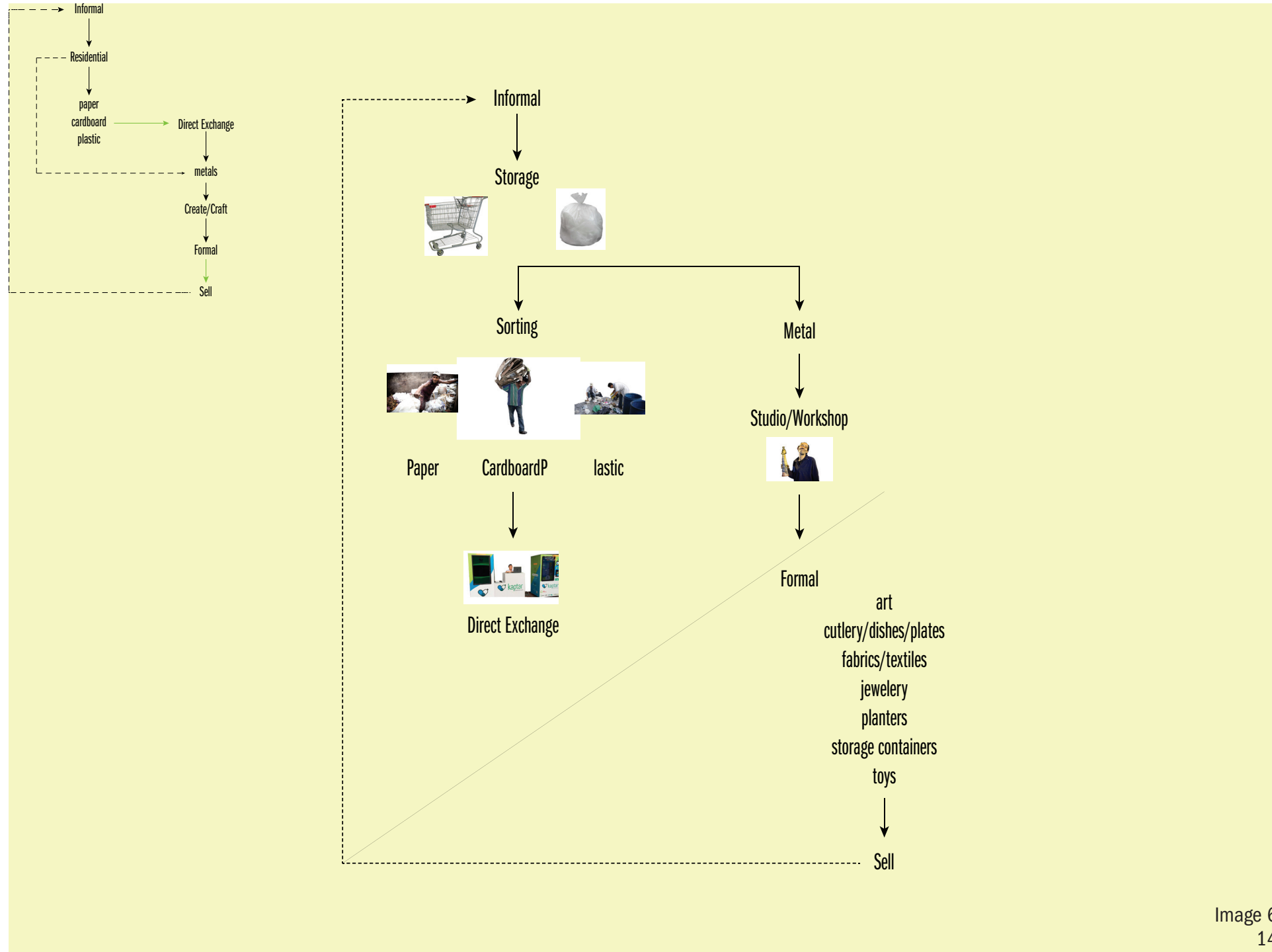


Image 6  
14

## Key Elements of Waste Collectors: Urban Rangers

### *Claims and Development*

#### **Critique of Problem**

The identified problem in this course of research is the lack for user specificity in legislation that deals with altering the context and condition of Medellin's urban elements. This claim is made through graphic correlations that show the unmet and disregarded needs of the subject by their context and its condition.

#### **Intention for Resolution**

Waste Collectors: Urban Rangers proposes that interventions regarding networks of waste collection structures have the potential to benefit the user and speak to the ongoing changes within the context. This proposal is a critique on the current conditions regarding waste collection in Medellin. By understanding the user and their capacity to circulate the city, structural framework for work spaces can form a network; this network will ultimately inform the existing social construction of the waste collection practice and use urban experience to inform design decisions.

## Urban Traces

### Image 1

#### Thesis Publication Image (modified Image 2)

This map displays the three layers of investigation in understanding informal waste collection: informal, formal, and street.

### Image 2

#### Waste Collection Map of Medellin

This map displays information and images that contribute to the daily life of a waste collector. The mode of representation shows the frequencies in these relations along with elements that lack connectivity.

### Image 3

#### Medellin Waste and Recycling Information

This information displays information that informs the trends of waste collection and recycle uses in Medellin. This information is then paired with the narratives regarding waste collectors in order to understand how these elements contribute to user and infrastructure within waste collection.

### Image 4

#### Medellin Information

This information displays points of urban intensity and infrastructure that is of interest to the waste collector. This information is then paired with the narratives regarding waste collectors in order to understand how these elements contribute to user and infrastructure within waste collection.

### Image 5

#### Case Study

This matrix isolates urbanistic and programmatic components in various case studies dealing with physical and social frameworks. It allows for a comparison in the design intentions and project outcomes.

### Image 6

#### Intention for Resolution

These diagrams show the current cycles of collection and how they can be enhanced through spatial agency.

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