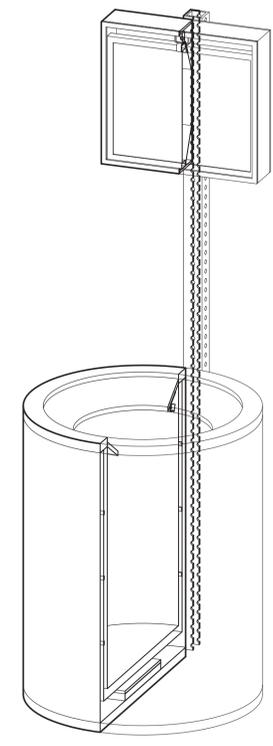
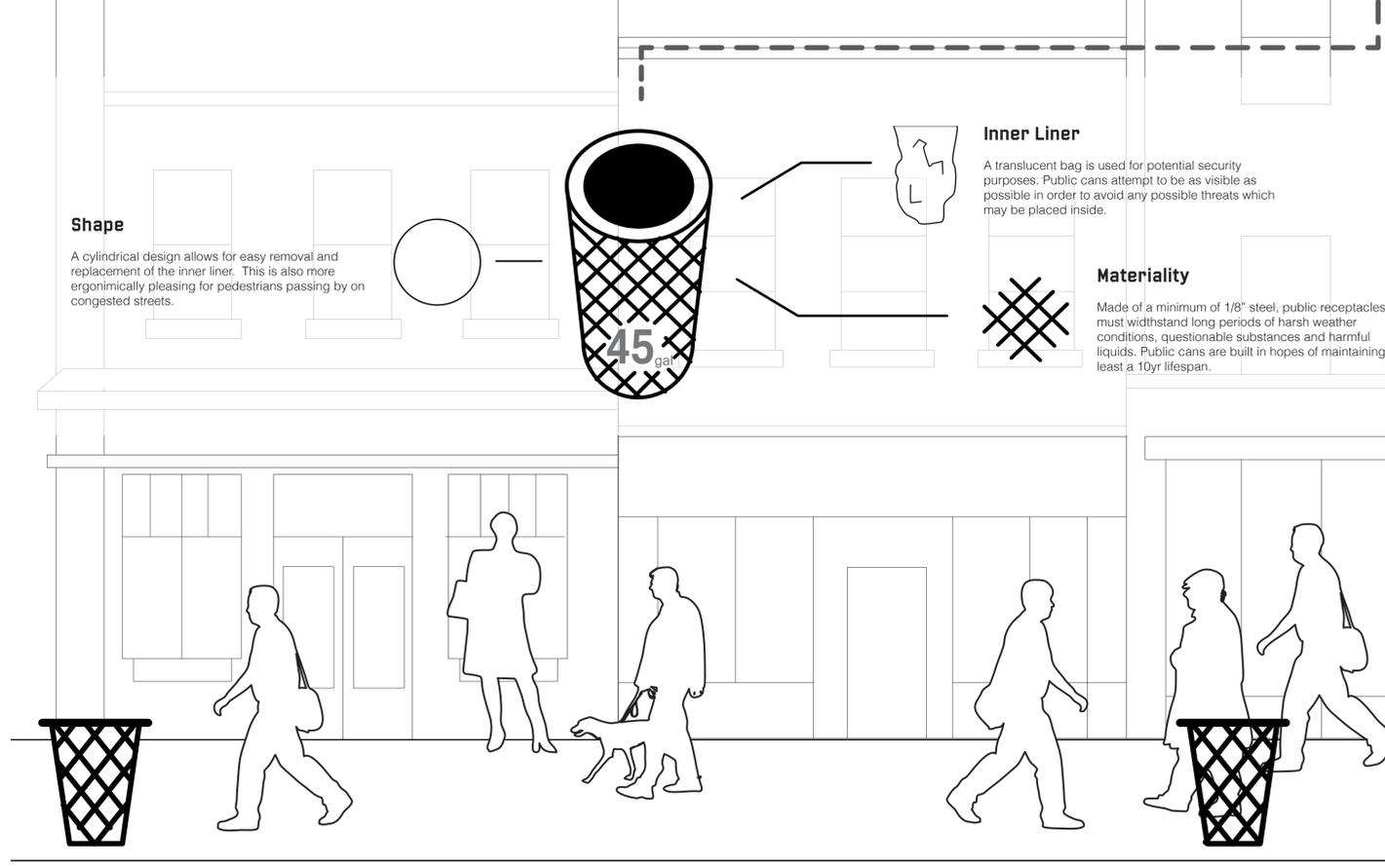
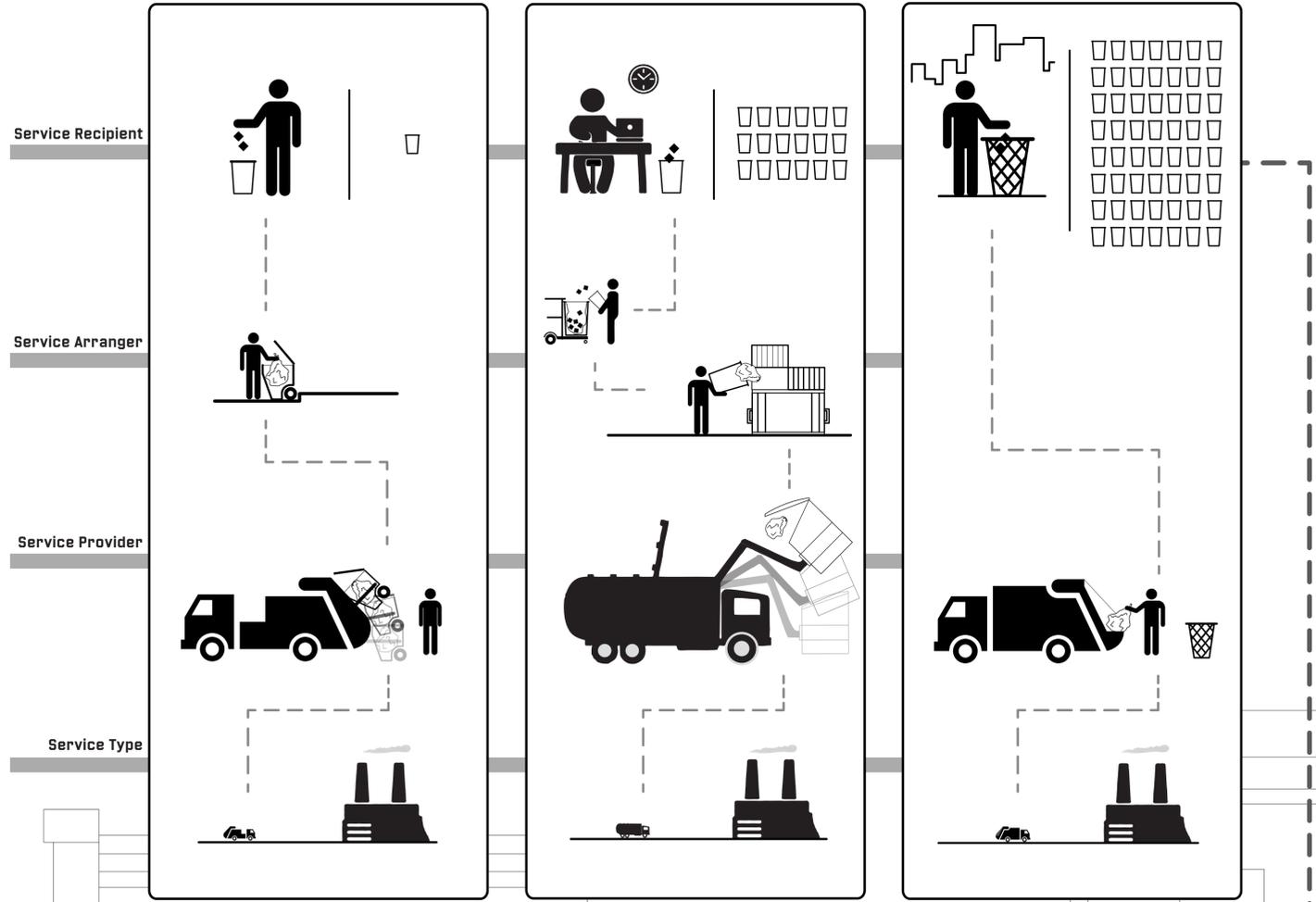


# Flow of Solid Waste Removal



# Assembly Manual: Last Rites

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Special thanks to Ignacio Ciocchini from the 34th Street Partnership in NYC for his insights into the design of public trash cans. Thanks also to Kathy Yuen and Sze Wan Li for their technical design assistance.

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FIGURE 1: "The Voluntary Prisoners of Waste" ... "Imagine a world in which we were forced to carry our trash around. Denied the convenience of discarding our refuse, we would accumulate the byproducts of our consumer habits ... for all to see. Consumption = exhibition, wasting = voyeuristic?"

"Logic suggests that the more we consume, the more pollution we make. The laws of thermodynamics tell us that higher energy expenditure is associated with more waste. One way to advertise one's affluence to friends and neighbors is to discard lots of objects. ... with affluence inevitably comes an 'efficient' society." (2009), p. 33-34

—Vivian E. Thompson, *Garbage in Garbage Out*

Consumer culture is, for better or worse, an ingrained and encoded ritual of modern urban life. But what is its flipside? The act of throwing, or wasting, naturally follows consumption. Further, it can be said that wasting is a necessary precondition for further consumption, since one would otherwise be very literally bogged down by garbage. While consumer culture is, for better or worse, a celebrated ritual of modern life, however, wasting—the enabling act—is relegated to a shameful place.

"Waste is society's dirty secret world, so its sex. Several writers have drawn the analogy between garbage and sex. Everyone produces or does it (and can enjoy it), rich and poor. It must remain private, and when in public it becomes a dirty matter." —Mira Engler, *Designing America's Waste Landscapes* (2004), p. 14

Why is this so? Could we indulge in conspicuous wasting as a counterpart to conspicuous consumption? Can we highlight the "ritual of wasting?"

## Throwing Away

# Assembly: Last Rites

## The public trash can



Trash can in Stockholm. Photo by Matthew Blackett

Waste receptacles in public are a component of urban and waste infrastructure that is frequently taken for granted. Their regular presence is expected, and their users remarkably "seasoned." Designed and placed to be at once invisible and visible; to not contaminate urban space with their glaring presence, and at the same time encourage users to keep urban space from contamination—you only see one when you need one—the public trash can quietly absorbs the excesses of consumption.



Trash can in Los Angeles. Photo by Matthew Blackett

### On Receptacle Design—discussion with Ignacio Ciocchini, Industrial Designer

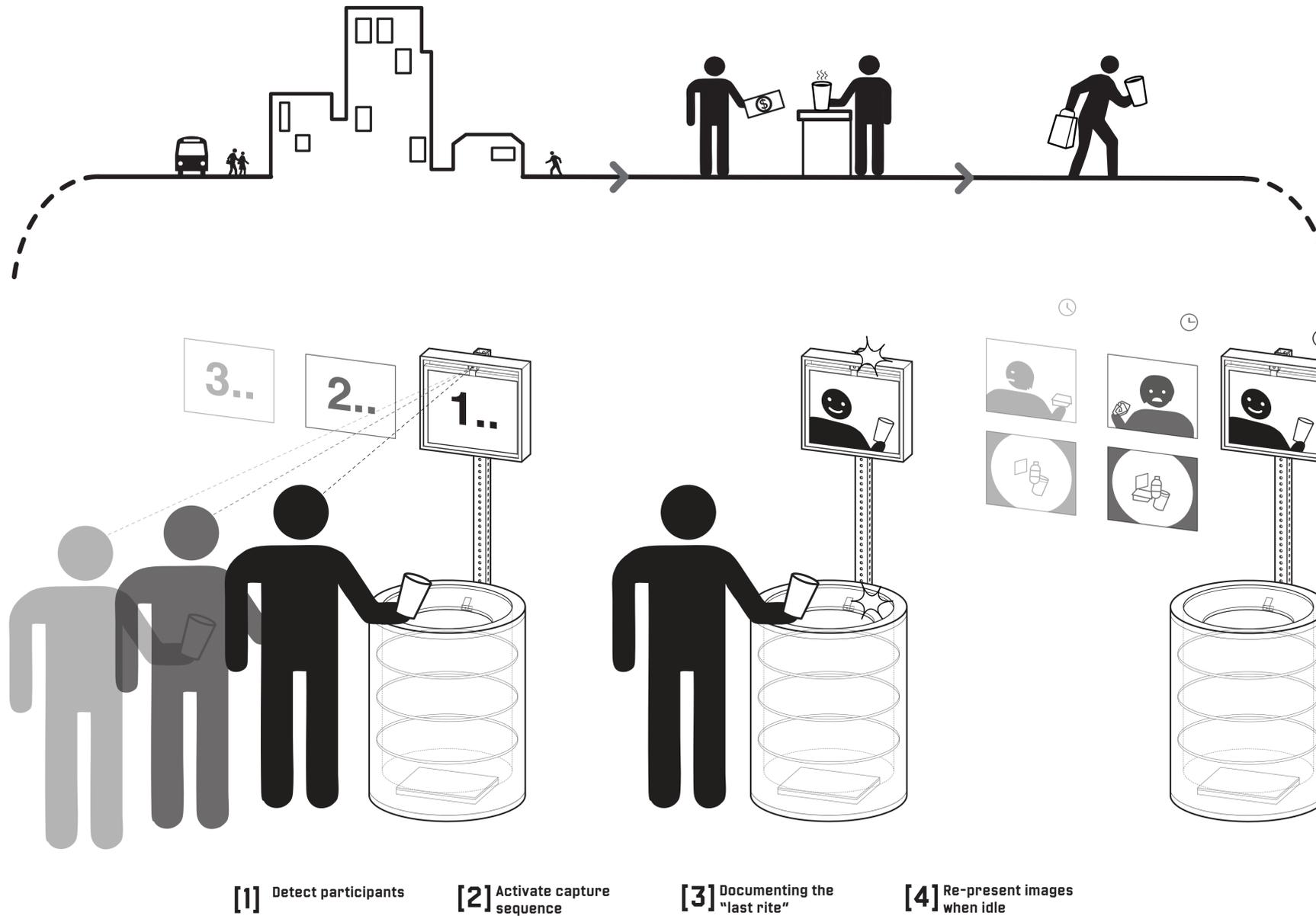
We spoke with Ignacio Ciocchini, an industrial designer with the 34th Street Partnership in New York City, whose work deals with the design and use of urban furniture and spaces, including trash cans. The following are some interesting, perhaps surprising notes from our discussion:

**Use** People tend to throw trash in the closest receptacle to them, regardless of opening size and color. To discourage littering, then, trash cans are sited at regular intervals. Typically, one is placed on each corner of a city block, and sometimes in the middle, for longer blocks. There may also be trash cans adjacent to stores, in which case the businesses have ownership of the bin.

**Capacity** Since a lot of trash is mostly air (bottles, cups, boxes, etc.), bins have to hold substantial volumes: in a park, bins are typically 30-35 gallons, whereas heavily trafficked urban spaces, they are at least 40-45 gallons (and even those are emptied multiple times a day!) The mouth of the can should be close to where the hand would be: 40-41 inches off the ground. At that height, you would have to lift your arm slightly to throw something away, and thus the trash falls in by way of gravity.

**Durability** Urban trash cans have to be built like tanks—they have to last up to 10 years out in the elements with minimum maintenance, and put up with a lot of substances that are very bad for materials over a long period of time (carbonated drinks, salts, urine, coffee, sugary drinks, acid rain, smog, UV rays).

**Collection** The design of receptacles is also driven by ergonomics, in part through pressure from public workers' unions. Trash cans are cylindrical for simple geometric reasons—covers and liners do not need to be oriented in any direction, and a round shape is a lot easier to carry and walk around with. To aid workers in collection, receptacles are placed on the curbside, a side door is typically added, and the bin capacity has an upper limit of around 50 gallons before its contents become difficult to carry.



The installation invites users (people throwing garbage into the trash can) to enter into a spontaneous act of performance; a "ritual of wasting" as a counterpart to past consumption.

Using a computer and webcam, the system monitors its immediate surroundings and detects the presence of a user/performer on approach. When activated, it starts a photobooth-like countdown timer, inviting the user to get ready....

The camera then snaps a picture, documenting the consumer's "final act," the send-off of the now dead object into its life beyond. What will this moment be like? How would the user feel?

The transaction, formerly reflexive, painless, and quickly forgotten, is stretched temporally and spatially, as the user is now made aware of it through interactions with the camera and display screen.

This curious funeral for the "dead" object is documented as a "last rite," and the system accumulates and re-presents the moments as a collection of last rites, cycling through its archive until the next interruption occurs.



## Ruptures

The conceit, or underlying premise of infrastructure is that it operates seamlessly and unobtrusively—especially in the case of garbage infrastructure. When it fails, however, it fails spectacularly.



Toronto garbage workers' strike, Summer 2009. Photo by Sam Javarrou



Overflowing trash can. Photo by Cheng Yang Lee



Naples garbage strike, Summer 2010. Photo by Bauke Karel

## Surveillance

Accompanying the rise in the theater of "public safety"—especially in the post-9/11 world—has been the increase in surveillance and fortification of public spaces. Invariably, waste receptacles have not been immune to such developments.

There have been two distinct changes to the design of public trash cans: the first in pursuit of "transparency" and "lightness," in some cases reducing the receptacle to a plastic bag tied to a metal stand. It is thought that this deters would-be criminals from hiding or implanting anything in public spaces. The second strategy has been the reverse: heavy, hulking, "bomb-proof" trash cans, the presence of which can be seen in airports, train terminals.... Public trash cans are also increasingly being "bugged" by various sensors, as municipalities and companies look to collecting more data about people's habits in order to inform policy and generate efficiencies, prompting privacy woes.

An extreme example can be found in Japan: in a country where disposal fees are sky high; most garbage is incinerated or recycled (the latter at extremely high rates); trash generation per capita is low... there are virtually no public trash cans. There are myriad reasons to the dearth of public trash cans: to deter residents from not recycling household garbage; to discourage trash generation (by removing the expectation of easy, convenient disposal), and the more unsettling reasons of public safety (since the Sarin gas attacks in Tokyo in 1995).