Waste makes visible our separation from nature.

A "Waste Landscape" Report by The Or Foundation for Design for Decomposition
Dear reader,

When we created The Or Foundation our physical footprint was one that mirrored that of the boundless frontiersmen. We were blissfully unaware of the supremacist logic that guided our attempt to operate across thousands of miles in a cultural landscape that celebrated the startup, rebranded failures as "pivots" and romanticized multi-hyphenated gig work as a choice instead of as the consequence of an increasingly precarious relationship between technology and labor. We started from this place of un-rootedness, citizens of the world that whiteness had built and accountable to noone, not even ourselves. Privilege was something to put to use, to spend and to sustain so that we could spend more, not something to question and to redistribute until reciprocity was (is) established.

But over the years we have transitioned from an organization operating in three countries and five USA states with over twenty partner institutions and dreams of "scaling" across other continents to an organization that spends 90% of our budget (time, physical, spiritual and financial) operating within a three mile radius of Kantamanto Market in Accra, Ghana. We are now firmly rooted and deeply accountable to a community of roughly 30,000 individuals. This transition has shifted our understanding of 'landscape' and has dramatically altered our definition of success. When residents of this three mile landscape have asked us how we would be different from the many privileged people who have come before us, the only honest answer we have ever been able to offer is, "we will stay."

It is through limiting our physical landscape that we have expanded our understanding of everything else, including our understanding of nature as a dynamic force, not as something to be extracted, controlled, visited, preserved, purchased, traveled or settled. By limiting ourselves to walkable boundaries we have expanded our ability to see realities beyond our own embodied experience. And by committing ourselves to a specific community we have come to expand our understanding of "waste" beyond that of problems and solutions.

Waste makes visible our separation from nature. This is the title of our "waste landscape" report for two reasons. First, because "waste" as a "problem" forces us to confront the fact that as a species we have created byproducts that kill us, we have developed poisonous chemistries and we live beyond the carrying capacity of our bodies and our external ecosystems. Second, because the dominant approach to developing "solutions" for fashion's waste crisis also makes visible our separation from nature. Dialogue around waste management tends to define technology as magical machines with the capacity to juggle our poisonous byproducts above nature forever, in perpetual motion, separating our decisions and actions from their impact. Tiring. The fashion industry has developed and celebrated automated fiber recycling technologies that create only a few jobs but that will be employed for maximum profitability by operating 24 hours a day, seven days a week, requiring those few employees to wake and sleep out of sync with nature’s rhythm. Tiring. Businessmen have approached us proposing to just move the "waste" from Accra to elsewhere, shuffling the "problem" around the world until it becomes a “solution". Tiring. Journalists spend heaps of money traveling to the frontlines, extracting tragedy and broadcasting pollution porn as
entertainment, expecting the people who can afford to forget what they have just seen on the screen to provide the “solution”. Tiring. Knowledge workers spend their days inside staring at a screen, spinning phrases, generating acronyms, and speculating about places and people they do not know. Tiring.

We live in a world where it is hard to tell which is more profitable: “problems” or “solutions”.

This report aims to explain how clothing becomes waste and how it impacts the landscape of the city of Accra, home of Kantamanto, the world’s largest secondhand clothing market. Just as Paulo Friere inspires learners to read the world, we have been inspired to read fashion’s waste crisis from a humble, holistic and embodied point of view. We do not see Kantamanto as a series of “problems and solutions”, because we have seen what happens when the rules that govern our economy become the only way we relate to self, others and nature. Reality is simply not that transactional. The story of fashion’s waste crisis is not one of problem and solution. It is a story with many different characters with diverse intentions, needs and desires in tension. It is a story of conflict between the mental, cultural, industrial and physical landscapes of this moment.

So, we begin with a story, one that attempts to place you in a physical landscape that you, as the reader, have likely never known. This landscape is The Away and it is a very real place, a place where our excess ends up. From there we will explore the people, interests and ideas that are in tension across the many landscapes that define fashion’s waste crisis.

-Liz & Branson

January, 2022
It Ends in Violence

Your feet will get dirty.

This is unavoidable. Even without rain for days, the ground covering of textile and plastics, often one and the same, rises out of the lagoon like a stew overflowing from the pot, saturated with the juices of the city’s excrement. Stormwater runoff, human feces, animal feces, cooking oils, and anything else that may have been dumped along the river banks or poured into the open gutters that serve as de facto sewers across much of Ghana, or that has seeped out of the piles of materials brought here to be scavenged and burned mix with the brackish water of the lagoon. Loose boards are thrown on the ground to create small walkways between the one room houses that rise out from the muck on stilts, but the boards will sink or slip and many paths aren’t covered. You may try to leap across the lowest lying areas, but there is no landing zone free of filth. Your feet will get dirty. This is unavoidable, but it may be the least of your concerns.

If you live near the dumpsite in Old Fadama, the threat of stepping in muck is just part of the daily reality. And if it’s not the muck then it’s the dust and smoke. When the piles of waste dry off in the wind, fires are lit to shrink them down. The dust and the smoke cover everything in their path. Your nostrils will be lined with soot. You will clean your floor, but with your door left open, a layer of settled haze will accumulate in minutes. But in your room on stilts, the width and length of a piece of plywood, where you live with six other people, unable to rollover in your sleep because you are packed so tightly together, you welcome anything that moves the air. Whatever smells or haze it may bring with it, moving air is your only ally in the fight against the oppressive heat.

When you pay on a daily basis for every fluid ounce of water you use, keeping your feet clean is a luxury that sometimes you cannot afford. Maybe today you will pay to charge your phone instead. And you can’t spend money on your appearance when you are saving for your weekly rent. If your dress tears, catching on the rough wood of a narrow market aisle as you carry a heavy bale of clothes, many of which will soon be added to the burning piles behind your small room, you will fix it yourself so that it can remain functional, so that you can keep working. If your sandal breaks when you trip on the uneven, partly concrete, partly mud ground of the market where you work, you will find a loose nail on the ground and weave it through the straps of your sandals to keep it on your foot. To keep on walking and carrying the load.

You must have a minimum of 75GHS (12 USD) saved by Friday just to cover rent. Keeping clean will require far more work, however. You pay every time you use the toilet at home or in the market, every time you use the shower, you pay extra for toilet paper. And your baby, your baby needs pampers (name for any disposable diaper) which often costs more than rent.
Even though the small room you stay in is too crowded and too hot, it protects you from the streets where you fear something far worse than dirty feet and the black snot caused by the waste dump on fire. Sleeping on the streets you are exposed to the cars, the buses and motorcycles. None stays in its lane. You might be crushed. Sleeping on the streets, you are exposed to the people, some hungrier than you, and some violently seeking your body. Even though your personal basic expenses are hard to meet it seems like every part of this city exists to take your money. When you cross the makeshift bridge to visit your friend on the other side of the waves of plastic and electronics, you pay a fee. When you carry loads beyond the gates of the clothing market, you pay a fee. When you sit down for lunch, you pay to sit, and you pay to eat. The world outside is expense-full. You wonder if this world is worth meeting.

No.
Survival mode on.
This is your mental landscape.

You must keep your room, no matter how many loads of other people's stuff you have to carry to afford it. A bale of clothing falls on your foot, you keep carrying. You get sick, you keep carrying. You can’t breathe, you keep carrying. You are dizzy, you keep carrying. You can’t bend at the waist, you keep carrying. You are starving, you keep carrying. You are sexually assaulted, you keep carrying. You are pregnant, you keep carrying. You gave birth last week, you keep carrying. Only those who are crushed to death by the weight on their heads can stop carrying.

One room houses rise from the plastics, textiles and coconut husks 100 yards South East of the main dumpsite in Old Fadama.
It’s Sunday, your only day of rest. Through the thin plywood walls that you share with the other girls whom you now call your sisters, you hear the sound of a diesel engine. It is growing closer. An authoritative knock on your door tells you to leave. And the one place of security you have amidst the pain of the city is bulldozed to the ground.

They may say it’s because you aren’t supposed to live there amidst the waste. It’s unsanitary. That you aren’t supposed to live so close to the river, in case it boils over with all its bubbling black water in a heavy rain. It’s unsafe.

But where else can you go?
You sit on the debri for two days with no answer in sight.
A new shack is erected. You go back to work, carrying loads and saving up for your spot on the floor.

They say the waste was not supposed to be dumped there along the river amidst the people. That it makes the city smell bad. That the real estate is better suited for something else.

But where else can it go?
After a week your neighbor is burning a refrigerator on your doorstep.
Your breath grows shorter, you carry anyways.

A woman working as a kayayo (female head porter) walks past the dumpsite in Old Fadama, a dumpsite that has nearly tripled in size since this photo was taken.
A Landscape of Multiple Perspectives

The story above reflects the testimony of many of the people we work with who live in Old Fadama, the largest informal settlement in Accra that sits adjacent to and services Accra’s markets, including Kantamanto Secondhand Clothing Market.

It is easy to see only one side to this story, but there are multiple perspectives, all valid. If you sat down with the woman above, as we have done, you would know that she is fluent in two languages and conversational in two more. She is proud of the fact that she has a job, and every Sunday she attends a festival amongst the waste where she giggles and dances with her friends. She has found a sisterhood and a community here. Talking to her it is easy to forget or even to romanticize the violence of her lifestyle, but when you ask her if she would like to get away from this place she will always say, “yes.” She is resilient, and yet to consider her resilience sustainable is to treat her as expendable, as disposable.

She and her neighbors have unjustly become a model of resourcefulness. The Away is where waste ends up, but the people who live here are far from wasteful.

Amid the toxic stew of waste, desperation has given rise to the very behaviors that would prevent the piles of textiles from growing were those behaviors also adopted by the people who are driving consumption and production faster than our systems of decomposition can handle. Necessity has spawned resourcefulness rooted in generations of knowledge of reuse and repair. Though she may live among the mess of society’s waste, and she may even carry some of the waste atop her head to dump on the ever growing pile, she is not creating this mess. She is not buying new garments and giving away the old as if there is an endless outlet for her stuff. She is repairing, mending, valuing the little that she has, making it last.

Her behaviors are the solution to the crisis of waste. But too often she is seen as the problem. Living amongst the filth, she is blamed for it, as if she chose to pile waste in her own backyard, under her house, in her walking path. As if she chose to step in the muck, to breathe in the soot.
A broken chair literally stitched back together in Old Fadama. Little goes to waste for the people living atop other people’s trash.

The landscape where she lives can be understood from multiple perspectives.

Within it there is an ecological landscape, where The Away is ever present and where toxins leach far and wide, where the once pristine shoreline, which in distant memory was plentiful with sea turtles and fish to grab with a bare hand, is now a living museum to the anthropocene, with clothing embedded deep into the sands and surfing in the waves. Where a sacred lagoon with water that was once clean enough to drink, is now the dumping ground for fashion waste from around the world.

There is a socio-economic landscape, where the people causing the problems of overflowing waste have more agency in urban politics and global trade routes than the people who are dealing with the mess in their everyday lives, trying to keep their feet out of the muck and salvaging whatever they can to reuse and reclaim value. Where agency is tied to the financial wealth, given to those who can continuously buy products and services along a linear vision of growth.

There is a mental landscape, where behaviors are shaped by the insecurities spawned of decontextualized images linking value to appearance, discounting the rough resourcefulness borne of necessity and idolizing the polished façade of excess – the idea of having more than is necessary for survival, more than the other, the idea of fitting in, the idea of standing
out, the comparison offering a fragile sense of security purchased with currency at the expense of community. Where brands produce marketing campaigns that collapse many contexts into one dehumanized narrative where the frontier is everywhere and reality is nowhere.

And there is an *industrial landscape*, where construction cranes criss-cross the city skyline, where factories drain their toxins into the river under the continual churn of the new turning to the obsolete, the unwanted, the wasted. The landscape that extracts from all the others to fuel its expansion, the pollution of industry feeding the very desire to escape by any means necessary, to chase infinity and to buy a piece of the façade that separates us from nature.

Over the past decade Accra has experienced a boom of construction as one of the fastest growing cities in the world. Within miles of Old Fadama, many buildings seem a world away.
Kantamanto Secondhand Clothing Market sits along what is now the partially defunct main railroad terminal in the center of Accra.

A drainage ditch in Old Fadama shows that the settlement of more than 80,000 residents is largely built on rags overflowing from neighboring Kantamanto Market.
A map of Greater Accra showing key points along the journey of secondhand clothing, environmental areas of concern and other points of relevance within the waste landscape.

Central Accra from overhead showing relevant areas of interest within the waste landscape along with Kantamanto Market and Old Fadama’s close proximity to the coast and major landmarks.
Entering the Waste Stream

By the time a typical garment is dumped in Old Fadama it has travelled around the world and its value has been redefined repeatedly. Old Fadama and other dumping sites in Accra and along the city’s beaches serve as the end of the line. The journey to get there is as much about culture as it is about material. If you do not understand the culture of a place then you cannot understand why something becomes waste.

We will begin with the culture from which the waste originates.

The secondhand clothes that end up in Accra begin their journey to the largest secondhand clothing market in the world based on the decisions of people in the Global North – namely the USA, Canada, Europe, the UK, Australia and increasingly China, Korea, Saudi Arabia and the UAE, among other countries. The secondhand clothing trade is not charity and it is not recycling. The secondhand clothing trade is a supply chain. There are two initial pathways to this journey, where the waste first changes hands along the chain of custody.

1) Deadstock and Returns
The first pathway begins when the retailer of firsthand clothing decides to cycle in new garments to their collection and to remove what has not yet sold from their stores. This may also include returns from customers dissatisfied with their purchase. Retailers have varying policies on restocking returns. Because restocking is dependent on inspecting the condition of the garment to ensure that it can be relisted at the original price or determine if it needs to be discounted, some companies will forgo the effort of restocking all together and default to disposing returned products. Online sales have increased returns. While some retailers send the unsold items and returns directly to landfill (a municipal waste manager in one mid-size US city informed us that large retailers in area malls regularly hire dump trucks to carry their unsold clothes to landfill in quantities exceeding the combined household textile waste of the city), a growing number of brands have partnerships with clothing collectors and exporters to manage their unwanted items, either by finding a means to downcycle or recycle them, or by moving them into foreign secondhand markets where the clothing is not seen to be in competition with new garments in the retailers’ stores. Agreements between retailers and reverse-supply chain partners often specify that garments from retailers cannot be sold within domestic secondhand markets.

Additionally, some brands maintain a policy that their unsold merchandise should be rendered unwearable by slashing it. The policy of every clothing sorter and exporter that we have interviewed is for slashed items to be sent to fiber recycling or down cycling if available or to be landfilled or incinerated, and not to be sent onward to markets like Kantamanto. Despite this stated policy, we have seen slashed garments in Kantamanto (including company uniforms or private school apparel) and heard reports from numerous retailers of an increasing number of these slashed, unsellable garments ending up in the secondhand market, where they are immediately treated as waste. This remains a relatively small
percentage of the total number of garments in Kantamanto, by our estimates likely no more than 1-2%. The total global quantity of unsold merchandise, either slashed or in wearable condition, entering the secondhand supply stream is unknown but significant.

A United Airlines uniform found in a Kantamanto retailer’s waste-stream that was slashed down the side and a chunk cut out from the front neckline so it could not be resold / reworn

In general, practices around the retail waste stream are opaque, often guarded as trade secrets. Only recently, after several high profile instances of large unsold inventories have been reported, such as Burberry burning merchandise in 2018 and H&M claiming over US $4 Billion in write-offs of unsold inventory in that same tax-year, has this aspect of the industry begun to garner more public attention, including from burgeoning legislative proposals in the US and Europe to address textile waste.

While comprehensive statistics are not available, we know that a significant number of garments are first considered waste within the firsthand retail environment. If a retailer cannot sell them they are “waste.” If they are taking up rack space and thus preventing a “new” collection from entering the store, they are “waste.” Maybe the design was not attractive to customers, or maybe the retailer ordered too many units for its market by intention in order to keep the store full, forecasting waste into the business model. Whatever the reason, in the eyes of the retailer, culturally the clothing has become waste.
The garments are referred to as *deadstock*. They no longer hold value within the retailer’s business model and it’s time for someone else to deal with them – the waste managers. This is the first change of hands along the global chain of custody. From the perspective of the retailers, the companies charged with collecting, sorting, storing and shipping deadstock are waste management “solution” providers.

2) Clothing Donations
The other pathway along which a garment enters the supply chain that ends in Kantamanto begins when an individual decides that she or he no longer wants the item. A garment may be donated in wearable condition, but perhaps it no longer fits the individual donor, or perhaps it has a small stain or a frayed hem, or a blown out crotch that could easily be mended if the individual knew how or knew where to access mending experts, or perhaps it seems out of style. The choice to get rid of a garment may be motivated by any number of factors, but whatever motivates the choice it sits within a context where “nearly 70% of garments in a wardrobe are inactive” (Fletcher, 2016, p. 60). Donating the old is often about making room for the new.

There are currently five principal collection methods for post-consumer clothing from the Global North.

*Collection Bins*
The most visually prominent method of entry for post-consumer clothing into the global secondhand supply chain may be the collection bin. In parking lots and along roadsides, often branded with some sort of charity logo or bearing the words “Clothing Donations,” and sometimes bearing the word “Recycling,” these bins collect unknown millions of items, possibly billions, around the world each year. While some of these bins may be operated directly by charity organizations like the Society of Saint Vincent de Paul, others are operated by for-profit businesses. Andrew Brooks, a researcher and lecturer at King’s College in the UK, details some of the ways that the marketing and operations of collection bins occasionally border the illicit. With charity logo licensing agreements and operational area agreements between companies, the seemingly simple metal clothing bins sit atop a complex web of a vast industry.
For profit clothing collection bins in a Wal-Mart parking lot labelled as “Clothing Recycling” to support D.A.R.E. The small text reads “Mid Atlantic Receives all proceeds and makes a fixed annual payment to D.A.R.E. America a non-profit organization.”

(L) Collection bins overflowing on a rainy day in a grocery store parking lot alongside a couch dumped at the bins and visible waste, such as a cup of soda. (R) Collection bins in an outlet store complex where customers can drop off the “old” as they buy the “new.”
Just as garbage trucks make scheduled stops to empty dumpsters, so too do collection companies circulate trucks to pick up the contents of the bins to feed into the next step in the sorting process. Occasionally clothes can be seen overflowing the bins and left exposed to the elements. We have witnessed multiple shipping containers of clothing offloaded to be destroyed by burning in Ghana that appeared to have contained clothes directly from bins that had gotten wet, possibly while awaiting collection, and had become moldy while in sea transit to Ghana. We know that at least some of these specific containers set off to Ghana from Tunisia, which we know is a major hub in the expansive network of the global secondhand trade, but we do not have sufficient data or information to contextualize the frequency of this occurrence. There is no official data on the number of clothing collection bins or the quantity of clothes collected through this method, and any regulations on the placement of the bins or on the deposit and collection practices related to the bins is often only on the municipal level. We have seen some bins positioned directly next to plastic recycling collection bins and unsorted waste bins destined for a direct trip to a landfill, though, at least in the USA, it's more common to see collection bins in parking lots of shopping centers.

Clothing collection bins alongside single stream recycling bins at a municipal waste facility in the US State of Maryland.
Curbside Waste Removal

Another method of collection, again resembling garbage collection, is curbside pickup. Sometimes conducted by local charities on an appointment basis, and sometimes offered as a service by municipal waste management companies, clothes will be picked up along the curbside in residential neighborhoods after individuals leave their unwanted items in specially designated bags with the aim of ensuring waste segregation from other household trash. Where curbside textile pickup is offered as a service by municipalities it is generally part of an effort to divert textile waste going to municipal landfills and the practice is often managed by a for-profit contractor. We spoke with an administrator of one such municipal program who described the effort as not going well. The for-profit contractor was not satisfied with the quality of clothing collected and was struggling to provide a high level of service for the contracted rate.

Donation Centers

Many charities with thrift stores, such as Goodwill Industries or Salvation Army, operate their own donation centers. At these donation centers, which often feature drive-thru drop-off facilities, individuals offload their clothing directly into sorting facilities run by the charitable thrift stores. Sometimes the donation center will be entirely separate from the thrift store, an off-site operation, with goods trucked between the two locations. In other instances, donation centers may share the same physical building, but may have a separate entrance from the thrift store, segregating donations from thrift shopping. Many independent thrift locations with a smaller footprint may hold specific donation hours, sometimes outside of the hours when the thrifting operation is open.

Take-Back Programs

A growing avenue for individuals to get rid of unwanted clothes is through retailer take-back programs. The number of retailers and brands offering either in-store or mail-in collection programs has grown substantially over the past five years as the push for circularity has become more mainstream. These programs take many different forms and can vary from true remake and resale programs within individual retail stores to large networks moving millions of garments around the world. Often the take-back programs are paired with a discount or credit against the purchase of new items from the same retailer. While the varied pathways of retail take-back programs mean that there is no uniform destination for clothes that an individual may bring to a retailer’s collection point, the few industry disclosures that exist on the subject suggest that a significant portion of clothes collected through retail take-back programs enter into the secondhand supply chain feeding Kantamanto market and other markets around the world, often building on the same infrastructure and partnerships employed by brands to manage deadstock. In tandem with those avenues, some brands are partnering with online resale platforms to salvage as much value from next-to-new garments as possible, promoting a brand image of legacy value, while shuffling garments in less pristine condition or items from other brands that are collected through the take-back
program into global secondhand markets or to shoddy manufacturing for use in insulation or other materials.

(L) Industrial shoddy manufacturing, like the process pictured here at a USA-based shoddy manufacturer, shreds garments then pulls fibers apart to create a homogenized material. (R) Bales of finished shoddy sit unsold in a manufacturer’s warehouse. While shoddy was once regularly used in furniture and mattresses as a method of downcycling clothing en-masse, with the growing prevalence of compact foam and rubber mattresses, like those from the brands Casper and Purple, the demand for shoddy has left some manufacturers on the verge of bankruptcy, according to our informants in the industry.

Digitized Resale

Online resale platforms are bringing digital infrastructure to thrifting and providing individuals with the ability to turn unwanted items into cash, or to trade amongst their peers for something different. The business proposition of online resale platforms is not new. eBay, for instance, which is effectively a resale platform, ushered in the modern age of the Internet, and for-profit thrift, consignment and vintage stores have long held a place in local fashion scenes around the world. More broadly, it’s worth remembering that until the 1940s resale was the dominant method of clothing oneself in the Global North and in the Global South. Fast fashion changed this fact.

Bringing the two business models of digital reach and fashion consignment together in a targeted and cohesively-branded way might be seen as the logical next step in fashion commerce and represents a step that numerous well-financed startups are taking. The momentum within the broader fashion industry around resale platforms has picked up substantially in the past decade. Several online fashion resellers are now trading as publicly listed companies with multi-billion dollar evaluations and investor prospectuses suggesting that resale will grow faster than firsthand fast fashion. Legacy fashion brands are placing big
bets on the sector too. For instance, one of the largest luxury clothing conglomerates, Kering, has invested tens of millions of dollars into Paris based Vestiaire Collective\(^1\), an online luxury resale platform (Dillet, 2021). In general, the proposition of these online resellers is to merchandise the clothing as higher value pieces, not as inexpensive thrift store items.

Because these resale platforms offer value back to the individuals whose clothes they are selling, they are not, on their face at least, in the business of waste management. If someone is willing to pay for the clothing, then by definition it is not waste. But it takes time and money to collect, store, catalog, and ship individual pieces en-masse. In order to see a return on that investment many of these resale platforms only list items deemed to be luxury or pieces from certain brands that are less than five years old. As a result, not everything that passes through these resellers is sold as a higher value item on their platforms. In fact, California based ThredUp, one of the largest online resellers, has stated in its 2020 annual report that only 40% of the clothing they have collected is actually resold through their platform. ThredUp also limits their program to like-new clothing purchased within the last five years and they do not accept clothing with broken parts or missing size information. With this level of quality control, the majority of the clothing ThredUp collects is shuffled into the global secondhand supply chain.

Other decentralized peer-to-peer resale platforms such as London based DePop (recently acquired by New York based Etsy for US $1.6 Billion (Heilweil, 2021)) may offer individuals more flexibility in listing their non-luxury or older items, but there is also no guarantee those items will sell, meaning that unsold pieces may still enter the secondhand supply chain through one of the aforementioned pathways.

**Waste Management as a Service**

Whether or not the individuals bringing their unwanted clothes to a collection bin, donation center, or retail take-back program see these programs as waste management, the service performed by these operations is effectively that. And the services are almost universally available for free to individuals. There may even be the incentive of feeling good about donating and in some cases possibly a tax write-off, or there may be a coupon offering discounted value on the purchase of a new item. Individuals may have the best of intentions believing that their donated clothes may help someone in need, or they may carelessly toss an item in a bin, wanting to be done with it.

Whatever motivates individuals to pursue one of these paths, the tangible result is the same: they get rid of garments (and shoes) in which they no longer find value. Often “donated” in a trash bag, to the individual, the garments are waste when they enter this system.

\(^1\) The Or Foundation has received financial support from Vestiaire Collective.
The Tip of The Iceberg

Although it’s essentially impossible to calculate with 100% certainty due to the breadth and opaqueness of the industry, the best estimates indicate that the clothes collected by the combined clothing collection systems represent around 20% of the total volume of fashion waste generated annually across the Global North. The other 80% is placed in garbage bins in homes or dumpsters in the back of retailers or warehouses to be sent to landfill or incineration sites (McCarthy, 2018). To put those numbers in perspective, we have toured one not-for-profit clothing collector that sees between 20 to 40 tons of clothing every week in a mid-size US city of around 300,000 people. There are multiple other clothing collectors in the city and a residential clothing pickup program sponsored by the municipality. Despite this, the municipal landfill receives at least 1000 tons of textile waste every week according to an informant within municipal waste management. In other words, the one ton bales of mixed clothing stacked over 20 feet tall, nearly reaching the ceiling of the clothing collector’s warehouse, is a small fraction of the total volume of materials in circulation. As the legislative and advocacy push to keep clothing out of landfills grows, we expect those numbers to shift, providing for more unwanted garments to enter the secondhand supply chain, as opposed to going to landfill or incineration.

Free Assets

However the clothes enter the secondhand supply chain, what is effectively waste to the individual or brand giving them away is a commodity to the businesses aggregating, sorting, reselling and shipping the items around the world. Often described as the ‘Rag Trade,’ the secondhand supply chain is as immense as it is complex. There is not one business model to follow, but the overarching jobs performed across the supply chain are the same no matter the location. While the nuances and exact sequence of the process can vary significantly based on whether clothes first enter the secondhand supply chain through a charity thrift shop or through a for-profit collector, in general once the clothing is collected, items are sorted to determine the next path for each individual garment.

The best garments, considered the “cream”, are selected to be sold in vintage boutiques, sometimes shipping around the world to find the right market in cites such as Toronto, New York, Tokyo, London, Amsterdam, and Los Angeles, where they may be able to fetch seemingly astronomical prices, sometimes hundreds of dollars, as one of a kind pieces or as collectibles. Some clothing collectors and sorters run their own ‘vintage’ stores, while others work with specialized brokers who navigate the context-dependent ‘vintage’ marketplace. For many rag traders the ‘vintage’ market represents the bulk of their income, even though it is only a small portion of the garments that may pass through their hands.

What is not deemed the cream but is still considered sellable domestically may end up on the racks in domestic thrift stores, be those charity operations or for-profit operations, where they are generally cycled through the store with prices dropping over several weeks or faster. The garments that do not sell in the thrift store and the ones that are not selected to
go onto the floor are then sorted to determine if they will be processed for downcycling, recycling, landfilling or incineration, or to be shipped to a foreign secondhand clothing market.

Typically clothes destined for foreign secondhand clothing markets, like Kantamanto, are sorted and graded by clothing type and quality. Grade A Men’s T-shirts, for instance, are considered to be the newest t-shirts with the best materials at the time of sorting and grading. This grading process may take place in the warehouse of a clothing collector or it may be conducted by a more specialized operation that receives bales of bulk, generically sorted items from collectors, such as ‘mixed clothes’ or ‘shoes’, to then categorize further. The sorting and grading process is labor intensive. Sorting and grading is also a relative process with the value of individual items being judged against the overall value of the current stock. Clothing, after all, does not have an expiration date and it does not “break” and become waste.

Whether searching for the cream pieces that can sell as ‘vintage’ or categorizing garments for export, people look at every individual piece. Once sorted, graded and baled accordingly, the individual pieces become bulk commodities, treated by weight. Both the garment type and the quality of bales determines their destination. Far more winter clothes, for example, are sent to Eastern Europe than to Ghana, where the average temperature is 30°C year round. Higher grade bales are generally sent to wealthier markets of Eastern Europe and middle income countries across Latin America, where they may be able to bring in greater returns than the market in nations like lower-middle income Ghana can support.

Wherever the destination, secondhand clothing is not exported by the Global North to the Global South as a charitable activity. Certainly there are not-for-profit organizations and churches working to bring clothes to specific communities lacking access to clothing, and there are some instances where exporters and sorters operate as not-for-profits, but these are the rare exceptions and not the rule. The vast majority of companies operating within the industry are privately held, for-profit entities. By way of example, of the 110 secondhand clothing collectors, sorters and exporters that we have examined for our research, 100 are for-profit organizations and seven are for-profits with not-for-profit licensing agreements, where for-profit companies pay a fee for the right to use a not-for-profit’s name to collect and/or resell garments.

For these companies the clothes that individuals and brands may have considered waste is anything but. The secondhand clothing that rag traders collect, sort and ship around the world, whether a high-value ‘vintage’ garment, or bulk t-shirts, are the inventory that drives revenue. The collection, sorting and logistics entailed in the secondhand trade, add value to otherwise free inputs. Secondhand clothing traders typically have four ways of realizing this value: ‘vintage’ sales of the cream pieces, thrift store sales at clearance prices, supplying downcyclers and recyclers, and selling into foreign secondhand clothing markets.
When retailers in Kantamanto buy the bales they are effectively paying for the labor that transitioned the free input of waste into a commodity.

The Link to Ghana

Exporters serve as the key link into Ghana and other secondhand clothing markets around the world. Whether or not they also work as clothing collectors and sorters, or if they operate as standalone businesses sourcing clothing from upstream partners, the export business is where the Global North secondhand clothing supply chain is able to realize revenue from the bulk of its merchandise. The job of exporters is to manage inventory, to support logistics operations and to cultivate individual relationships and sales contracts with their counterpart importers around the world. Occasionally exporters may also run import operations either directly or through agents within foreign secondhand clothing markets. Although there is not a one size fits all model, the throughline across this aspect of the business, more so than any other area of the secondhand clothing trade that we have encountered, is that the relationships between exporters and importers are closely guarded. For importers especially, these relationships represent their ability to source secondhand clothes and thus their ability to have a product and stay in business.

Shipped almost exclusively in 40 foot long sea containers, the cost of bales can vary greatly depending on the country of origin and the type and grade of materials inside. With the typical bale weighing 55kg, shipping containers are permitted to carry around 426 bales, or roughly 23,430kg, before topping out their maximum cargo capacity. Containers are usually packed with a variety of bale types, and frequently include material that importers have not requested, such as bed sheets, which are slow moving in Kantamanto, or undergarments, which are technically banned as secondhand imports in Ghana but nonetheless frequently make it into the market. Generally importers are able to request that certain items be included in the container, such as mixed kids’ clothes or men’s suits, but they normally cannot specify the exact number of bales of each garment type, the total varieties included, or the total price. Often importers will only receive a packing list for the goods in a container on the day it ships.

Importers cannot return unwanted bales to the exporters. This is not permitted within the all-sales-are-final agreements as they are usually structured between exporter and importer, nor is it logistically feasible. As a nation, Ghana imports far more materials than it exports. Shipping full containers or individual bales back to exporters would be challenging, and from the financial perspective of an importer likely not worth the costs entailed. But containers that arrive in recognizably unsellable condition, such as the containers of moldy clothes that we witnessed being destroyed in an audited process at a municipally managed dumpsite and that smelled of mold from afar, clearly posing a health risk, are generally ‘destroyed’ so that importers might be able to claim damage from their shipping insurance. The quality of individual bales is not the subject of such insurance policies.
Our interviews with importers and their agents indicate that importers typically pay between US $15,000 to US $45,000 inclusive of shipping costs for a container and all the secondhand goods inside. Pricing is volatile and pegged to foreign currencies such as the US dollar or the British pound sterling and not the Ghana cedi, which as of January 2022 has experienced devaluation of roughly 600% against key global currencies since it was redenominated by Ghana in 2007 after suffering an inflationary crisis. In addition, global logistics prices have increased over the past two years, which is a significant factor in the total cost of goods for both importers and exporters. Payment terms can vary depending as to the relationship between the exporter and the importer, but these costs do not include customs duty, which is almost always paid by the importer.

Once in Ghana importers face customs fees typically based on weight. The data we have been able to gather indicates that customs charges are around US $8,000 per container, assuming the maximum load capacity of each container is reached. Multiple sources have informed us that it has long been a common extra-legal practice for importers to pay fees for one container and bring in two or three with it. The central government of Ghana has declared that it aims to crack down on those practices and ensure comprehensive customs charges. We believe that the increase in customs enforcement over the past two years, along with rising costs of shipping, has led to an increase in the market prices of bales reported to us by Kantamanto retailers purchasing from importers.

In some instances, importers will bring in one ton bales to be sorted and repacked into 55k bales in Ghana. This is not uncommon, but we believe it to be far more of an exception than the rule. Retailers frequently express concern that bales sorted in Ghana are not of the highest quality. The waste stream from the sorting activity typically passes into one of the waste management avenues identified in the next section of this report.

Throughout this process clothing items are treated as uniform commodities within the bale. Once sorted, and tightly baled up in plastic and metal wire, generic descriptions of Men’s Khaki Pants, or Ladies Cotton Blouse, homogenize their value. The individual items of clothing that were likely donated for free now cost importers in Ghana between US $0.64/kg to $2.26/kg.

Kantamanto’s importers bring in around 100 containers every week.

Everything is by weight. This is undone when bales are opened up in retailers stalls.
Where It Hits the Ground

Kantamanto Market is divided into two principal sections, the importer side and the retailer side.

The importer side sprawls across more than 18 acres of warehouses and storefronts. Hardware stores spill over into parts of the importers’ domain from the timber and metal markets to the southwest. On Thursdays when importers are known to have their market days, lines of trucks towing 40’ shipping containers from the port of Tema and open-top straight trucks stacked with bales render the narrow streets nearly impassable. Not every bale that is offloaded from a container is destined for sale within the Kantamanto retail environment. Some bales are unloaded and immediately packed onto trucks destined for other markets throughout the West African region. Our estimate is that this practice represents less than 1/4 of the total volume of goods, leaving some 1500 metric tons or more of clothing every week to enter the Kantamanto retail trade.

The retail side of Kantamanto houses roughly 5,000 stalls in a mostly wooden open air market, with tin roofs, often uneven pavement and sometimes muddy and mostly narrow walkways. This area of around 10 acres is the base of operations for the vast majority of the roughly 30,000 people who have made some sort of living for themselves within the market reselling, moving, storing and remaking secondhand clothing. Street vendors opening bales or selling individual pieces of clothing outside of a dedicated stall spill over into the roads and open areas around the market.
Women working as kayayei (female head porters) are hired by retailers to carry bales on their heads between the importers and retailers’ stalls, weaving through the narrow, uneven and busy aisles in a way that no pushcart could. The labor is brutal. Our research has documented many of the challenges that the women face, including the devastating, and sometimes fatal toll that head carrying takes on their bodies. Many of the women performing this labor live just a mile southwest of Kantamanto in Old Fadama.

When a woman working as a kayayo drops a bale at the retailer’s stall the commodity of the bale begins a second life as individual pieces once more.

The Selection Process

With a loud pop a retailer cuts their bale and all the tension of the wire is released into the tightly compressed clothes. The woven polyvinyl covering lifts off with deceptive ease to reveal what was 55kg of men’s jeans upon purchase and what is now 103 individual pairs to be sorted one by one for sale.

The key job of the retailer is to pair the garments that she or he has purchased in bulk, site unseen, with individual customers based on trends, quality and price. To do this retailers sort each bale into selections. As a nearly universal practice throughout the market there are four selections.

The process that Ghanaian retailers employ to sort the contents of a bale into selections is not dissimilar to the grading process performed by secondhand clothing traders in the Global North.

(L) A woman working as a kayayo prepares to carry a bale from an importers shop where bales are on display. We have heard from Kantamanto retailers that bales are often packed with the
brightest color garments on the outside layer to indicate that the clothes are in good condition, but that the interior layers of the bales are not reflective of this. (R) Abena sorts her bale into selections with customers waiting to grab the best pieces. The large pile behind Abena is her third selection pile with pieces that she knows will be hard to sell.

First selection represents the highest quality pieces, new items that were perhaps deadstock or are only lightly worn, items that may have specific cultural relevance, items from popular brands, items that can sell straight away at the highest prices. Retailers often sell first selection pieces as soon as they open a bale to eagerly awaiting customers standing by to ensure they get the cream of the crop. Our research indicates that retailers make at least 50% of their income from the sale of first selection pieces that typically represent less than 20% of a bale.

Second selection represents what might be considered the run of the mill. These pieces are of above average quality, but not necessarily trending items or new. Perhaps their sizing is not perfect for the retailer’s typical customer, but this can often be fixed if the piece is otherwise in good condition. Perhaps there are small signs of wear, but nothing obvious and nothing that an iron and a wash couldn’t minimize. Our research indicates that typically this represents around 30% to 40% of a bale and can account for roughly the same amount of a retailer’s income.

Third selection is made up of pieces that look worn. These pieces are wearable but they are not immediately desirable when compared to first or second selection. Maybe they have stains. Maybe they are way too big for the average customer or way too small. Perhaps they have an odor or a tattered collar. Our research indicates that on average third selection represents over 40% of each bale and accounts for only 10% of a retailer’s income, selling at a fraction of the price of first selection.

Fourth selection, known colloquially as ‘asei’ or ‘under,’ is essentially trash from the start. This represents garments with slashes, large holes or conspicuous stains. These pieces are in unsellable condition and retailers don’t consider them of any value. While our initial research pre-COVID indicated that fourth selection represents around 4% of the average bale, our ongoing monitoring shows an increase in fourth selection.

Even with the wire and plastic removed, the bale holds its form as the retailer pulls items out one-by-one, quickly tossing them into the four separate selection piles that often overlap in the small retailer stalls. Through the selection process a retailer rapidly inspects every item in a bale. Often informed by years of experience, conversations with other retailers, customer requests, trends that retailers spot in magazines, on billboards and online, and common sense, the split-second decisions that retailers make determine how each item will be priced and merchandised, whether it will be hung up around the retailer’s stall with an asking price of US $4 or stuffed into a bag in hopes that maybe someone will buy it along with a few dozen other pieces in bulk for pennies a piece. With a snap of the wrist a retailer will shake a garment loose of the wrinkles imposed by a long sea journey in a tightly
compressed in a bale. The retailer will look it over and make a decision in a matter of seconds.

Because each retailer usually specializes in one particular garment type, for instance, ladies’ office wear, she or he will have a particular method of displaying pieces. Sometimes a plastic mannequin will show off the best picks. Clothes on locally made wire hangers often create walls of garments that close in the open wooden stalls on three sides, framing the retailer who might sit on a small wooden bench in the middle of the stall. In some cases, on a good day, the best first selection pieces won’t even make it onto display, and instead will be snagged by a customer as soon as the bale is cut open.

A fourth selection item, or “asei”, with tears that will make it impossible to sell. This will immediately be considered waste and will generally be tossed in the aisleway.

Almost every retailer opens a new bale on either Wednesday or Saturday, sometimes both days. Bales are opened during other days of the week, but in far smaller numbers. Wednesdays and Saturdays are the traditional market days for retailers in Kantamanto. They are the days that customers know to come to the market for the greatest choice of new selections. Wednesdays and Saturdays start early in the morning for most retailers, with the market buzzing before the sun comes out. Walking down one of Kantamanto’s main
aisleways on a Saturday morning is akin to navigating through a crowd at a packed stadium for a sporting event, but by the afternoon the market has usually quieted down with more waste in the aisles than feet. This ebb and flow of foot traffic and the hectic cycle of market days is a significant factor in a retailer’s attempt to sell through their bale and turn a profit.

The Cultural Throughline of Waste

What is not sold when the bale is opened on a market day is slow to move throughout the rest of the week. The astute customer knows that the cleanest, newest and trendiest pieces in a bale are picked through when a bale is opened. Many Ghanaians are immersed in the same media influences as shoppers throughout the Global North. Kantamanto’s customers are often looking for the items that were mistakenly passed over by the previous links in the global secondhand supply chain, or that ended up in Ghana because of market exclusion policies for deadstock and retail returns, and that have cultural relevance among today’s global trends.

Other customers are looking for the items that have cultural relevance unique to Ghana, where the climate is hot but a legacy of religious and colonial influences dictate more conservative trends in some settings. Once those items have been picked off, all that remains – second selection, third selection and “the under” – are hard to sell. These are the pieces that were passed over by customers in the Global North and they are often passed over again by customers in Ghana.

While some retailers have long standing relationships with customers for whom they will hold special pieces, other retailers might not even make the trip into Accra on Monday or Tuesday, knowing that they won’t earn enough on those days to justify the cost of their transportation and moving the remnants of their bale out of storage. Of course in a market with over 5,000 retailers, there are still sales throughout the week, and some customers may specifically come on off-market days in order to enjoy the relative quiet of the market, but retailers see the majority of their revenue on the day they open a bale. What is not sold that day is likely to end up as waste.

Our research has found that around 40% of the clothes circulating through the retail side of Kantamanto leave the market as waste. The most critical driver of this is the fact that there is too much clothing.

Kantamanto follows the same patterns as the predominant global fashion industry, including the firsthand retailers and ‘Rag Traders’ throughout the Global North as described earlier in this report. Retailers will drop prices on old inventory throughout the week, but with the best garments already picked through, and without new items on market days, a retailer is not likely to attract customers. In order to cycle ‘new’ garments and attract customers, retailers must create room in their stalls to open and display new bales by getting rid of the ‘old’ within the course of a week in order to follow the rhythm of the traditional market days.
There are limited options for Kantamanto retailers who have displayed garments for a week without success: pay a tailor, overdyer, screenprinter or presser to add new value to a garment (or the retailer does this herself), pay to store the garments indefinitely until someone comes to buy them in bulk at a loss on a per piece basis against the cost of the bale, or throw them in the aisle to be hauled away.

**Making the Old New**

Upcycling or remanufacturing clothes is a core function of Kantamanto Market.

While there is not yet an official count or coordinated association recording membership numbers, and the informal structure of the market makes the act of accurately counting individuals nearly impossible, based on our efforts to count as many people as feasible and our interviews with leaders within the market, we confidently believe there are around 3,000 people working to remanufacture clothing. This includes roughly two thousand seamstresses, tailors, and tailors’ assistants working across the market, dozens of screen printers, over one hundred overdyers and tie-n-dyers, around one hundred people dedicated to ironing and washing clothes, dozens of cobblers repairing shoes, and dozens of people selling notions and tools for remanufacture, among other jobs.

(L) A tailor resizes a garment for a customer in Kantamanto. (R) Overdying a pair of faded jeans to make them look new is a common technique throughout Kantamanto and fits within the cultural landscape of appreciating garments that look new as opposed to faded clothes that may carry socio-economic stigma.
In tandem with the resale of secondhand clothing straight out of the bales, we believe the efforts of these individuals, often working in the market out of basic necessity for survival, make Kantamanto the largest consolidated reuse and upcycling economy in the world.

There are varying business models of remaking clothes.

Customers shopping from retailers might visit a tailor to have a garment adjusted to their size. Retailers might contract someone to wash and iron their garments to make them look new. Overdyers might purchase faded third selection jeans in bulk and dye them dark blue to make them look new. Upfitters hawking individual pieces along the roadside may buy a women’s blouse, replace the buttons and resize it to appear as a men’s Aloha shirt. Traders from surrounding countries might contract a tailor to make hundreds of the same split-panel polo shirt for sale in their boutique hundreds of miles away. There are seemingly endless and ever evolving methods of bringing value back to valueless items. With one seamstress creating over 500 new sets of children’s underwear out of otherwise wasted men’s button-up shirts per day for six days a week, as an example, there are well over a million garments transformed in Kantamanto Market every week.

**Good Money after Bad**

While individual shoppers in the Global North benefit from almost universal money-back or store credit return policies, Kantamanto retailers buy the clothing waste of these consumers in bulk and do not have the same benefit of return policies, nor do importers, as previously noted. There is no way for Kantamanto retailers to get their money back should an entire bale or the majority of its contents be deemed unfit for the market through the selection process. Instead, retailers go into debt.

Retailers pay for bales in Ghana cedis, but importers pay in US dollars or British pounds, meaning that over the course of a year retailers might expect to see at least a 10% price increase for bales exclusively due to the inflationary pressure on their local currency, discounting any other factors impacting the cost of goods sourced globally, which recently have been trending upwards.

With the costs of transportation to and from the market (which are often quite significant in the rapidly growing city with rising rents pushing many people who work in Kantamanto to commute more than two hours each way), renting a stall, electricity, sanitation, a sales assistant, a kayayei to head carry clothes into and out of storage, and the cost of bales, a retailer like Abena needs to bring in around US $70/day to actually making enough money to support her family. That means she would need to sell each of the roughly 240 pieces of “ladies cotton blouses” in a bale for US $1.75/item. In reality Abena and many of her fellow retailers are making far less than that. They may be able to sell their first selection pieces for US $4/item, but if their first selection is only a small portion of the bale it won’t make up for all the items that don’t fetch more than $1. It is not uncommon for a retailer to take out one
loan in order to pay off another, or to get in a debt cycle with an importer, taking one bale on credit in order to pay off the last.

Even for the retailers who have managed to turn a profit, adding additional expenses, such as storing waste, is often infeasible. With bales weighing over 50kg and many retailers reliant upon public transportation, it is impractical for retailers to take their items home with them every day. As a result, Katamanto has dozens of storage sheds throughout the market. Retailers like Abena can expect to pay around US $3 every time they cycle a bale or a sack of items into and out of one of these storage facilities. Putting items into storage and taking them back out on a daily basis quickly adds up, especially if Abena is storing items that do not sell. Over the course of a week, storing one sack of clothes could cost Abena more than US $20, including the cost of head-carrying, which is money that she otherwise could spend to feed her family or buy cell phone credit to connect with customers. But Abena’s hopes of selling her items for any type of profit are slim if she does not take her merchandise out of storage to display it.

Some retailers find that renting an additional stall nearby to use as their storage is more efficient, but this requires upfront capital to pay for a year’s rent in advance, and it requires finding a stall that is available to rent. In parts of the market that are securely locked at night, it is not uncommon to see retailers pile items high in their stalls at the end of the day, but where the market does not lock this presents a security concern even if they pay for security guards.

Large piles of unsold clothes make for difficult merchandising anywhere in the market if a retailer has so many items in her stall that she can’t display individual pieces. In addition to her bales, sometimes Abena may store a sack of 100 or more garments for several weeks, not removing it from storage so as to avoid any fees, waiting for someone to take all of the pieces inside in bulk for around US $0.10 an item. The customer who buys the bulk items may be a merchant who takes low value pieces to remote villages in Ghana or in neighboring countries. We believe that similar questions of waste management are a concern within these villages, but these questions are out of the scope of this report. Weighing the costs and benefits, while US $0.10/item is not the value of what she paid for the bale on a per piece basis and it is far from what she needs to earn in order to make a living, it is some form of income, which is better than none.

But if no one comes to buy her bulk items then eventually she will be out the storage fee in addition to the losses on her bale. Instead, she might decide to cut her losses and leave the items as waste.

Knowing that the value of a specific item can double or triple by cleaning a small stain, by re-sizing a pair of jeans, or by removing piling, for instance, some retailers invest in transforming second or third selection pieces into first selection pieces. A retailer might store items for several weeks or months, amassing a group of pieces to then upfit in bulk when she has the money, or maybe she will transform a handful of second selection pieces right
after she opens a bale if she needs just a few more first selection pieces to help her break even. For some garment types, especially t-shirts, screen printing a popular slogan or brand logo on an otherwise generic shirt can help attract more customers who want to buy into a brand. Names like Adidas often appear screen printed onto garments that were clearly not originally Adidas.

It takes money to pay a seamstress or screenprinter or to rent a table to do the work oneself.

Especially for a retailer who is already in debt, affording this investment is often not possible. Retailers might be forced to decide whether to invest what little cash they have on hand in upfitting a few pieces from an already losing bale or to buy another bale and start over. In some cases a screenprinter or tailor might buy several pieces in bulk from the retailer, often at a loss to the retailer on a per piece cost basis against the price of the bale and sometimes on credit, with the retailer extending the items in hope of seeing something in return once they are sold. But if the screenprinter or seamstress already has enough pieces to meet their expected demand for the week, or if the clothes that the retailer has are too dark to print or dye over, or the fabric too threadbare to resew, then what the retailer has will go unsold. What the retailer has will become waste.

Debt turns wearable clothing into waste.

**Waste Stream Composition**

Since November of 2021 we have been conducting an audit of Kantamanto’s waste-stream. We have taken a sample from a diverse array of retailers across Kantamanto representing different bale types and different geographical areas of the market in order to determine statistically the approximate volume of different fiber types currently going to waste across the market.

We’ve organized this audit by asking individual retailers to save their waste. Throughout the week a member or two of The Or Foundation team will sit with the retailer in her or his stall and inspect every garment collected over the course of the preceding week that the retailer considers waste and that they would otherwise have gotten rid of had we not asked to sort through it. We check each garment within the retailer’s wastestream looking at the garment care tags and noting in our survey forms the relevant information. Importantly our original intent was to enlist retailers to report this data back to us, but we found that due in part to the dust of the market many retailers’ eyesight is too impaired to read the fine print of the garment care tags or manufacturers labels.

While this work remains ongoing, initial indicators from our current sample size of the 32 retailers and 3167 garments destined for waste that we have audited thus far suggest that likely 33% of Kantamanto’s waste stream is unblended cotton, 30% is a variety of blended fibers and 11.5% is unblended polyester. The exact breakdown of our results thus far is included in the appendix.
A summarized breakdown of our findings across more than 3000 items considered waste that we sorted and inspected by hand over the course of two months. We continue to add items to this count and expand our analysis.

Blended fibers include polyester/cotton and cotton/polyester, which together represent over 10% of the total garments we inspected.

For many of the unknown fiber types we can make educated guesses as to what the fiber is, which are recorded in our comprehensive results included in the appendix, but for the purposes of categorizing based on product labels we have grouped all unlabeled garments together, representing over 14% of the waste stream that we have analyzed thus far. Notably 2.5% of garments we have inspected as waste still had tags from a thrift store or charity in the Global North and over 1.5% had the hang tags from the original retailer intact.

There is no way to know for certain the fiber type of every garment leaving Kantamanto Market as waste. Auditing every item is unfeasible. That said, we are continuing to collect waste data through a number of channels and we are refining our process as we progress. Though some change must be expected, based on the variety of retailers and garment types captured in our audit to this point and barring any significant external factors or regulatory changes, we do not foresee drastic changes in the highlighted waste composition trends as our data set continues to expand, rather we hope to gain further insight into the patterns of waste and why certain fiber types have more or less waste than others. Through the ongoing
study and audit process we will also continue to strengthen our relationships among the community of individuals working as retailers in Kantamanto.

The Waste Pathways

Millions of items considered waste are removed from the market each week using several methods, from hauling to official dumpsites to burning as a source of heat for bathing water. Though there are some caveats, which we will describe below, in general, after being passed over by the retail and remanufacture process in Kantamanto, these items are either directly stuffed into sacks or are first swept into the market aisles and then collected and stuffed into sacks to be hauled away by a combination of kayayei and young men working throughout the market as de facto security guards. In addition to an annual tax collected by the municipal authority and any rent owed for their stall, retailers pay up to US $1 per week as a sanitation and maintenance fee to one of the several retailers’ associations based on their exact location within the market who in turn are responsible for ensuring that the waste is swept up and carried out of the market on a daily basis.

Waste piled up in an aisle at Kantamanto Market at the end of a trading day.

We have compiled a list of the key waste management practices that we have identified, a description of the process for each waste management practice, an estimate of the number of people and the tools involved, the rough volume of clothing that we estimate is handled by
each waste management pathway, our initial findings related to environmental and community impact, and areas for continued investigation.

1) **Official Waste Hauling to Authorized Dumpsites**

Until August of 2021 the Waste Management Division of the Accra Metropolitan Assembly (AMA) directly hauled the majority of Kantamanto’s waste.

Between late 2015 and August of 2019 the waste was dumped at Kpone Landfill, an engineered landfill financed by the World Bank outside of Tema, Ghana’s main port city 25km east of Accra. Secondhand clothing waste from Kantamanto accounted for roughly 20% of Kpone Landfill’s planned capacity, although the waste was not originally a factor considered in the landfill engineering because the landfill was only intended to serve Tema. But after Accra’s principal dumpsite became overfilled (in part due to clothing waste) and was closed in 2015, leading to one of the largest cholera outbreaks in a decade, the city arranged to haul waste to Kpone for a tipping fee of around US $5/ton, exclusive of the costs of dump truck operation.

In August of 2019 the Kpone landfill caught fire and parts of it exploded. This was caused in part by the impact that textile waste from Kantamanto had on the landfill’s engineered functions, as Solomon Noi the director of Waste Management for the AMA explains in a [video interview](#) we recorded in 2020. The fire continued for months, emitting an unknown amount of toxins into the air and making the landfill unsafe to work. After Kpone Landfill caught on fire, secondhand clothing was dumped, along with other solid waste, in a dumpsite (that the engineered Kpone Landfill was intended to replace) on open ground within walking distance of the engineered landfill. This authorized dumpsite, sanctioned by municipal officials but without mechanisms for leachate capture or methane management, has grown significantly and is now visible from at least a mile away in all directions. There have been numerous complaints by local residents and businesses. The AMA itself no longer sends waste to this open dumpsite in Kpone, but other private waste hauling companies and individuals continue to bring waste from Accra, including to a small extent from Kantamanto.

The engineered Kpone Landfill site is now capped and the city of Accra is in negotiations with the World Bank to finance another engineered landfill site. According to one informant integral to landfill planning in Accra, land acquisition for a new landfill site is a significant challenge as the footprint of suburban residential and commercial construction patterns continues to sprawl out from Accra.

To carry waste from Kantamanto to an authorized dumpsite the AMA filled two trucks a day with around 35 tons of waste each. The trucks were loaded exclusively from Kantamanto and did not make other stops on their route before the dumpsite, as there was no remaining carrying capacity. Depending on the availability of trucks and drivers, one truck was filled in the morning and one in the evening, or both were filled in the morning. The interviews we conducted with multiple city officials between 2016 and 2019 indicate that the daily waste
load carried from Kantamanto by AMA trucks grew in that time from around 50 metric tons to around 70 metric tons, with the two trucks regularly exceeding their permitted capacity and experiencing frequent breakdowns as a result.

This represented the largest consolidated load of waste removed from Kantamanto by a single group, and was the largest consolidated source of solid waste in the central business district of Accra.

An overloaded dump truck prepares to leave Kantamanto, carrying its load to a municipally sanctioned dumpsite.

Since August of 2021 this operation has been conducted by Zoomlion Company Ltd., the largest private for-profit waste management company in Ghana. Zoomlion is a subsidiary of the Jospong Group of Companies, one of the largest privately held companies in Ghana with assets across industries from oil and gas, to IT, banking, global logistics and plastics recycling. Zoomlion is likely Jospong Group’s most ubiquitous company. The AMA contracts Zoomlion to perform the service, paying for the work, at least in part, with the money that the AMA collects from Kantamanto Retailers as tax on an annual basis of around US $15 per retail stall.

The specific contract terms between Zoomlion and the AMA as related to waste hauling from Kantamanto are not publicly disclosed. The shift to engage Zoomlion as a municipal contractor to haul much of Kantamanto’s waste came about in part because the AMA
struggled to maintain its aging fleet of vehicles. Zoomlion wields significant influence within the socio-economic and political landscapes. For many Ghanaians Zoomlion is synonymous with waste management services.

While we have spoken with a truck driver, the dumpsite manager and city officials, we do not yet have sufficient data to determine if the content and quantity of the loads hauled from Kantamanto has changed since Zoomlion took over operations. We do know that Zoomlion maintains the same pattern that the AMA employed. Members of the waste hauling team load at least one large truck on the roadside just to the north of Kantamanto and the Ghana Railway terminal around 5:30am every morning. This waste is then carried to the Adepa Dumpsite at a 50km driving distance north of Kantamanto. With city traffic and rough roads once outside of the city, the drive can take over two hours each way.

![A man working as a waste hauler loads a municipal truck of clothing waste and other materials from Kantamanto.](image)

Once at the dumpsite, from the perspective of some of the other waste management pathways described below, the garments may have a more contained environmental impact, provided that they are not burned. That said, we are weary of the interactions that clothing waste has with leachate and methane and how it may affect the overall ability to engineer the dumpsite so as to optimize its capacity and minimize its overall socio-ecological footprint.
There have been numerous reports of leachate runoff at the open-ground Kpone dumpsite impacting local residents and polluting nearby estuaries. While the Adepa dumpsite to the north of Accra is situated further away from surface water, we do not have evidence to suggest that its leachate is any less harmful. We are also concerned with the secondary impact of clothing waste displacing waste management capacity needed for plastic waste and other waste categories. This is an area of active research.

Small fishing boats navigate further away from the shore to avoid waste, which can foul their propellers, drag down their nets and cause lost time untangling from equipment. Several miles off shore we spotted plastic waste floating on the surface. Though plastic bags are not textiles, with Accra’s landfill overwhelmed and closed in large part due to fashion waste from the Global North, the city now lacks the infrastructure to manage its own plastic waste. This waste displacement is a secondary, but significant, impact of fashion waste.

In total we believe that this method of government sponsored waste hauling to a sanctioned dumpsite captures hundreds of thousands of secondhand clothing items on a daily basis, including many scraps from Kantamanto’s seamstresses and tailors.

While waste is loaded onto the trucks, driven to the dumpsite and dumped by fewer than ten people (not including waste pickers working at the dumpsite), we believe at least one hundred people are involved in bringing the waste out of the market onto the roadside to stage for pickup. Clothing is almost always mixed with other materials swept up from the ground in the market, such as banana and orange peels, plastic water sachets and other plastic bags, along with sand and dirt from the ground, for example. Generally these
materials are then stuffed into polyvinyl woven sacks and brought to the roadside via headcarrying by women working as kayayei or on push carts. The waste is left unattended at the roadside in the evening or early morning until the trucks arrive to begin loading. The sacks are dumped full at the dumpsite. Waste pickers at the city’s main dumpsites generally avoid the waste from Kantamanto because they report that the textiles yield nothing of value for them, and that the textiles tangle on their tools and their limbs, making their dangerous job even more difficult.

Official Destruction
The open ground dumpsite at Kpone is where we observed the (attempted) destruction of five 40’ sea containers of secondhand clothes in September of 2021, a process that was audited by customs officials and an agent of the importer in an effort to collect insurance money for shipments that were contaminated with mold. The intended destruction method was to light the clothing on fire, however, the dampness of the clothes that had allowed for mold to grow prevented the fire from catching. Instead, the bales were run over repeatedly by a bulldozer to crush them and mix them with other waste, so as to render them unsalvageable. As noted previously in this report we do not know exactly how frequently such a practice occurs or in total how many garments are involved, but informants indicate that they have witnessed similar audited destructions of entire containers multiple times every year with some coming directly from the port and some coming directly from the importer side of Kantamanto.
2) Burning Around the Market

Typically in the cover of darkness late at night, dozens of fires are set to clothing and shoes in sites directly around Kantamanto. This effort is conducted by at least ten people actively engaged in lighting the fires and at least a hundred other people engaged in carrying the waste to the burn sites, among them women working as kayayei. According to one informant engaged in this practice, some of the people starting the fires receive a payment either directly from retailers or from retailers’ associations, but other individuals, often retailers themselves or hawkers selling individual garments along the roadside, light the fires in an attempt to make space within the market to allow for more items to circulate through and to clean up what they know represents a mess for the city. We do not have reason to believe that any of the retailers’ associations in Kantamanto officially condone the burning, though we have not seen a significant effort made to stop it.

On a morning walk along the railway yard to the north of Kantamanto or to the south of the market near the intersection of Kantamanto Road and Hansen Road, you will find yourself dodging drifts of smoke from piles of clothes smouldering with the embers of the fire lit the night before. Set back from the street and from public view by walls or fences that provide the security to conduct an illegal act, these burn sites are common throughout the city, not just around Kantamanto. Without an engineered landfill to serve its capital city of over four million people, burning is a frequent waste management practice in Ghana.

One informant has indicated that while practitioners know burning is frowned upon for its detrimental impacts, he is more concerned with the consequences of having piles of unmanaged waste. For him, burning is a way to ensure that fashion’s waste filtering through Kantamanto does not cause the market to be shut down for unsanitary conditions. At least for the individuals who allowed us to interview them, burning is conducted out of necessity. They have nowhere else to take the waste. The waste is an immediate nuisance and burning gets rid of it, with negligible immediate financial cost. Burning waste in the areas immediately surrounding the market means that there is no fee to haul it to a dumpsite other than paying women working as kayayei to carry the clothes in sacks to the spots immediately surrounding the market, work that would have to be done regardless in order to haul the waste to other dumpsites further away. And there is no tipping fee charged for burning.

Both the AMA and the Ghana Police have the authority to fine people for burning, but rarely is there official intervention. Intervening in every open burn pile in Accra would require immense staffing.

With noxious fumes and gritty smoke, the effects of burning on the environment and on the health of people and animals throughout the market (and throughout Accra and Ghana more generally) are significant and warrant additional research. We have seen that winds blow ashes from the burn piles, but as the fires are usually conducted in areas where walls limit access, the ashes may be somewhat contained by these barriers. Burn piles, wherever they
are, are generally exposed to the rain. If the ground is impervious, rainfall sweeps ashes into gutters that drain into the ocean. If the ground is porous, rains dissolve ashes into the soil.

Walking through the railyard, smouldering clothes between the tracks is a common sight.

As the practice of burning around the market occurs in the cover of night and is conducted by a number of individuals acting outside of any sanctioned channel, exact numbers may be nearly impossible to determine, but from observation and interviews, we believe that tens of thousands of garments and shoes are burned on a daily basis. We draw particular attention to shoes because often in the smouldering mass of fashion waste shoes are all that is distinguishable. Generally piles of clothes are burned to ash. If the entire pile is not destroyed by a fire, more clothes are added to it the next day and it is set ablaze again.

3) Unsanctioned Open Dumpsites

The majority of what is not burned on site or hauled away to a sanctioned dump site under the auspices of the AMA is dumped in informal, open dumpsites that generally operate outside of any governmental mandate.

A dumpsite might be a ditch on the side of the road, it might be the Odaw River that runs through Accra behind Kantamanto Market, it might be along a beach that no one seems to
own on the way outside of Accra, it might be a gutter intended to drain the street, or it might be the mazelike settlement of Old Fadama. We believe that Old Fadama and the site 70m to the west of it across the Odaw River is the largest unsanctioned dump for clothing waste leaving Kantamanto. These dumpsites and their widespread impact have so far been the largest focal point for our work to examine the impacts of fashion’s waste. The consequences of the informal, unsanctioned, open dumpsites are varied, complex and far reaching.

Layers of secondhand clothing waste at the Old Fadama dumpsite mixed in with plastic bags, styrofoam and other waste.

Practices for waste dumping outside of officially sanctioned channels vary widely. Some sites may be managed by individuals who live nearby. Some sites may take advantage of land disputes or neglected areas where there is no clear authority. Clothes may be head-carried or moved via a pushcart to locations near Kantamanto, such as Old Fadama, where the dumpsite sits less than a mile away from the back of the market. Or clothes may be driven in a motorized tricycle both near and far. Unlike burning in the immediate vicinity of Kantamanto, clothes dumped at sites throughout the city are not necessarily burned when they are dumped, but they sometimes are. Through countless conversations and interviews across more than five years, we have heard people talk about dumping clothes at sea and digging clothes into the sand. Neither of these methods have we been able to verify, but we have not been able to rule them out either.
Pushcarts regularly carry waste to the road and to dumpsites. Most people working as pushcart operators do so on a for-hire basis. Notably the pushcarts cannot navigate through the narrow, uneven and crowded lanes of Kantamanto, leaving women working as kayayei to perform the job of head carrying loads into and out of the market. (R) Clothing and plastic waste that were likely pulled from a clogged gutter near the importer side of Kantamanto are loaded onto a tricycle to be dumped elsewhere.

Some tricycles do carry waste to the municipally sanctioned dumpsites, such as Adepa or Kpone, while other tricycles dump their loads across the Odaw River from Old Fadama or anywhere they can gain access without paying a fee. Tricycles serve as a relatively inexpensive and quick means of hauling materials, waste or otherwise. Some tricycle operators work as dedicated waste haulers, while many drivers operate on a for-hire basis, carrying whatever load will pay.

Clothing waste dumped informally is often done so outside of the polyvinyl woven sacks that are used to transport garments throughout the market. Sometimes women working as kayayei may use their ubiquitous pan atop their heads to hold clothing waste. Or bags, whether head carried or hauled on a push cart or tricycle, may be untied and emptied so as to be reused.

Having been discarded in the market aisle, clothing is typically intermingled with other waste, dirt and sand. Often the baling wires are present amid piles of clothes at a dumpsite or in the ocean, serving as a clear indicator that the clothing originated in a bale in Kantamanto. With varying practices taking shape in an extra-legal grey area, there is no practical way to count the exact number of items handled through unsanctioned dumping, but we believe that at least tens of thousands of garments are dumped on a daily basis and that hundreds of...
individuals are involved in the process, including women working as kayayei or waste pickers who may be paid around $1 per load to head carry items to a dumpsite.

Not only are clothes dumped, but in some cases they are burned. Whether the dumpsite is in Old Fadama or on the side of a road, the principle is the same – just as burning directly outside Kantamanto makes space for more clothes, so too does burning the informal dumps. The impact of this burning is significant, especially where dumpsites are closer to homes and where ash and smoke are less contained by walls obscuring the burning. As clothing and other waste are dumped widely around the city and burning is common, it is likely unfeasible to isolate the impact of burning strictly clothing within the broader landscape of Accra, but it is well documented that respiratory disease is a major cause of death in Accra, and members of The Or Foundation team have developed asthma since working closely in the environment.

The greenhouse gas emissions from burning waste are unknown, but we believe warrant cause for concern. Vehicular emissions within the growing city of Accra that suffers from notoriously congested traffic are an additional factor in any effort to isolate and quantify the exact impact of burning clothing waste. Notably, emissions standards for vehicles in Ghana are generally not enforced, contributing to the overall smog. The city’s location along the coast provides a consistent south westerly wind moving smoke, haze and ash inland.

Other pollutants and waste are mixed with clothing waste, either in the collection process or in the dumping process. Without consistently running potable water, nearly all water is consumed in bottles or water sachets, leaving prolific plastic waste throughout Accra and at nearly every dumpsite. Old Fadama specifically sits near numerous other markets. A large food market, a timber market, a scrap metal market surround Old Fadama to the north and west and send their waste to the dumpsite as well. There are also reports of timber shavings being dumped directly in the river. The area across the Odaw River to the north east of Old Fadama was the site of the largest e-waste dump in West Africa, commonly known as Agbogbloshie, where thousands of individuals salvaged precious metals by burning rubber and plastic off of wires. The site was demolished in July of 2021 by government authorities and is now an extension of the overall dumpsite. Since the destruction of Agbogbloshie, some people engaged in e-waste salvaging, who had been displaced from their place of work, have shifted their operations in a smaller scale to the Old Fadama dumpsite and into their homes. As many e-waste items that would have previously been taken to Agbogbloshie no longer have a designated area where they are scrapped, we have recently seen electronics, from TVs to refrigerators dumped atop piles of clothing at the Old Fadama dumpsite.
Since the destruction of Agbogbloshie e-waste dumpsite, we believe the dumpsite at Old Fadama has seen an increase in items like TV's and refrigerators, and that salvage operations for copper and other metals used in electronics components have increased, though not nearly to the extent of the previous operations that were conducted 150 meters north-west across the Odaw River in the Agbogbloshie e-waste dump. E-waste salvage operations typically involve burning as seen in the photo above.

In Old Fadama and throughout other dumpsites as well, animals graze atop piles of waste. Cows are most prevalent at the Old Fadama dumpsite, but we have also seen goats and chickens at the dump and throughout the settlement. The animals are raised for food. Meat and eggs are found in many diets in Ghana. There is scarce information about the impacts of waste grazing and smoke inhalation on these animals and the people who eat them, but we believe this presents a health concern.
The image captured by drone shows cows grazing atop the Old Fadama Dumpsite, the proximity to houses and waste items falling into the Odaw River. Also evident is that the side of the dump has been burned in an effort to contain it and to prevent the entire dump from falling into the river.

Leachate from dumpsites is a significant concern, particularly at the dumpsites of Old Fadama, where active dumping spans across several acres on the east side of the Odaw River (and waste underlies many of the structures across the settlement of roughly 90 acres) and dozens of acres on the west of the Odaw River with no leachate catchment system. While a partial dam constructed as part of the failed Korle Lagoon Ecological Restoration Project in the early 2000’s technically separates the Odaw River from the Korle Lagoon, water flows through the dam into the lagoon and onward to the ocean, carrying with it whatever contaminants may be present and any clothing that may have been swept off the dumpsites and into the water after rains, or by animals grazing, or by the unstable nature of the dumpsite where items can freely fall. Near the mouth of the Korle Lagoon the Jamestown Fishing Harbour serves as the largest fishing village in Accra. This harbor is currently being completely rebuilt as part of a Chinese government-led project with one of its stated goals being to “prevent the influx of floating debris from the Odaw / Korle systems (AMA, 2021).”
The above transect (cropped and compressed for display) created by combining over 50 images shows (part of) one flyover pass of our drone flying at 100m in altitude across Old Fadama. In total over 40 passes were made and over 2000 photos taken, yielding what we believe to be the highest resolution aerial imagery of Old Fadama available. The combined image was brightened slightly to adjust for exposure across the constituent images. The photos were taken the day after a heavy rain in October of 2021, as such water color change is visible. The black water to the left (west) is more typical of the water along this part of the Odaw River, its tributaries and the Korle Lagoon when rain is not a factor. The brown water to the right (east) shows surface runoff water moving mud and silt. The Korle Lagoon and the Odaw river are dredged with some frequency, though there is not a clear solution for the materials dredged up, which we have seen left on the side of the banks.

Looking north along the Odaw River from the defunct dam that bridges the water where the river meets the Korle Lagoon, thick layers of waste create floating surfaces on which plants take root and people can be seen walking.
When not on fire or deeply embedded in the layers of the Old Fadama dumpsite, dumped clothing frequently enters the open gutter system. While some garments may have been deliberately tossed in the gutter and others may have been carried there by a heavy rain, the results are the same. Not only do clothes clog the gutters, contributing to flooding and water borne illnesses (Accra’s cholera outbreak of 2014 has been attributed in large part to waste clogging gutters), clothes are also swept out to sea.

A man cleans a clogged gutter in Accra. Typical across the city and throughout Ghana, the gutters work as half pipes to either side of the road and are frequently used as dumping grounds.

Accra’s gutters were designed to serve as storm drains to help carry the water from tropical deluges out of the city and to the ocean, but without a functioning sewer system in many parts of town, the gutters also serve as the de facto sewer for many of Accra’s residents. Bottles, cans, styrofoam food containers, water sachets, plastic bags, broken flip-flops and clothing are among the many things that are carried through the city’s gutter system along with human sewage, paint from construction sites, oil from leaking vehicles and stormwater runoff. Aside from emptying into the Odaw River and Korle Lagoon, two of the main gutter outlets in Accra are behind the Centre for National Culture, more commonly known as the Accra Arts Centre, and within meters to the east of Fort Christiansborg, more commonly known as the Osu Castle.
The Accra Arts Centre not only serves as a hub for artists and antiques traders, but also is home to thousands of residents across the informal settlements behind and around the center. Osu Castle was used by successive colonial regimes as a slave trading fort and seat of power, and until recently as the office of the president of Ghana. In 2020 we extracted over 600 garments from the 12 meter section of beach directly below what served as the Door of No Return. On the other side of the gutter from Osu Castle is the fishing village of Osu, where thousands of people live and at least hundreds of people fish the waters off the coast for both personal and commercial purposes.

Fish is a common food in Accra and along the coast of Ghana. In April of 2021 Ghana experienced a large fish kill. No official report has traced the exact cause of the fish kill. Conflicting information was published at the time stating that the fish were safe to eat, that the event was a natural occurrence and not a cause for alarm, but that people should avoid eating the fish and could be fined or imprisoned if caught selling them. We took water and tissue samples to be analyzed by scientists at the University of Ghana Ecological Lab. The fish tissue samples collected next to the Osu Castle showed high levels of cadmium and cobalt and copper, well above normal levels. Water samples from next to the Osu Castle showed low levels of available oxygen (below 3mg/L) and high chemical oxygen demand (above 840 mg/L). This data does not indicate any point of origin for the underlying conditions, but it does indicate a hostile aquatic environment.

In October of 2021 The Or Foundation organized a team of community beach monitors to report weekly on textile waste along seven kilometers of beach in Accra. The primary focus of the team has been to document clothing tentacles, the tangled masses of clothes that are surfing in the ocean break and washing ashore on beaches along Ghana’s coast.

We recruited and paid nine beach monitors and two project coordinators from marginalized coastal communities in Accra. Each member of the monitoring team selected a segment of beach to visit and document each week, reporting on the number of distinguishable tangled masses and any other developments, such as construction or waste collection practices that they observed. We provided the team with yard sticks to photograph alongside the tentacles in order to offer a consistent relative size for perspective in photographs.

In some cases individual tentacles were not distinguishable because large masses spanned for dozens of meters across the beach. In other instances tentacles were spotted too far out to sea and an accurate count could not be provided. The team did not report on individual garments found along the beach, notes of these garments were made, but numerically we only tracked tangled masses of multiple garments. Reports have been submitted via WhatsApp messenger along with photo documentation every Friday since late October, with the exception of Christmas Eve. We aim to continue and expand the beach monitoring effort.

The team reported 454 individual tentacles between the week of October 17th and the week of January 9th. We are confident that this number is below the actual count because of the
large, indistinguishable masses noted above and due to several missed reports caused by sickness as well as government interference, which we will detail below. The numbers also do not include any count of tentacles or textiles under the water that were not clearly visible and accessible from the beach. Team members did not submerge in the water to perform counts. Only tentacles at or above the water line were counted. We strongly suspect that there are significant numbers of clothing masses and individual garments along the ocean floor.

The team records the count for tentacles that are new, or have not been spotted previously. Some of these tangles may have been present prior to being reported, but with tides changing, rainfall and other factors shifting sand they were not counted by our monitoring team until they are spotted. Based on an average of 38 new tentacles reported weekly, mathematically over five new tangles are washing ashore on every kilometer of beach along our seven mile reporting zone every week, or roughly one new tangle every 185 meters, with many previously reported tentacles still present or in some cases washed out to sea or buried in the sand.
But the tentacles are not distributed evenly across the reporting area or across time. Nor are the tentacles uniform in size from 1 meter to over 10 meters long and of varying depths. Weighing the masses would deliver a more accurate estimate of the total number of items washing ashore but this is not feasible, nor does it seem an appropriate use of resources at this time.

Representative photos of images submitted by The Or Foundation Community Beach Monitoring Team in weekly reports tracking clothing tentacles. While some tangles sit on the surface of the beach or ride in the surf of the water, other tangles are deeply embedded into the sand, either because of tidal movements or because they are buried by local community members in an attempt to clean them up. In our experience, once embedded in the sand they are impossible to remove without heavy machinery.
Following our hypothesis that secondhand clothing waste is washed through the gutters into the sea, significantly more tentacles were reported to the east of the gutter outlet behind the Accra Arts Centre than any other area of the beach. This gutter outlets on the beach 1100 meters from the eastern edge of Kantamanto Market, and we believe that many of the gutters around Kantamanto feed into the larger outlet gutter that flows onto the beach. We also noted that the area of beach directly behind one of Ghana’s most prominent sites for fanfare and tourism reported a seemingly low number of tangles. We strongly believe this is due to regular government sponsored beach cleanups. We have previously spoken with both local and central government administrative staff responsible for this area, but we have not yet been able to communicate the findings of our beach monitoring efforts or investigate further, though we plan to do so.

The geographic distribution of tentacles shows that they have spread throughout Accra with the greatest prevalence reported alongside the gutter outlet nearest to Kantamanto. We know these numbers are not inclusive of all tangles for reasons previously noted. The area closest to Korle Lagoon where 36 tangles were reported is significantly underreported because the heavy waste in that area and to the west beyond Jamestown Harbor is essentially impossible to distinctly count.

The temporal distribution also points toward the validity of our hypothesis that rain water brings more tentacles to the beach as clothing waste is flushed through the gutter system, which, as previously noted, has been widely reported by informants in the area. That said, the data we have collected thus far lacks sufficient information to correlate this trend directly to rainwater. We have only been able to plot this based on the temporal change of seasons into the dryer harmattan season. We also are aware that fewer new tentacles may be reported as our team has spotted all of the previously existing tentacles, thus influencing results.

Moreover to that end, the first week, with 106 individual tentacles reported, should not be included in the trend because all tentacles in the first week were considered ‘new.’ Excluding
the first week from our analysis we track a Pearson correlation coefficient of -0.39, indicating a medium inverse correlation between the number of tentacles and the number of weeks of reporting moving deeper into the dry climatic season without rainfall.

We intend to continue this reporting and add rainfall monitoring points to track data as the seasons change.

A possible correlation between rainfall and tentacles washing ashore is evident as our reporting moved further into the dry season. This may point in the direction of our hypothesis and the anecdotal evidence of nearly every informant we have spoken to on the matter. We plan to continue to track ocean textile tentacles and to monitor rainfall accumulation across time.

Cleaning up ocean textile tentacles is in many cases nearly impossible. Heavy with sand and water, one shirt alone can be difficult for one individual to move. While each tentacle is different, a typical tentacle two meters in length may include over 100 items mangled by the sea. In our experience such a tentacle would require several people to move, that is if it is not embedded in the sand. If a tentacle is embedded in the sand we believe that extracting it requires an excavator machine to dig down and around. Running this heavy equipment on the beach near the water is in itself a challenge and presents several concerns of secondary impacts. And without sufficient landfill capacity, there currently is nowhere for these tentacles to go. Because they are so damp they can be difficult to burn. In the initial surveys we conducted as part of our ongoing work designing and implementing community beach surveys to gauge the community impact of ocean textiles, we heard from survey participants that burying tentacles deeper in the sand is the most common method of attempting to clean them up. Communities do not have other options.
A shirt we recovered under a rock in the water by Osu Castle had become a bed for algae growth.

Needless to say, the impacts of open dumping and all that it entails are enormous, likely extending beyond any scale of comprehensive measurement. A man working as a fisherman has told us that he almost drowned when his net caught on heavy, water-logged clothing waste and it nearly pulled his small boat under. Informants organizing beach cleanups have told us that they are deeply concerned for the fate of sea turtles that hatch along the beach. Our grant partner at the University of Ghana has reported that initial findings from another
study indicate that micro-fibers from textiles appear in surprisingly high numbers in water miles away from central Accra. There are many avenues for continued research and community activations, and within this research there is perhaps the strongest call to change behaviors in order to address the root causes of fashion’s waste crisis.

4) Burning to Heat Water
Aside from the previous methods listed, we are aware that some bath houses in Old Fadama collect textile waste to burn in order to heat water for bathing. We have not been able to document this practice in full, but several informants have spoken with us about it and a member of our team who lives in Old Fadama has witnessed it more than once. We believe that in general scrap collectors focus on seamstress’ and tailors’ off-cuttings, as these strips are pre-cut and smaller than whole garments, and therefore easier to burn in compact, controlled fires. We believe that this represents no more than several hundred to thousands of items on a daily basis and that tens of people are involved in the practice, but we have not yet been able to verify this.

We also know that scraps, off-cuttings and sawdust from the timber market south west of Kantamanto and directly adjacent to Old Fadama are used to heat hot water and to cook. This practice remains a point of investigation for continued research and possible community activation.

5) Scavenged
Hundreds to thousands of items are picked over every day in the market after being tossed in the aisles as waste. Individuals may try to sell some of the best items if they are in need of money or they may wear the items if they are in need of clothes. In some cases people may come to pick through waste before it leaves the market in order to collect materials to take to rural villages or to give to children living as orphans.

From the perspective of continued value and continued use these items are no longer waste, but from the Kantamanto retailer these items are valueless. The practice holds an important place socially because there is a consciousness among retailers that if they can’t sell something maybe someone else will find value in it. But these waste piles from which individuals pick off a few pieces are the same piles that eventually are swept up and carried out of the market as waste via any of the other methods detailed within this report.

We believe that hundreds of people are involved in picking individual pieces off of the waste piles on a daily basis, but that the people scavenging are not always the same. An individual may come to the market one day out of desperation, or a woman working as a kayayo may see a garment that she could use before she fills a sack with the rest of the pile to carry off the waste to a dumpsite.
A man picks through waste items at the end of the day in Kantamanto, finding garments that he will likely try to sell in order to survive.

6) Industrial Rags
Limited mostly to cotton t-shirts, some retailers’ waste is used as industrial rags for cleaning machinery and other tasks. We believe that at most tens of people are involved with collecting material for rags. Generally this is done on a weekly basis amounting to hundreds of items a day or thousands of items in total over the course of a week. The rag collectors may pay a small fee to retailers to offset the cost of storage and as a token for the materials, but the shirts are sold at a significant loss and would otherwise be hauled away as waste. Though there are likely instances of rags being washed for reuse, the rags themselves are generally considered low value to be used until dirty and then thrown away, following waste pathways previously identified.

Cotton is the preferred material because of its absorbent properties. We have heard from retailers that rag collection is dwindling because increasingly prevalent polyester and blended materials do not work as well for rags, so some people who have historically
collected from Kantamanto are now importing new cotton rags from elsewhere as they can no longer reliable source 100% cotton shirts.

The Range of Pathways

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Approx. Range of Daily Garments</th>
<th>Approx. % of Waste Stream</th>
<th>Approx. Range of People Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official Waste Hauling</td>
<td>250,000 - 450,000 Garments</td>
<td>59-75%</td>
<td>Hundreds (including those who collect and bring to road)</td>
</tr>
<tr>
<td>Burning Around Kantamanto</td>
<td>40,000-150,000 Garments</td>
<td>12-19%</td>
<td>Hundreds</td>
</tr>
<tr>
<td>Open Dumping</td>
<td>40,000-150,000 Garments</td>
<td>12-19%</td>
<td>Hundreds</td>
</tr>
<tr>
<td>Burning to Heat Water</td>
<td>500-5,000</td>
<td>&lt;1%</td>
<td>Tens</td>
</tr>
<tr>
<td>Scavenged</td>
<td>250-5000</td>
<td>&lt;1%</td>
<td>Hundreds</td>
</tr>
<tr>
<td>Industrial Rags</td>
<td>100-500</td>
<td>&lt;1%</td>
<td>Tens</td>
</tr>
</tbody>
</table>

The ranges of garments and individuals involved in the six waste pathways we have identified in this report and summarized in the table above remain areas of ongoing research. COVID-19 has impacted the market, individuals working within it and the flow of materials in ways that continue to evolve. We also know that some materials leave importers directly as waste, both from in-country sorting and from unsold bales, in addition to the previously noted audited destructions, but we have not been able to secure a reliable estimate of the total quantity of garments leaving the market ecosystem as waste directly from importers. We believe that waste from importers follows the same pathways described, but the quantity of garments involved would likely impact the ranges and percentages of total waste stream that we have calculated. We have presented this information in broad ranges because waste within the market and the practices to manage it fluctuate regularly, and because calculating every garment or kilogram of clothing leaving the market as waste is unfeasible given the size of the market and the fact that activities such as open burning and dumping are technically illicit, so many individuals are not keen for their work to be disclosed.

The Informal Economy and Colonial Legacies

Kantamanto Market operates within what is considered the informal economy. By definition there is not a singular descriptor of the informal economy, though generally VAT tax and social security are not collected, often there are not employment contracts with regular

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Design for Decomposition

56 | 68
Waste Landscape Report
salaries, generally there are not regulatory agencies governing working conditions. This generally means that individuals participating in the informal economy do not have the same types of government sanctioned economic safety nets, but it does not mean that there are not community organized social safety nets for individuals to support one another in times of hardship. In fact, the Kpone Waste Pickers Association, whose members salvage metals and plastics at the open dumpsite at Kpone (and previously from the engineered Kpone Landfill), is highly organized, with members paying dues into a community insurance scheme and benefitting from lessons on workplace safety and other support. The several retailers associations within Kantamanto aim to perform similar functions, but we have not seen them work as effectively as the Kpone Waste Pickers Association.

Nearly 90% of all employment in Ghana is considered informal. The organization WIEGO published an extensive report on jobs across the informal sector in Ghana that we have included in our reference section (Baah-Boateng and Vanek, 2021). Government sanctioned waste management operates within a grey area of the informal economy and the formal, government sanctioned economy. For instance, Zoomlion may employ individuals directly with the contracts and taxes that formal, documented employer-employee relationships entail, but Zoomlion also relies on informal actors within Kantamanto Market to haul waste to the road and informal waste pickers at dumpsites to salvage recyclable plastic and metal materials.

There is also an important distinction between informal and formal economies in terms of the government bodies that oversee markets and purported development initiatives throughout Ghana.

As a legacy of colonial governance structures, all informal markets are governed by municipal agencies, while formal businesses that pay VAT, import taxes and social security generally fall under the authority of the Ghana Central Government. There is grey area between these classifications, but in general the overall result is that importation duties paid by secondhand clothing importers are not directly made available to the AMA as funds to support Kantamanto Market. However, Central government funds are used to invest in waste management more generally. For instance, in June of 2021, Ghana’s president announced the commissioning of 126 waste and sanitation vehicles for Zoomlion to receive through public-private partnership (Ato Dapatem, 2021). There is also a controversial legislative proposal currently being debated in Parliament for the central government to directly tax mobile money transactions that drive many of the financial transactions of the informal economy (Dzawu, 2021).

**Waste Stream Segregation**

We have witnessed multiple trucks with the universal chasing arrow recycling symbol and depictions of segregated plastic waste entering recycling streams being dumped as unsorted waste at the Kpone dumpsite.
This follows numerous accounts by informants that waste segregation at the household level has been a failure largely because people don’t believe that waste management companies will maintain the segregated waste streams. Zoomlion announced in 2019 that it would launch a multi-million dollar waste sorting facility to attempt to sort the materials that it collects with the primary goal being to separate plastic from food waste in order to capture inputs for plastics recycling and for fertilizer (Takouleu, 2019). This facility is now open, though several of our informants have voiced concerns that it is not operating as planned. We have not been able to validate these concerns. We are not aware of any work underway to specifically divert or collect textiles within this waste stream.

Existing Solutions and Unequal Investments

Outside of our work as an organization (beyond the scope of this report), there is scarce investment in textile waste management solutions. The largest scale efforts occur within the market itself to reuse as many items as possible through resale, repairing, and upcycling efforts, thus keeping them out of the waste stream to begin with. The value of this work cannot be overstated. In a country of roughly 32 million people, Kantamanto Market alone is able to recirculate around six million items or more every week. This does not include the number of items recirculated by auxiliary markets that receive unopened bales diverted from Kantamanto at the time of offloading from the shipping containers.

What leaves Kantamanto Market as waste does so largely because there is simply too much clothing, and not because people are not working hard to manage it. Any eye toward viable, long-term, solutions must be grounded in this fact. By nearly any other measure, recirculating six million items of clothing every week is an astonishing feat, exceeding in four months the volume that multi-billion dollar platforms like ThredUp have recirculated in 10 years (ThredUp, 2020).

Many estimates, including officially sanctioned government reports that we have reviewed, place the total number of people who have created jobs for themselves working in the Kantamanto ecosystem at around 30,000. Including all of the retailers, retail assistants, importers, importers’ agents and assistants, individual hawkers, kayayei, remanufacturing jobs, storage shed jobs, cleaners, cooks, cell phone credit vendors and so on, we believe that this number is likely as accurate as any estimate can be within the informal sector. Were Kantamanto a consolidated company it would be comparable in terms of the size of its workforce to Texas Instruments or the Union Pacific Corporation, both Fortune 200 companies.

There are also countless individuals, stylists and brands in Ghana sourcing materials from Kantamanto for their businesses outside of the immediate market ecosystem. An example of this is The Slum Studio, an art-based fashion project upcycling otherwise wasted bed linens from Kantamanto and advocating issues of waste colonialism and for women working as Kayayei with an audience and customer base in Ghana and internationally.
Within the market almost every small business operator is self-financed or is leveraging personal debt with importers or from any one of the multitude of banks that lend to market traders, generally with interest rates exceeding 30% APR. This method of micro-financing may be celebrated in certain contexts, and for some traders, tailors and seamstresses in Kantamanto it has served them well, but for many others it has created a deep debt trap. Overcoming debt is a challenge identified by nearly every retailer we have interviewed. Some retailers have described frequently going without food in order to service a loan to buy bales of clothing that individuals in the Global North may have given away for free believing that the garments would go to a good cause.

After a market fire destroyed 200 stalls of retailers and tailors in Kantamanto along with over US $250,000 of merchandise and equipment (calculated through our relief effort), many of the individuals impacted have since developed different business models, now striving to operate debt free. As an organization we provided US $120 grants to nearly every small business owner who lost a stall or merchandise in the fire. In follow up interviews that we have conducted, the fire victims and grant recipients have noted that they are focusing on only buying more items to sell when they know they can afford to do so in cash, as opposed to their previous practice which amounted to essentially gambling on the next bale with debt. Building on our relationships with leaders amongst the retailers and tailors impacted by the fire, we have begun a No More Fast Fashion Ambassador Program to extend these conversations around business planning more widely across the market.

Outside of Kantamanto we are in contact with an entrepreneur working to migrate a shoddy manufacturing operation from China to Ghana. As of January, 2022 this facility is still in the planning stages and is not yet operational. We have also shared our research with a group of young entrepreneurs who are in the nascent stage of exploration into opportunities to grow their college project into a business for home-based textile collection, the majority of which is secondhand clothing purchased through the Kantamanto market ecosystem, as discussed below.

While there has so far been limited funding around textile waste management from international aid groups, there are a number of plastic and e-waste oriented efforts with significant funding, mostly sourced from international aid and foreign investment. We are in contact with many of these efforts. A 2021 report by the Global Environment Facility titled “Establishing a circular economy framework for the plastics sector in Ghana” tracks US $82,000,000 of active investment in both not-for-profit and for-profit initiatives focused on plastics collection and recycling. This effort is needed. While secondhand clothing waste is a singular focus point with Kantamanto Market serving as the largest secondhand clothing market in the world, plastic waste is a significant socio-ecological issue in Ghana as well as many other countries with many similar impacts as clothing waste.
A dog sifts through waste on the beach looking for food scraps that may have washed up amidst the bottles, water sachets, plastic bags and textiles. Without potable running water throughout much of the city, bottled water and water sachets are the only reliable source of clean drinking water for the vast majority of people living in Accra. Often these bottles follow the same path as secondhand clothing waste through the open gutters and into the ocean.

To the south west of Old Fadama, across the Korle Lagoon sit the remains of numerous failed waste management and clean up efforts. The most visually prominent of these efforts is the “Corkscrew” which was installed in the early 2000s as part of a US $93Million project financed by international aid groups called the Korle Lagoon Ecological Restoration Project. From the accounts we have been able to gather, the “Corkscrew” was intended to pull waste out of the water where the Odaw River meets the Korle Lagoon, but it did not work and instead has sat dormant, rusted and defunct for nearly two decades. The dam that was built to capture waste to feed the corkscrew is now used today as a footbridge for people dangerously passing from one side of the Lagoon to the other in order to enter or exit Old Fadama. Meanwhile informal businesses with minimal financing collect and shred plastic waste to try to sell to bottle companies and international recyclers.
(L) The defunct corkscrew project that is widely regarded as a waste of money. (R) A community plastics shredding operation, built and operated within the informal Galloway metal market directly adjacent to Kantamanto, is an indicator of community members taking on the work themselves to clean up what they can and salvage value through small businesses.

A major challenge identified through our interviews and conversations with several of the leaders working on plastics and e-waste recycling efforts in Ghana is that without a value added process in Ghana, the collection, sorting, storage, shipping and preparation of materials struggles to take shape under ethical conditions due to global price pressures for raw materials. We are already seeing these same trends applied to the development of a global circular textiles economy.

Even though some materials may be salvaged, the socio-economic conditions of resource extraction set the stage for workplace injuries and continued exploitation.

**Growing Household Textile Waste**

Beyond Kantamanto’s waste stream, we are concerned with the growing stream of household textile waste. For many Ghanaians the cheap clothing passing through Kantamanto has altered their relationship with fashion and is challenging the well documented Ghanaian traditions of legacy textiles passed down for generations. Informants with municipal agencies and with waste pickers associations have communicated to us that they have seen an increase in clothing and shoes ending up in dumps from sources other than Kantamanto. We have observed this too.

This should not be interpreted as a suggestion that Kantamanto’s waste stream is lessening, rather that household waste streams are increasing alongside Kantamanto’s continued waste stream. Nor should this come as a surprise. Just as people in the Global North cycle
clothes out of their closets, creating much of the supply of secondhand clothing in the first place, so too do people in Ghana. Under the pressure of the selection process, debt and the constant flow of new containers arriving at port with items from the Global North, Kantamanto sits within the landscape of the global fashion cycle. With hundreds of millions of items a year in a country of 32 million people, the clothes that Ghanaians are buying from Kantamanto must go somewhere. But there is nowhere else for those items to go other than the pathways we have already identified, flooding the system from two sides: with what is never sold and leaves the market as waste, and with what is sold and eventually leaves homes as waste.

Increasing Attention and Increasing Pressure

In the past two years our organization has fielded numerous emails and calls from groups interested in extracting secondhand clothing waste from Ghana, transporting it to Europe, Asia or North America, and turning it into fibers for new clothing through technological processes. The assumption is that waste is free and should not cost anything to collect, sort, clean, store, package and load on containers again. The assumption is that people in Ghana should be happy with any job even if it pays less than US $2/day and even if it entails literally back-breaking labor. This assumption is wrong and dangerous, and regardless of the intentions of the individuals reaching out, this assumption grows from a legacy of colonialism and supremacy.

Meanwhile, no one has called or emailed us interested in cleaning up the environmental damage or supporting the communities who are already actively engaged in the largest reuse economy in the world.

In nearly every conversation we’ve ever been a part of with people in the Global North regarding the manifestation of fashion’s waste crisis in Accra, someone has asked, “why doesn’t Ghana just ban secondhand clothing imports.” But no one has ever asked us “why doesn’t the US or Europe ban secondhand clothing exports?” No one has ever asked us, “why doesn’t the US or Europe ban the importation of new clothing?”

These colonial and supremacist attitudes and assumptions are part of the waste landscape. So too are the evolving attitudes and assumptions within Ghana.

Accra is among the fastest growing cities in the world and the city does not have sufficient waste management infrastructure for its own domestically produced waste streams, let alone imported waste. The city’s population has more than doubled in ten years. Its consumption levels have increased drastically as well. Driven by foreign tourists, the discovery of oil off the coast, a burgeoning creative class with access to digital tools and high-speed internet, foreign investment in malls, restaurants, car dealerships, hotels and condominiums, the city is rapidly changing, but Accra’s underlying infrastructure cannot keep up. Expensive buildings in the central business district of Accra lack clean running water, and so do the poorest neighborhoods. Private water trucks are common across the city, regardless of the
neighborhood income bracket. It is also just as common to see burn piles in median strips along major interchanges across from glass wall buildings and new malls as it is in informal settlements. Among the legacies of colonialism is the stark divide between investment for commercial enterprise and investment for public infrastructure.

Within this landscape there is a growing conversation in Ghana about banning secondhand clothing. Several senior government officials have indicated that they would like to see secondhand clothing banned if a solution for the waste cannot be found within the next two years. The argument of one official is a simple question “at what point do the costs exceed the benefits?” Within this landscape there is also the tangible possibility of waste being used as a mechanism for displacement, fodder for the rhetoric that would be used to remove the very people who are trying their best to manage the waste. Nearly every retailer in Kantamanto has expressed concern about the market being demolished. We know from a reliable confidential source that the market fire mentioned previously in this report that destroyed 200 stalls was started by a real estate developer seeking to displace people in order to claim the land. Nearly every resident of Old Fadama expresses concern that the settlement will be demolished. And these concerns are not without cause. Hundreds of houses have been bulldozed over the past two years, including during the COVID-19 lockdowns in 2020. In total thousands of houses in Old Fadama have been bulldozed and rebuilt over the last two decades. And coastal communities are concerned too. Our beach monitoring team was not able to access sections of the beach during the December, 2021 holiday season as certain beach sites were being shown to international tourists as investment sites for future beach front condominiums. Police instructed our team to leave.

Several of the media reports in which our organization has been featured have contributed to the fetshization of waste. The media may be interested in telling more climate stories and journalists may have the best intentions, but the old rules still apply – they want drama, they want tragedy, they want pollution porn, and the audience is always outside. It is extractive and ineffective. This is the opposite of our intention and why we as an organization dedicate no more than 10% of our budget (financial, spiritual & time) to “educating” people outside of Ghana. Despite our efforts and insistence to highlight the work of the thousands of people remanufacturing clothes in Kantamanto, to show the informal economies salvaging value out of secondhand clothes and other materials, and to investigate fashion cycles in the Global North, the media teams that have come Kantamanto tend to edit out these parts of our interviews. We’ve seen journalists ask for more clothing piles to be lit on fire in order to make their camera shots look more dramatic. We’ve heard producers talk about young women working as kayayei in conditions of slavery as “talent” and “camera pleasing.” We’ve pulled out of productions and we’ve lodged official complaints with broadcast houses, generally to no avail.

This colonial tendency to infotain the Global North instead of empowering the Global South is part of the waste landscape. This aversion to nuance amid the commercialization of information is also part of the waste landscape.
The nuance is that amidst all of the waste, which it did not create, Kantamanto Market is the largest reuse hub that we know of anywhere in the world. As billions of dollars are invested into resale platforms across the Global North, the patterns of remanufacture and resale that have clothed tens of millions of people across West Africa for decades may be the guiding light to a new fashion economy free of waste. We don’t write this report from a position of impartiality. As an organization it is this nuance we are engaged in. We hope to see Kantamanto flourish as this guiding light within Ghana and around the world, but we are also aware of how distant that horizon is within the landscape in front of us.

The blunt violence of centuries of fashion built on excess and exploitation, built on robbing people from their homes, trafficking people across an ocean, splitting people from their families at auction, whipping people to pick cotton faster and now sending the waste of the industry back to the same city where that cycle began over two hundred years ago is where the historical landscape meets that of the future. A landscape where a pair of Levi’s jeans with the text written in their pocket “Please Donate When No Longer Needed” sits atop the dumpsite at Old Fadama after being passed over in Kantamanto just as a Levi’s store opens at the Accra Mall.

(L) A pair of Levi’s jeans that we found at the Old Fadama dumpsite reads “Created by Levi Strause & Co in 1873 it has become an American tradition, symbolizing the vitality of the West to people all over the world...PLEASE DONATE WHEN NO LONGER NEEDED.” These secondhand jeans left Kantamanto as waste. (R) A franchised Levi’s store that recently opened in one of Accra’s many new malls showcases the “American tradition” of new jeans to a growing consumer class.
A Manufactured Crisis

Although it’s not the goal of this report to attribute intention, we doubt that the person working at Levi’s who decided to make jeans with “Please Donate When No Longer Needed” written on them intends to do harm. Just like we don’t believe someone shopping for a new pair of jeans at the Levi’s store at the mall intends for a retailer in Kantamanto to slip further into debt. Just like we don’t believe someone dropping off an item of clothing in a collection bin intends for it to wash up in a tangled mass on a beach in Accra after being carried to an open dumpsite by a 16 year old girl who has sustained permanent, life threatening spinal deterioration from the heavy loads of clothing she carries day in and day out.

But the best intentions don’t just go awry by themselves. Fashion waste exists in Ghana because we have manufactured a crisis. We have decided that a garment is no longer fashionable, costing us everything because we have made clothing that costs nothing. We produce excess, slash prices, replace what we never really wanted with more of the same and we pass on the burden to someone else. The reality of the waste landscape is that homes are bulldozed, businesses are burned, a mall is built in their place, more clothing is produced than anyone knows what to do with, and we are poisoned by our own desires. Someone makes these decisions. We all do. They add up.

At the end of the line, when all of Kantamanto’s decomposers have taken their turn salvaging what they can, there is nowhere else for the clothing to go. The race to the bottom ends the way we knew it would, clothing tentacles littered across Accra’s beaches and washing into people’s homes as the sea spits it back out over and over and over again. Our natural systems are polluted with the uniforms of belonging, the signals of individual virtue, the commodities of conformity.

It is often said that “waste is only waste when you waste it”. While this is a quaint sentiment, it ignores the ecological, socio-economic, mental, industrial and historical waste landscapes we have detailed in this report.

Waste is waste when it has lost social capital, when it costs resale platforms money to mend it, when it costs a Kantamanto retailer more money to store it than it is worth, when it costs us time in the water looking for fish, when it costs us clean air to breath, when it costs us a place to call home.

The Or Foundation
Design for Decomposition

Waste Landscape Report
Methods and Selected References

This report is written from experience. As an organization we have conducted first-hand, primary research in Kantamanto since 2016, bringing into our research the knowledge we have gained from operating as an organization in Ghana and within sustainable fashion for over a decade. In addition to the specific methods mentioned throughout the report, we have conducted hundreds of formal and informal interviews within Ghana and internationally, spent thousands of hours in Kantamanto Market and surrounding areas as participant observers, hosted numerous community dialogue sessions, implemented hundreds of surveys with multiple survey instruments, sorted thousands of garments, ridden with waste trucks, and reviewed confidential government and trade association documents along with national archive records. Our team and our partners include people who have worked as kayayei, people who have sold secondhand clothing, and people who work as waste pickers. We are actively engaged in fostering solidarity among members of the Kantamanto ecosystem and the global fashion industry, and in developing solutions for fashion’s waste crisis. This report has been compiled with the financial support of The Biomimicry Institute as part of the Design for Decomposition project, and is published under a Creative Commons Attribution Share-Alike license by The Or Foundation as the original author. We believe the information and images in this report belong to the communities who are represented within it and we ask that any commercial use of the primary source information within this report be complemented with a contribution to the Secondhand Solidarity Fund accessible via https://solidarity.theor.org.

To amplify our first-hand research and experience we have made use of a broad array of resources throughout our work. A selection of particularly relevant resources, including those specifically cited within this report, is included below:


## Appendix - Waste Composition

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<th>Fiber Type or Characteristic</th>
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<th>Percentage</th>
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### Fiber Type or Characteristic

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<td>100% Nylon</td>
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<tr>
<td>100% Wool</td>
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</tr>
<tr>
<td>100% Lyocell</td>
<td>2</td>
</tr>
<tr>
<td>80% Polyester 20% Cotton</td>
<td>28</td>
</tr>
<tr>
<td>70% Polyester 30% Cotton</td>
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</tr>
<tr>
<td>60% Poly 41% Cotton</td>
<td>86</td>
</tr>
<tr>
<td>50% Poly / 50% Cotton</td>
<td>58</td>
</tr>
<tr>
<td>80% Cotton / 20% Polyester</td>
<td>28</td>
</tr>
<tr>
<td>70% Cotton / 30% Polyester</td>
<td>17</td>
</tr>
<tr>
<td>60% Cotton / 40% Polyester</td>
<td>79</td>
</tr>
<tr>
<td>90-98% Polyester 2-8% Spandex</td>
<td>103</td>
</tr>
<tr>
<td>Multi Piece Garment / trim or embellishment</td>
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</tr>
<tr>
<td>Partial Garment / fabric</td>
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</tr>
<tr>
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<td>Unknown / Guess Cotton</td>
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</tr>
<tr>
<td>Unknown / Guess Silk</td>
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</tr>
<tr>
<td>Unknown / Guess Polyester</td>
<td>103</td>
</tr>
<tr>
<td>Unknown / Guess Other Synthetic</td>
<td>156</td>
</tr>
<tr>
<td>Donation / Thrift Store / Hang Tag</td>
<td>80</td>
</tr>
<tr>
<td>Original Retail Store / Hang Tag</td>
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</tr>
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