Phantasmagoria: Between Waste and Ritual

by

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Dalhousie University is located in Mi'kmaq'i,
the ancestral and unceded territory of the Mi'kmaq.
We are all Treaty people.

For my parents.

Contents

Abstract

This thesis centres the idea of *waste* as a socially produced characteristic not inherent to material objects, but rather, created through ambiguity and their inability to be assimilated into existing social, cultural, and physical structures of the city. The occlusion of waste from those who create it manifests as phenomena where this ambiguous matter is negatively redistributed across various spatial and temporal scales, making it someone, someplace, or some other time's problem. If the abject nature of waste is socially produced, can it be socialized through design into a productive actor, sparing the planet and our future-selves the burden of its consequences? Architecturally, the thesis speculates on how the adaptive reuse of a decommissioned waste incinerator in Montréal, Québec, can re-interpret a city's relationship with *waste* using notions of phantasmagoric spectacle and ritual performance, affording critical perspectives and new meanings to the matter of *waste*, its processing, and its associated infrastructure.

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Chapter 1: Introduction

> *Frankenstein* foresees that it is not the case that we have failed to care for Creation, but that we have failed to *care* for *our own* creations. We blame the monster, not the creator [...] our iniquity is not that we created our technologies, but that we have *failed to love and care for them*. It is as if we decided that we were unable to follow through with the education of our children. (Latour 2011, 20)

Problem 1: Waste's Crisis of Perception

Words and Waste

Waste comes from the Latin *vastus*, meaning unoccupied or desolate, which is akin to the Latin *vanus*, meaning empty of vain, and to the Sanskrit word for wanting or deficient (*OED* 2024). In *Wasting Away*, Kevin Lynch illustrates a cross-sectional study of waste through various cultures, putting emphasis on the panoply of meanings the term display's. Based on these early derivatives, waste can be understood to have originally signified something empty, barren, useless, and potentially yearning for a new purpose (Lynch and Southworth 1990, 132). Overtime, cultures have nuanced the term to serve their specific needs; this has generated a collection of words circling a similar idea— trash, garbage, dross, scrap, rubbish, debris, junk, leftovers, refuse. However varied the descriptors are, waste is most often regarded as physical matter which has undergone some process of devaluation — decay, demolition, death, obsolescence (Cairns and Jacobs 2014, 7).

> For waste, it is impossible to keep fates of *matter* and fates of *mattering* apart, together, they lay the basis for the idioms of endings. (Cairns and Jacobs 2014, 17)

The vocabulary for describing waste continues to expanded, however, the ways in which people perceive themselves within the complex of waste continues to be a taboo and abject topic of inquiry. Waste theorists Stephen Cairns and Jane M. Jacobs stress that when discussing the notion of waste, developing a literacy for understanding how people contribute to its production — both socially and physically — is critical to seeking a sustainable attitude towards what waste is and how it can be managed.

Society and Scrap

The relationship between people and waste is typically clouded by feelings of abjection. Waste theorist Julia Kristeva describes this relationship as a social and psychological process by which things such as garbage, sewage, corpses, and rotting food "elicit powerful emotional responses like horror and disgust" (Kristeva 1982, 15). In her seminal text *Purity and Danger*, Mary Douglas offers insight into the mechanism at play behind this feeling of abjection, writing that this feeling towards waste is not an inherent characteristic of the material, but rather, it is produced through ambiguity and its "inability to be assimilated into existing socio-cultural categories and systems" (Douglas 1966, 77). It can be surmised that the methods in which a city manages its waste, along with the associated built infrastructure which supports these methods, have an effect on how waste is perceived by the city's inhabitants. This raises the question, if the abject nature of waste is socially produced, can waste and its associated objects, processes, and places be socialized into acceptance?

SWEEP G. PAPA   SPRING, 1965

✕ clean
  urbanism

✕ urban waste
  management

✕ individual

✕ sanitation
  engineers

DEPARTMENT OF SANITATION
THE CITY OF NEW YORK

✕ household
  waste

Imagination: Society and Scrap — Demonstrating how the occluded methods in which a city manages its waste, along with the associated built infrastructure which supports these methods, have an effect on how waste is perceived by the city's inhabitants.

Problem 2: Waste's Spatial Fragmentation

"Burn-it, Bury-it, or Send it on a Caribbean Cruise"

The effects of waste as a destructive phenomenon are well documented both in literature and mainstream media. The "burn-it, bury-it, or send it on a Caribbean cruise" mentality dominating much of the Global North's modern-waste-ideology conjures up the comfortable yet insidious illusion that waste is under control (Ghosn and Jazairy 2015, 68). However, the mechanism governing the relationship between people, waste, and the planet is, at best, one of deferral. Waste, its causes, and its consequences are difficult to detangle because of the immense mental, physical, and temporal scales on which they operate. This entanglement manifests in the planetary movement and trading of waste, often making it someone, someplace, or some other time's problem (Kara, Villoria, and Georgoulias 2017, 57–63). This denies the society which created the waste the opportunity to imagine new ways of living with, interpreting, and managing their collective refuse.

Territory of Trash

Mary Douglas adds to our understanding of how negative connotations towards waste are produced, this time through a spatial dimension. She describes waste as "matter-out-of-place," existing as something which moves beyond the boundaries of social order and whose containment "reaffirms the purity of what remains without" (Douglas 1966, 42). This reveals another mechanism for how we can interpret waste*;* it becomes important to examine how waste flows among cities, territories, and the planet. Developing this literacy can offer useful insights into past, present, and possible future relationships with waste, the environment, and one another.
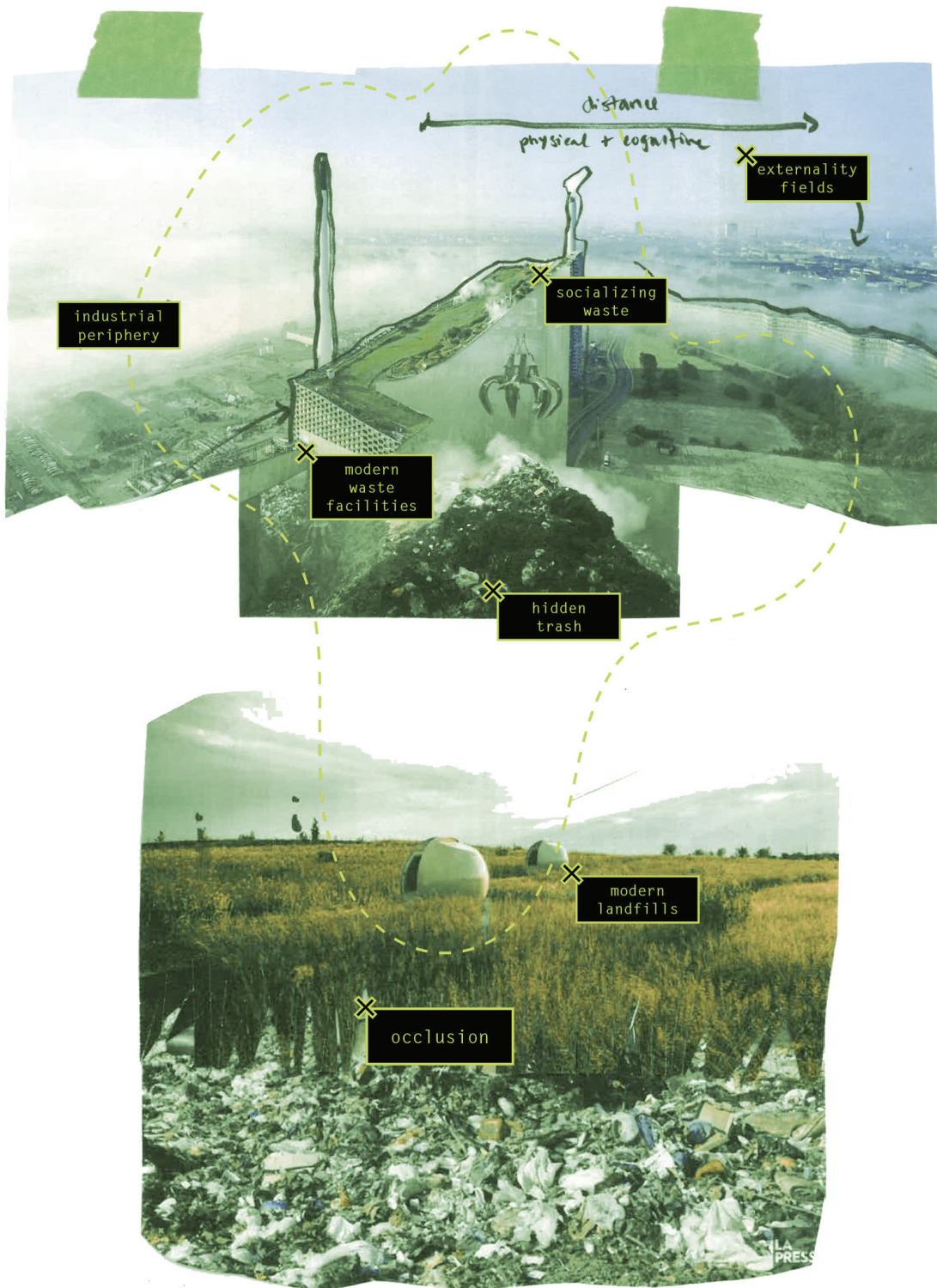
Imagination: Territory and Trash — It becomes important to examine how waste flows among cities, landscapes, territories, and the planet.

Often, urban analysis does not address the geographies over which negative effects of urban systems like waste management, energy production, food cultivation, and water purification, extend beyond the city (Ghosn and Jazairy 2015, 1). These systems form what David Harvey refers to as the "externality field," a zone which is invisible to a city's inhabitants, but remains vitally important to the support of human settlement (Harvey 2009, 48). While the illusion of a clean city is maintained within urban boundaries, the notion of "clean urbanism" has rested on a city's capacity to divest itself of the environmental costs of a rapidly expanding consumer culture (Ghosn and Jazairy 2018, 71). Cities continuously externalize the consequences of deferring their waste to the scale of the region, territory, planet, and beyond. As Lynch contends,

> the filthy cities of history, which sat in a clear countryside, are succeeded by clean cities encircled at some distance by their wastes (Lynch and Southworth 1990, 27).

Planetary Pollution

As both verb and noun, waste increasingly dominates natural, social, and urban environments. Historians now define the Anthropocene as a threshold in natural history which is inseparable from the creation of waste that has accompanied its rise (Riebeling 2022, 319–339). The image of waste in the modern world is clearly illustrated — beached whales with distended stomach's around impassable masses of human pollution, constellations of waste standing as remote and unoccupied islands in the middle of oceans, cosmic traffic jams of satellite debris orbiting Earth (Ghosn and Jazairy 2015, 68-81). These images throughout history are increasing in frequency and the message behind them stays the same, "we live, we die, the trash remains" (Riebeling 2022, 319–339). The
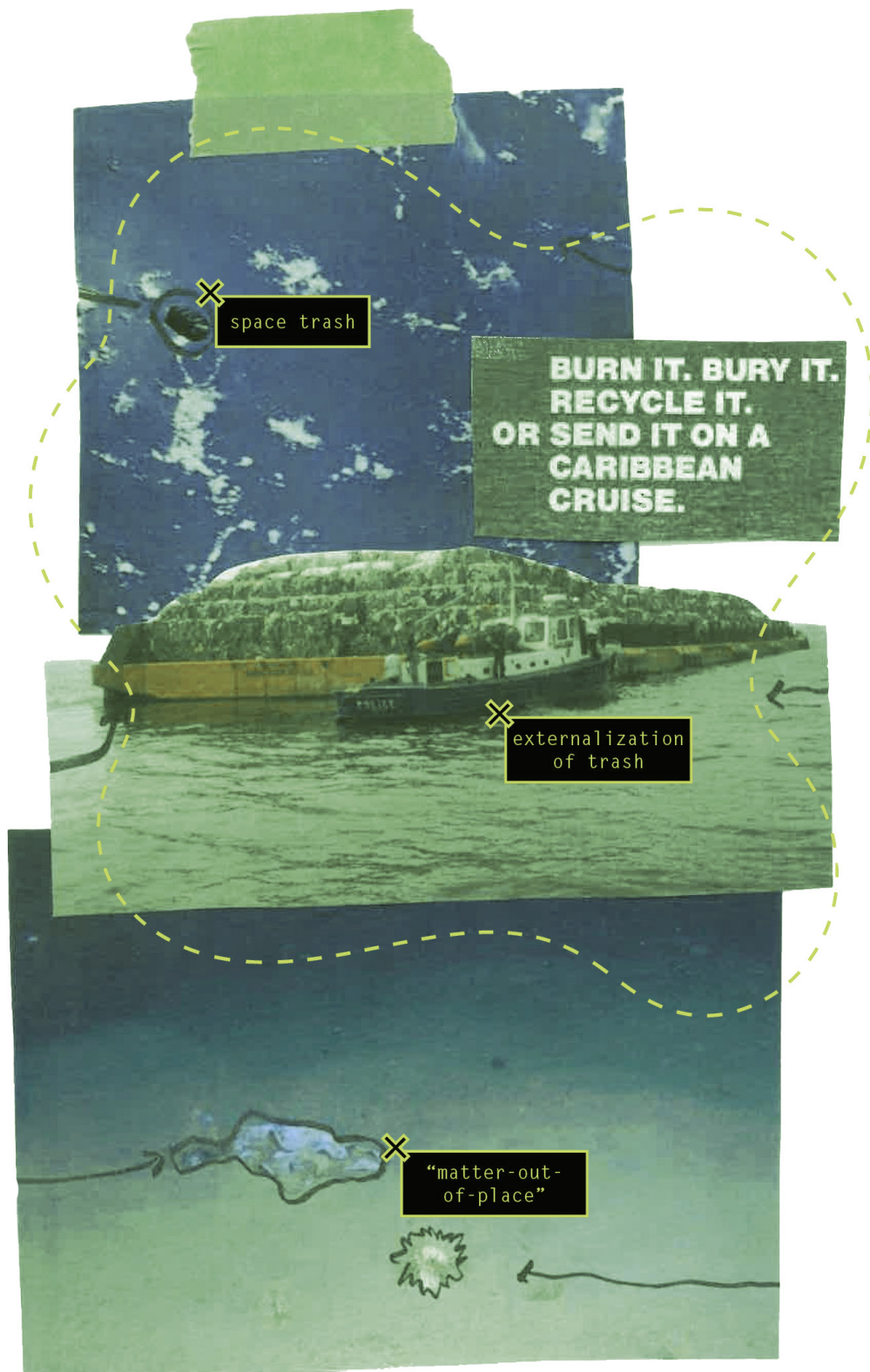
Imagination: Planetary and Pollution — The "Wasteocene" marks an epoch where waste deposits are left for imagined futures to resolve, permanently altering human and non-human ecologies.

"Wasteocene" marks an epoch where waste deposits are left for imagined futures to resolve, permanently altering human and non-human ecologies (Hird 2013, 105–124). Counteracting the permanence of waste, firstly, means identifying *us* as a problem and, secondly, answering to the reality of the image of waste created by prior generations.

Context

From Canada to Montréal

As demonstrated in this chapter, the conceptual boundaries on waste are vast and can be experienced across scales — mentally, physically, spatially, temporally, materially — moving from the individual to the cosmos. The physical volume of waste is a growing problem around the globe with 2.01 billion tonnes of solid waste generated every year. While high-income countries account for only 16% of the world's population, they generate 34% of the world's waste and unfortunately, Canadians produce the most waste per person (Bush 2024). It is hardly surprising that the more populous provinces produce the most waste in Canada. In 2022, Ontario produced 10,085,613 metric tonnes of waste; Québec was second with 5,563,136 metric tonnes; Alberta was third with 4,118,081 metric tonnes (Government of Canada n.d.). The city of Montréal, in the province of Québec is at the same time one of Canada's oldest cities, having been established in 1642, and historically the most populated urban centre. This intersection of population and history makes the city unique for studying the changing attitudes towards urban waste as it holds over 300 years worth of waste management practices hidden within its land. Evidence of this history linger across the city; something as traces beneath the surface of the earth, and sometimes as

explicitly as remediated landfills, open-pit quarries, and abandoned waste-incinerators.

Research Question

The thesis asks: how can the re-design of an abandoned waste incinerator in Montréal's borough of Rosemont redefine how the physical matter and the cultural matter(ing) of waste are viewed and interpreted by the city's inhabitants.
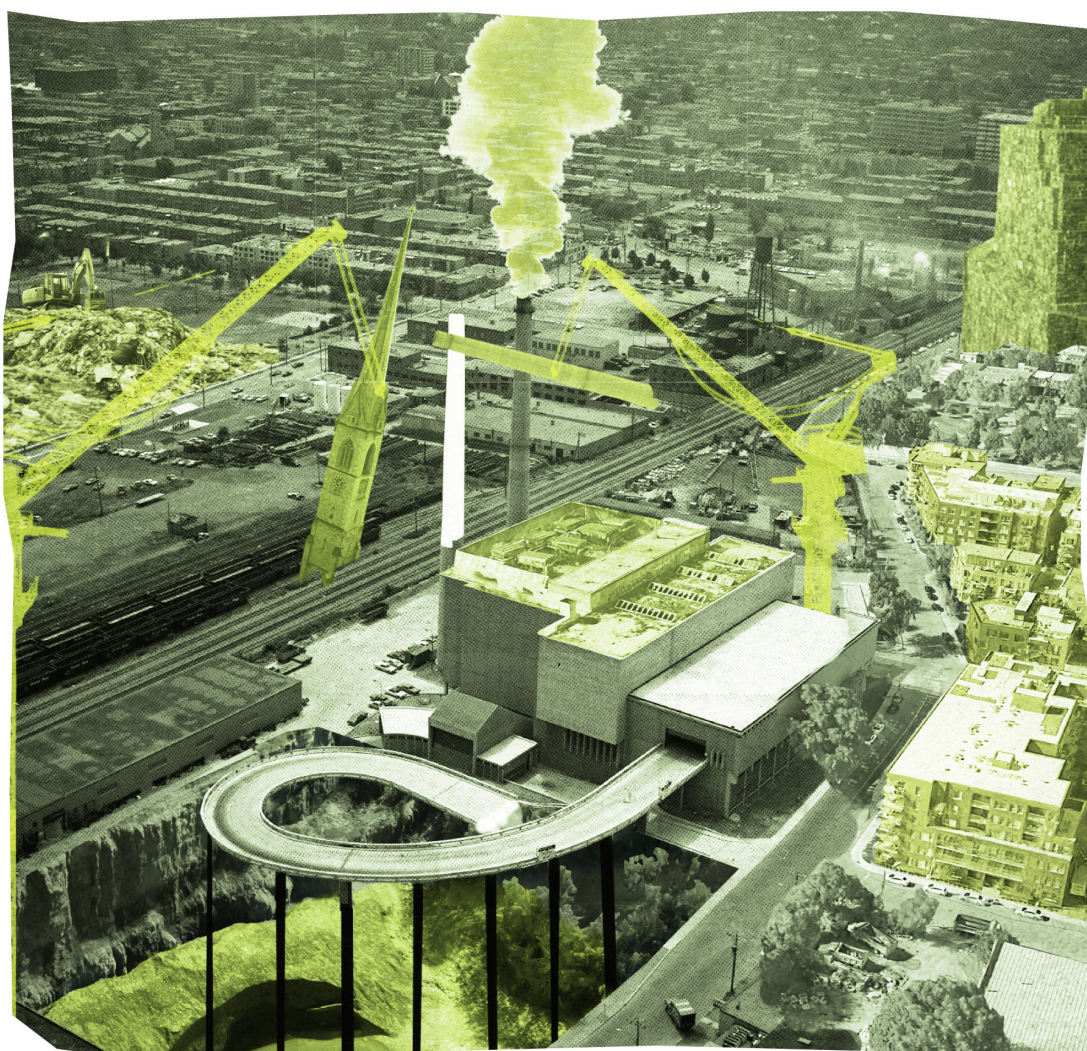
Imagination: Waste in Montreal — Using the site of an abandoned waste incinerator on the island of Montréal, the thesis interprets the past, present, and future of waste management narratives, considering how people, places, processes, and objects can combine to produce a productive view of waste.

Chapter 2: Theory

Phantasmagoria: Another Way for Seeing

Phantasmagoria — Definition

Etymologically*, phantasmagoria* is said to have originated from the French word *phantasmagorie*, a compound of two Ancient Greek words *φάντασμα — phántasma or "ghost"* — and *αγορά — agorá or "assembly, gathering"* — with the suffix *-ia*, or *ἀγορεύω — agoreúō, "to speak publicly"* (*OED* 2024). Long before large art exhibitions and blockbuster shows, crowds were awed by traveling shows called *phantasmagoria* in which familiar scenes and stories were performed with the use of magic lanterns and rear projections to create dancing shadows and frightening theatrical effects (Meier 2013). These lively, interactive events incorporated storytelling, history, and theater in a single art form that entertained while providing a space for thinking about the
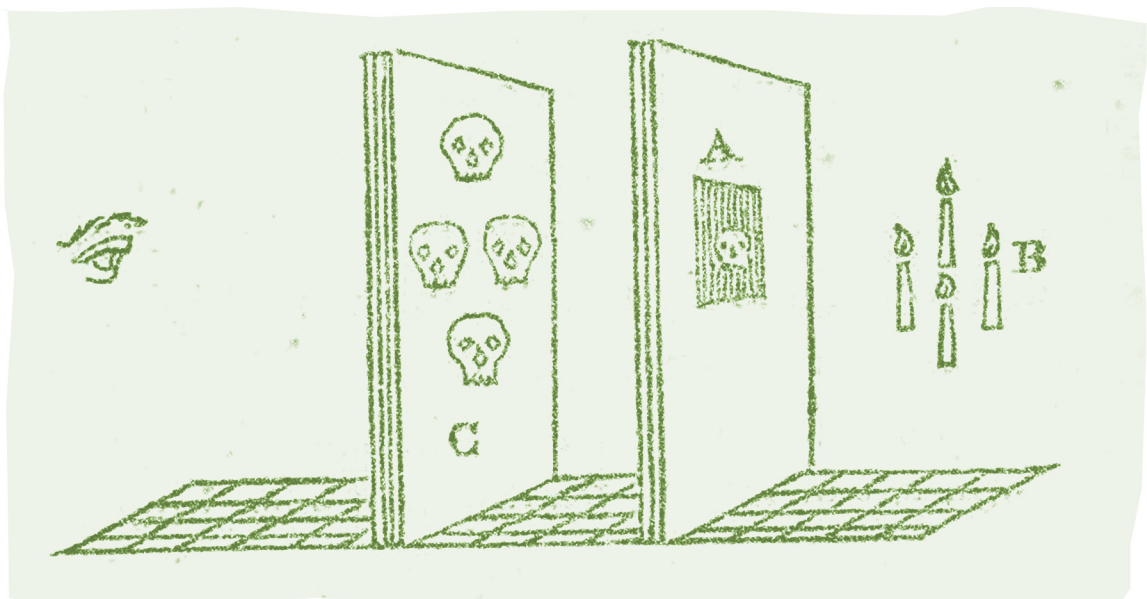
Information: Illustration demonstrating the components of a phantasmagorical scene; "magic lantern" or "*phantascope*" used to reproduced ghostly images of antagonistic figures on translucent screens as a form of entertainment (Meier 2013).

Une Scène de fantasmagorie, d'après Moreau.

Information: The original *phantasmagoria* were theatrical thrill rides, equal parts haunted house, communal séance and intense dream. Shadows were used to allude to death, the obscure, and the unnameable, and to construct allegories of loss and disappearance (Meier 2013).

otherworldly—playing with the viewers' anxieties regarding the unknown, death, and the afterlife.

Phantasmagoria — Between Spectacle and Critique

The idea of *phantasmagoria* has evolved throughout history, taking on a variety of connotations. Initially, *phantasmagoria* was used to describe a specific genre of public spectacle which used a *phantoscope* to project ghostly images onto screens with the intention of frightening audiences; these events emerged at the turn of the French Revolution and were said to have been useful devices for "exorcising the demons of the post-Revolution unease" overwhelming the

consciousness of the French public at the time (Meier 2013).
Fascinated with this notion, German philosopher, Walter
Benjamin, transformed the concept of *phantasmagoria* in
his unfinished *Das Passagen-Werk*, or *The Arcades Project,*
into an allegorical critique for his experiences with 19th
century Paris, emphasizing their often surreal, commodified,
and technologically mediated interfaces. In her book *The
Dialectics of Seeing*, Susan Buck-Morss writes about how
phantasmagoria served Benjamin as a *polylogue* between
nature, technology, and humanity, highlighting the spectacle
of modern progress and its associated crisis of perception,
overly mechanized urban experience, and commodity fetish
(Buck-Morss 1991, 23). Benjamin writes,

> the first technology really sought to master nature, whereas
> the second aims rather at an interplay between nature
> and humanity. The primary social function of art today is to
> rehearse that interplay (Auerback 2007).
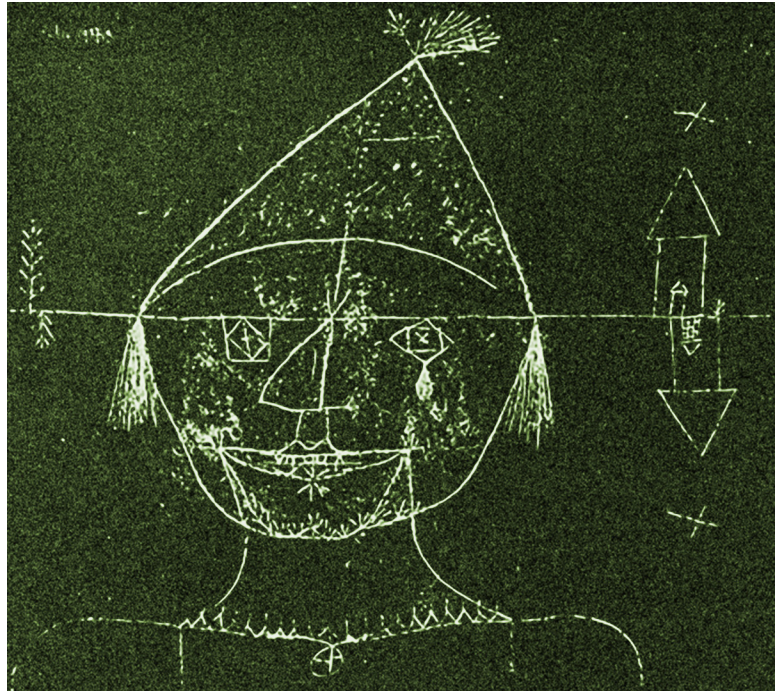
Imagination: Benjamin's version of *Denkbild*, suggesting that
perception is not fixed, but rather, it exists as a transitory
phenomenon, able to be reinterpreted over and over again
(Auerbach 2007).

Returning to the *Dialectics of Seeing*, Susan Buck-Morss interprets the "dialectical image" through fragments of incomplete text Benjamin left behind from his work on *The Arcades Project.* Buck-Morss, through Benjamin, construct an "invisible structure" using a coordinate system of "unfolding concepts at its 'extremes' which can be visualized as antithetical polarities of axes that cross each other, revealing a 'dialectical image' at the null point" (Buck-Morss 1991, 210). The generated field is used to demonstrate the contradictory "faces" engendered by a given subject when explored through the dialectics of "waking/dreaming" and "static/transitory" (Buck-Morss 1991, 211). The diagram operates as a sort of thought experiment, offering the viewer an opportunity to reconsider what is familiar to them.

waking

the fossil *the ruin*

petrified **dialectical image of** **transitory**

the phantasmagoria *the wish image*

dreaming
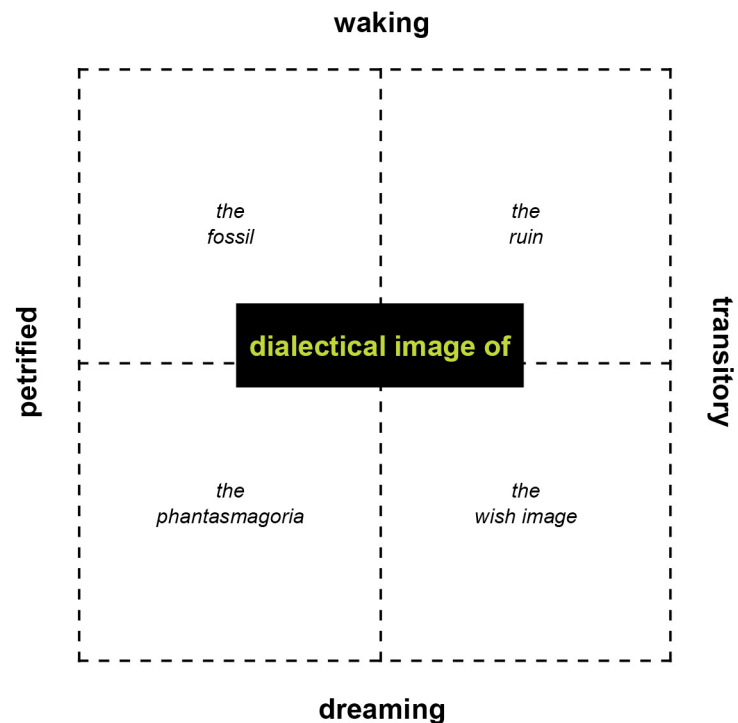
Information: The "dialectical image" diagram; representing the often invisible and contradictory "faces" of the subject placed at the centre of the antithetical poles (Buck-Morss 1991, 210).

Phantasmagoria — Applications to Waste

Phantasmagoria and the dialectical image are not static representations but dynamic and contradictory *montages* that capture the tensions and conflicts living within a given reality (Buck-Morss 1991, 18). Waste, often being classified as "matter-out-of-place," is negatively perceived by society at large, incapable of being assimilated into existing socio-cultural categories and systems (Douglas 1966, 77). This isolated image of waste as a destructive phenomenon, reinforced by images of ocean garbage patches, space trash, and suffocating turtles, corroborates society's wanting to be separate from it. However, waste, as something produced and interpreted by society, needs more than ever, the care and attention of society.

waking

× start .... start ×

*the
fossil* .... *the
ruin*

petrified .... **dialectical image of waste** .... **transitory**

*the
phantasmagoria* .... *the
wish image*

end .... end

dreaming
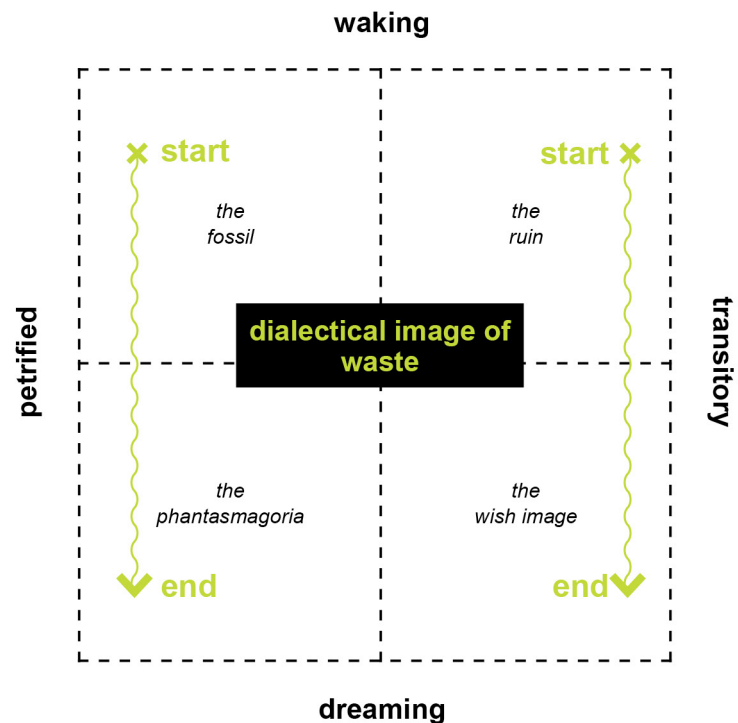
Imagination: Interpreting the "dialectical image" as a device for revealing alternative images of waste; using imagination (or the dream state), how can waste move beyond its petrified state, into a field where it can be engaged with? (Buck-Morss 1991, 210).

Altering perception is at the core of the dialectical image, and for Benjamin, *Phantasmagoria* and the *Wish Image* are politicized amalgams in which re-interpreted fragments can "interrupt the context into which they are inserted" (Buck-Morss 1991, 218–227). As devices for viewing things differently, *phantasmagoria* and the *wish image* are critical tools for demonstrating "an appreciation of the transience of things" and exemplifies how imagination allows for "petrified" or "ruinous" fragments to produce new meanings, rather than remaining static and singular (Buck-Morss 1991, 218–227). Benjamin suggests that it is possible to awaken the petrified "absent-minded" viewer through the spectacle qualities of *phantasmagoria*, thereby subverting the "viewer" into a position of "critic"; here, *phantasmagoria* can be used as a method for creating an experience where the 'absent-minded-dreamer' is able to critically examine their habits. For Benjamin, and for this thesis, *phantasmagoria* and the notion of spectacle are tools operating in support of social change; altering how society views and engages with the waste it produces (Buck-Morss 1991, 85–109).

Ritual: Another Way for Doing

Ritual — Definition

Seeing and doing can be interpreted as different things, and to re-approach the monolith of *waste*, it is useful to consider the object, process, and place of waste as distinct characters in the production of new meaning. How can the processing of waste be different? "Even to say it in one word, *ritual*, is asking for trouble" (Schechner 1993, 228). Similarly to waste, ritual has been variously defined across cultures, geographies, and time — as a concept, process, function, ideology, experience — to the point where it means very

little because it means too much. In his book *The Future of Ritual*, Richard Schechner surveys the literature around ritual and reveals common interpretations stemming from three nodes: (1) social (secular) ritual, (2) religious ritual, and (3) aesthetic ritual. These nodes go on to produce a myriad of activities to describe a common idea: rituals are productive activities which rely on a specific choreography of objects, actions, and actors (human or non-human) centered on a protagonist undergoing some form of transformation (Schechner 1993, 228–230).

Ritual — Between Props, People, Process, and Place

Although commonly interpreted through a lens of spirituality and religion, cultural anthropologist Victor Turner, guides us through the noise of ritual to reveal a generalized mechanism for resolving "social drama" through performance. Turner defines the "social drama" as "a sequence of social
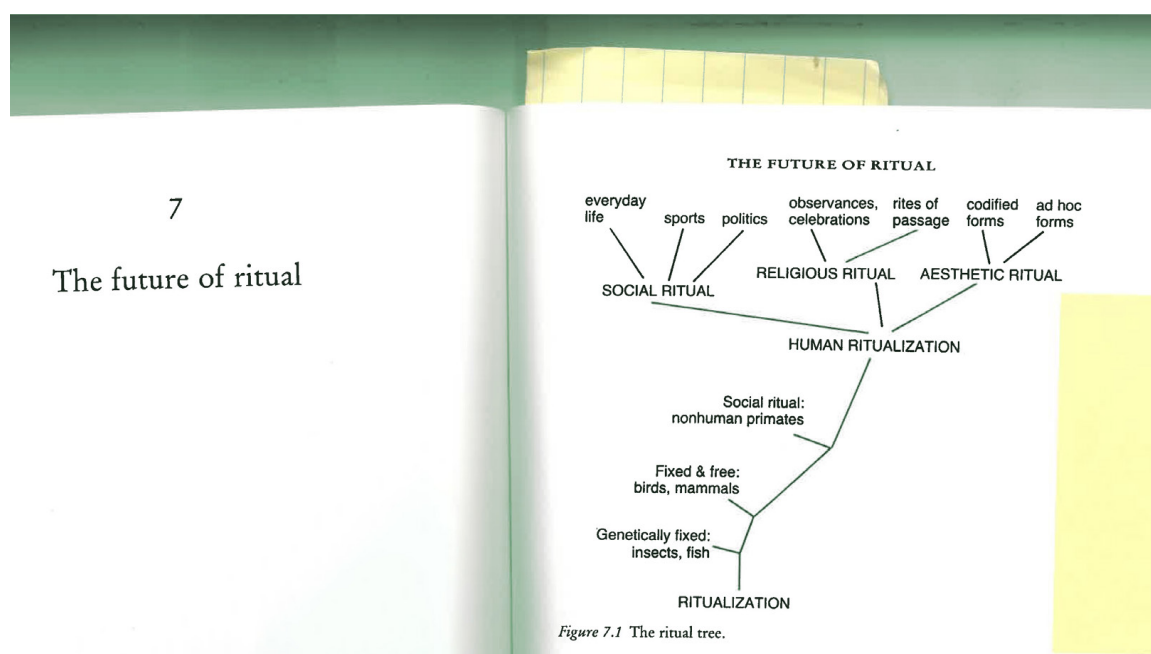
Information: Reproduction of Richard Schechner's "ritual tree" diagram; revealing the multiple faces of ritual, thereby moving the opportunity to interpret everyday life through ritual, particularly, the processing of waste (Schechner 1993, 228).

[society] $\longrightarrow$ **audience** **⦂** **actor** $\longleftarrow$ **[social drama]**

Imagination: Interpreting Richard Schechner's writing on the overlap between ritual and theatre through a diagram which reveals how actors, both human and non-human, play together to reveal invisible social structures.

interactions of a conflictive, competitive, or agonistic type" (Turner 1988, 33), and he delineates its stages as breach, crisis, and reintegration. More simply put, the social drama begins when a member of a social structure breaks a rule; repairs — formal or informal — are enacted; and if the repairs work, the group returns to normal, but if the repairs fail, the group breaks apart. These dramas can understood through *props*, *performances*, and *sets* — derived from *symbols, rituals,* and *fields* — to describe a type of choreography between human and non-human actors. Across different texts, Turner amends the vocabulary used to describe the mechanism for resolving "social drama," however a common tripartite structure emerges and the ritual, drama, or performance is always experienced in a processional form following these acts:

Act 1: Separation (Breach):

When a person or group becomes detached from an earlier fixed point in the social structure or from an earlier set of social conditions.

Act 2: Liminal (Crisis):

When the identity of the subject is ambiguous; no longer a part of the old state and has not yet reached the new state.

Act 3: Aggregation or (Re-Integration):

When the identity of the subject enters a new stable state; accepted by the social structure pending its on rights and responsibilities.

Together these acts work to revealing crucial social values and afford the opportunity for transforming human behaviour
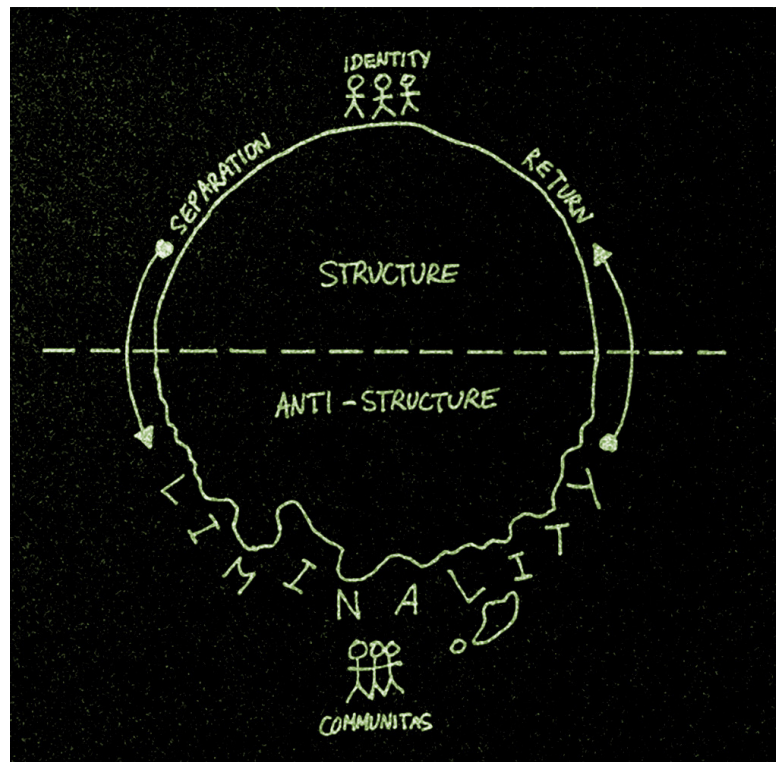
Imagination: Diagram demonstrating how subjects continuously reproduce identity and meaning as they break away from and rejoin social structure (Turner, Abrahams, and Harris 1969).

and attitudes (Turner, Abrahams, and Harris 1969, 12). What happens when the technical processing of waste is amended through the social dimensions of ritual?

Ritual — Application to Waste

The structure embedded within ritual is intended as a counterpoint to the conventional waste management schemes present in most Canadian cities — disposal, collection, processing, recovery, recycling, incineration, landfilling. These systems typically exists as linear processes; waste flows from high density cities to sprawling wastescapes (Muller 2016, 37). Most worrying, contemporary waste processes push waste matter into urban peripheries, thereby severing the relationship between the urban environment responsible for its creation and the functions that mitigate the outputs of everyday life. When applying *ritual* as a prefix to *waste* and *process*, it is possible to imagine a set of conditions where waste objects undergoing a transformation would be revered for embodying material and cultural value; the process itself would require those creating the waste to participate, either directly or indirectly, in the transformation; the places where this transformation occurs would overlap the space where waste is generated and where it is transformed.

[society] ⟶ audience ⠆ actor ⟵ [social drama]

[society] ⟶ waste object ⠆⠆ waste process ⟵ [social drama]

Imagination: Translating the framework established by Richard Schechner and Victor Turner regarding ritual performances to include waste characters; objects, processes, and places.

Theoretical Overview

Resting at the intersection between *phantasmagoria*, *ritual*, and *waste*, the theoretical dimensions of this thesis explore the architectural implications of entangling the shell of the discarded waste-incinerator with moments for viewing the interplay between society and waste-processing, thereby encouraging the contemplation of material afterlives, urban waste histories, and local material flows.

ritual
a transformation involving human and non-human actors; revealing crucial social and cultural value

phantasmagoria
critique for the surreal, commodified, and technologically mediated interfaces of modern society

spectacle & performance

transformative process

ambiguous specters

waste
physical matter having undergone some process of devaluation — decay, demolition, death, obsolescence

Imagination: Diagram representing the theoretical dimensions of the thesis and how they overlap.

Chapter 3: Between Waste and Ritual — Object

Waste Object: Matter

> According to the World Bank, from 2002 to 2012, global waste generation increased by almost 100 percent, from 0.68 billion tonnes to 1.3 billion tonnes per year, while urban populations increased by just 10 percent (Kara, Villoria, and Georgoulias 2017, 57-63).

Waste and Hierarchy

Not all waste is viewed or categorized equally. Waste exists in a hierarchy where value is predicated on how easily an object or material can be reintegrated into existing material streams, affording a new life as something reused or recycled. Organic matter is celebrated for its ability to be composted or anaerobically digested; plastics, paper, and metals dominate the recycling scene via effective public campaigns which employ the consumer — both willingly and unwillingly — as the labour force behind sorting and separation; combustible materials are on the rise as they are well suited for incineration and the production of electricity (Kara, Villoria, and Georgoulias 2017, 57–63). Still, in 2020, Canada diverted 27.5% of waste through the aforementioned processes, sending 72.5% of waste objects to the mass grave, *landfills* (Government of Canada n.d.). It is clear that there exists a genre of waste object which easily escapes diversion processes. These objects, composed of complex assemblies of metals, plastics, and/or organics, are incapable of being broken down easily into their constituent parts, resulting in what is known as "complex composite waste". This specific type of waste object is at odds with contemporary material recovery streams.

organic (simple)

inorganic/organic (simple)

inorganic/organic (composite)

Imagination: Waste Hierarchies — Not all waste is viewed or categorized equally. Waste exists in a hierarchy where value is predicated on how easily an object or material can be reintegrated into existing material streams, affording a new life as something reused or recycled.

The Material Drama of Moribund Waste

In their book *The Architecture of Waste,* authors Caroline O'Donnell and Dillon Pranger develop the notion of "*moribund waste*" — or dead waste — to represent a grey zone in modern waste management, marked by changes in the production standards of contemporary material goods. This sub-genre of waste is characterized by modes of mechanical fastening and chemical adhesion, which in many instances fuse layers of materials with glue, expanding foam, solder, screws and bolts, or sealant from which the layers cannot be easily detached or separated (O'Donnell and Pranger 2021, 32). "Cutting corners and moving fast" has become the tag line for "complex composite waste" as these objects prioritize the ease of production and fail to recognize the need for their (de)production. The majority of everyday household objects such as toys, shoes, leisure equipment, large and

Imagination: Moving between waste wholes and waste fragments (ARCH plus 2023).

small household appliances, and electronic devices make up the "moribund waste" category (O'Donnell and Pranger 2021, 31–35). In addition to household waste, construction, renovation, and demolition materials derived from the built environment can be incorporated into this category.

No one can argue that it is appropriate to be landfilling our planet's finite resources, which, just by the adoption of the waste hierarchy, would be prevented. Organic wastes are more advantageously composted and used as nutrients to improve the organic content of soils and it is clearly better to recover plastics and metals for recycling and reprocessing

Imagination: Moving between waste wholes and waste fragments (ARCH plus 2023).

for (re)use in the product manufacturing cycle. Designing processes which *moribund* waste as a material feedstock would (1) represent a step towards environmental protection by diverting additional matter from landfills, (2) encourage resource conservation, thereby reducing the demand on raw material extraction, and (3) stimulate context specific circular economies (Greedy 2016, 1–2)

Ritual Object: Matter(ing)

Beyond the technical implications of *moribund* waste representing a loss in energy, labour, and physical material, these objects embody social and cultural value. The ritual object stands as a counterpoint to the waste object, thereby expanding the scope on how we can assess value to include experiential qualities like memory, craft, and skill. In this way, it's not just about the waste object itself, but it's also about how that material came to be, the way it was put together, the logic of its assembly, and the role it played in everyday life. Objects like toys, shoes, leisure equipment, large and small household appliances, and electronic devices become entangled with memory, often spending a lot time with the people who used them, being integrated into personal rituals, and playing an important role as a non-human character in everyday lives. Is it then possible to invite reverence into the way these objects meet the end of a life cycle? The handling of ritual objects can, in a reflexive or contemplative way, expose their transformative power as they act upon and change the person's point of view.

Chapter 4: Between Waste and Ritual — Process

Waste Process: Transformation

The notion of waste management as a set of activities dictating the transformation — discarding, destroying, processing, recycling, reusing, or controlling — of material afterlives of human activity has been in play for as long as humans have been around. Here, the term transformation represents something purely technical and formal; often removed from the social and cultural conditions of its context.

Landfilling

The first recorded landfill was in the Cretan capital of Knossos in 1500 BCE where the Minoan people originated dump sites by placing waste in large pits covered with Earth. Fast forward to 500 BCE and the Athenians introduced institutionalized waste management as a governing principle; states were mandated to deposit waste at least one mile from the city, effectively banning the dumping of waste on city streets (Tammemagi 2000, 18–32). Far into the future, the Athenian practice of dumping waste into urban peripheries has grown alongside the economic booms of a developing world fueled by resource-intensive consumption and detrimental resource-to-waste conversion cycles. Often situated in remote locations next to forests, natural resources, and small communities, landfills threaten the health of the ecologies they occupy. Emitting greenhouse gases that account for 2 to 5 percent of North America's total emissions, landfills also pose significant health risks, and cause long term disruptions to their surrounding environments (Kara, Villoria, and Georgoulias 2017). While

the negative effects are largely documented and known, why are landfills so prominently featured across North American landscapes?

Money, not surprisingly, lies at the heart of the problem: the most polluting method of waste management is also the cheapest to implement and operate (Kara, Villoria, and Georgoulias 2017). Today, communities increasingly endeavor to introduce recycling, composting, and others community scaled programmes to facilitate resource recovery and help revitalize surrounding environments. With NIMBYism rampant, residents object precipitously to plans that site waste facilities — whether alternative systems or landfills — in their immediate surroundings. And why wouldn't they object? How can you trust something that you cannot see?

Incineration

Incineration first emerged in the 19th century in response to the industrialization and urbanization processes that were reshaping the built environments of Europe, but the technology drew attention from the emerging classes of sanitary engineers in North America by the turn of the 20th century. The incinerator, like any technique for solid waste management, brought together technical and social systems in a particular way, opening the doors for a range of "social dramas" over incineration's ecological, political, economic, and cultural issues in the municipalities where there were proposed, debated, and implemented (Melosi 2005, 32). Designed and constructed in Great Britain, the first "destructors," relied on the burning of mixed-fuel and garbage to generate electricity through the production of steam; the following 30 years saw the construction of 250

destructors around Europe and North America, eventually falling out of favour due to frictions between urban inhabitants and the off-set of noxious gasses (Kara, Villoria, and Georgoulias 2017, 57–63). However, recently, the waste-incinerator as an urban infrastructural typology has undergone a re-branding with the help of new technologies and improved urban design strategies. Outlined in their book, *Architecture and Waste*, Harvard Graduate School of Design professors Hanif Kara, Liere Asensio Villoria, and Andreas Georgoulias, analyze contemporary case studies with the intention of developing a primer to help architectural designers consider social, technological, economic, and environmental factors when designing such facilities.

Material Recovery

Circa 1690, an American paper mill introduced what is considered to be the first major effort towards large-scaled material recovery in the Industrial World. They began making paper from previously used cotton, linen, and paper (Tammemagi 2000, 20). The centuries following saw the birth of the modern environmental movement, spurred by events like the first Earth Day in 1970 and growing concerns about pollution and resource depletion. This change in attitude laid the groundwork for environmental regulation and ecologically focused waste management practices, like recycling and other material recovery procedure (Tammemagi 2000, 25). In recent years, there has been a growing emphasis on sustainability and the circular economy, which aims to recover as much material resource from waste streams. This represents yet another paradigm shift in waste management practices, affording the opportunity for cities to reconsider how they process

their waste, stimulate local economies, and divert waste away from landfills (O'Donnell and Pranger 2021, 10-17).

A Note on Labour and Waste

The utility of landfilling, incineration, material recovery, or any other derivative of these processes as waste management methods vary significantly across geographic regions, historical periods, and cultural attitudes towards waste. In *Wasting Away,* Kevin Lynch points to the cyclical nature of waste processes as a function of the "waste object's complexity" versus the "available skilled labour". Both "low" and "high" skilled societies generate the greatest volumes of waste; the former because they have no means of reconstituting a wasted object that derived from a more technologically developed source, the latter because they

waste-
volume &
complexity

high

low

skill &
wealth

low-skill

characterized by the inability to repair an object from a technologically advanced source.

medium-skill

characterized by the unique skill for reprocessing waste, because it exists in a market where labour is cheap, and materials are scarce.

high-skill

characterized by their skill for extracting and processing raw materials so efficiently that it becomes more economical to let things go to waste than to repair them.

Information: Interpreting how Kevin Lynch describes the cyclical nature of waste processing as function of a society's relative levels of wealth, skill, and material complexity (Lynch and Southworth 1990, 68-70)

have developed a skill for extracting and processing raw materials so efficiently that it becomes more economical to let things go to waste than to repair or recycle them. The moderately skilled society sits in the middle of these two extremes and develops a unique skill for reprocessing the obsolete and wasted material because it exists in a market where labour is cheap and materials are scarce (Lynch and Southworth 1990, 68 – 70).

It is possible to consider "*moribund* waste," the category of complex composite objects explored in the previous chapter, as a by-product of a "high skilled/high wealth" society where the use of technology and labour have been exploited to improve the efficiency of production; a model of "progress"

Imagination: Exploring ideas of movement, migration, memory, and labour in the material world (Resolve Collective 2022).

which positions innovation as a tool for advancing the spectacle of consumerism while devaluing efforts towards the (de)production of things.

Ritual Process: Transmogrification

Ritual is positioned as a counterpoint to the technocratic transformation of waste outlined in the previous sections. It attempts to challenge the abject image of waste with the inclusion of those responsible for its creation, both a physical object and also the 'social drama' associated with it's perception. Here, transmogrification is used a derivative of transformation to imply a process of changing which relies on the reinterpretation of meaning, memory, and perception; often expressed in bizarre or fantastical ways.

Ritual and the "Processual Form"

Turner first defined ritual as 'prescribed formal behavior for occasions not given over to technological routine' (Turner 1969, 12). Ritual was thus reserved as a mechanism for resolving conflict in the social realm, or what he would later define as "social dramas". The function of the ritual processes was to allow for social structures to investigate frictions laying beneath the surface of their established norms (Deflem 1991, 1–25). Ritual was positioned as a device for investigating social relationships was through Turner's innovative description of ritual as a process that involved a specific choreography of people, places, actions, and objects set over a temporal structure. According to Turner, these ritual performances were set to a tripartite sequencing of actions, actors, and symbols to 'transfer an ambiguous affect to the official social order' (Turner, Abrahams, and Harris 1969, 17).

Act 1: Separation

Scene 1 Initiation: The process begins when a person or group becomes detached from an earlier fixed point in the social structure or from an earlier set of social conditions. This is the initiation into the Ritual, and involved a deliberate act that marks the beginning of the transformative journey.

Scene 2 Symbolic Detachment: During this phase, the ritual subject experiences a symbolic death of their previous status or identity. This could involve rituals such as changing clothing, leaving a particular space, or undergoing a specific ceremony that signifies detachment from their former roles or social positions.

Scene 3 Threshold Experience: The separation phase establishes a threshold or boundary between the old and the new. Ritual subjects stand at the threshold for a new social state, ready to enter the liminal phase.

Act 2: Liminal

Scene 1 Communication: In this phase, ritual subjects are presented symbols to communicate what is known, what is done, and what is said within the social order. These symbols represent the unity and continuity of the community.

Scene 2 Lucid Deconstruction: Familiar characteristics are presented to the ritual subject in exaggerated of distorted form in order to provoke a reflection of their basic values and societal order.

Scene 3 Simplification: During this phase, instructions are presented to the ritual subject to establish a simplified understanding of their relationship to the new social structure. The goal is to establish a sense of communitas,

Imagination: Considering how waste can be interpreted through the tripartite structure of the ritual process; starting as something detached from social order, moving into a liminal space where its value can be reappraised, finding a new position within society as something with its own identity and responsibilities (Resolve Collective 2022).

a sense of equality and shared identity, fostering a strong sense of community.

Phase 3: Aggregation

Scene 1 Reintegration: Following the marginal phase, ritual subjects or groups enter the aggregation phase, where they are reintegrated into society with their new status or identity. This often involves activities or ceremonies that signify the acceptance of the transformed subjects back into their communities.

Scene 2 Changed Status: Ritual subjects return with a changed social status, having undergone a meaningful transition. The community recognizes and accepts the changes, acknowledging the individual's new role or identity.

Scene 3 Celebration: The aggregation phase is marked by celebratory rituals that affirm the individual's successful

completion of their rite of passage. The community welcomes them back, acknowledging their growth and transmogrification.

WASTE PROCESS	RITUAL PROCESS
earth (extraction & manufacturing)	first life
first life	initiation
	symbolic detachment
collection	threshold experience
transportation	
recovery	communication
objects fully recovered for reuse	lucid deconstruction
	simplification
processing	
material recovery incineration	reintegration
disposal	changed status
	celebration
pilfering	
earth (landfill)	second life

Imagination: Interpreting the relationship between the waste and ritual processes; establishing how matter can flow within a system where value is extracted as a material resource and social critique.

Chapter 5: Between Waste and Ritual — Place

Waste Places: Setting the Scene for Material Drama

Detangling from Infrastructure

Throughout modern history, the spaces which have been assigned to manage waste like quarries, dumps, and incinerators have developed, from the perspective of city dwellers, the most negative connotations. Public outcry, typically in the form of petitions and protests, coupled with political reform saw there spaces, once located within urban territory, begin their journey towards urban peripheries. Lynch writes, "communities always applauded the location of quarries, dumps, and incinerators somewhere else in the region; we avoid them and yet depend on them" (Lynch and Southworth 1990, 137). This fractured relationship between cities, the land they occupy, their inhabitants, and the industrial processes which support them cannot be the only narrative available for telling this story.

Entangling with Waste

Recalling the quote at the beginning of this document, Bruno Latour in an essay titled, "Love Your Monsters," uses *Frankenstein* as a parable for describing the dream of modernism's emancipation from the environment through technology. This idea manifested in a century of urban development and design practices which aimed to silo people and the processes which supported their everyday lives. Latour explains that this phenomenon is still present today, manifesting in destructive practices, fragmented

[society] → audience ∷ actor ← [social drama]

[city of copenhagen] → urban nature enthusiasts ∷ incin-erator ← [waste material]

Information: "Copen-Hill," Bjarke Ingels Group's urban waste incinerator is topped with a nature trail and ski slope; the project is considered a success as it situates the object, process, and place of waste in proximity to each other (Bjarke Ingels Group 2019).

[society] → audience ⠒ actor ← [social drama]

[venice] → local inhabitants needing to repair their homes ⠒ maker space for re-pairing venice ← [salvaged material from previous exhibitions]

Information: Venice Biennale 2023 German Pavilion. Waste material from the previous year's exhibitions were surrendered, catalogued, and redistributed to local residents along with the support of workshops and designers. The intent was to repair the local infrastructure using material from the international exhibition contributing to Venice's decay (ARCH plus 2023).

cities, and uninformed individuals (Latour 2011, 19-26). It will only be through society's re-entanglement with the systems and technologies they create — cultural, economic, political, environmental, material, etc. — that a wholly realistic notion of progress can be achieved. Similarly, Kara, Georgoulias, and Villoria observed this modernist narrative of disentanglement in the relationship between industrial waste infrastructure, the city, and its inhabitants, resulting in the study of the waste facility as a typology capable of mediating between the fractured segments. In their design primer, a variety of case studies, built and unbuilt, demonstrate waste facilities which integrate some form of social programme or allied infrastructure into the transformation of matter, thereby humanizing it. These additions focus mainly on education programmes, green-space, energy generation, or other technical processes (Kara, Villoria, and Georgoulias 2017, 66-82). It is important to note that most of the built work captured in their research exist in urban peripheries, perpetuating the fractured narrative of separating waste from its source. Case studies in central locations are hard to come by, and they often include tangential social experiences between people and waste, leaving the total socio-cultural integration of waste into urban life as a narrative of fiction.

Ritual Places: Setting the Scene for Social Drama

Between Ritual and Theatre

The space of ritual in this thesis is primarily interpreted through theatrical terms. There relationship between the notions of ritual and performance is covered by Turner and Schechner in their respective books, *From Ritual to Theatre*

[society] ⟶ audience ∷ actor ⟵ [social drama]

[Expo 67] ⟶ international community for art, architecture, and film ∷ film frag-ments ⟵ [perceiving film contemporary standards]

Information: Montréal's Expo 67 "Labyrinth Film Pavilion" produced by the National Film Board of Canada under the direction of filmmakers Roman Kroitor and Colin Low. The pavilion contained three chambers where the audience moved through a labyrinth-like passage constructed of two-way mirrors through which they could see thousands of small lights (National Film Board of Canada 1967).

and *The Future of Ritual*. Turner and Schechner discuss how the dynamics of play and performance emerged from the framework of rituals, moving the sacred connotations of ritual into the realm of the secular through entertainment and art. According to Turner, "to perform is thus to complete an involved process rather than to do a single deed or act" (Turner 1982, 12).

Returning to the Phantasmagoria

Performance stands as a synonym for ritual, representing a specific event with its own liminal nature in the foreground. Theatres and the art of performing is almost invariably separated from the rest of life, presented by performers with the presence of an audience. *Phantasmagoria* can be used as a method for creating an experience where society is able to confront their waste habits; offering the 'absent-minded-dreamer' the opportunity to critically examine their position within the cities they live. The architectural framing of the ritual-waste-spectacle can be seen as a tool operating in support of social change; altering how people view and engage with the waste they produce. The ritual-waste-performance considers both the experiences and material which must be interpreted in order for the subject to be engaged emotionally, mentally, and physically. Performance in this context is a method for bringing to life the many conceptual ideas on which Turner's ritual theory are based and Phantasmagoria constructs the sets.

Chapter 6: Montréal and Its Waste

Composition of Material Waste

In 2022, the average Montréal resident produced 441 kilograms of waste, down from 463 kg the previous year — a reduction of 4.8 per cent; that includes the garbage sent to landfills, as well as organic waste and curbside recycling collection. Of that amount, 228 kg went to landfills, down from 241 kg in 2021. When interviewed, Montreal's executive commissioner for the ecological transition of the city, Marie-Andrée Mauger, describes,

> the biggest challenge is really to increase the participation in the diversion of waste. We had a participation rate of 35 per cent, but by the end of 2025 we want that to get to 60 per cent (Magder 2023).
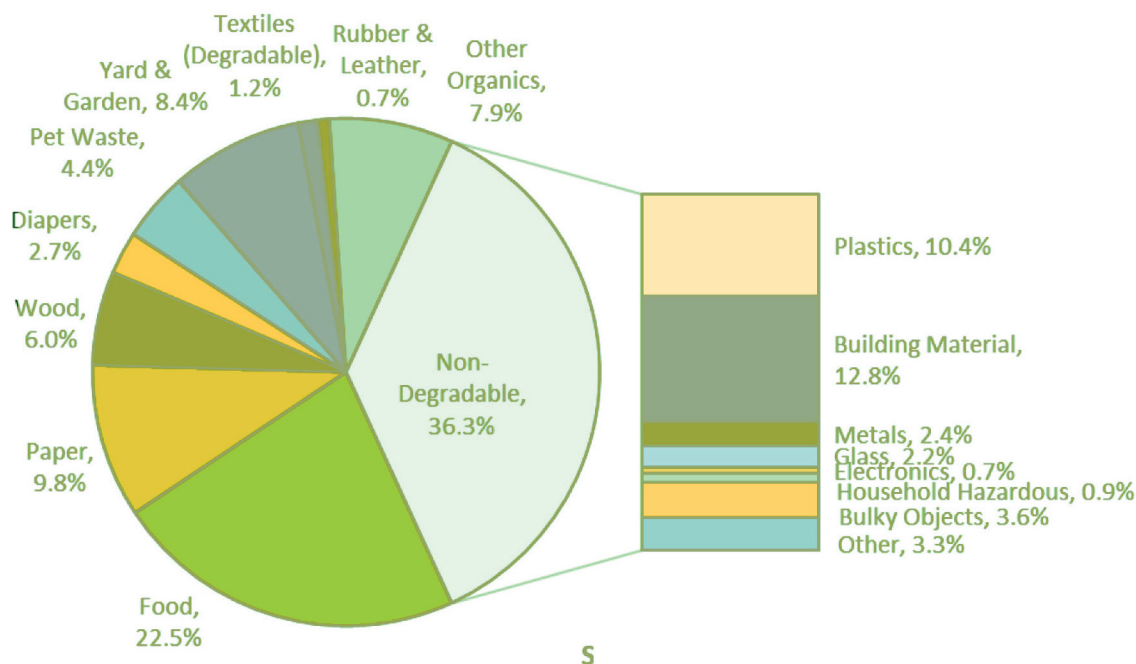
Information: Québec's municipal solid waste weighted by average composition (Government of Canada 2024)

In a technical dimension, 49% of municipal solid waste making its way to the landfill as unsorted material represents a failing in the current system. As discussed earlier, the moribund waste, or dead waste category, characterized by the complex composition of multiple types of material incapable of being separated and sorted easily is the primary material feed-stock for the design exploration.

	Sector-weighted average % of material in residual MSW	Quantity of material disposed (tonnes)	Quantity of material diverted (tonnes)[5]	Quantity of material disposed per capita (kg/capita)
Paper	9.8%	524,859	1,107,000	64
Food	22.5%	1,203,796	268,000[a]	146
Yard & Garden	8.4%	450,407		55
Diapers	2.7%	145,668	NA	18
Pet Waste	4.4%	235,970	NA	29
Wood	6.0%	320,756	NA	39
Textiles	1.2%	66,158	NA	8
Rubber & Leather	0.7%	39,618	NA	5
Other Organics	7.9%	422,421	NA	51
Plastics	10.4%	559,028	137,235	68
Building Material	12.8%	686,522	210,000[b]	83
Metals	2.4%	129,755	245,413	16
Glass	2.2%	115,793	55,000	14
Electronics	0.7%	37,693	21,525	5
Household Hazardous	0.9%	47,005	NA	6
Bulky Objects	3.6%	194,814	276,767[f]	24
Other	3.3%	174,472	83,541[g]	21
TOTAL		5,354,737	2,404,481[e]	651

(a) Includes organics (food + yard and garden)
(b) Includes construction, renovation and demolition materials
(c) NA Data not compiled by Statistics Canada for this material
(d) X Data suppressed to meet the confidentiality requirements of the Statistics Act
(e) Total value includes material quantities that were suppressed to meet confidentiality requirements, and may not equal the sum of the material values
(f) Includes white goods.
(g) Includes tires and "other".
     "-" Data not available

Information: Québec municipal solid waste weighted by average composition; quantity of material disposed; quantity of material diverted; quantity of material disposed per capita (Government of Canada 2024).

Existing Waste Processes

Waste in Numbers

Landfilling waste is still the predominant waste management method in Canada. The City of Montréal is the largest city in the Canadian province of Québec (24% of the population) and the second-most populous municipality in Canada, with around 2 million inhabitants. Currently, most of the waste in Québec is landfilled or combusted. Moreover, Montréal has a Waste Management Master Plan firmly anchored in the targets of the Québec Residual Materials Management Policy with its 2011–2015 Action Plan of the Government of Québec. According to this plan, the recovery target for recyclables, organic waste, and construction and demolition waste is 70%, 60%, and 70%, respectively.

Information: City of Montréal's municipal solid waste weighted by process type and organized by sector (Government of Canada 2024)

Montréal's
Waste
Infrastructure
Past

A	pierrefonds-roxboro 98 866 m²	C	lasalle 212 216 m²	E	saint laurent 72 496 m²	F	saint michel 1 579 983 m²	H	plateau 65 786 m²	I	hochelaga 43 710 m²	K	anjou 953 359 m²
B	lachine 16 713 m²	D			sud-ouest 1 230 840 m²			G	rosemont 358 740 m²	J	mercier 159 648 m²	L	pointe-aux-trembles 534 797 m²

✖₁ rosemont incinerator (c. 1900)   ✖₂ rosemont incinerator (c. 1950)   ✖₃ dickinson incinerator (c. 1950)   ✖₄ le sud-ouest incinerator (c. 1950)

st-lawrence river

56-56   60-56
58-60   60-60

Montréal's
Waste
Infrastructure
Present

① éco centre saint laurent
② éco centre acadie
③ éco centre lasalle
④ éco centre cotes des neiges
⑤ éco centre la petite-patrie
⑥ éco centre saint michel
⑦ éco centre riviere des prairies

Information: Mapping waste infrastructure in Montréal, whole island (base map and data from Environment Montréal 2021).

Information: Mapping waste infrastructure in Montréal, borough of Rosemont (base map and data from Environment Montréal 2021).

Site Analysis: Unpacking the Carrières Service Yard

The selected site is situated in the borough of Rosemont – La Petite Patrie where much of Montréal's history involving waste management can be interpreted. The two-hundred year period between 1770 and 1970 witnessed rapid changing attitudes with regards to the processes and infrastructures designed for managing waste on the Island of Montréal. The site is unique in that it sits at the confluence of all these histories, holding the memory of a land and people which perceived the surface and quarry-landfills of the 18th and 19th centuries, the incinerators of the 20th century, and now the Eco-Centres of the 21st century.

Start of Quarrying in the Area

As early as 1770, the exploitation of limestone deposits began. In addition to the farmers found in the area, a growing population of quarry workers contributed to the development and demographic diversification of the Rosemont area. The majority of these large quarries were located near a central road which soon carried its name – *Chemin des Carrières* – and acted as a main transportation corridor for the distribution of quarry stone to the rest of the city. Quarries gave way to open-pit landfilling and thus began the history of urban waste management in 1832 (Knight 1993).

Montréal, a City with Dumps!

As the city's population grew, so did the volume of waste it produced. Quarries started to convert into quick-solution municipal landfills where residual waste would be stored. Before human employees would serve as waste collectors, the presence of horses in municipal services was seen until 1950, in particular for the construction of streets, the

Montréal's
Waste
Infrastructure
Timeline

2004

Ecocentres are sites where waste products that are harmful to health or the environment can be sorted and disposed of. They also accept construction debris, metal, used electronic devices, clothes and other objects that can be recycled or repurposed.

1970

It is cited that the incinerator stopped its activities due fear of pollution and the unknown effects of toxic emissions for the residents of Montreal.

1900

Between 1900 and 1930 the site experienced a pause in visible industrial activity. 1909 saw the creation of Montreal's Incineration Commission, and following the end of quarrying in the area.

1830

Montreal incorporated in 1832. As the city grew in population, so did th volume of waste it produced. Quarries started to convert into quick solution municipal landfills where residual waste would be stored.

1780

The development of the city along the Chemin des Carrières, where the stone was extracted and used for the construction of many buildings in the city, the paving of streets and certain developments. The presence of these quarries defined the future of the sector and attracted several workshops and small industries.

eco centre - 1970

second incinerator - 1950s

horse stables - 1900s

first incinerator - 1900s

(A) éco centre la petit patrie (*active*)
(B) rosemont incinerator (*decommissioned*)
(C) 1890 rosemont quarry landfill (*decomssioned*)
(D) former horse stables (*converted*)
(E) former rosemont incinerator (*demolished*)
(F) 1915 rosemont quarry landfill (*decomssioned*)
(G) cp & o railway (*now CN rail*)
(H) service yard workshops (*active*)

Information: Morphological drawing and timeline demonstrating how the site changed over a 250 year period as different waste infrastructures were established and decommissioned (Historical information by Lafontaine 2019).
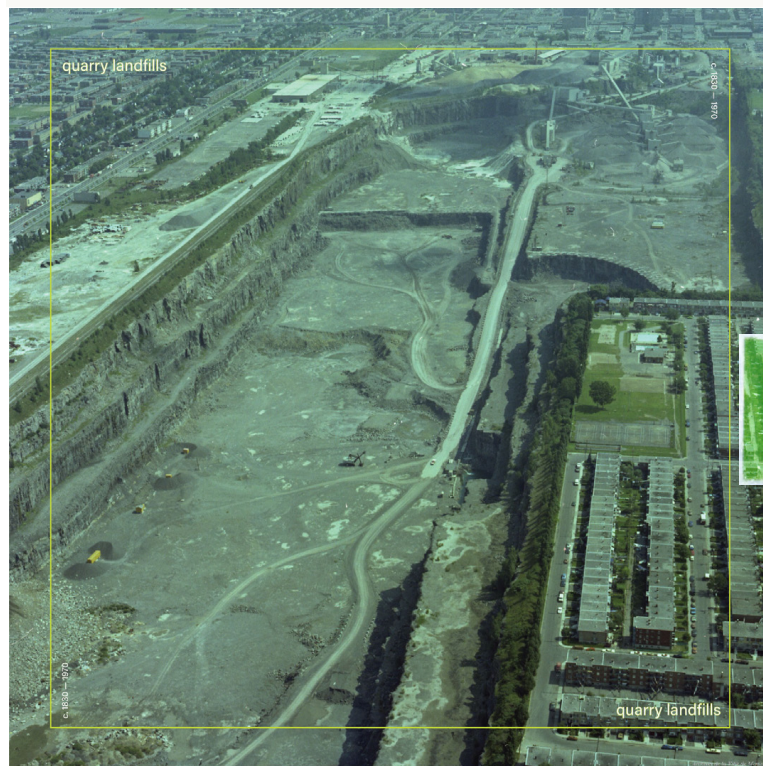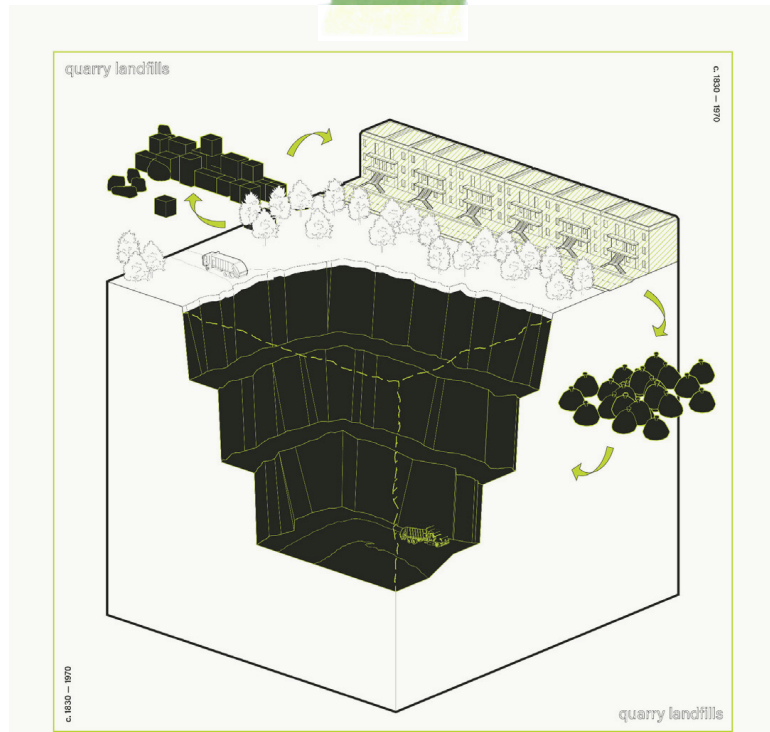
Information: Diagram of quarry landfill by author. Photograph of quarry landfill in the East-End Montréal (Fonds des affaires institutionnelles 1980).
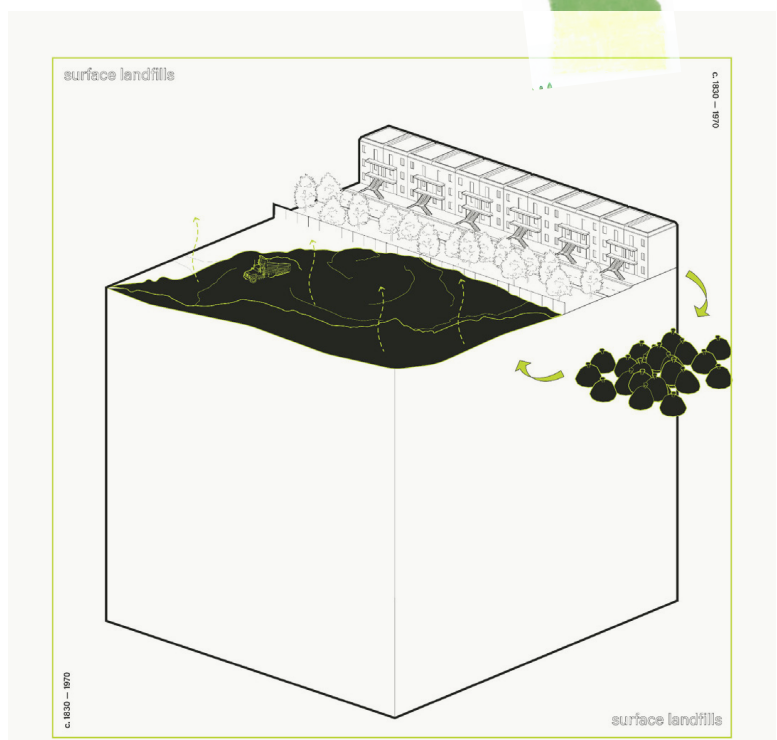
Information: Diagram of surface landfill by author. Photograph of Martineau surface landfill in Rosemont, Montréal (Fonds des affaires institutionnelles 1951).

removal of waste and snow (Lafontaine 2019). The 18th and 19th centuries experienced an overlap between urban development and urban waste management through the experience of surface deposits and quarries; these fenced fields or open pits from which fieldstone was extracted, once enabling the construction of streets and buildings, turned into repositories for holding the city's waste. Slowly, the industrial periphery where these surfaces and quarries existed, began to urbanize, developing a friction between the living humans and the waste they produced; this friction pressured local government to conceive of new solutions.

Introducing the Railway

The development of the "Quebec, Montreal, Ottawa and Occidental" (QMO&O) railway, now owned by Canadian Pacific (CP) sectioned Avenue des Carrières and defined a border between the current boroughs of Rosemont and Plateau-Mont-Royal, dividing the inner city from its industrial periphery at the time (Knight 1993).

Introducing the Incineration Commission

Between 1900 and 1930, the site experienced a pause in visible industrial activity. 1909 saw the creation of Montreal's Incineration Commission, and following the end of quarrying in the area, the gradual acquisition of land by the City, saw the creation of what is now a municipal service yard. The waste-filled quarries of the 19th century were succeeded by the advent of waste-incineration during the 20th century. In 1929 the city's first incinerator was built on the site, along with a horse-stable building still around today. This humble, brick-cad incinerator was demolished in 1976, making way for the site's second, larger, and aesthetically brutal, waste destructor (Knight 1993). Between 1906 to 1970,
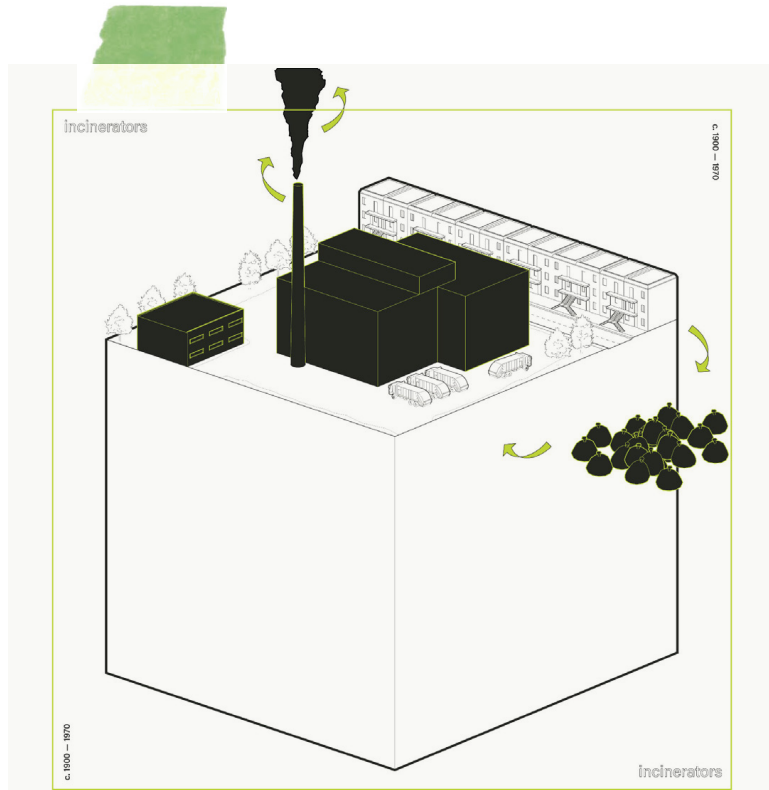
Information: Diagram of incinerator by author. Photograph of Des Carriéres Incinerator in Rosemont, Montréal (Fonds des affaires institutionnelles1974).

Incineration was campaigned as a modern solution which mobilized waste as a flowing material stream; here, waste would not sit idle in lots or landfills, instead, it would move between consumer and destructor, alleviating urban citizens from having to visually experience the decomposition of waste matter in their own backyards. However, in a fate similar to the surface and quarry-landfills of the previous centuries, the city continued to expand, bringing people in close proximity to the waste incinerators designed to welcome-in the waste, but keep those who produced it out. Urban incinerators quickly fell out of favour; their culturally impenetrable designs and the negative health concerns linked with noxious off-gassing were met with public protests and policy reforms.

Building the Service Yard

As the city acquired land, they created a central service yard which remains active today in supporting municipal activities. The presence of these activities perpetuates the original industrial character of place among the increasingly residential area (Lafontaine 2019). The site, as it exists currently, includes a decommissioned waste-incinerator, a former horse-stable converted into municipal offices, municipal workshops, a police station, and an active Eco-Centre which receives and re-distributes the borough's bulk waste (Lafontaine 2019).

The End of Incineration and the Creation of the Eco-Centre

Following the ecological movement of the 1970's, Montréal introduced the aptly named Eco-Centres as its next act in urban waste management. Currently in operation today, these community-scaled interventions sit as counterpoints
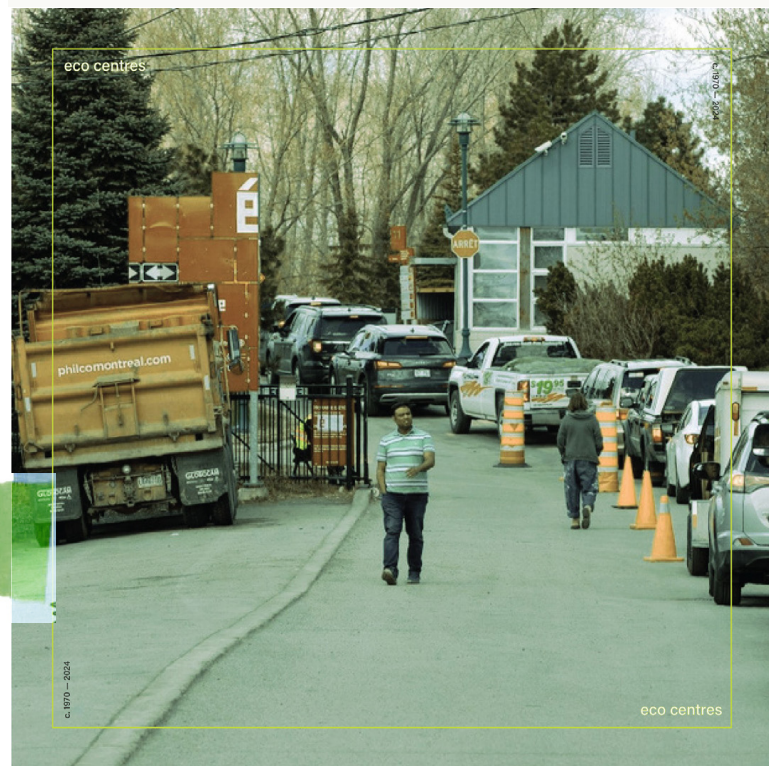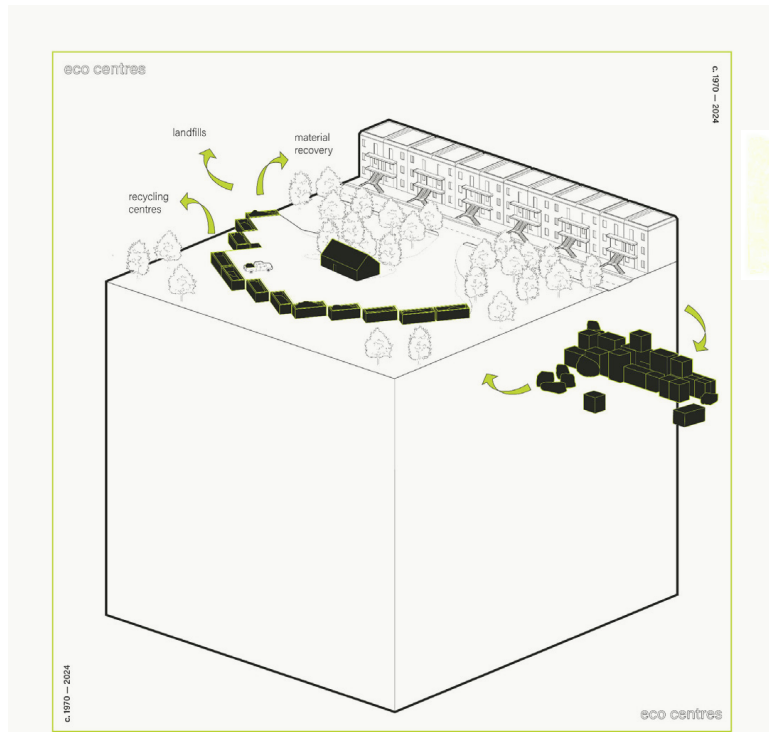
Information: Diagram of Éco-Centres by author. Photograph of Rosemont Éco-Centre in Rosemont, Montréal (Fonds des affaires institutionnelles 2008).

Information: **[A]** Open-pit quarry and landfill c. 1814. **[B.1]** First waste incinerator built for the City of Montréal c. 1890; demolished c. 1970. **[B.2]** Horse stables constructed along with the waste incinerator to house the horses responsible for waste collection; remains in operation as office space for the City of Montréal. **[C]** Second waste incinerator built to replace B.1 c.1970; decommissioned in 2000 and remains standing as an urban ruin, **[D]** Éco-Centre presently active and receiving discarded material from the Borough of Rosemont. (Historical data by Lafontaine 2019 with base image by Google Maps 2021).

N

industrial zone c. 1770

borough limit c.1905

CP RAIL c.1890

christophe-colomb ave.

remediated parkland

mixed-use c. 2000

residential c.1890

remediated parkland

papineau ave.

borough limit c.1905

CP RAIL c.1890
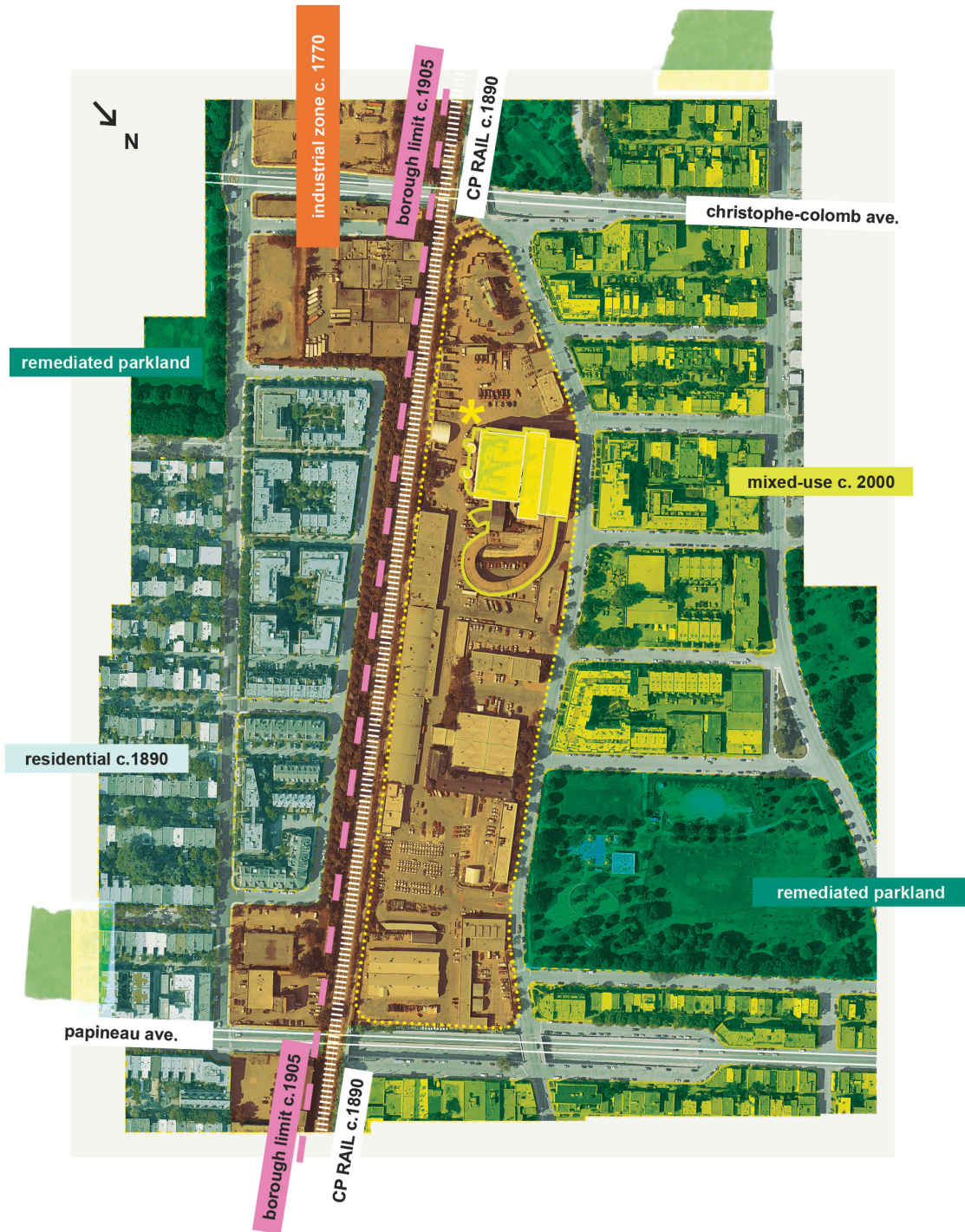
Information: Hybrid representation outlining the thesis site (outlined in yellow dots) and it's immediate context as it rests today. The abandoned incinerator (*) (masked in yellow) sits in the middle of post-industrial neighbourhood; representing a "social drama" between urban dwellers and their perception of waste and its associated infrastructure. (Base image by Google Maps 2021).

to the negatively perceived landfills and incinerators of the previous centuries where material went to putrefy or be destroyed. In contrast, Eco-Centres act as a method for waste-diversion, leveraging the labour of the community against the pre-sorting of matter into designated bins. (Lafontaine 2019). However, the reality of these places is that they are experienced as drive-thru's; a social environment mediated by vehicles, expediency, and divisions engendered by fences and gates. Also, an incomplete waste-narrative is told. Where does the waste go? How is it processed? How is re-integrated? In brief, it's exported to different places across the province, country, or planet: not as a material resource, but as "matter-out-of-place"; something for another person, place, or time to deal with.

Building Analysis: Rosemont's Abandoned Waste Incinerator

The design portion of the thesis focuses heavily on the former Rosemont Waste Incinerator. The facility is a strong example of a brutalist architectural style, characterized by its imposing volume, its chimneys and the composition of its facades expressing the plasticity of concrete. The incinerator, like any process and spatial typology for solid waste management, brought together technical and social systems in a particular way, opening the doors for a range of "social dramas" over incineration's ecological, political, economic, and cultural issues in the municipalities where there were proposed, debated, and implemented. These "drama's" lay the foundation for a design project which attempts to reconcile the frictions between people, waste, and its associated infrastructure. The following pages outline through images an analysis of the building's function and architectural character.
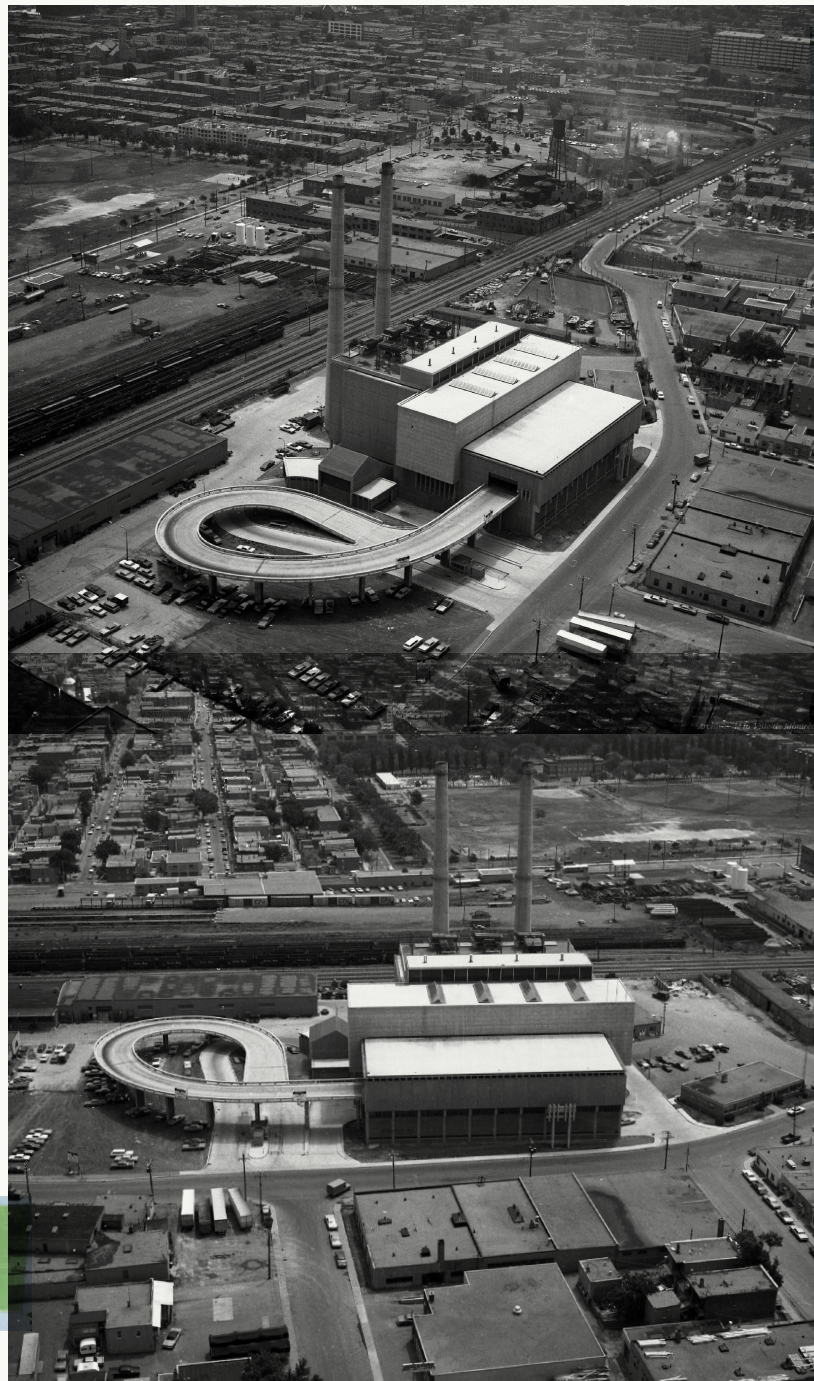
Information: Built in 1970, the Rosemont incinerator is a predominantly site-cast and pre-cast concrete structure in the architectural style of Brutalism. The iconic massing, the towering smokestacks, and the gestural ramp have become character defining elements for both the building and the borough of Rosemont. Top photograph (Fonds des affaires institutionnelles 1970a) bottom photograph (Fonds des affaires institutionnelles 1970b).
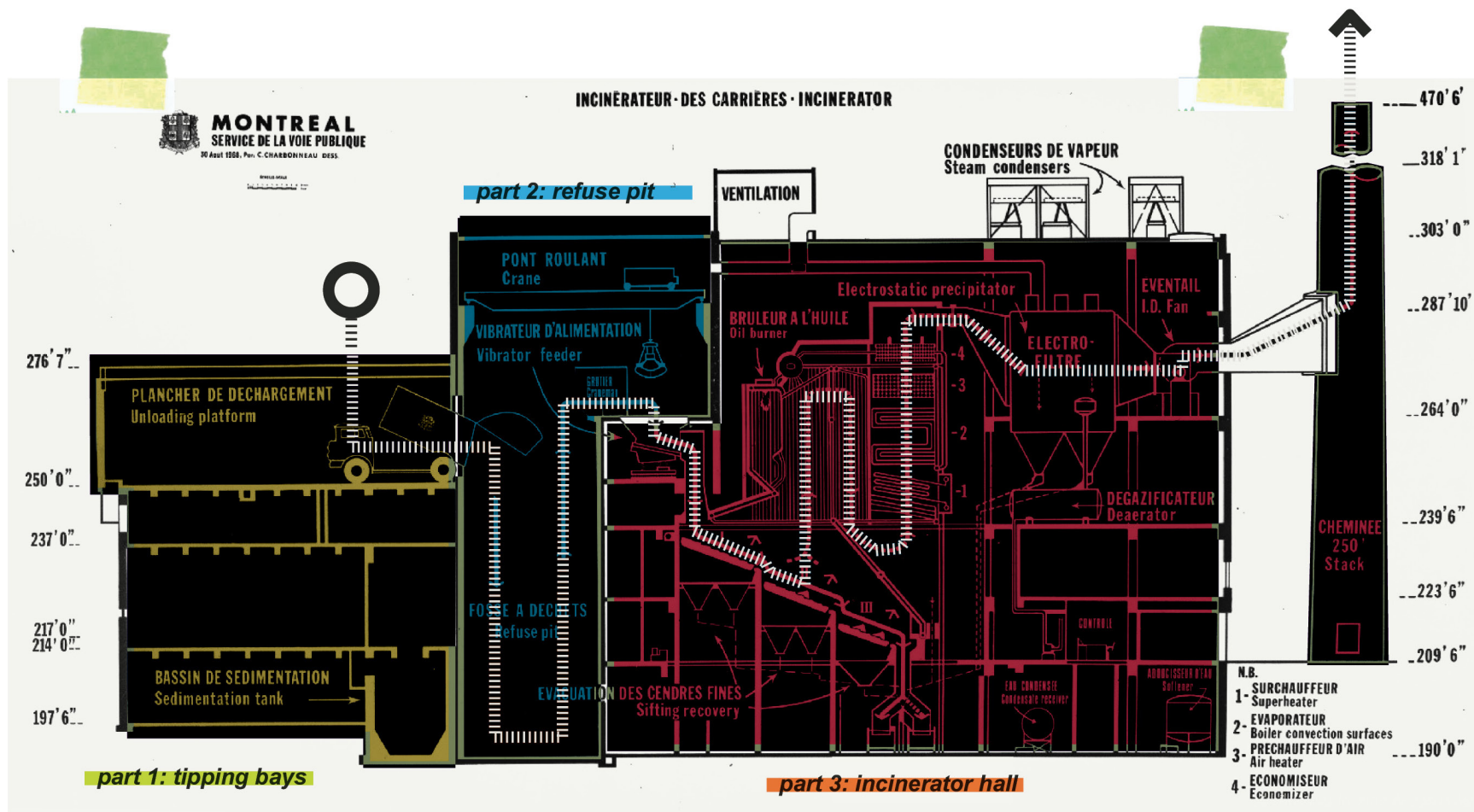
Information: Sectional diagram demonstrating the follow of waste through the existing facility (base drawing sourced from Lafontaine 2019).
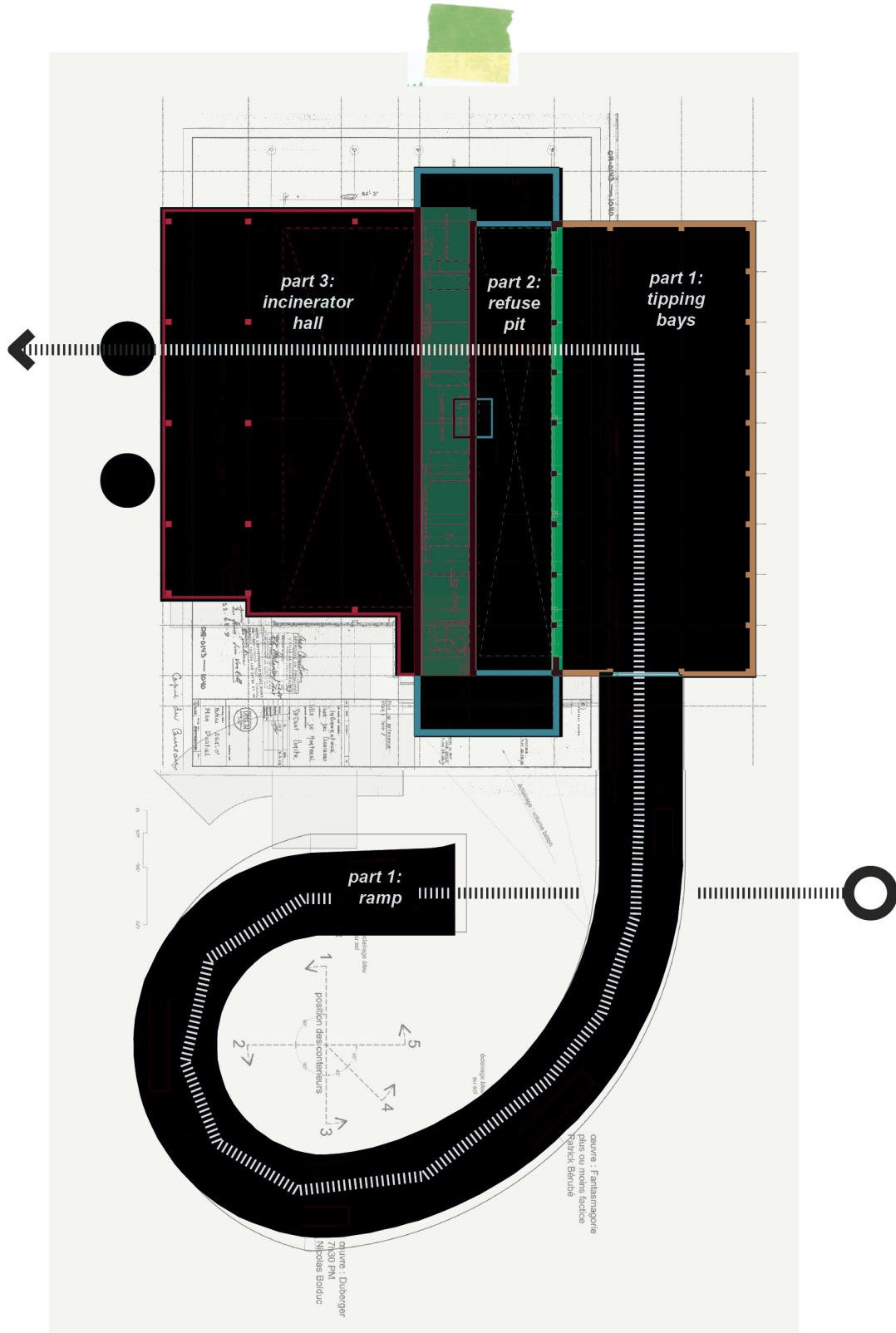
Information: Plan diagram demonstrating the flow of waste through the facility (base drawing sourced from Lafontaine 2019).
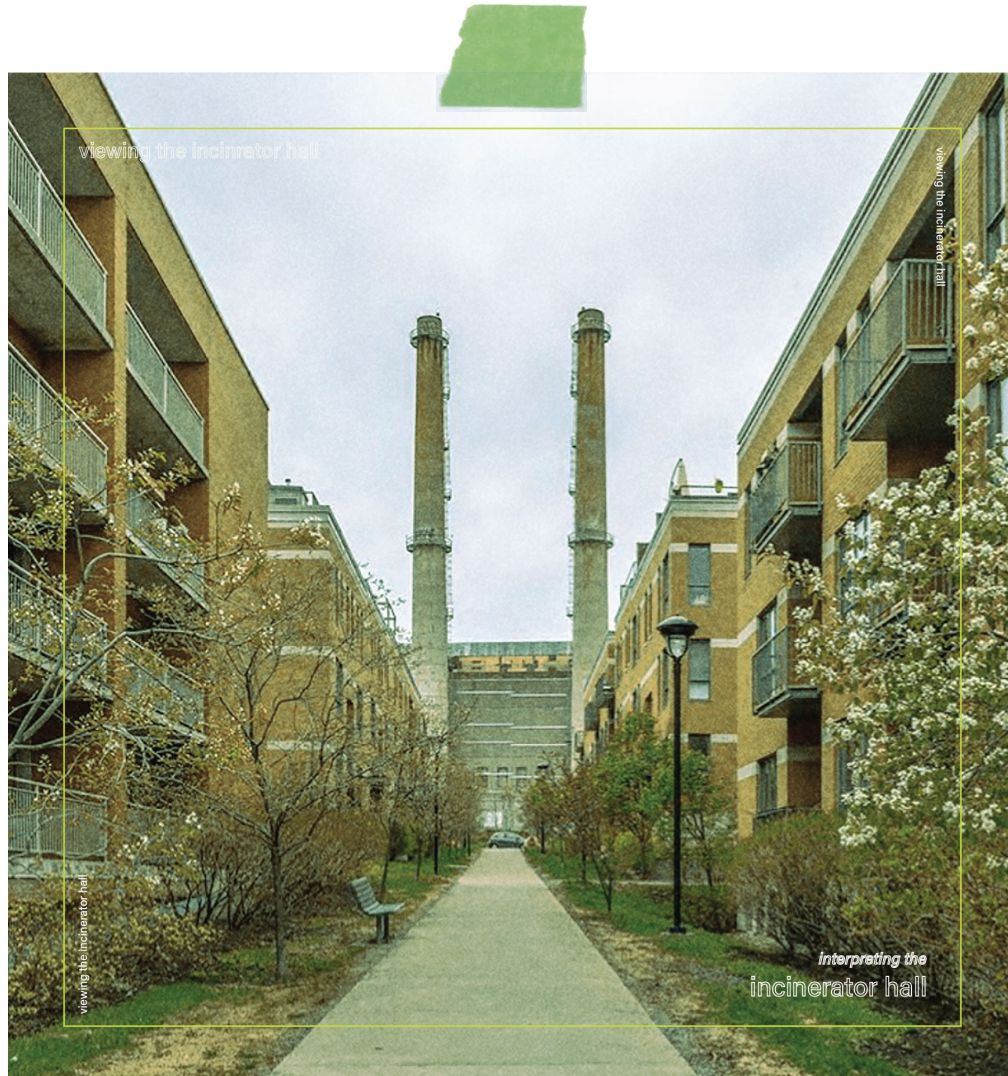
Information: Picturing the waste facility in context; the incinerator hall and smokestacks impose themselves onto the primarily flat landscape of Montréal's East-End, towering over adjacent residential buildings. (Lafontaine 2019).

Information: The stereotomic site-cast concrete form carves out spaces for garbage trucks to tip their loads into the refuse pit below, and capture light from above. Photograph of tipping bays and the refuse pit; a predominantly concrete super-structure lends a monolithic and infrastructurally brutal aesthetic to the facility (Lafontaine 2019).
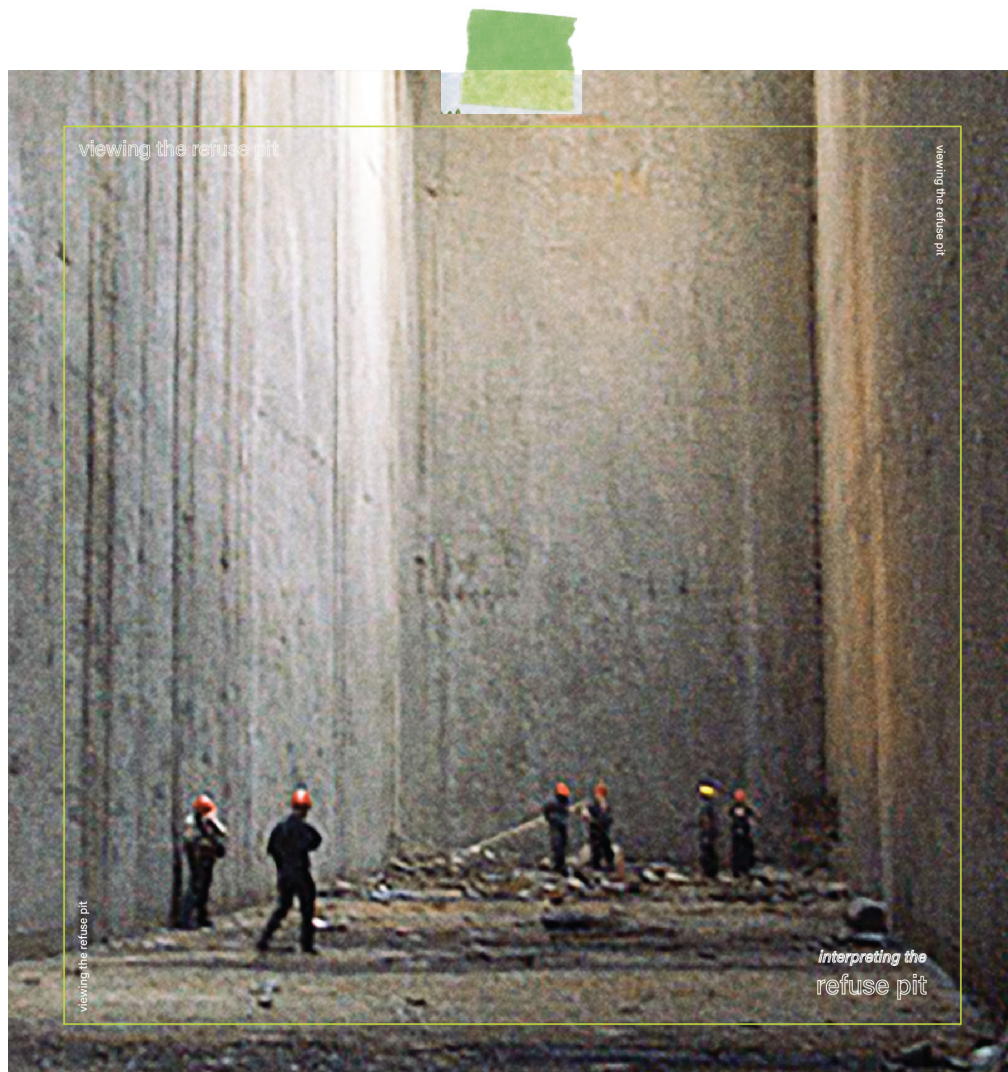
Information: The 70-foot deep concrete tipping hall is hovered by a series of skylights contributing to an almost eclesiastical quality to the space. Photograph of people inside the refuse pit (Lafontaine 2019).

Information: The 70-foot deep concrete tipping hall is hovered by a series of skylights contributing to an almost eclesiastical quality to the space. Photograph of people inside the refuse pit (Lafontaine 2019).

Information: Photograph of the spatial conditions within the incinerator hall (Lafontaine 2019).

Information: Photograph of a public gathering on the ramp of the incinerator (Lafontaine 2019).

framing the spectacle

scale 3: building

Together, Turner's Ritual Performance and Benjamin's Phantasmagoria work to transform the shell of the abandoned waste incinerator; seeking to entangle the building as a large waste object itself with moments which afford the city an opportunity to view and re-view the meaning of waste objects, processes, and places; considering productive material afterlives.

Between Information and Imagination: Together, Turner's Ritual Performance and Benjamin's Phantasmagoria work to transform the shell of the abandoned waste incinerator; seeking to entangle the building as a large waste object itself with moments which afford the city an opportunity to view and re-view the meaning of waste objects, processes, and places; considering productive material afterlives.
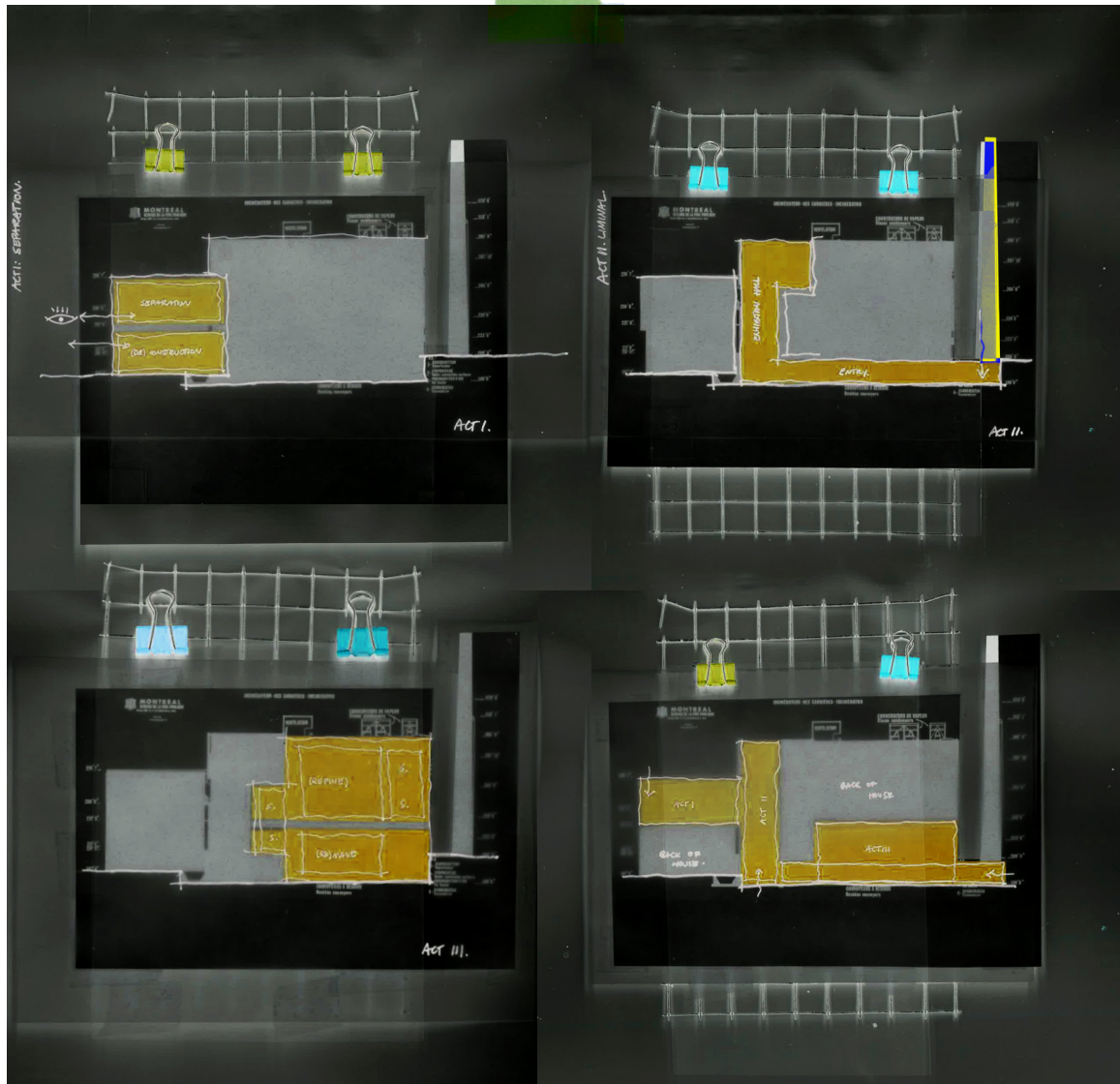
Between Information and Imagination: Layering and programmatic blocking exercise using the model to explore how sections and spaces of the existing facility might experience a new flow of waste and people.

A Note on the Regionalism of Waste

Waste, much like culture, is a multifaceted phenomenon deeply entangled with the economic, social, and spatial conditions of a particular place. Regional waste patterns are influenced by factors including income, population density, industrial activities, social attitudes, and regulatory policy frameworks. Understanding the nuances of waste through various lenses — material composition, processing type, historicity, and design — is crucial for developing approaches to waste management which are appropriate for a given region.

Cultural attitudes and societal behaviours play a central role in the consideration of what type of waste-rituals are present in a given city, and how they could be designed for. Some communities prioritize environmental stewardship and embrace practices like recycling, composting, and waste reduction initiatives. These regions often exhibit lower per capita waste generation and higher rates of waste diversion from landfills. In contrast, regions with fewer environmental policies or limited access to education may struggle with assimilating waste into existing social and spatial structures; opting to erase and occlude the problem altogether. However, regardless of region, the take away remains the same; the object of waste affects the modes of its management which affect the spatial qualities of the place where the prepossessing occurs.

flow of matter

Society :: [Waste Object] :: [Waste Process] :: [Waste Place] :: City

flow of meaning

Imagination: Translating the framework established by Richard Schechner and Victor Turner regarding ritual performances to include waste characters; objects, processes, and places.

Chapter 7: Phantasmagoria — Between Waste and Ritual

Methodology

The design components of this thesis seek to explore, through the re-design of Rosemont's abandoned urban waste incinerator, how the technical function of diverting waste flows back into the city for the purposes of localized material recovery and distribution, can embed within an imaginative dimension of theatre and performance. The intended result would be a re-animated infrastructural ruin whose purpose is to socialize the object, process, and place of waste. The theoretical and architectural components of the thesis combine in the following two translations.

Designing the Ritual-Waste Performance

The first translation is that of the ritual performance. The ritual theory discussed throughout the thesis was introduced by cultural anthropologist, Victor Turner, and is organized into a three-part structure: separation, liminality, and re-aggregation:

Turner's theories on ritual and performance are used as the basis for transforming the waste processes historically practiced by the city. The result is an imaginative performance which considers both the material waste objects and human subjects who produce them. The theatrical nature of ritual performances stands as a counterpoint to conventional waste management processes because of their centering of people within the resolution of both material and social conflicts. As explored in earlier chapters, the notion of waste is not an inherent characteristic of an object, rather, it is socially
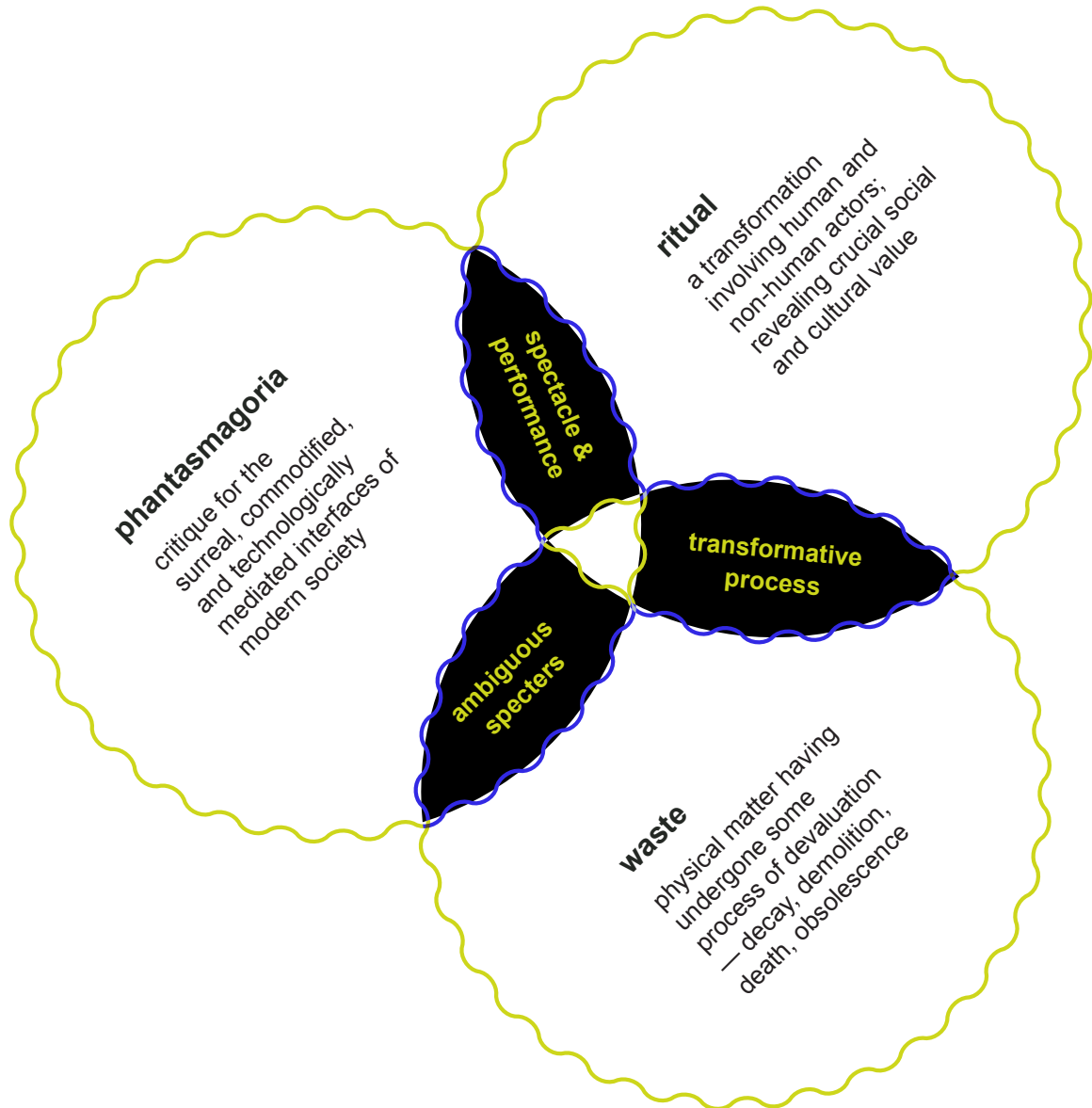
phantasmagoria
critique for the surreal, commodified, and technologically mediated interfaces of modern society

ritual
a transformation involving human and non-human actors; revealing crucial social and cultural value

waste
physical matter having undergone some process of devaluation — decay, demolition, death, obsolescence

spectacle & performance

ambiguous specters

transformative process

Imagination: Diagram representing the theoretical dimensions of the thesis and how they overlap. Resting at the intersection between phantasmagoria, ritual, and waste, the theoretical dimensions of this thesis explore the architectural implications of entangling the shell of the discarded waste-incinerator with moments for viewing the interplay between society and waste-processing, thereby encouraging the contemplation of material afterlives, urban waste histories, and local material flows.

produced, and by extension, through the choreography of bodies, objects, and actions, the negative perceptions of waste can be assigned new meanings, affording them an improved position within the social structure of the city.

The following cast was assembled to include both human and non-human actors for the processing of waste through the ritual-waste performance; selected with the intention of representing the entire transmogrification process of ritual, these actors come with their unique sets and props for the transformation of waste into a productive artefact :

- Actor 1 / Class: Non-Human / **Waste Object**

  Description: Characterized as a material object having experienced decay or obsolescence and is constructed through a complex composite of material assemblies, Moribund (Dead) Waste is a specific category of waste object represents entanglement of material and social dimension.

- Actor 2 / Class: Human / **The Compositionist**

  Description: A member of society which interprets Moribund Waste as being more than the sum of its technical components and reflects on how it entangled with their everyday life; often supporting their well-being and carrying out necessary functions. The passing of the object, be it by decay or obsolescence, prompts the revivalist to yearn for its productive afterlife; thereby surrendering it willing to the Ritual-Waste performance.

- Actor 3 / Class: Human / **The [De]Constructivist**

  Description: A specialized waste-actor borne from a previous generation of waste salvagers and waste pickers. These people are equipped with specialty tools, chemical processes, and the honed craft for [un] making.

- Actor 4A / Class: Non-Human / **Waste Fragment A**

  Description: A waste-object is assessed to have no damage or decay and can be re-integrated into the structure of the city without any additional work.

- Actor 4B / Class: Non-Human / **Waste Fragment B**

  Description: A waste-object is assessed to have little damage or decay and can be re-integrated into the structure of the city with minimal amendments.

- Actor 4C / Class: Non-Human / **Waste Fragment C**

  Description: A waste-object is assessed to have maximum value as a material feedstock therefore undergoes a process for deconstruction using the 7D's: [de]polymerize, [de]coat, [de]vulcanize, [de]alloy, [de]laminate, [de]construct, [de]regulate.

- Actor 5 / Class: Human / **The Archivist**

  Description: A specialized waste-actor who generates a new taxonomy for understanding waste fragments; based on the ritual principle of "simplification," the Archivist aims to establish a simplified understanding for how waste fragments can transition into to the new social order. The goal is to establish a sense of opportunity, equality and shared identity, fostering the idea of communitas or community.

- Actor 6/ Class: Human / **The Machinist**

  Description: Another waste specialist, the Machinist transforms waste-fragment through their labour and equipment into new material artefacts. Here, fragments from the previous acts are processed into repaired objects or new material bases. These artefacts are ready for their re-integration into the life of the city; being celebrated for their new position within the existing structures of the city.

- Actor 7A / Class: Non-Human / **Waste Artefact A**

  Description: Either rolled out or plied together, metals and wood waste products are well suited for the production of sheet goods.

- Actor 7B / Class: Non-Human / **Waste Artefact B**

  Description: Made in a shredding process, plastics and wood waste products are well suited for the production of fine pellets.

- Actor 7C / Class: Non-Human / **Waste Artefact C**

  Description: Made from shredded material, plastics, wood, and other organic waste products are well suited for the production of blocks through extrusion.

act I :: separation

× first life

social and physical structures of society

Actor 1: Waste Objects

Characterized as a material object having experienced decay or obsolescence and is constructed through a complex composite of material assemblies, *Moribund (Dead) Waste is a* specific category of waste object represents entanglement of material and social dimension.

Actor 2: The Compositionist

A member of society which interprets *Moribund Waste* as being more than the sum of its technical components and reflects on how it entangled with their everyday life; often supporting their well-being and carrying out necessary functions. The passing of the object, be it by decay or obsolescence, prompts the revivalist to yearn for its productive afterlife; thereby surrendering it willing to the Ritual-Waste performance.

Scene 1: Symbolic Detachment

During this scene, the **Moribund Waste** and the **Compositionist** undergo an experience based on the ritual-principle of "detachment" where they participate in a symbolic death from their previous status or identity. This process involves reflecting on the experiences which contributed to the first identity and is acted out by leaving a particular space and both physically and metaphorically detaching from their former positions within the social structure.

moribund waste ×

Scene 2: Symbolic Diagnostics

During this scene, the **Moribund Waste** is handed over to the **[De]Constructivist** where an assessment occurs. At this point, the waste-object could be determined to experience one of three outcomes. (1) Save (2) Fix (3) [De]Construct. While options (1) and (2) are the most simple of the outcomes, option (3) expands upon the emerging principles for material recovery, or the 7 D's: de-polymerize, de-laminate, de-vulcanize, de-alloy, de-coat, de-regulate, and de-construct.

Actor 3: The [De]Constructivist

A specialized waste-actor borne from a previous generation of waste salvagers and waste pickers. These people are equipped with specialty tools, chemical processes, and the honed craft for [un]making.

× the compositionist

Actor 4A: Waste Fragment A

A waste-object is assessed to have no damage or decay and can be re-integrated into the structure of the city without any additional work.

× speciality tools

Actor 4B: Waste Fragment B

A waste-object is assessed to have little damage or decay and can be re-integrated into the structure of the city with minimal amendements.

× waste fragment

Actor 4C: Waste Fragment C

A waste-object is assessed to have maximum value as a material feedstock therefore undergoes a process for deconstruction using the 7D's.

the × [de]constructivist

act II: liminality

Between Information and Imagination, Act I Separation: Cast and Scene Shop.

act II :: liminality

× reusable objects

objects × needing repair

× [de]constructed matter

physical repository ×

× digital repository

Actor 4: Waste Fragment

Actor 4A:
Waste Fragment Type A
Status: Ready for 2nd Life

A waste-object is assessed to have no damage or decay and can be re-integrated into the structure of the city without any additional work.

re-integration

AND

Actor 4B:
Waste Fragment Type B
Status: Needing Repair

A waste-object is assessed to have little damage or decay and can be re-integrated into the structure of the city with minimal amendements.

re-integration

AND

Actor 4C:
Waste Fragment Type C
Status: To be [De]Constructed

A waste-object is assessed to have maximum value as a material feedstock therefore undergoes a process for deconstruction useing the 7D's.

Scene 3: Simplification

The Waste Fragments of the previous scene whether Saved, Fixed, or [De]Constructed are consolidated and re-classified by the Archivist who organizes the matter by types: textiles, wood, metals, glass, plastics, whole objects.

The material is held in a physical repository as well as catalogued digitially, waiting for further instruction. The physical and digital space where the waste-fragments are held can be accessed by a variety of actors. The Compositionist, The Constructivist, and The Machinist can call upon the unclaimed matter to service their needs in Act 3.

Actor 5: The Archivist

A specialized waste-actor who generates a new taxonomy for understanding waste fragments; based on the ritual principle of "simplification," the Archivist aims to establish a simplified understanding for how waste fragments can transition into to the new social order. The goal is to establish a sense of opportunity, equality and shared identity, fostering the idea of *communitas* or community.

act III: aggregation

Between Information and Imagination, Act II Liminality: Cast and Scene Shop.

act III :: re-aggregation

act II: liminality

[de]constructed ×
matter

Scene 4: Re-Integrated

Following the liminal holding of waste fragments in the physical repository, the material is called to be (re)fined, (re)milled, or (re)sheeted into pellets, blocks, or sheets. The processing of material into these basic forms ensures their ability to re-enter the social structure of the city in a simplified way. This process is aided by The Machinist; another derivative of the waste salvager.

Actor 6: The Machinist

Another waste specialist, the Machinist transforms waste-fragment through their labour and equipment into new material artefacts. Here, fragments from the previous acts are processed into repaired objects or new material bases. These artefacts are ready for their re-integration into the life of the city; being celebrated for their new position within the existing structures of the city.

ambiguous ×
goop
(plastic, wood, metal, glass, fibre, other)

Actor 7: Waste Artefacts

Actor 7A:
Waste Artefact Type A
Status: Sheets

Either rolled out or plied together, metals and wood waste products are well suited or the production of sheet goods.

× sheets

OR

Actor 7B:
Waste Artefacts Type B
Status: Pellets

Made in a shredding process, plastics and wood waste products are well suited for the production of fine pellets.

Actor 7C:
Waste Artefacts Type C
Status: Blocks

Made from shredded material, plastics, wood, and other organic waste products are well suited for the production of blocks through extrusion.

OR

× pellets

celebrate waste through making

× blocks

Actor 7: Waste Artefacts

Formerly Moribund (or dead) waste, the material negatively perceived by the social structures of the city is transformed through labour and imagination into a new form, affording its re-intergration into structures of the city (both culturally and physically).

:: threshold :: site :: city :: threshold :: site :: city :: threshold :: site :: threshold
:: threshold :: site :: city :: threshold :: site :: city :: threshold :: threshold

Actor 2: The Compositionist

A member of society which interprets *Moribund Waste* as being more than the sum of its technical components by reflecting on how it entangled with their everyday life. Now that waste is celebrated for its re-integration through making and labour.

creation ×

social and physical structures of society

Between Information and Imagination, Act III Re-Aggregation: Cast and Scene Shop.

Designing the Phantasmagoria

The second translation is one of space. Here, the choreographed performance between people, objects, processes, and places is interpreted through German philosopher Walter Benjamin's writing on *phantasmagoria*.

We can recall *phantasmagoria* as a small travelling show, incorporating storytelling, history, and theater into a single experience that entertained audiences while providing them a space for facing that which made them uncomfortable; for instance, things like death and ambiguous matter. The original phantasmagoric shows were equal parts haunted house, communal séance, and intense dream which used pre-cinematic rear projections, smoke and manipulated lantern slides to create illusions of figures. These dancing images would advance and recede against the surface of the screen, creating the visual effect of creatures materializing and dissolving. Viewers knew what they were getting into, but the experience tapped into primal human wonder about mortality and its residual traces, the immateriality of the soul and the foggy boundary between absence and presence.

While developing the thesis, a series of models, collages, and photographs were used to explore the theatrical riggings of phantasmagorical shows which centered around the *phantscope*, a simple device which manipulated light and screens to create dancing shadows and often frightening effects through the representation of distorted imagery and ghostly specters. These models and collages began developing a vocabulary for using discarded materials and a structural grammar including steel framing for the construction of set-like interventions.

the phantascope

Long before large exhibitions and block buster shows, crowds were awed by traveling shows called "phantasmagoria". In these shows, "phantascopes" were used to tell familiar stories using rear projections to create dancing shadows and frightening theatrical effects.

Between Information and Imagination: Long before large exhibitions and block buster shows, crowds were awed by traveling shows called *phantasmagoria*. These shows were equal parts haunted house, communal séance, and fever dreams. The experiences engendered by the shows tapped into primal human wonder about mortality and its residual traces, the immateriality of consciousness, and the foggy boundary between absence and presence.

intiaiting the ritual

The ritual process begins when a subjects (human or non-human) detaches from an earlier fixed position within the social structure or from an earlier set of social conditions. Shadows are used to demonstrate the separation of subject from recognizable charactersitics.
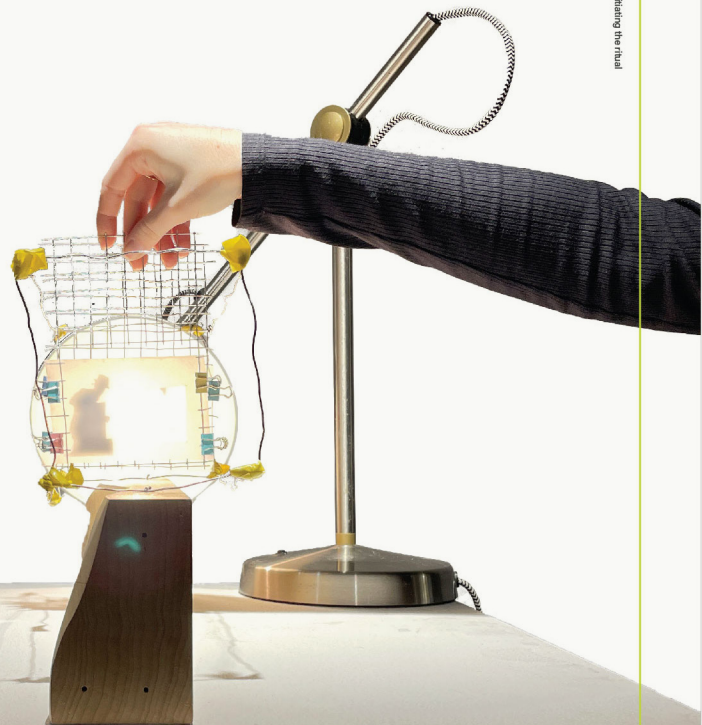
Between Information and Imagination: The *phantascope* is used to spatialize the qualities brought forward by the ritual performance; a simple device which manipulated light and screens to create dancing shadows and often frightening effects through the representation of distorted imagery and ghostly spectres; playing with the audience's anxieties around death and the afterlife.

framing the spectacle

scale 1: experience

"Phantasmagoria" were lively, interactive events incorporating storytelling, history, and theatre in a single artform. These spectacles entertained while providing a space for thinking about the otherworldly; playing with the viewers anxieties regarding death and thr afterlife.
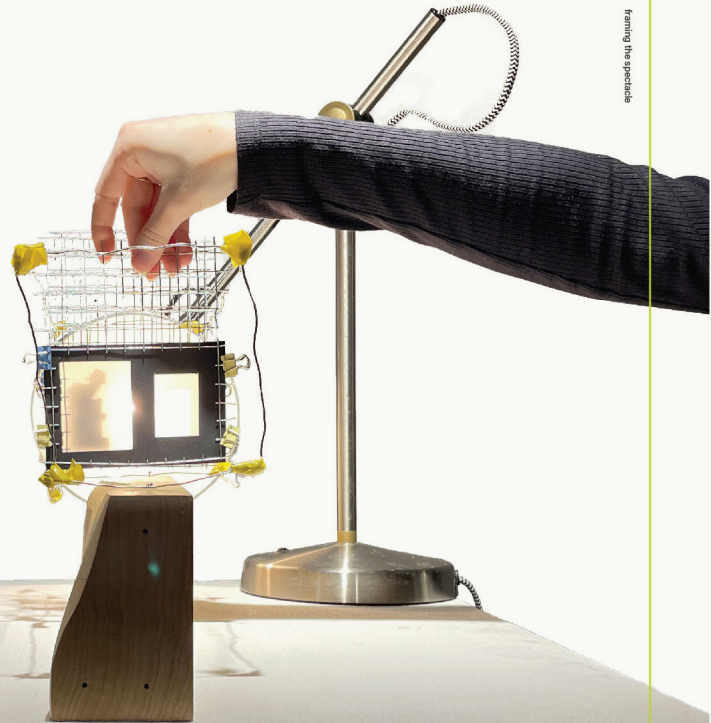
Between Information and Imagination: Here, the construction of a *phantascope* develops a vocabulary for the design interventions; a strategy for using discarded materials and a structural grammar of light steel framing for the construction of set-like pieces.

Between Information and Imagination: Early collage demonstrating the opportunity to use labour and exhibition for reconsidering the negative qualities of waste.
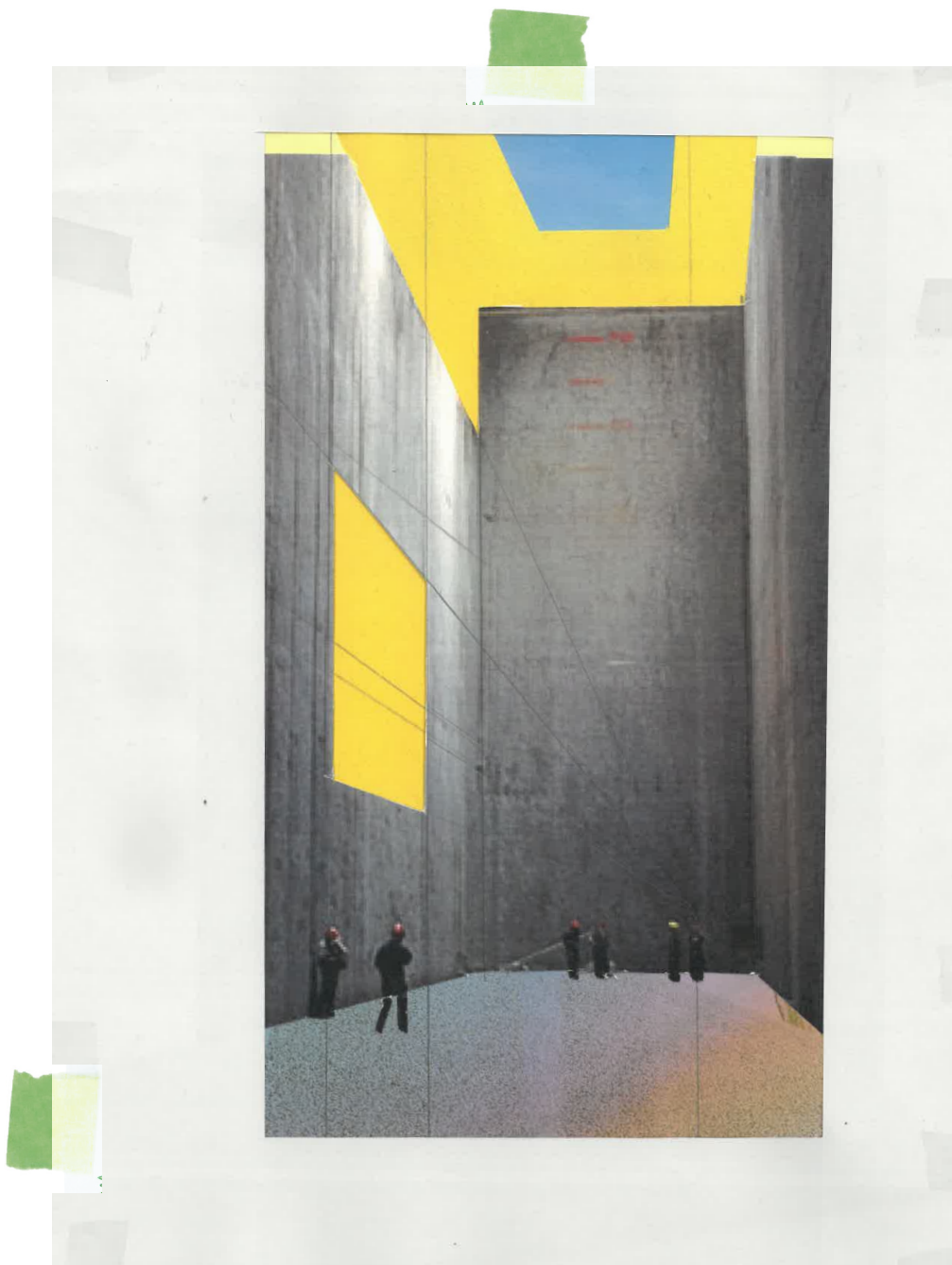
Between Information and Imagination: Early collage exploring architectural amendments to the refuse pit through actions of cutting, layering, lifting.

framing the
spectacle

scale 2: envelope

*While developing the thesis a series of
models, collages, and photographs were
used to explore the theatrical riggings of
phantasmagorical shows which
centered around the phantscope; a
simple device which manipulated light
and screens to create dancing shadows
and often frightening effects through the
representation of distorted imagery and
ghostly specters; playing with the
audiences' anxieties around death and
the afterlife.*
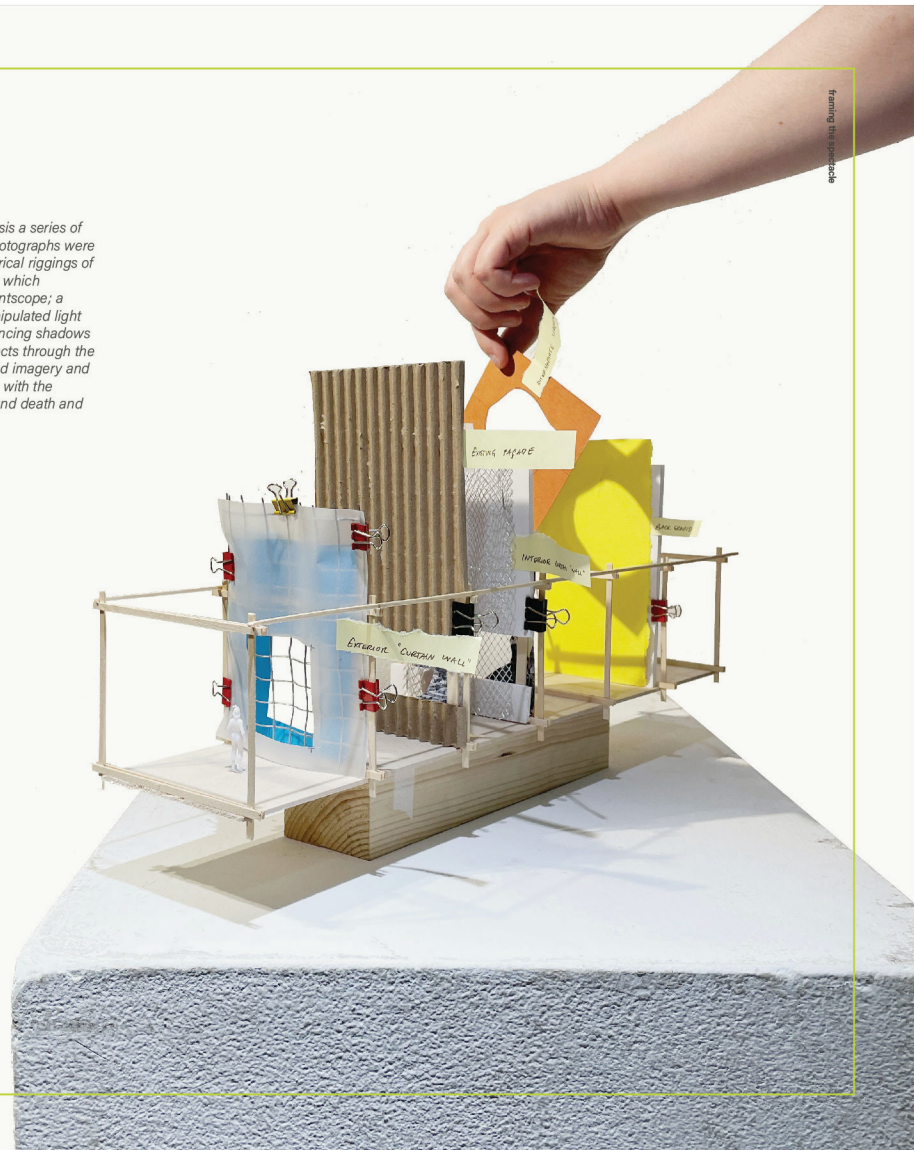
Between Information and Imagination: While developing the thesis a series of models, collages, and photographs were used to explore the theatrical riggings of phantasmagorical shows. This afforded a consideration for how the boundary between existing infrastructure and added interventions could be blurred by exploding typical assemblages of partitions to allow the weaving of people in front and behind of certain architectural elements. Beyond exploring certain phantasmagorical ideas of space, the discarded materiality of the models echoes a materiality for the architectural interventions proposed in the thesis; embodying the ideas of a ritual cycle involving me (the subject) and the wasted materials (the object).
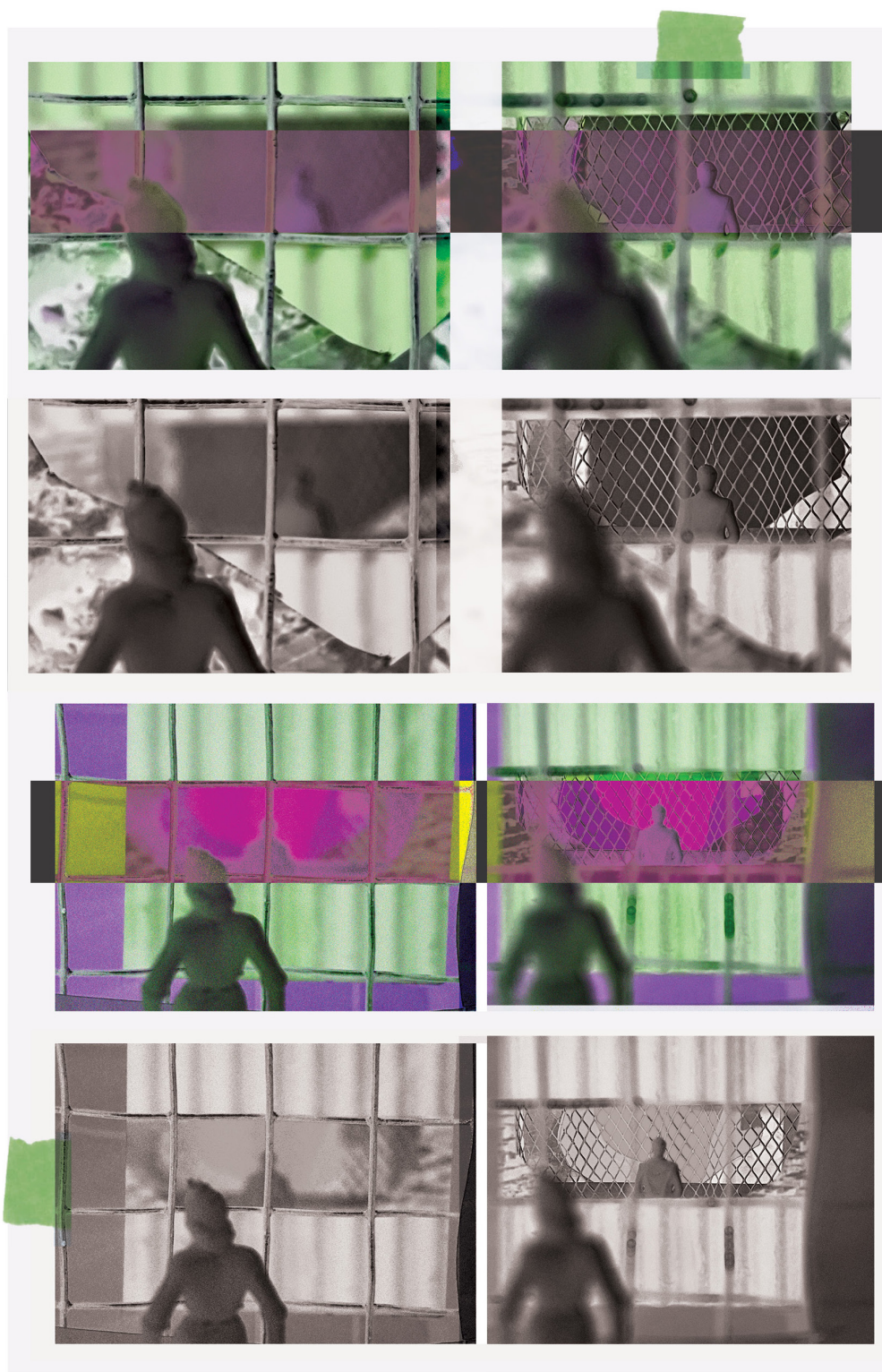
Between Information and Imagination: Generated views from the model exploring points of view.

Ritual-Waste Performance Act I: Separation

In this act, the ramp and tipping bays of the existing waste facility are re-interpreted into a new arrival sequence signalling the initiation of the performance. Historically experienced by garbage trucks and civil servants, now, people from the borough arrive willingly with their *moribund* (or dead) object in hand. People and their waste objects cross onto the site and ascend the ramp, separating from the city. They gradually fade behind a translucent screen, symbolically detaching from their former identities.

An ordering of structural and architectural steel frames measures the procession, mediating between the exterior city and the interior hall. Once inside, a field of translucent partitions once more catches the shadows of actions happening beyond, while openings guide people through as they surrender their objects to the process. A brightly coloured structural steel frame stands as a counterpoint to the existing concrete facility. Here, steel is used to hold screens which witness the point where the waste and person are physically and symbolically separated.

Mediated by the whirring of a conveyor belt, the now decoupled *moribund* object moves into the hands of the [De]Constructor, a specialized group of waste actors who emerge from the city's previous generations of waste pickers and salvagers. Held within the bays of the ground-floor level, the performance which entails the methodical sorting, separating, and deconstruction of matter, can be viewed by on-lookers through a ribbon of clear glazing at street level. Different modes of seeing are employed throughout the project to exploit multiple types of audiences; interchanging between the city as audience and the actor as audience.
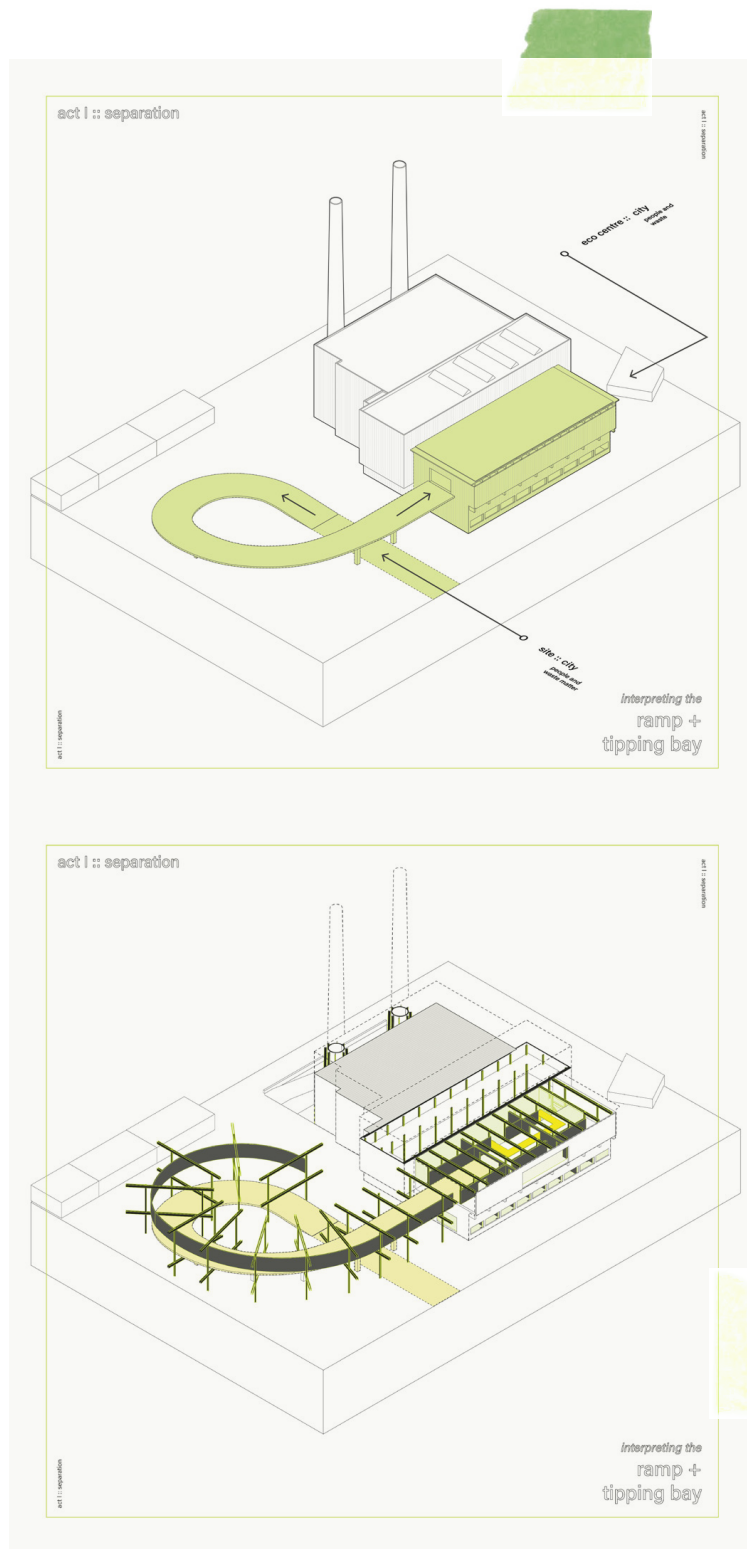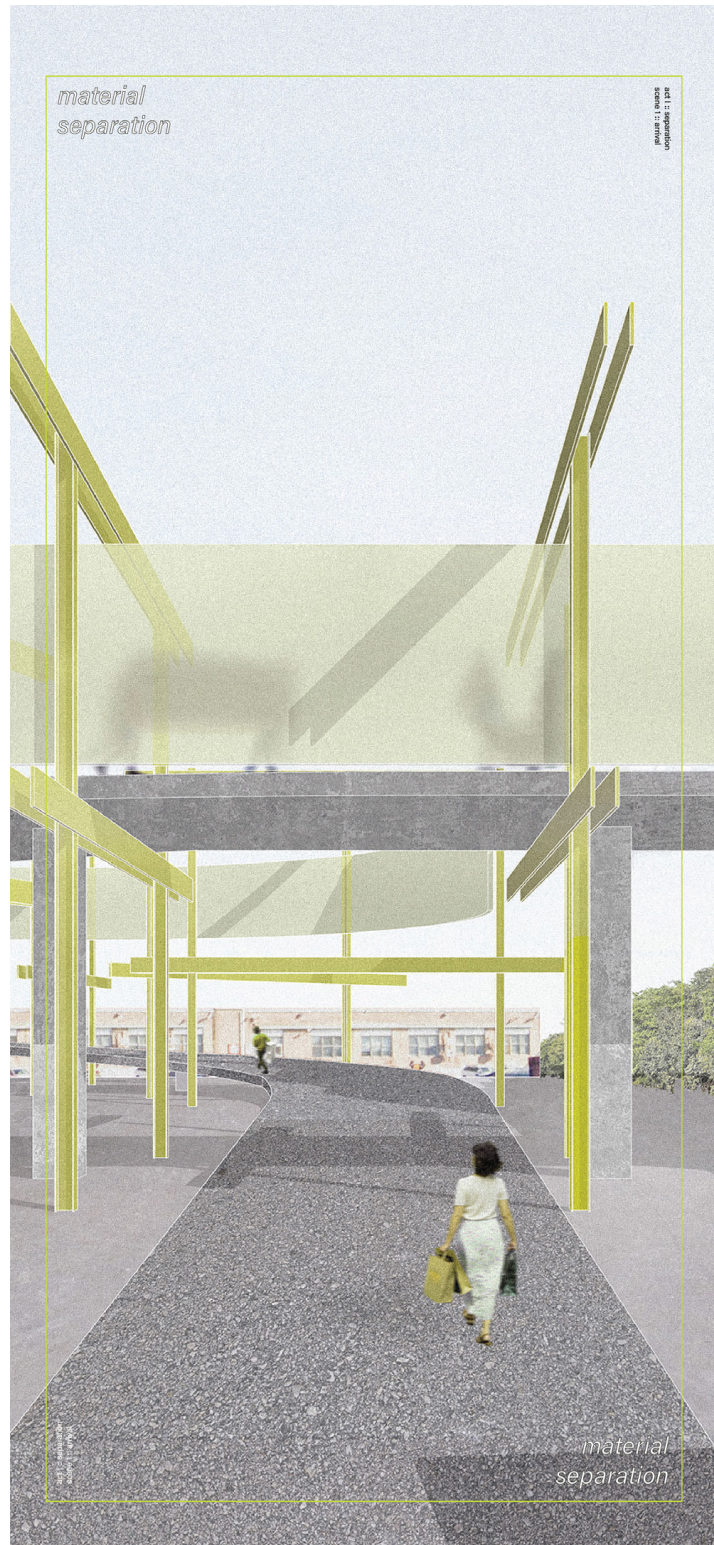
Between Information and Imagination, Act I Separation: In this act, the ramp and tipping bays of the existing waste facility are re-interpreted into a new arrival sequence, signalling the initiation of the ritual-waste performance. Historically experienced by garbage trucks and civil servants, now, people from the borough arrive willingly with their *moribund* (or dead) waste.

pre-cast concrete
panels with
coarse-aggregate
texture

existing
openings

newly cut
facade opening

site-cast
concrete
foundation

existing
structural
elements

screens comprising
of materials with
various opacities

threshold-frames
comprised of
structural steel
H-sections
and flat-bars

glazed
screens
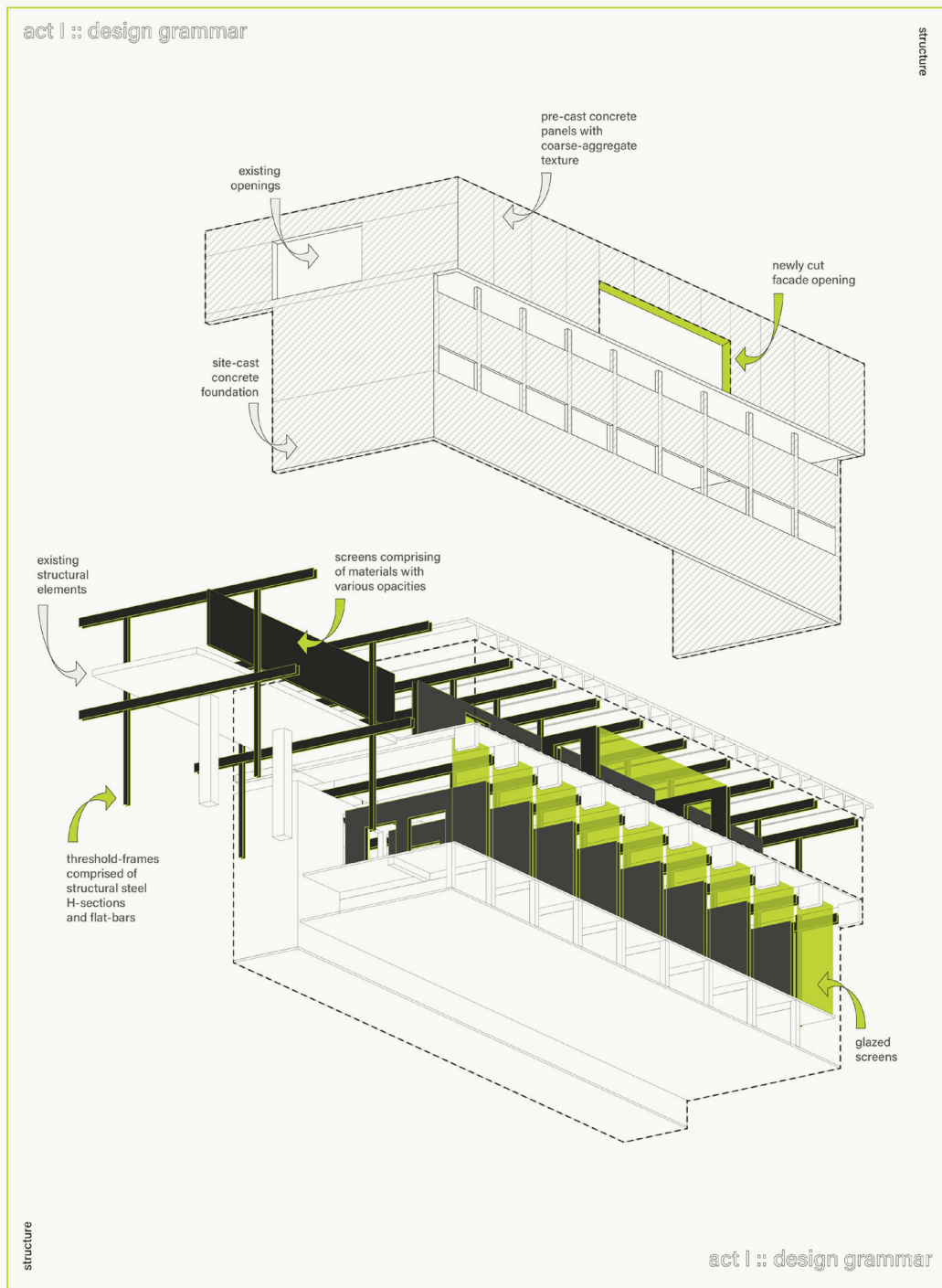
Between Information and Imagination, Act I Separation: Structural diagram demonstrating the contrasted relationship between the stereotomic concrete form of the existing facility against the tectonic grammar of the steel interventions.

Between Information and Imagination, Act I Separation: An ordering of structural and architectural steel frames measures the procession, mediating between the exterior world and the interior hall. Once inside, a field of translucent partitions once more catches the shadows of actions happening beyond and openings guide people through as they surrender their objects to the process. It is at this point where the object and human are physically separated.

Between Information and Imagination, Act I Separation: The human and object ascend the ramp, initiating their separation from the city; gradually, subject and object, fade behind a translucent screen, only to be symbolically detached from their former identities.

Ritual-Waste Performance Act II: Liminality

In this act, the refuse pit which once held the city's waste as it waited to be incinerated, holds the imagination of those who just surrendered objects they might have revered for offering them a lifetime of service.

Having just experienced separation, people would descend to the lowest level of the facility, weaving between the existing thick concrete walls, only to emerge into the 70 foot deep concrete refuse pit. The steel acts to lift a new roof almost 120 feet above the bottom of the pit, letting light pour through the steel frames. As the space bathes in a new light, the decades of waste-scars on the concrete are highlighted and animated with the passing of shadows. Cut into the existing concrete face of the refuse-pit walls are apertures traced with brightly coloured paint to draw attention to the phantasmagoric rendering of activities happening just beyond the translucent screens. The now occupied refuse-pit is intended to exploit a liminal feeling described by Turner to be disorienting and distorted. There is no clear representation of where the person came from or where they're going next, capturing a feeling of being in the in-between.

In this act, the *moribund* objects from the Act 1, move into a physical repository as a collection of material fragments. The fragments can be whole objects needing repair, whole objects ready for a new life, or the [de]constructed fragments of waste objects (plastics, wood, glass, textiles, polymers, metals), in any case, the fragments are physically and digitally triaged, held in a liminal state until they are called upon for repair, refinement and redistribution in the next act.
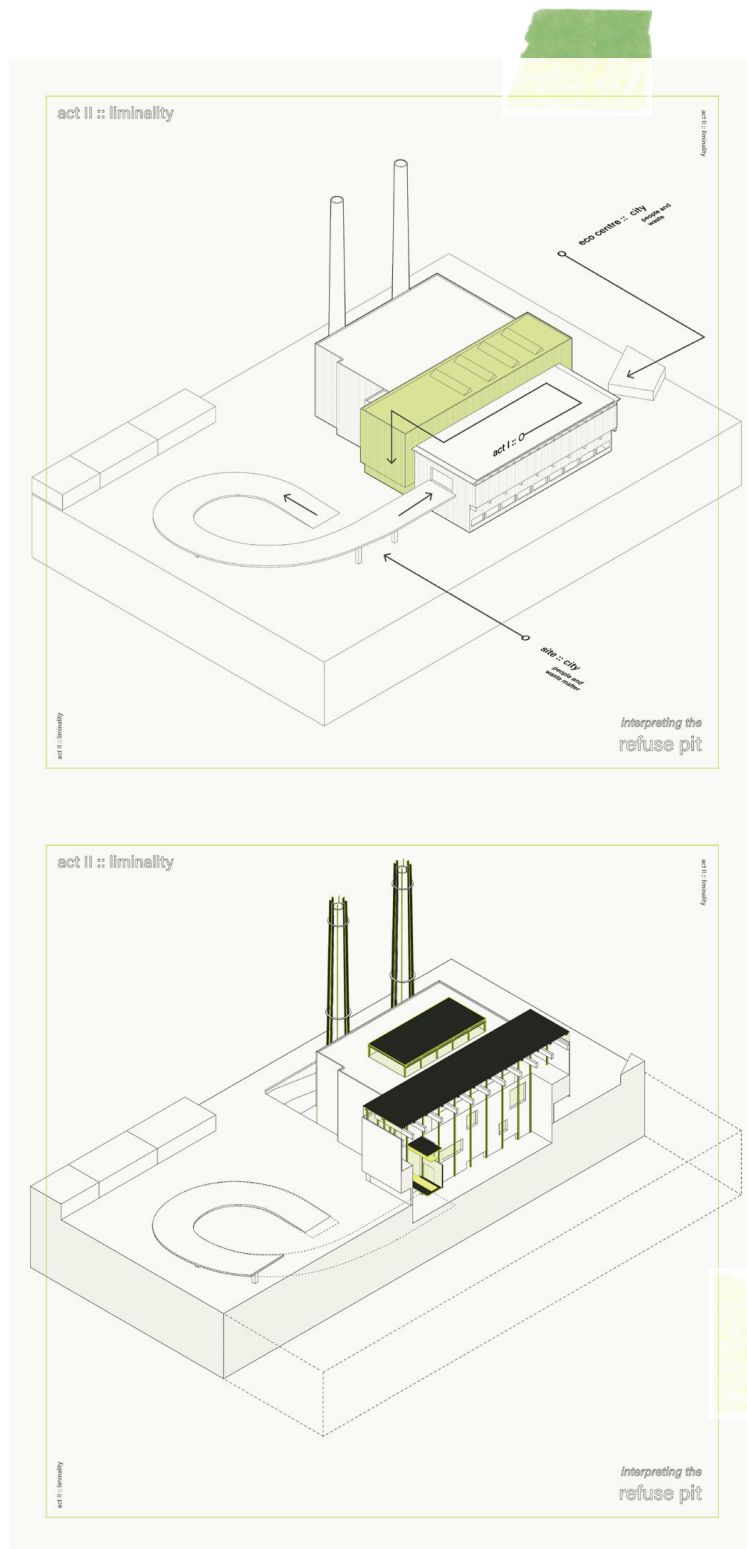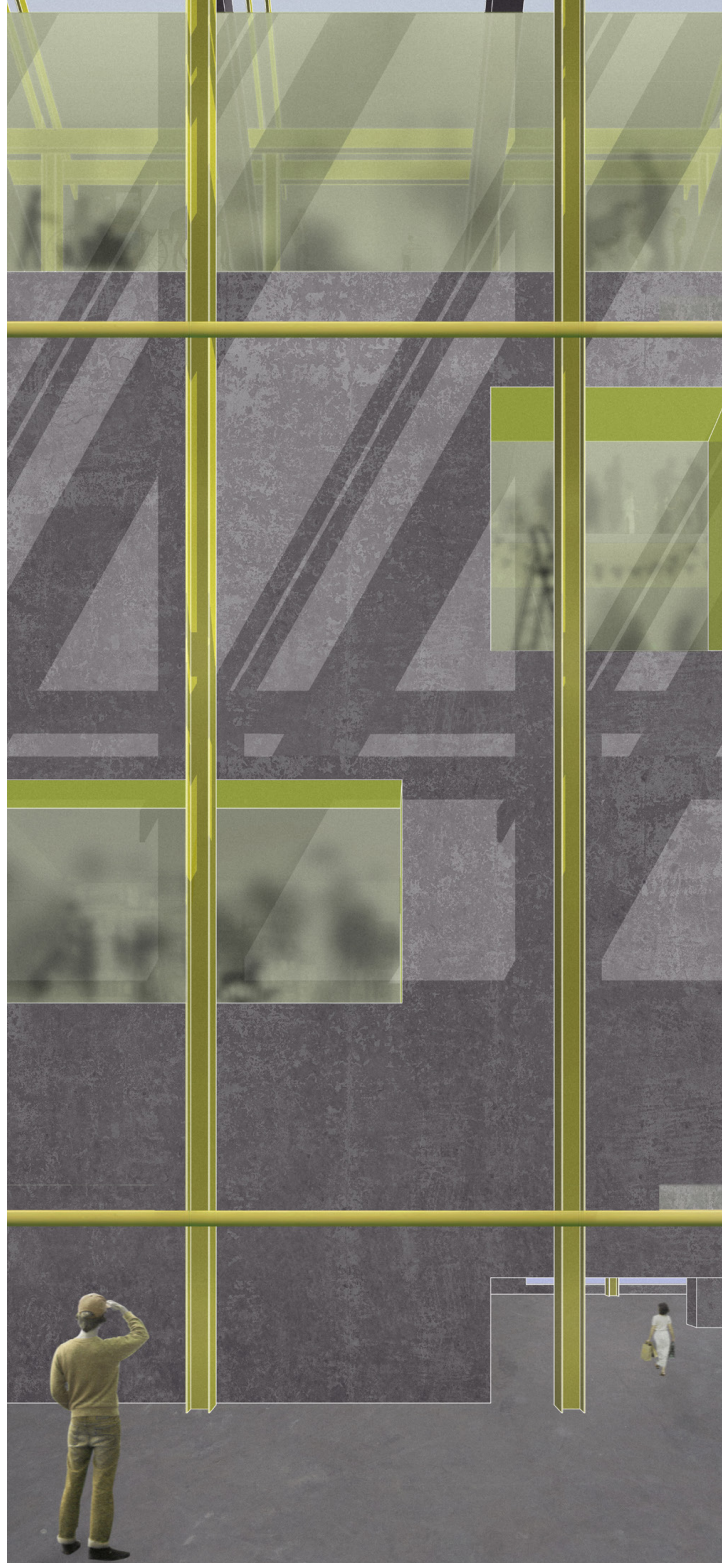
Between Information and Imagination, Act II Liminality: In this act, the refuse pit which once held the city's waste as it waited to be incinerated, holds the imagination of those who just surrendered objects they might have revered for offering them a lifetime of service.

act II :: design grammar

structure

new roofing assembly lifted off the existing roof plane

frames comprised of structural steel H-sections and flat-bars

existing pre-cast pre-stressed concrete beams originally supporting a steel roof assembly

new glazed partitions

existing refuse-pit site-cast concrete walls

newly cut openings

existing site-cast structural elements

structure

act II :: design grammar
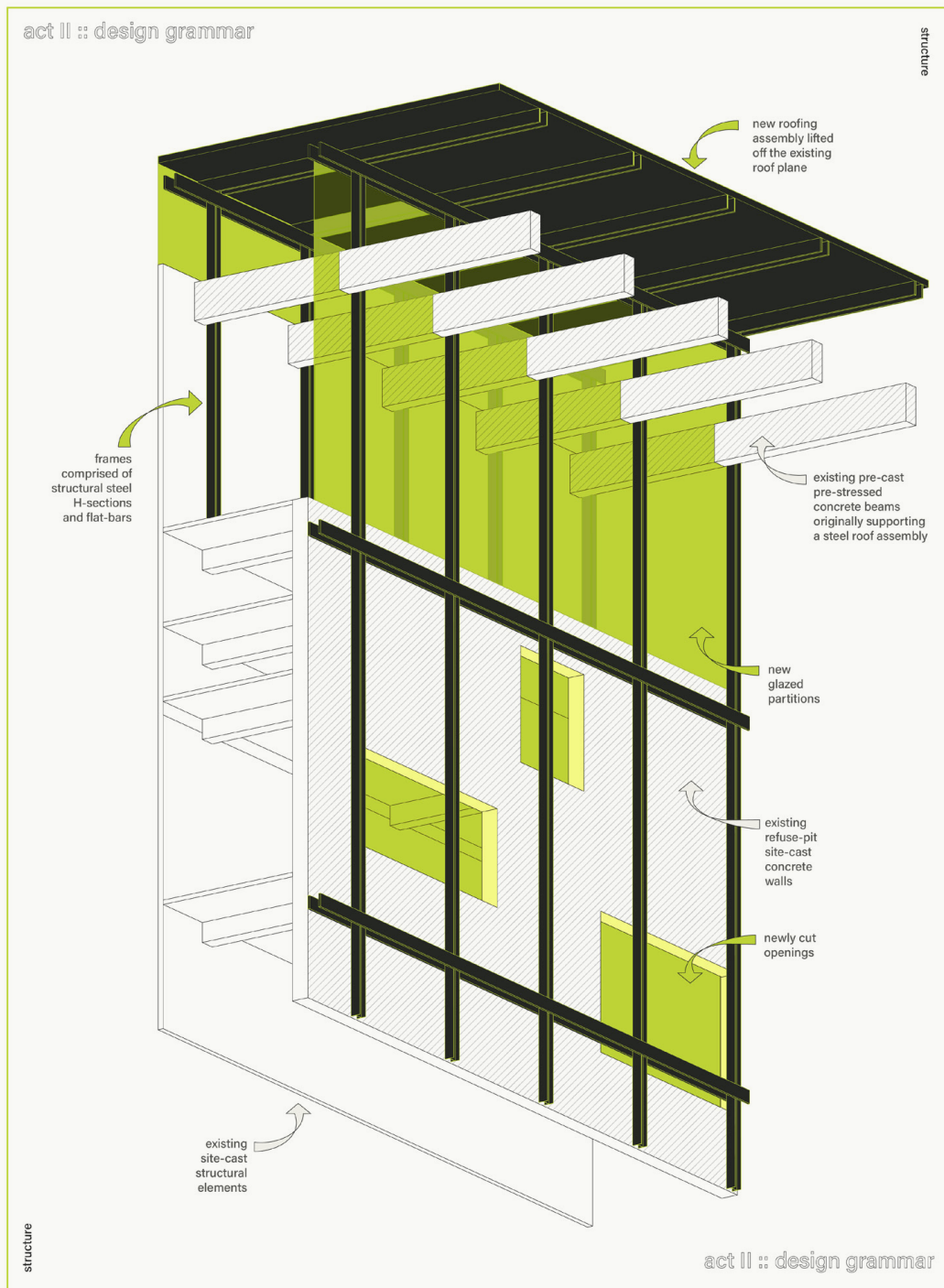
Between Information and Imagination, Act II Liminality: Structural diagram demonstrating the contrasted relationship between the stereotomic concrete form of the existing facility against the tectonic grammar of the steel interventions.

Between Information and Imagination, Act II Liminality: Having just experienced separation; people would descend to the lowest level of the project, moving between thick concrete walls only to emerge into a 70 foot-high concrete pit. The roof of the project is lifted to almost 120 feet above the bottom of the pit, letting light pour through the steel frames, bathing the space in light, highlighting the decades of waste-scars on the concrete, and animating the surface with shadows.
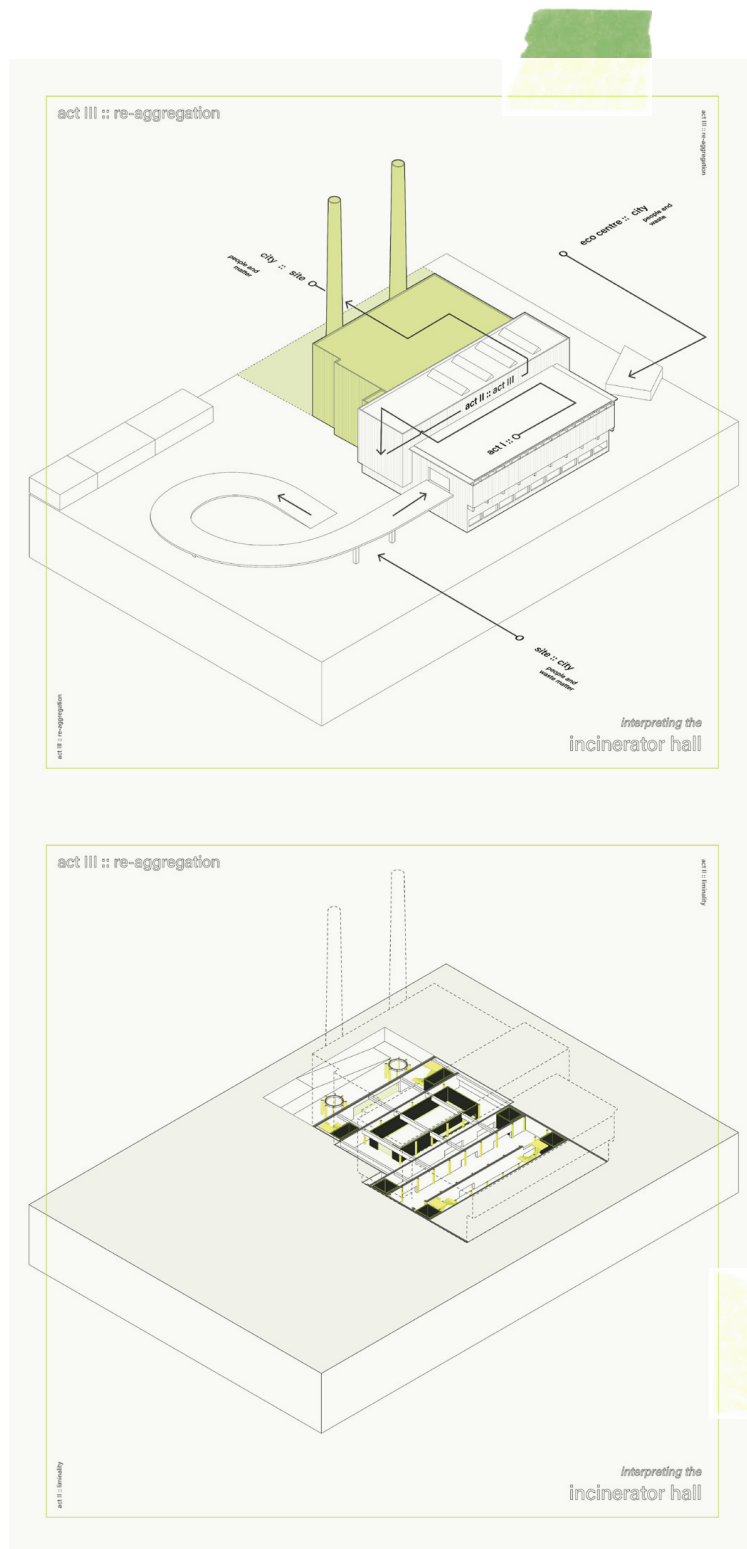
Between Information and Imagination, Act II Liminality: Cut into the concrete face of the refuse pit walls are apertures traced with brightly coloured paint to draw attention to the phantasmagoric rendering of activities occurring beyond.

Ritual-Waste Process Act III: Aggregation

In this act, the incinerator hall which once destroyed matter, effectively erasing the presence of waste from the city behind solid walls, considers an alternative material afterlife; a new identity for the rejected, unused, no-longer needed matter of the city.

The liminal fragments holding from the physical repository of Act II, not unlike the waste sorted into bins just next door at the Eco-Centre, are transformed through the speciality equipment of the Machinist into material artefacts. Here whole objects could be repaired, or the plastic, wood, glass, metal, synthetic or other material fragments can be refined and aggregated into pellets, sheets, blocks, or filaments with the intention of being redistributed to the city for the repair or production of new stuff. The end of the ritual-waste performance is marked through celebration as objects and materials are claimed and removed from the repository. As humans and material leave the building, they emerge from the ground into a sunken courtyard where they can pass underneath the monumental smokestacks of the former incinerator, catching a glimpse of the sky as they re-integrate into the social structure engendered by their lives in the city.

Waste objects are reduced to fragments and re-aggregated into artefacts ready for reintegration, while the process of moving through this re-designed waste facility has continuously placed people within spaces historically only perceived by waste itself. This imaginative dimension, supported through the processional form of ritual and the spectacle of phantasmagoria, is intended to approximate the resolution of the "social drama" between the city, its inhabitants, and its waste.
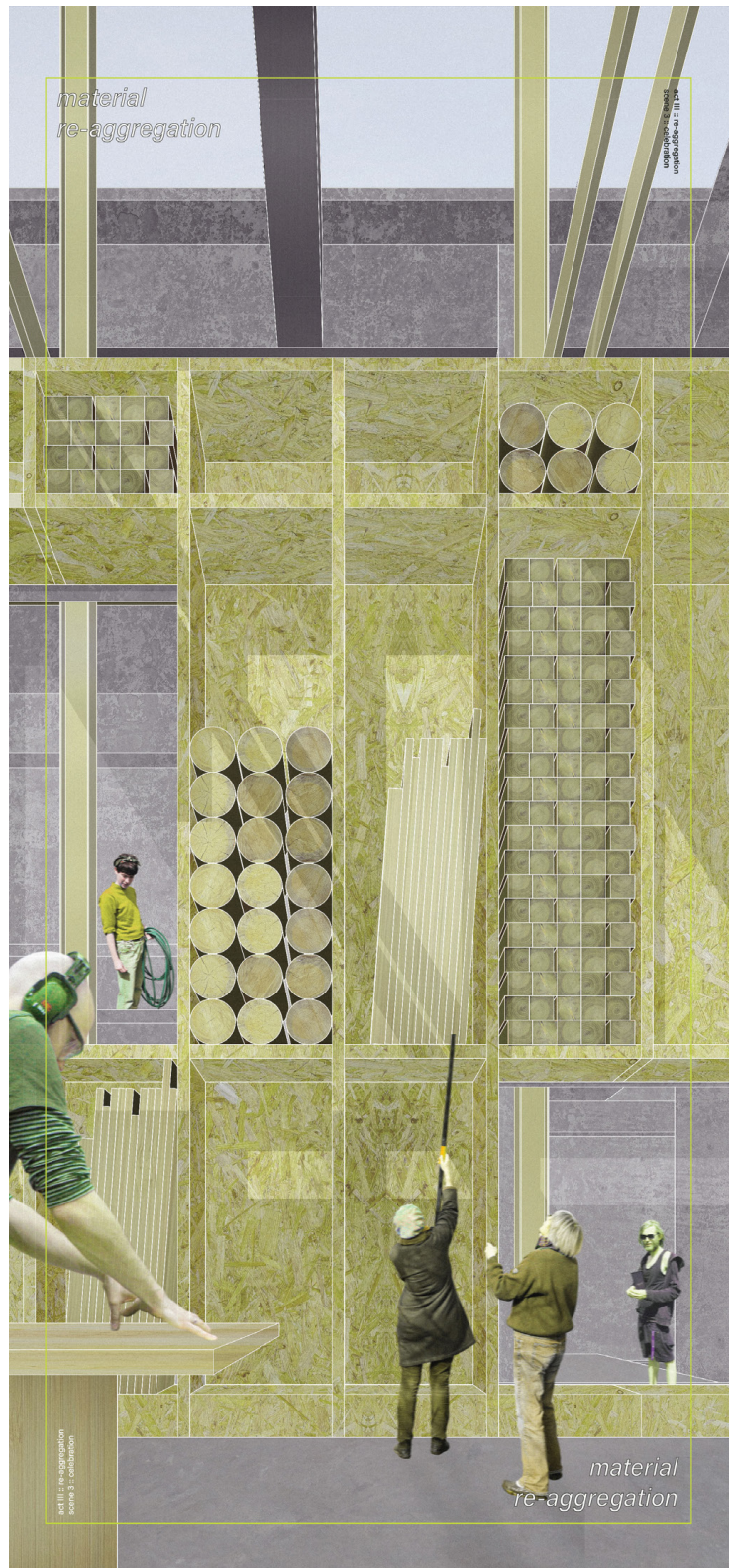
Between Information and Imagination, Act III Re-Aggregation: In this act, the incinerator hall which once destroyed matter, thereby erasing the presence of waste from the city behind solid walls, considers an alternative material afterlife; a new identity for the rejected, unused, no-longer needed matter of the city.

new roofing assembly lifted off the existing roof plane creating a clerestory

frames comprised of structural steel H-sections and flat-bars

solid partitions with cut-outs laid over glazed screens

existing pre-cast pre-stressed concrete beams

glazed screens behind solid partitions
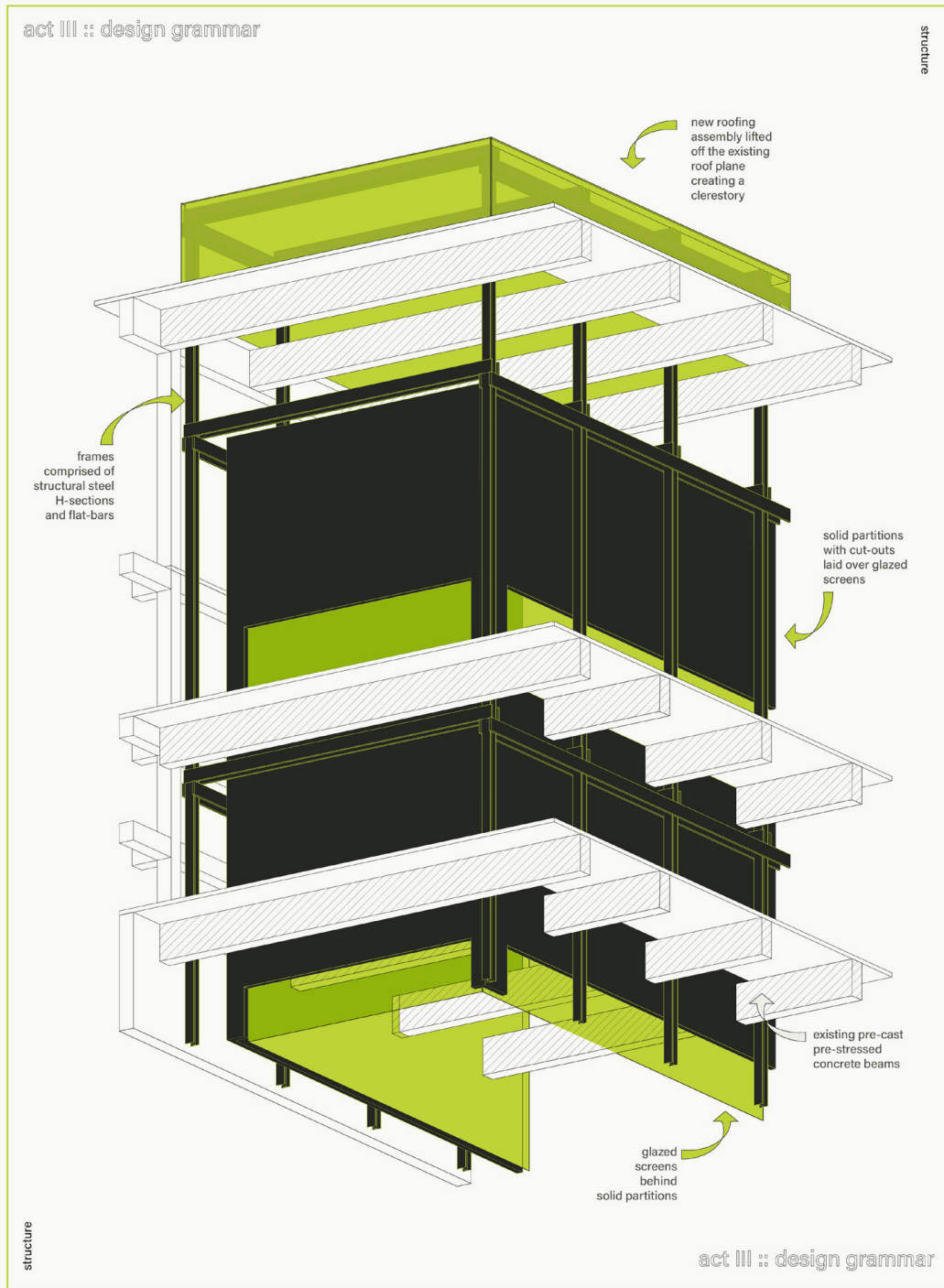
Between Information and Imagination, Act II Liminality: Structural diagram demonstrating the contrasted relationship between the stereotomic concrete form of the existing facility against the tectonic grammar of the steel interventions.

Between Information and Imagination, Act III Re-Aggregation: The liminal holding of material fragments from the repository are amended through the equipment of the Waste-Machinist into a new material artefact. As people and material leave the building, they emerge from the ground into a sunken courtyard where they can pass underneath the monumental smokestacks of the former incinerator, catching a glimpse of the sky as they re-integrate into the social structure engendered by their lives in the city.

Between Information and Imagination, Act III Re-Aggregation: The end of the ritual-waste performance is marked through celebration as material is claimed and removed from the Material Depot.

Chapter 8: Conclusion

The research, theory, and design components of this thesis attempt to challenge how waste is perceived and designed for in urban environments. As demonstrated throughout Montreal's history, the negative consequences of waste happen when it collects in toxic form, is deferred to external fields, and is not afforded the appropriate care, love, skill, and labour needed for it to be re-assimilated into the existing socio-cultural and spatial structures of the city.

Through the imaginative dimensions of ritual performance and phantasmagoric spectacle, it is possible for the infrastructural spaces and processes which support everyday life to critique the behaviours responsible for the production and maintenance of everyday life as well.

Interrogating the mechanisms behind the transformation of objects, processes, and places in the city can afford a conversation surrounding the logic and histories entangled with these often hidden mechanics. Displaying these narratives openly, whether ugly or otherwise, can help reconsider the social structures and design of spaces often used to decouple us from with mess of our own creations. It can only be through entangling ourselves with this mess where we will find meaning and opportunity for defining a truer sense of progress.

> *Frankenstein* foresees that it is not the case that we have failed to care for Creation, but that we have failed to *care* for *our own* creations. We blame the monster, not the creator [...] our iniquity is not that we created our technologies, but that we have *failed to love and care for them*. It is as if we decided that we were unable to follow through with the education of our children. (Latour 2011, 20)

Between Information and Imagination: All the materials used for generating and making the thesis models came from the discard pile in the East Studio of the School of Architecture. The components of each model were held together using tape, nails, clips, knots, all methods of fastening which could be easily reversed.

Between Information and Imagination: In the time of completing the document, the models were returned to the discard pile in the East Studio of the School of Architecture with evidence of them being deconstructed and removed from the material depot as raw material for other student models. This, at least for me, embodies the ideas of the thesis in a small scale.

Between Information and Imagination, Exhibition: (Left) Historical and morphological study of waste on the island of Montréal between 1770 and 1970; (Centre) Testing the theoretical dimensions of the thesis in the shell of Rosemont's abandoned waste incinerator; (Right) Models and drawings exploring Benjamin's *phantasmagoria* and Turner's Ritual Theory.

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