

# Into the Gecekondü

the city as a center for resources

Nikita Maria de Zeeuw

*P5 presentation* - 26/06/2023

Borders & Territories: Transient Liquidities along the New Silk Road II

Mentors:

*Architecture:* Filip Geerts & Oscar Rommens

*Engineering:* Gilbert Koskamp





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Human Scale

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# Introduction

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# Introduction: Istanbul

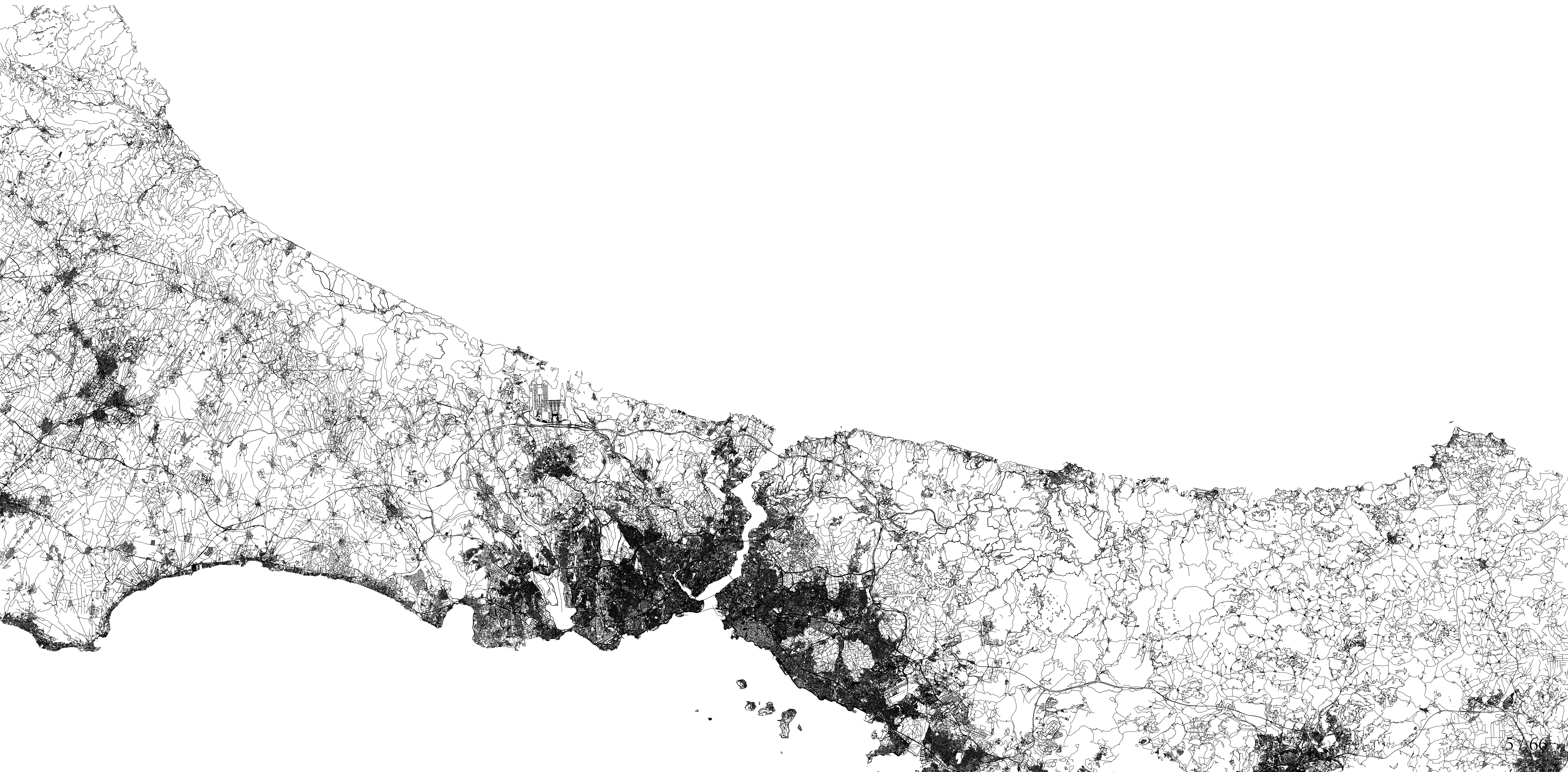
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# Introduction: Istanbul

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# Introduction: Gecekondu

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# Introduction: Gecekondu

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Identity



Community



Self Sufficiency



# Introduction: Redevelopment

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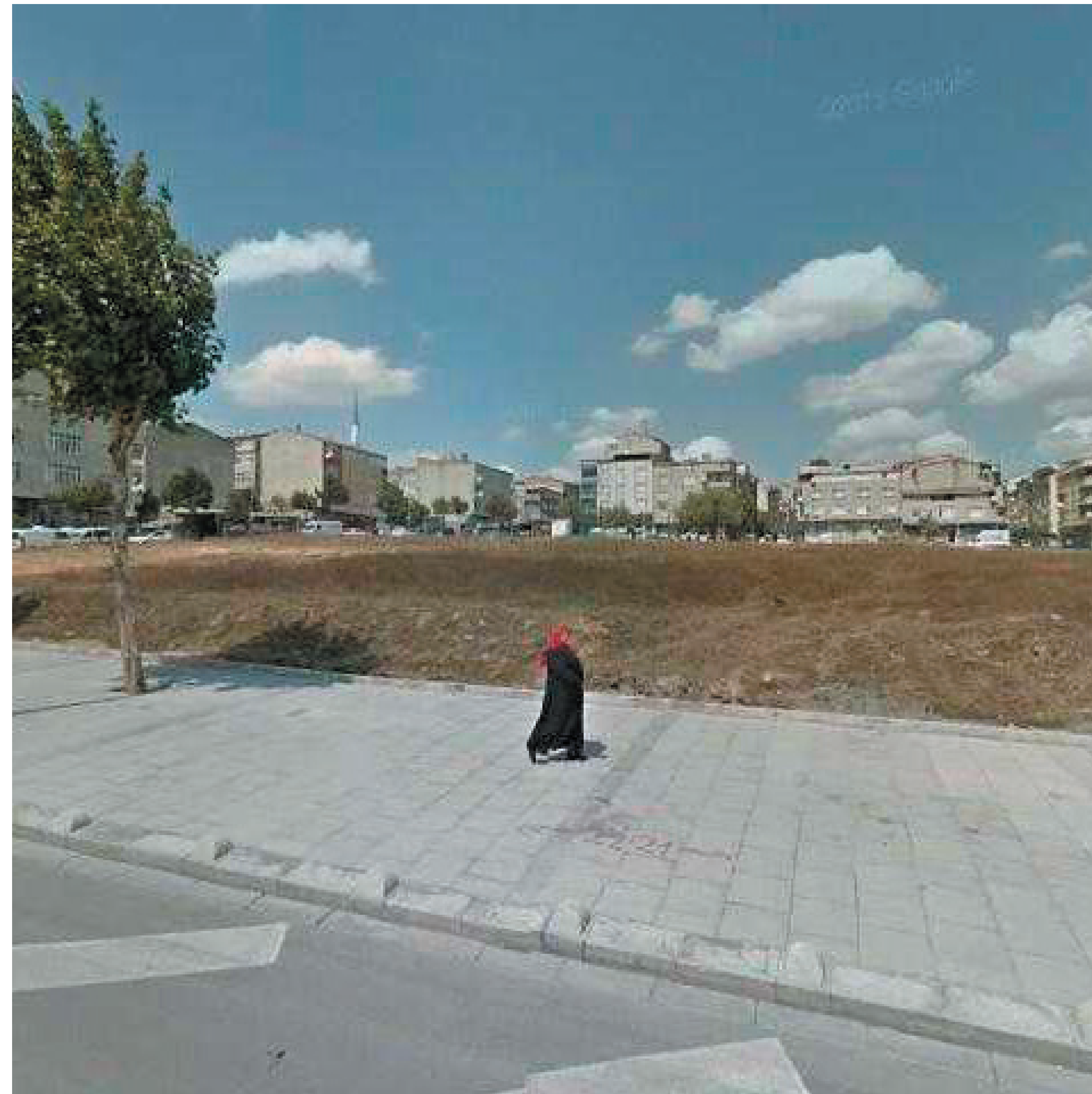
# Present Circumstances

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# Present Circumstances: Redevelopment

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Undefined Spaces



Lack of Diversity



# Present Circumstances: Waste in Turkey

INTERNATIONAL • ENVIRONMENT

## In Turkey, Europe's trash can, plastic recycling poses serious risk to health and environment

Human Rights Watch report reveals a catastrophic state of affairs in a country that has become the top destination for the EU's waste.

By Stéphane Mandard and Angèle Pierre

Published on September 22, 2022, at 5:00 am (Paris), updated on November 13, 2022, at 3:07 pm - 🕒 3 min. - [Lire en français](#)



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A man at an illegal plastic dump in Adana, Turkey, on November 29, 2020. This waste comes from European countries. YASIN AKGUL/AFP



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A man at an illegal plastic dump in Adana, Turkey, on November 29, 2020. This waste comes from European countries. YASIN AKGUL/AFP

THE RECYCLING MYTH

## Why Turkey became Europe’s garbage dump

The growing wave of waste is creating a political problem for the government.



Right now, Turkey is stuck with a growing garbage problem — and no solution | Selin Uğurtaş for POLITICO

BY SELIN UĞURTAŞ

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# Present Circumstances: Waste in Turkey

## UK plastic waste being dumped and burned in Turkey, says Greenpeace

INTERNATIONAL  
In Turkey  
poses  
Human Rights  
become the  
By Stéphane  
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CANER OZKAN/GREENPEACE

By Kathryn Snowdon  
BBC News

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THE RECYCLING MYTH

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### Nearly half of Europe's waste exports made to Turkey, show Eurostat figures

According to data from the Statistical Office of the European Union, exports of waste from the EU to non-EU countries reached 33.0 million tonnes in 2021 and Turkey is the largest destination for waste exported from the EU, with a volume of around 14.7 million tonnes.

İstanbul - BİA Haber Merkezi  
26 May 2022, Thursday 12:21



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THE RECYCLING MYTH

## Why Turkey became Europe's garbage dump

The growing wave of waste is creating a political problem for the government.

## Turkey imported nearly half of EU waste last year

Turkey received nearly 50% of all waste exports from Europe in 2021, statistics from the European Commission show.

Published on 25 May, the Eurostat data shows that around 14.7 million tonnes were exported to Turkey in 2021 – more than three times as much as in 2004 and almost half of the total exports of waste.

### Nearly half of Europe's waste exports made to Turkey, show Eurostat figures

According to data from the Statistical Office of the European Union, exports of waste from the EU to non-EU countries reached 33.0 million tonnes in 2021 and Turkey is the largest destination for waste exported from the EU, with a volume of around 14.7 million tonnes.

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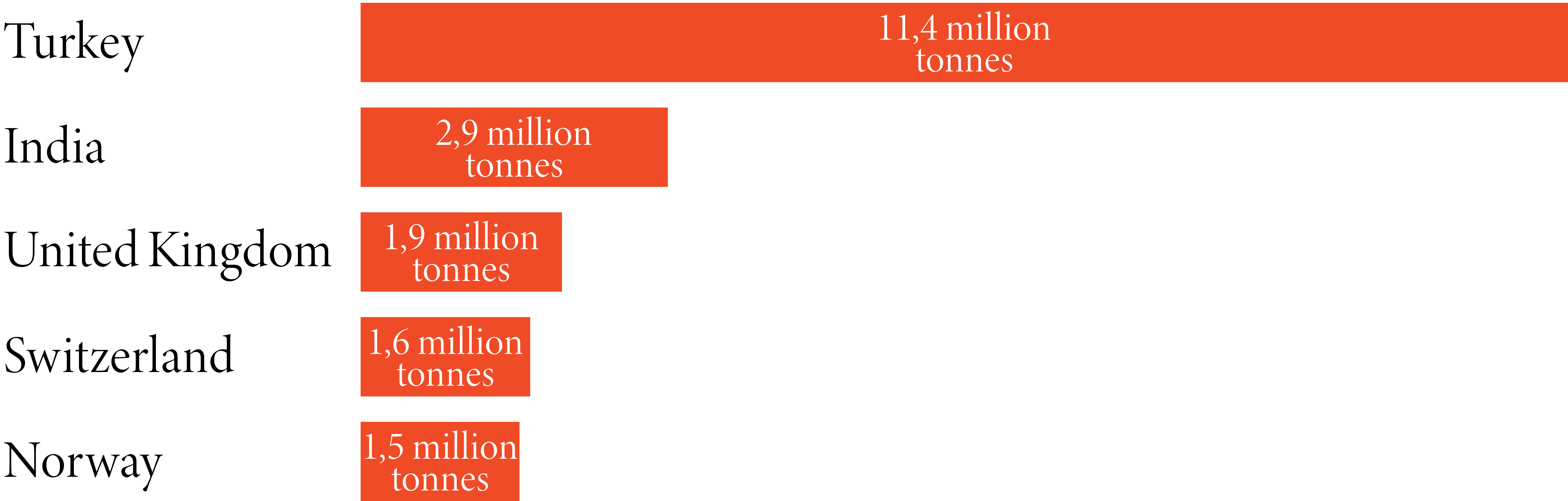
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# Present Circumstances: EU Waste Destinations

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# Present Circumstances: Waste in Cities

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# Operations

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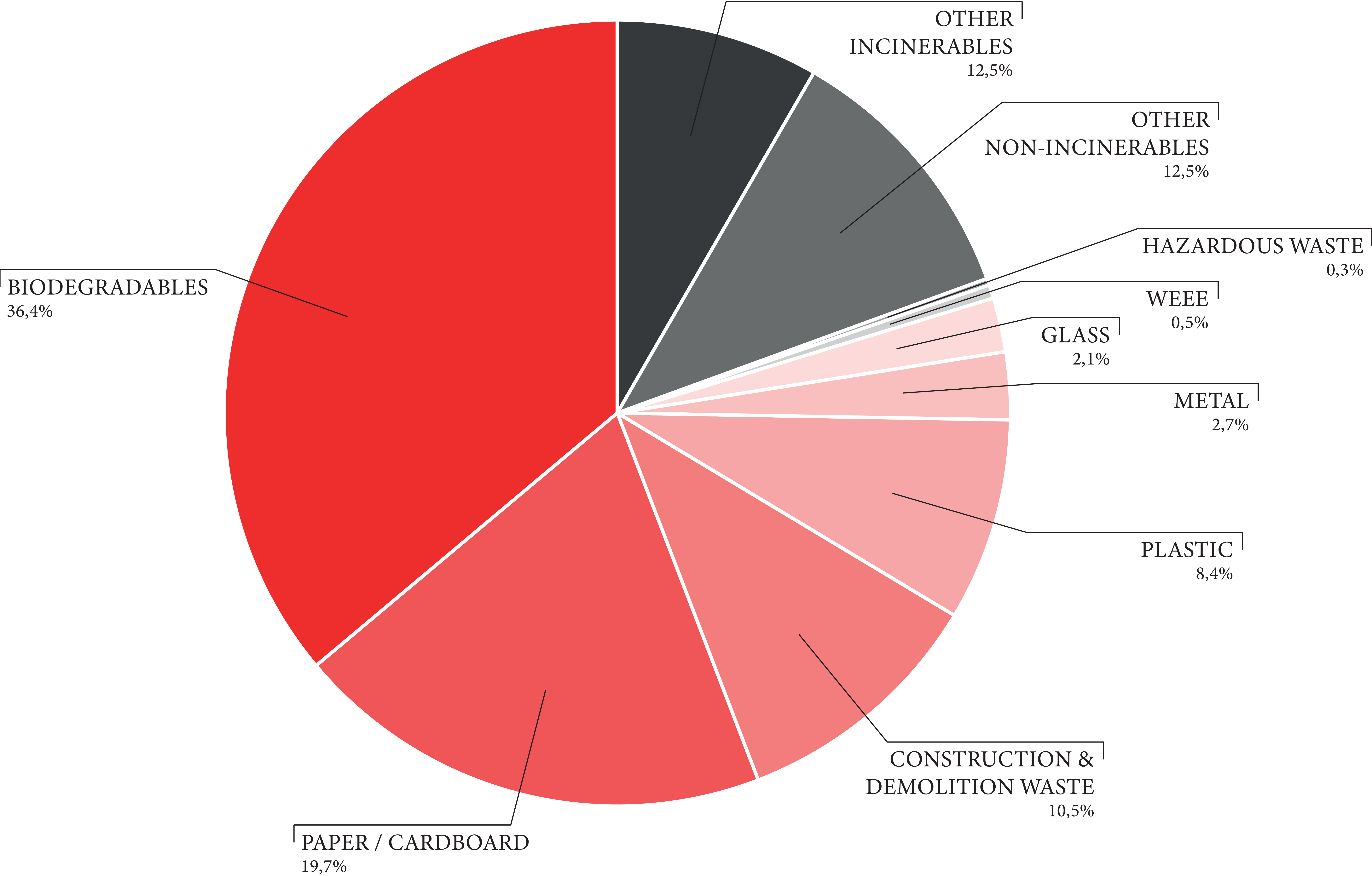
# Operations: Current State

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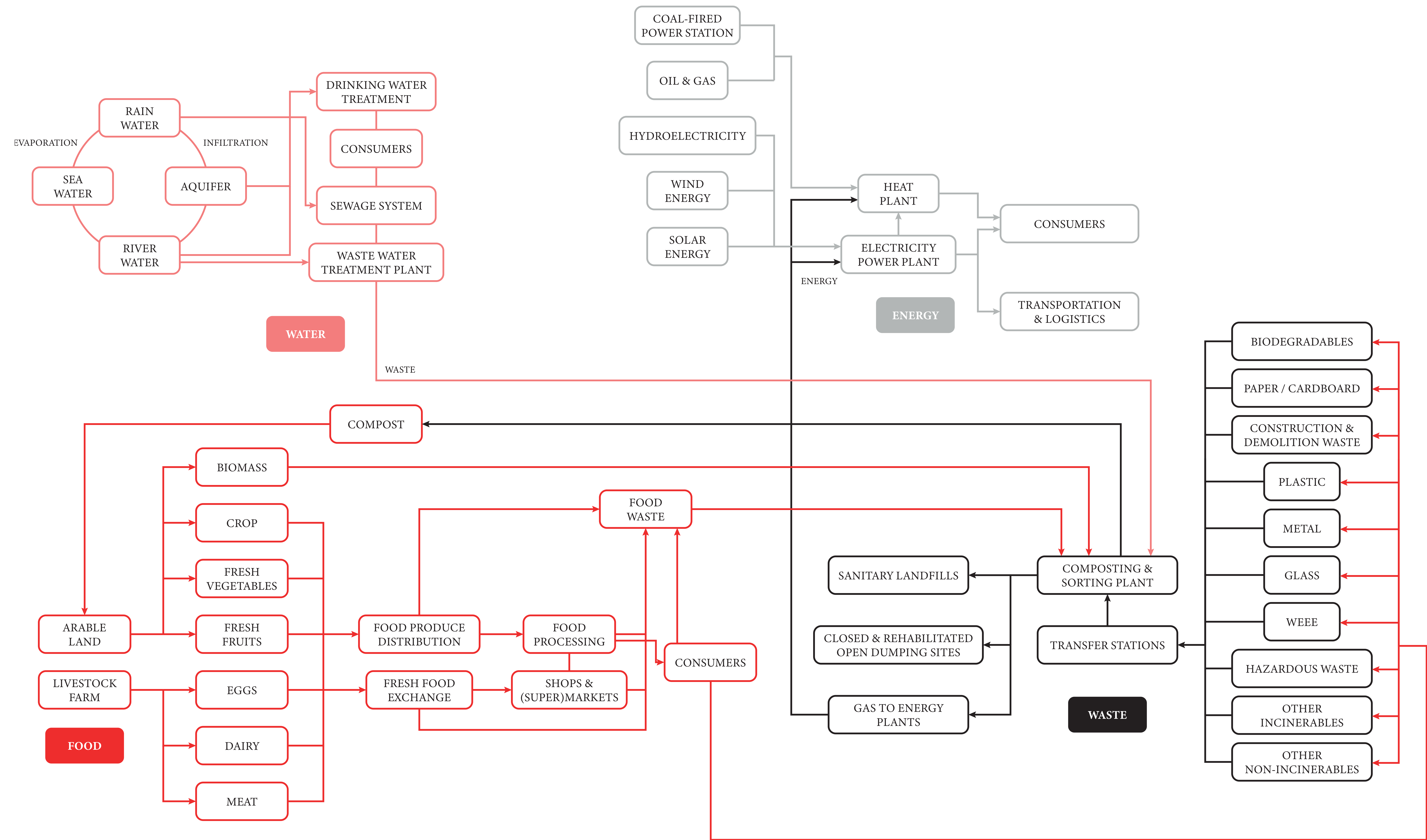


# Operations: Waste Divisions





# Operations: On a Larger Scale





# Operations: Waste Treatment

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Landfill



Waste to Energy Plant

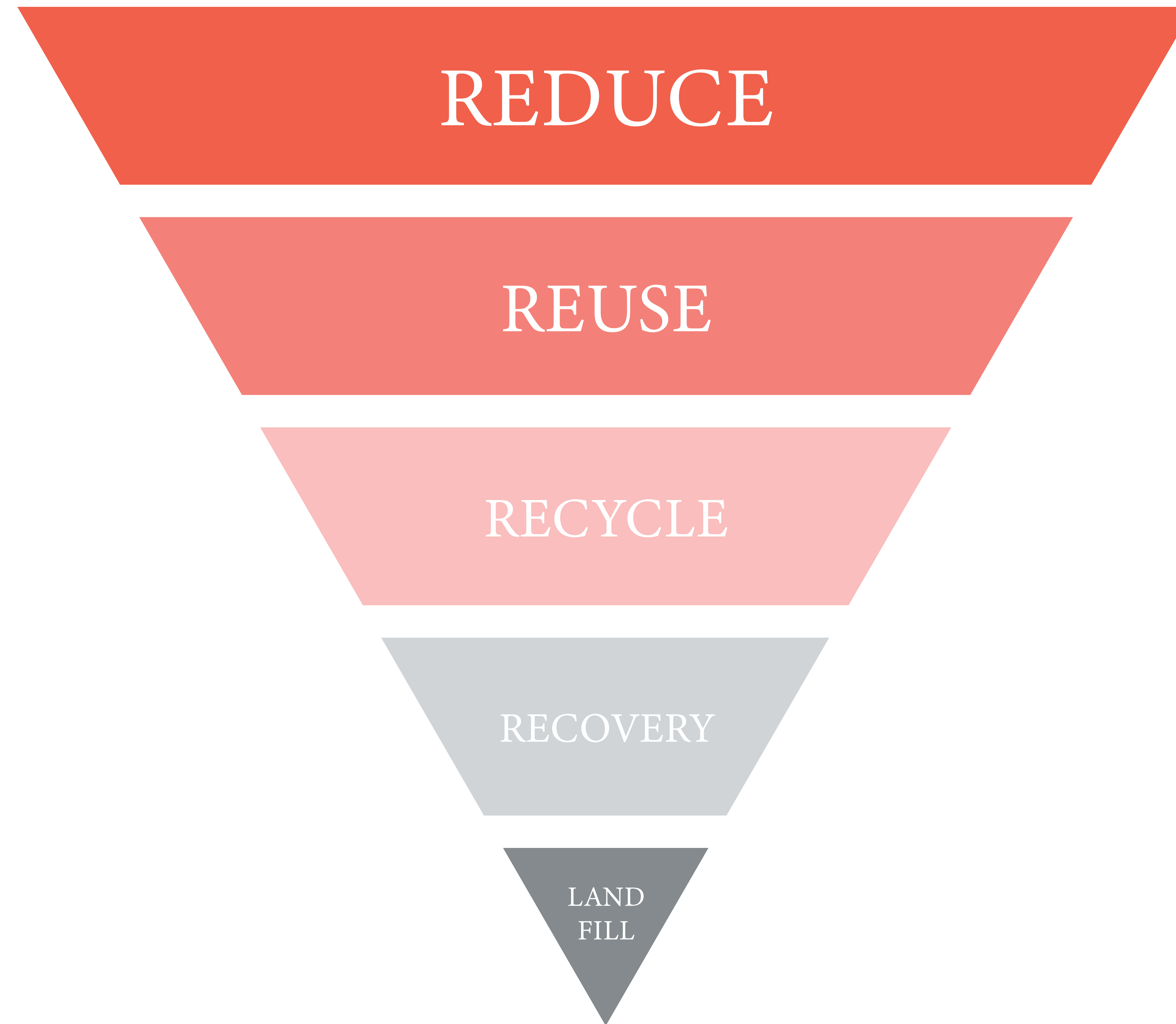


Composting Plant



# Operations: Waste Hierarchy

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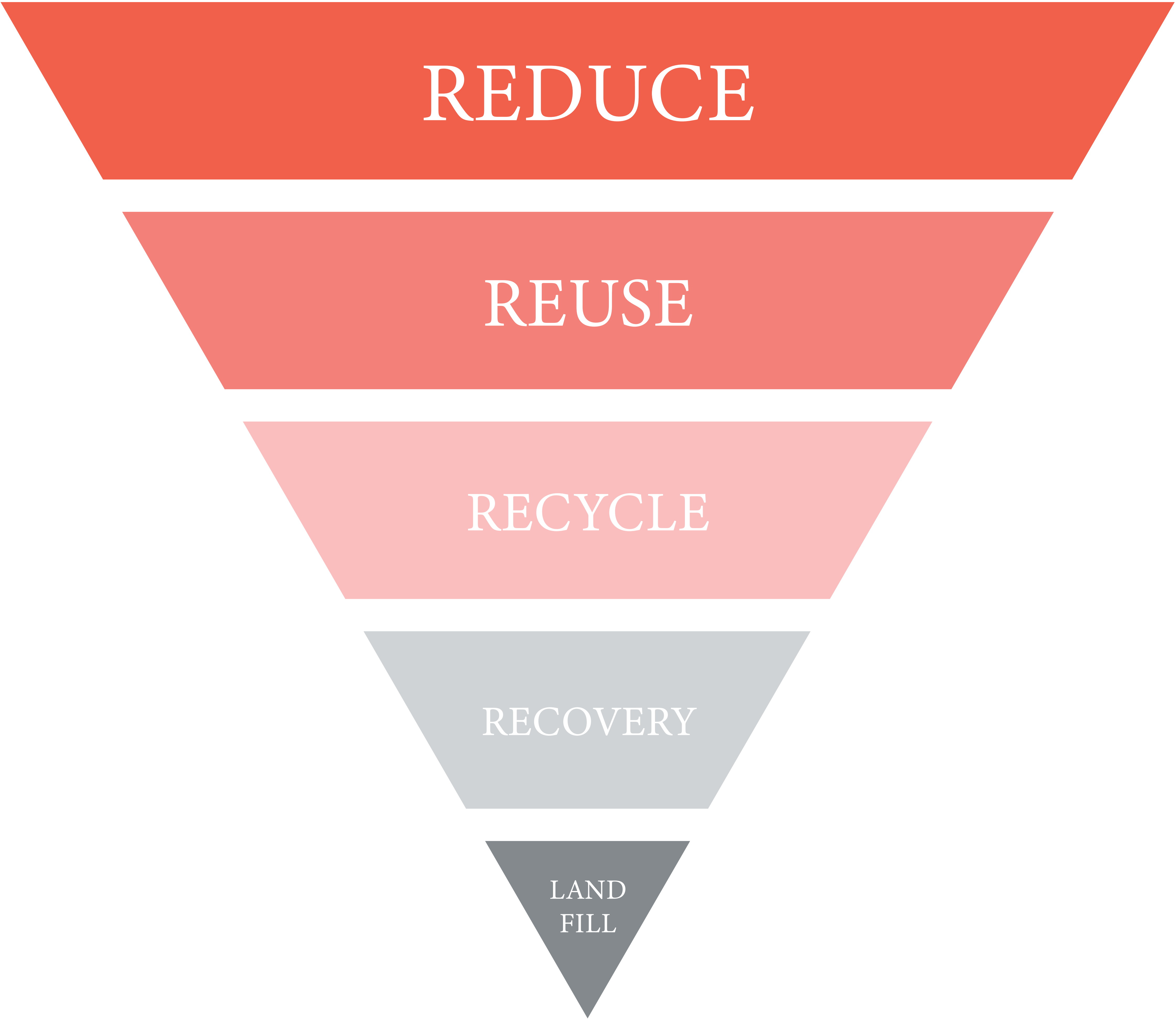


# Operations: Waste Hierarchy

Most preferable option



Least preferable option



REDUCE

REUSE

RECYCLE

RECOVERY

LAND  
FILL

Prevention

Reduce surplus generation of materials throughout production and consumption; reducing the amount of waste produced.

Using materials repeatedly

Check, clean, repair, refurbish whole items or spare parts; in ‘full’ state as much a possible.

Reworking raw materials

Turn waste into a new product by seperating waste streams through high quality material recovering.

(Energy) recovery

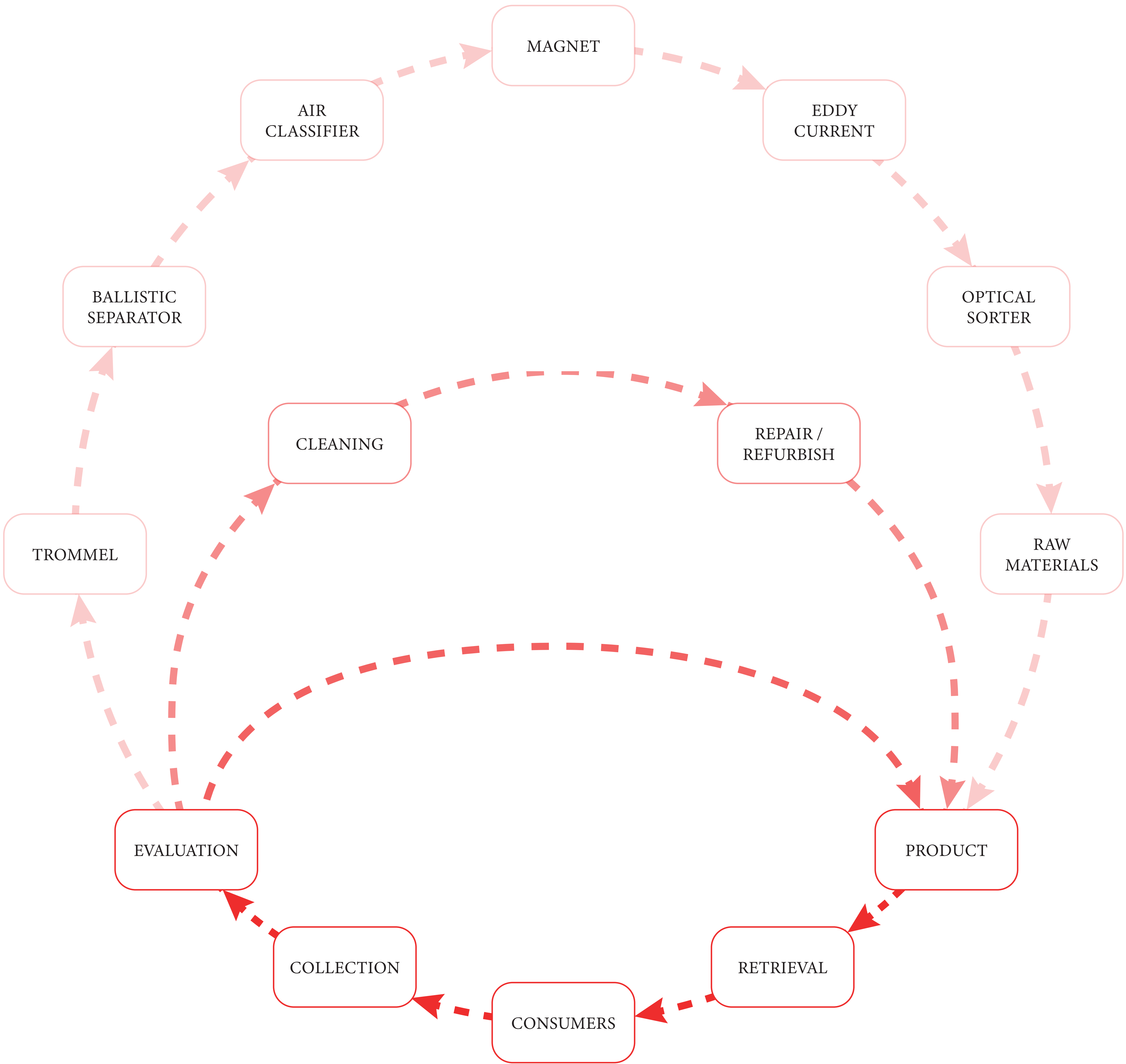
Waste to energy incineration, co-incineration, plastics-to-fuel, etc.

Disposal

Landfill and incineration without energy recovery.



# Operations: Circular Economy





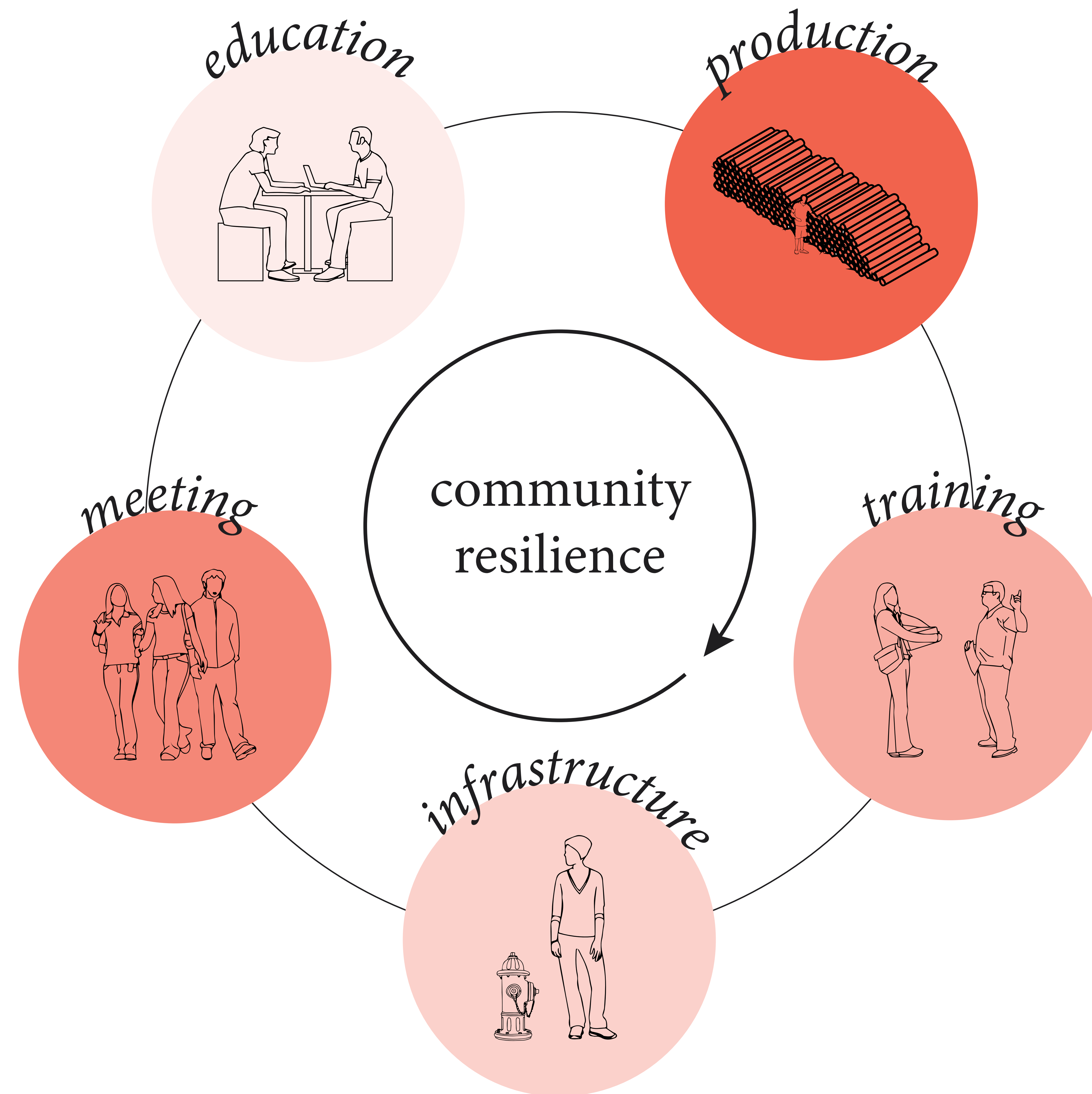
# Design Intentions

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# Design Intentions: Requirements

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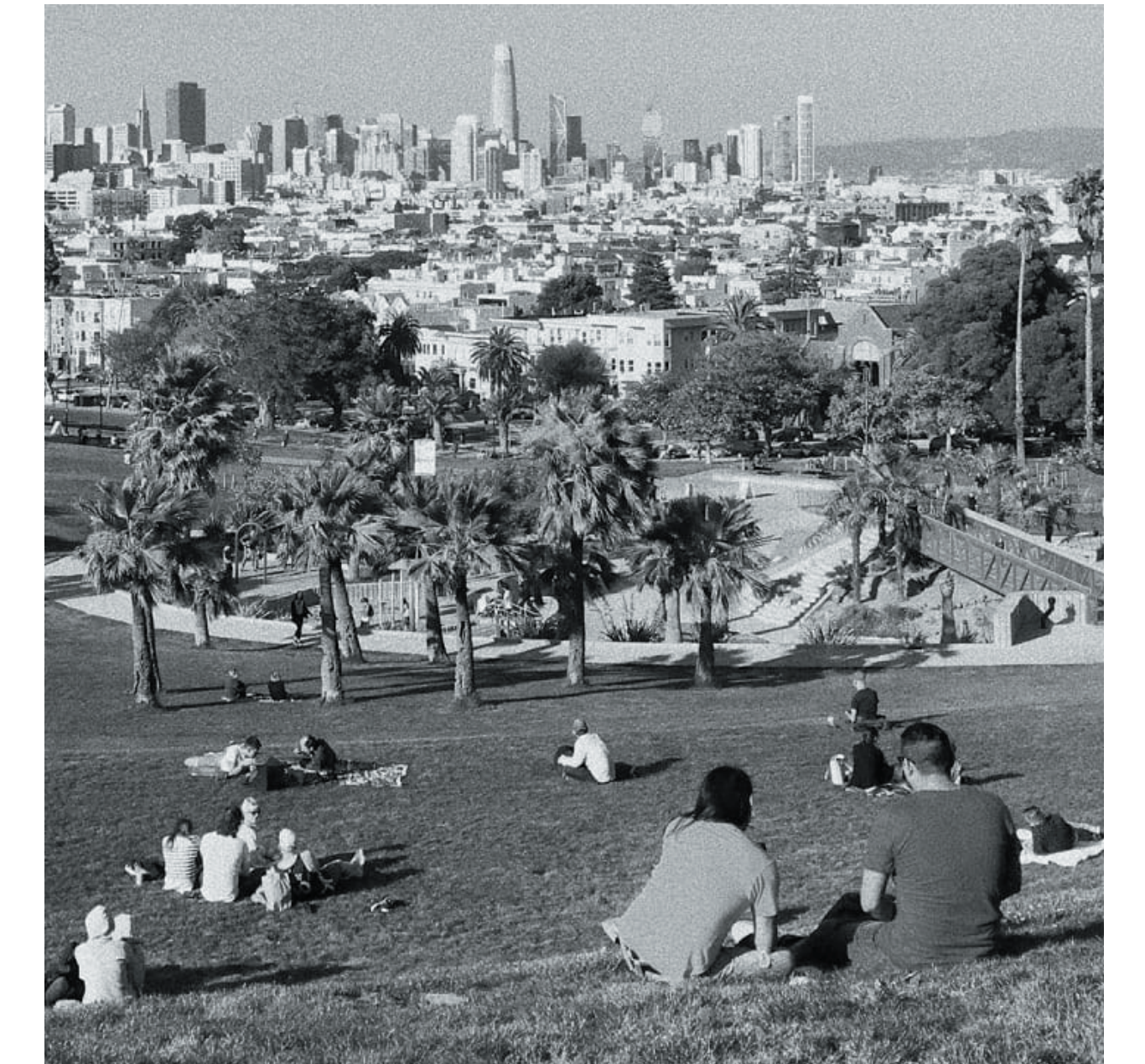
# Design Intentions: Center for Resources

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Functions  
material library  
warehouse  
workshop / lab  
meeting spaces  
educational facility  
material recovery facility

Themes  
material reuse  
urban intervention  
infrastructural synergy

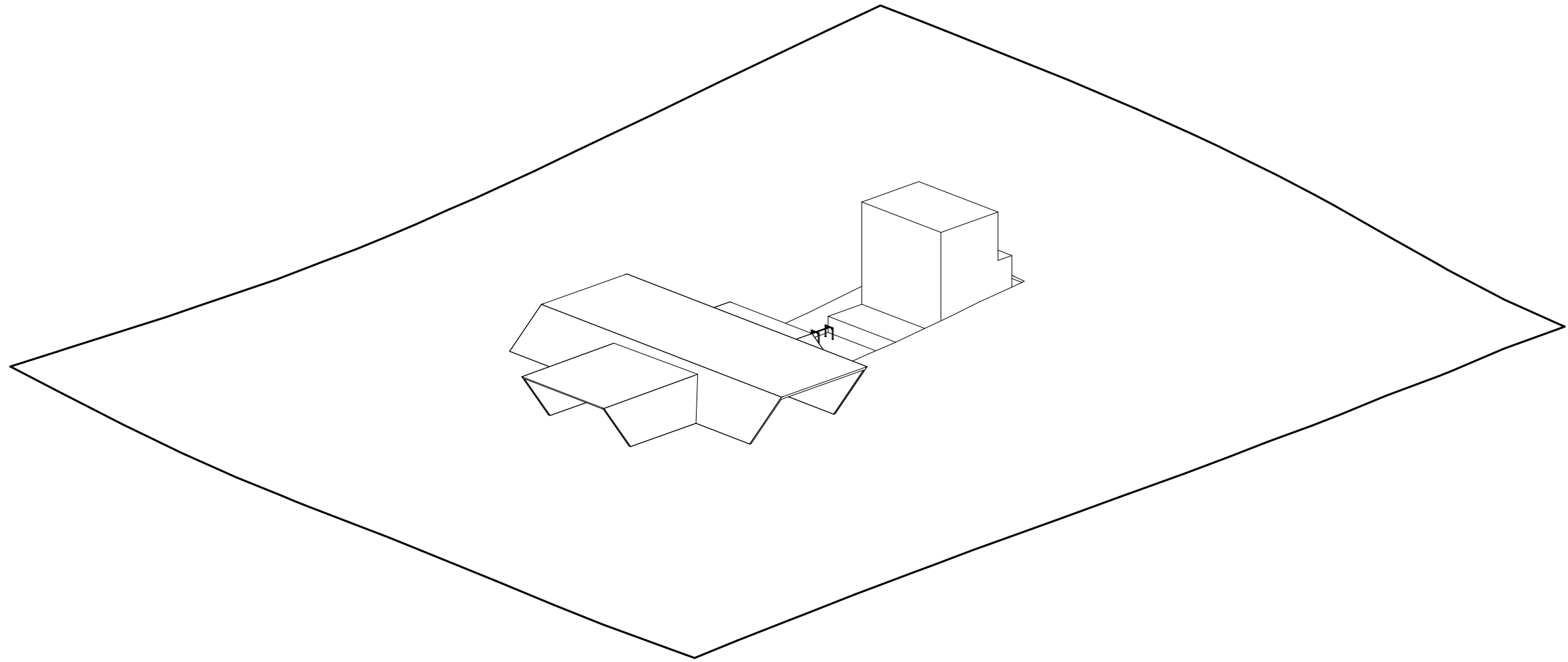




# Design Intentions: Scales



Urban Strategy



Building Design



Human Scale



# Urban Strategy

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# Urban Scale: Site



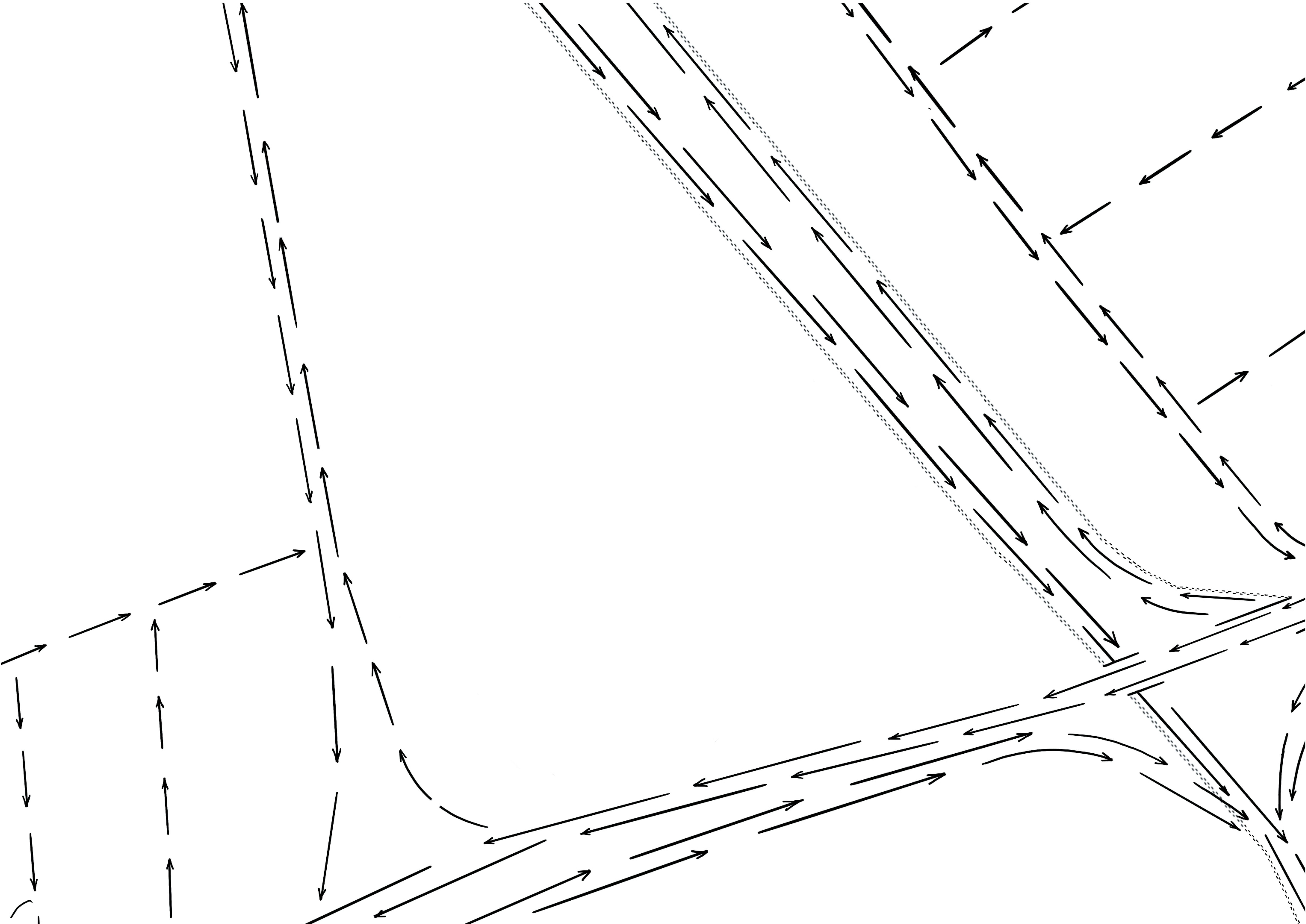


# Urban Scale: Site





# Urban Scale: Site





# Urban Scale: Site



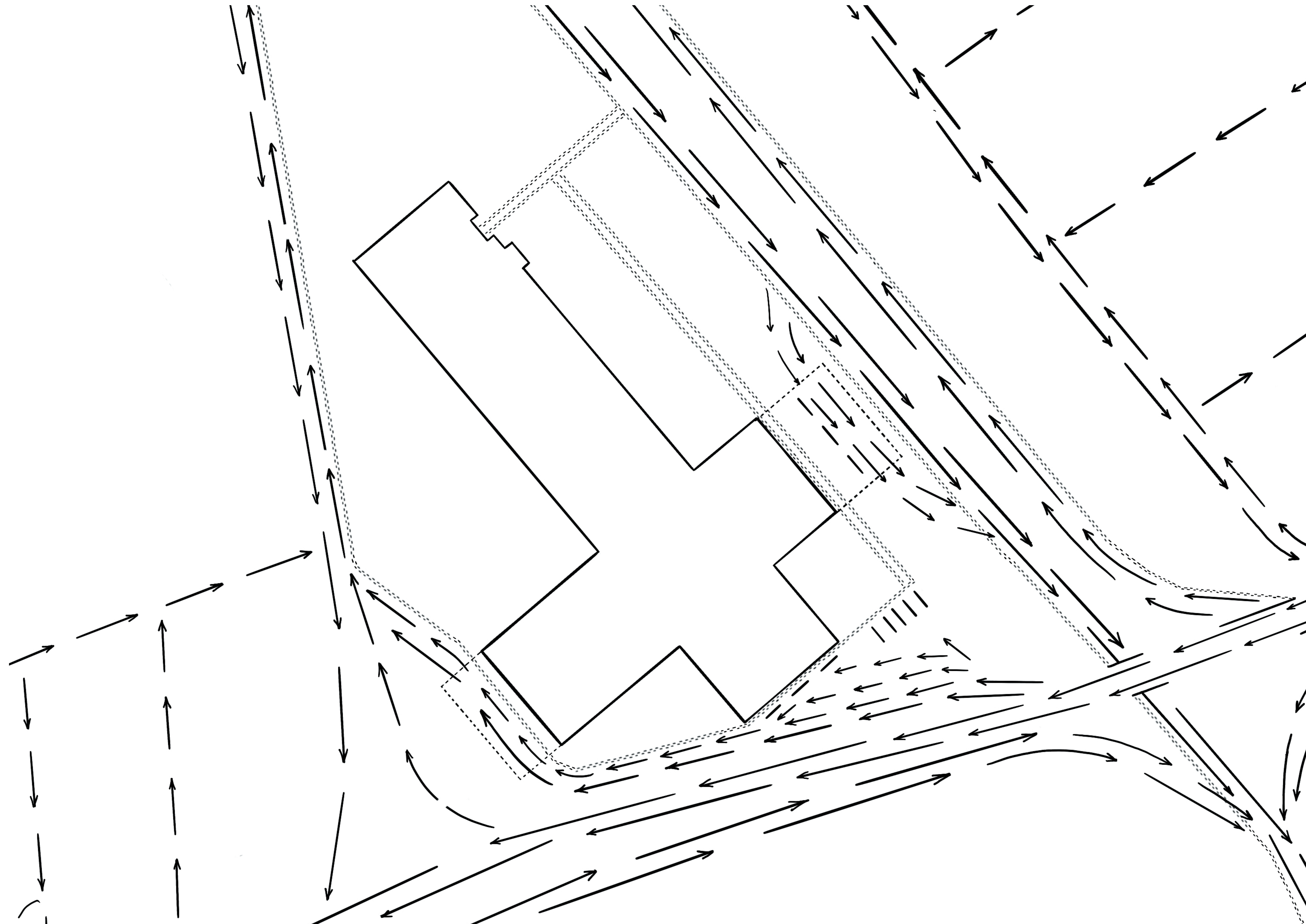


# Urban Scale: Logistics



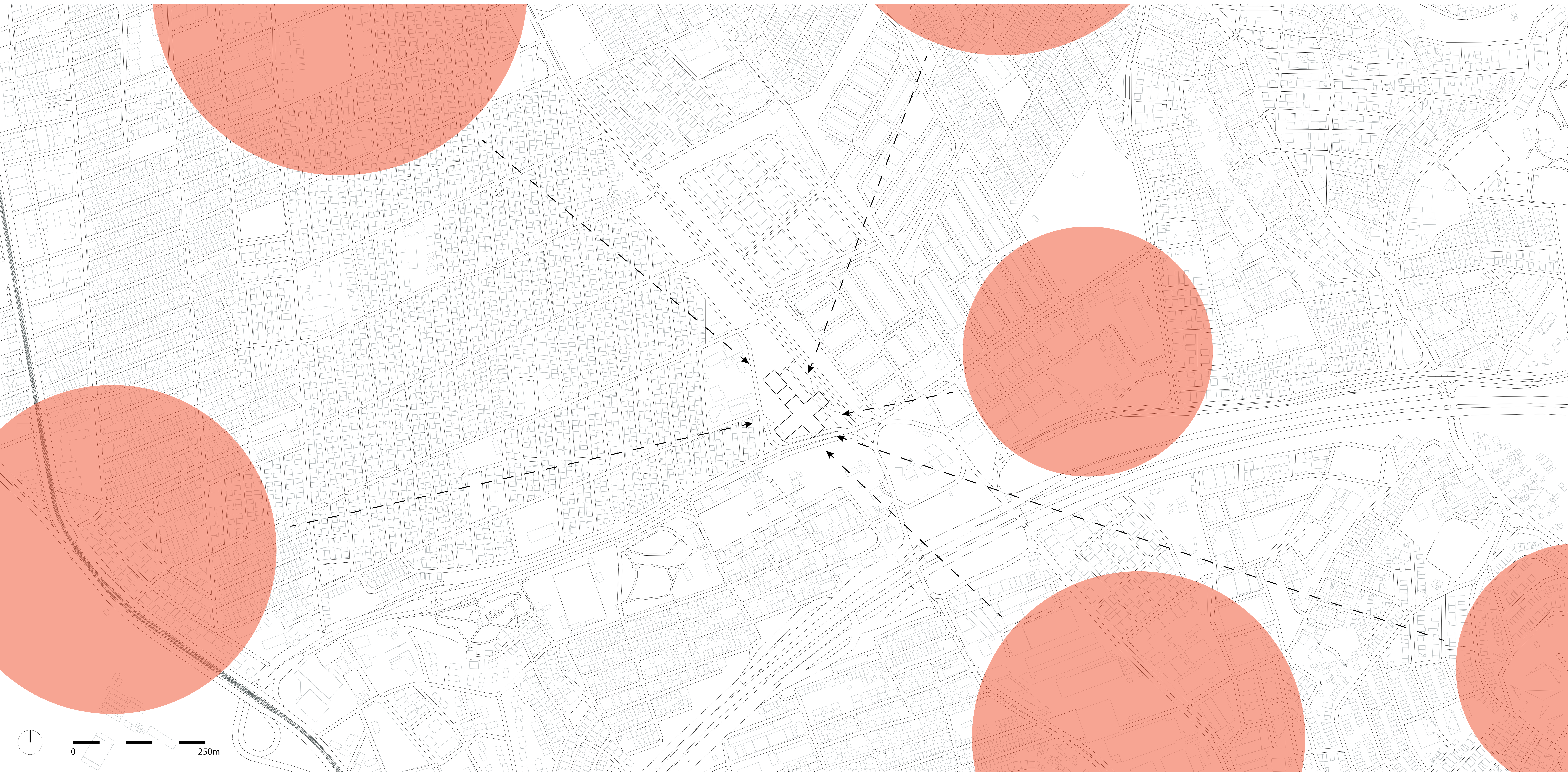


# Urban Scale: Logistics





# Urban Scale: Logistics





# Building Design

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# Building Design: Flow of Resources

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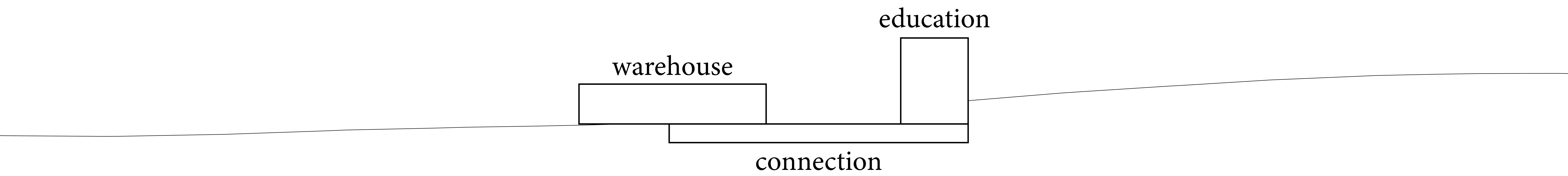
materials ↔ knowledge





# Building Design: Grouped Functions

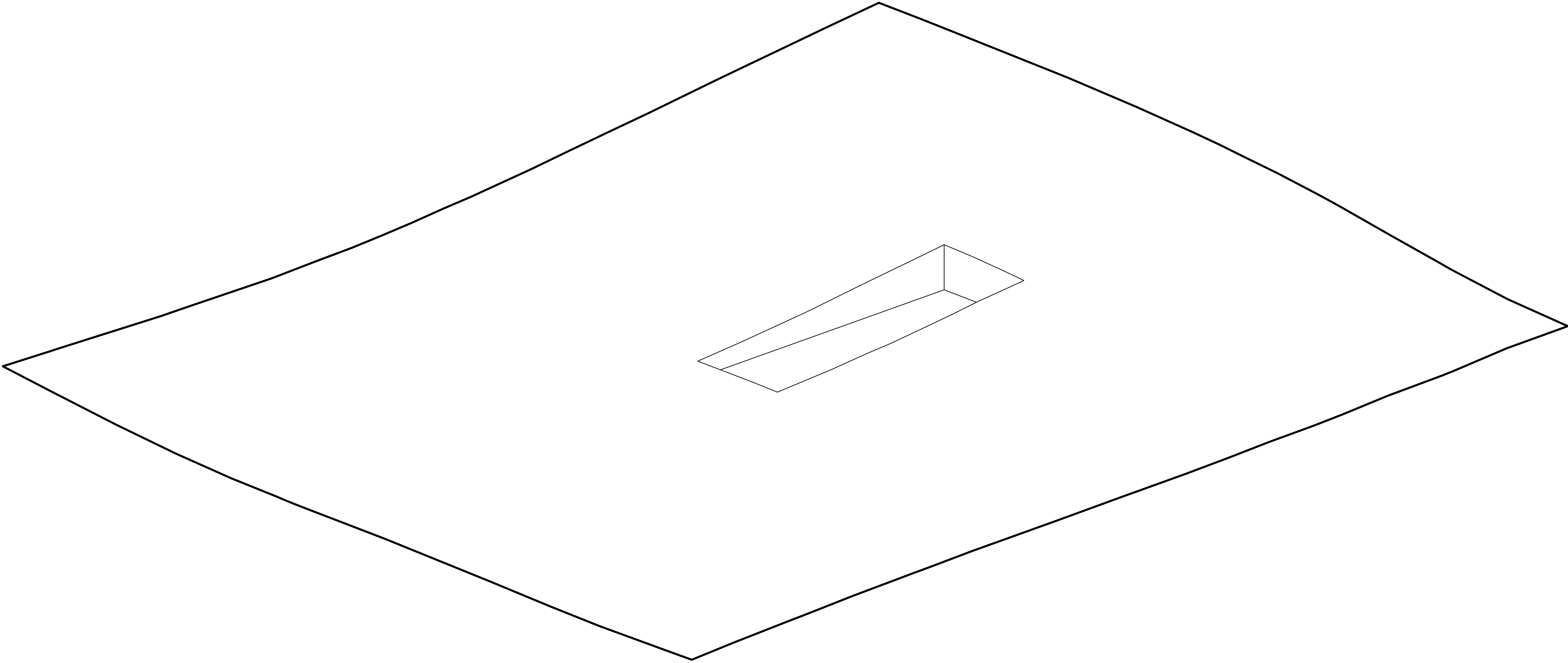
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# Building Design: Base

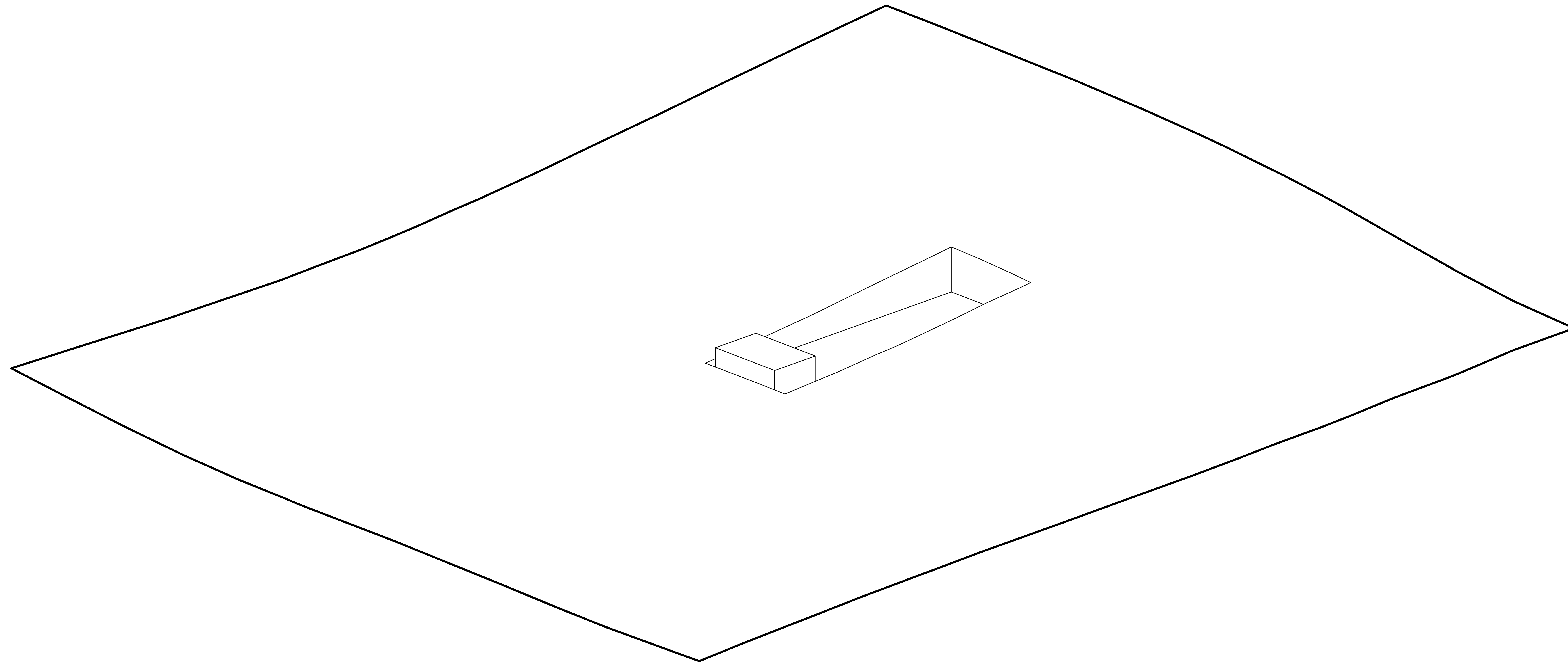
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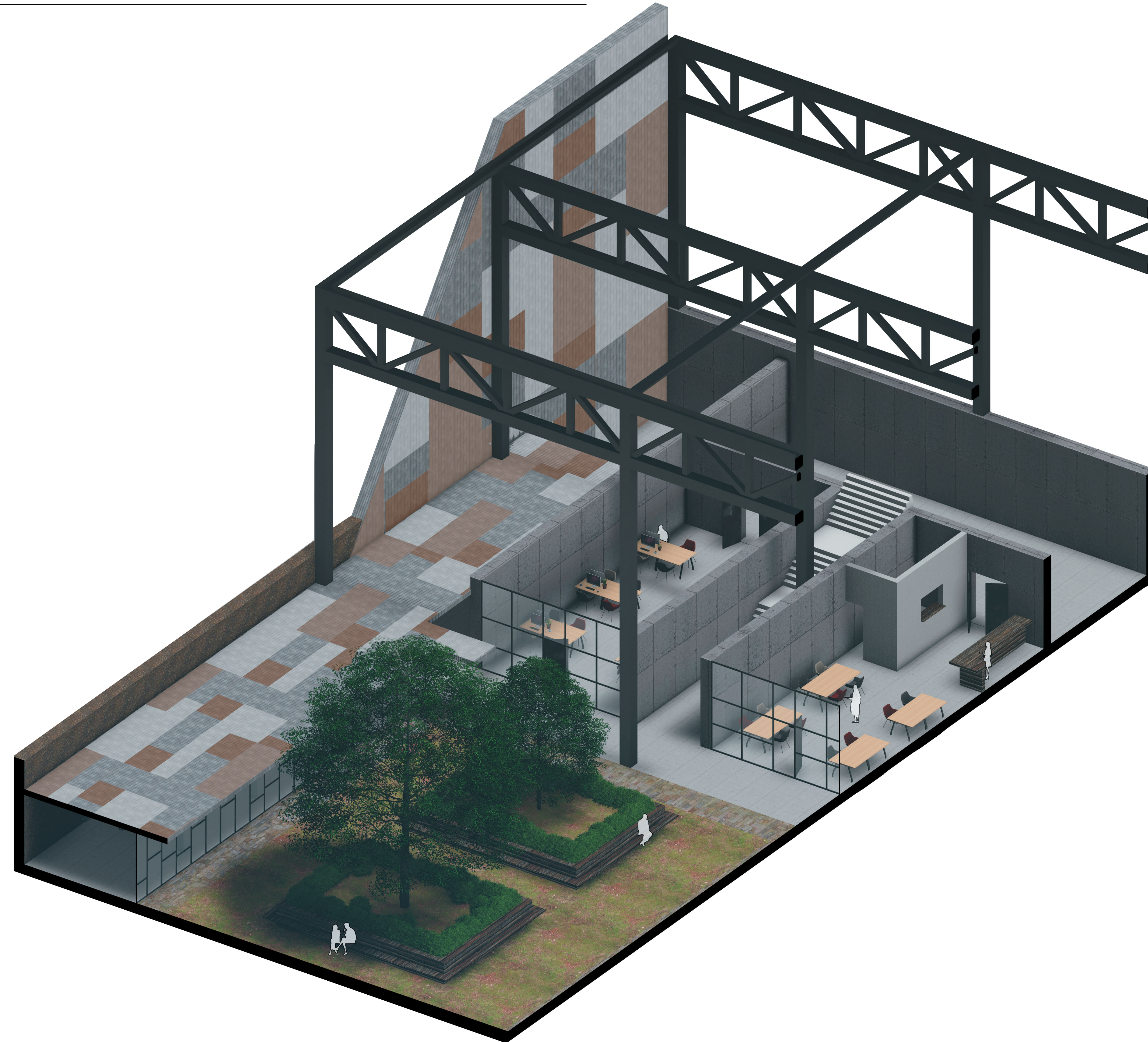
# Building Design: Social

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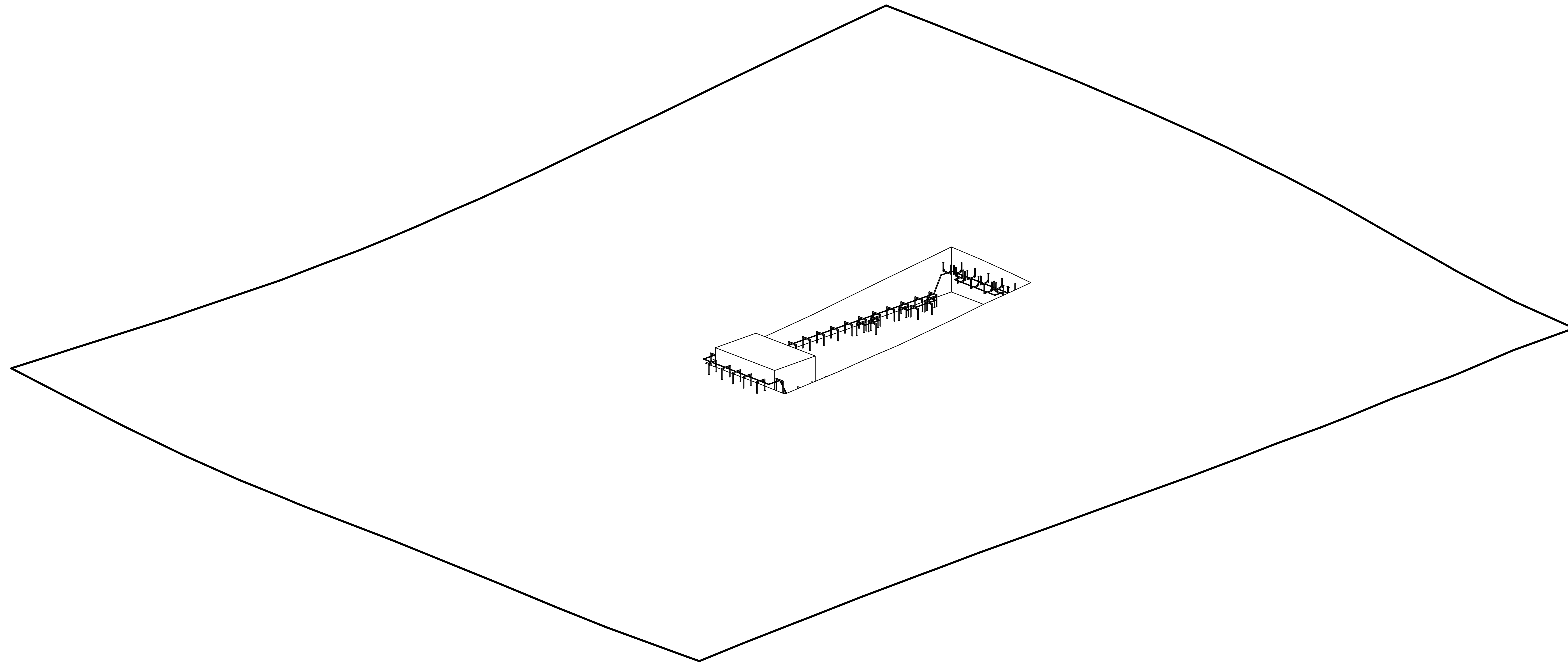
# Building Design: Social





# Building Design: Conveyor Belt

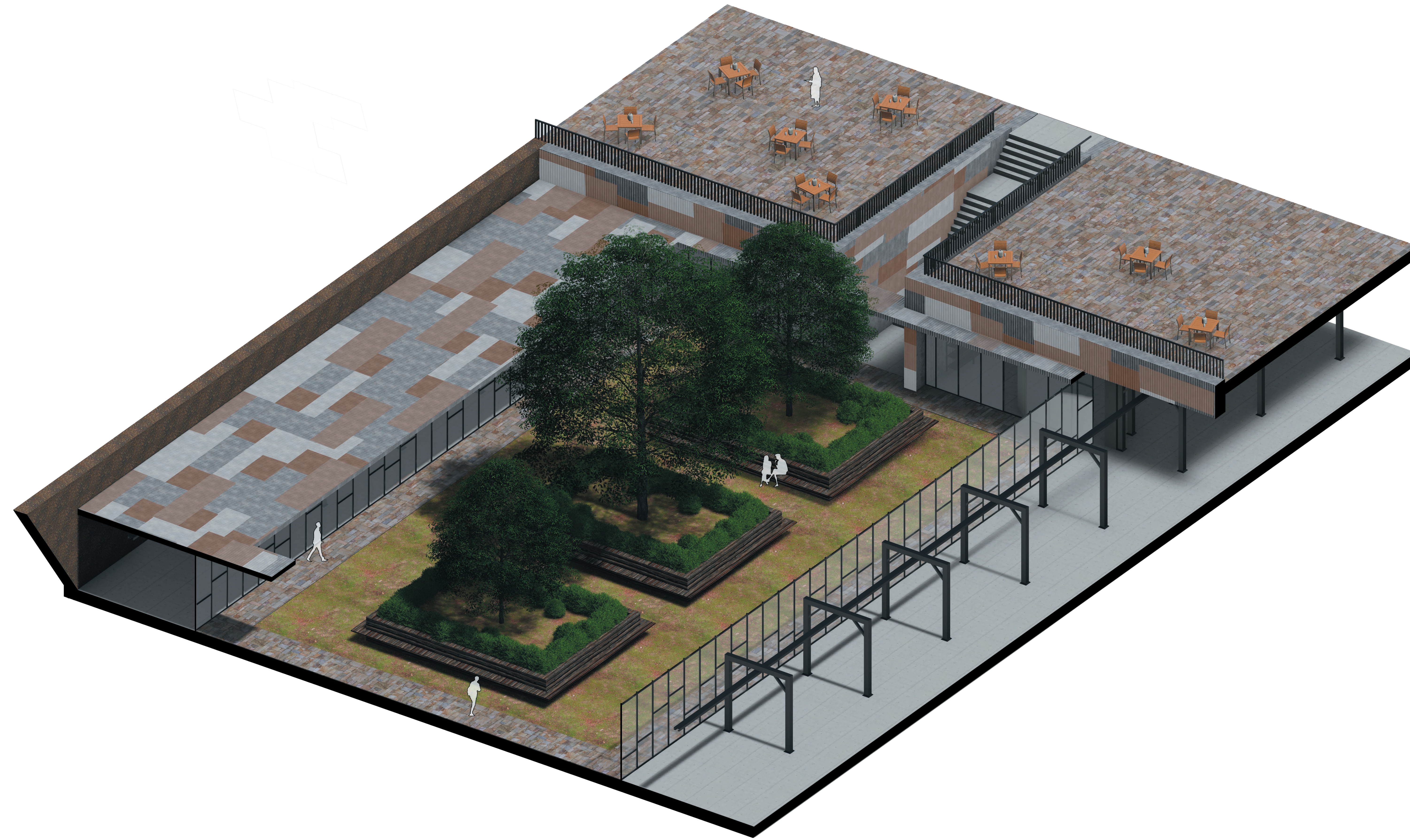
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# Building Design: Conveyor Belt

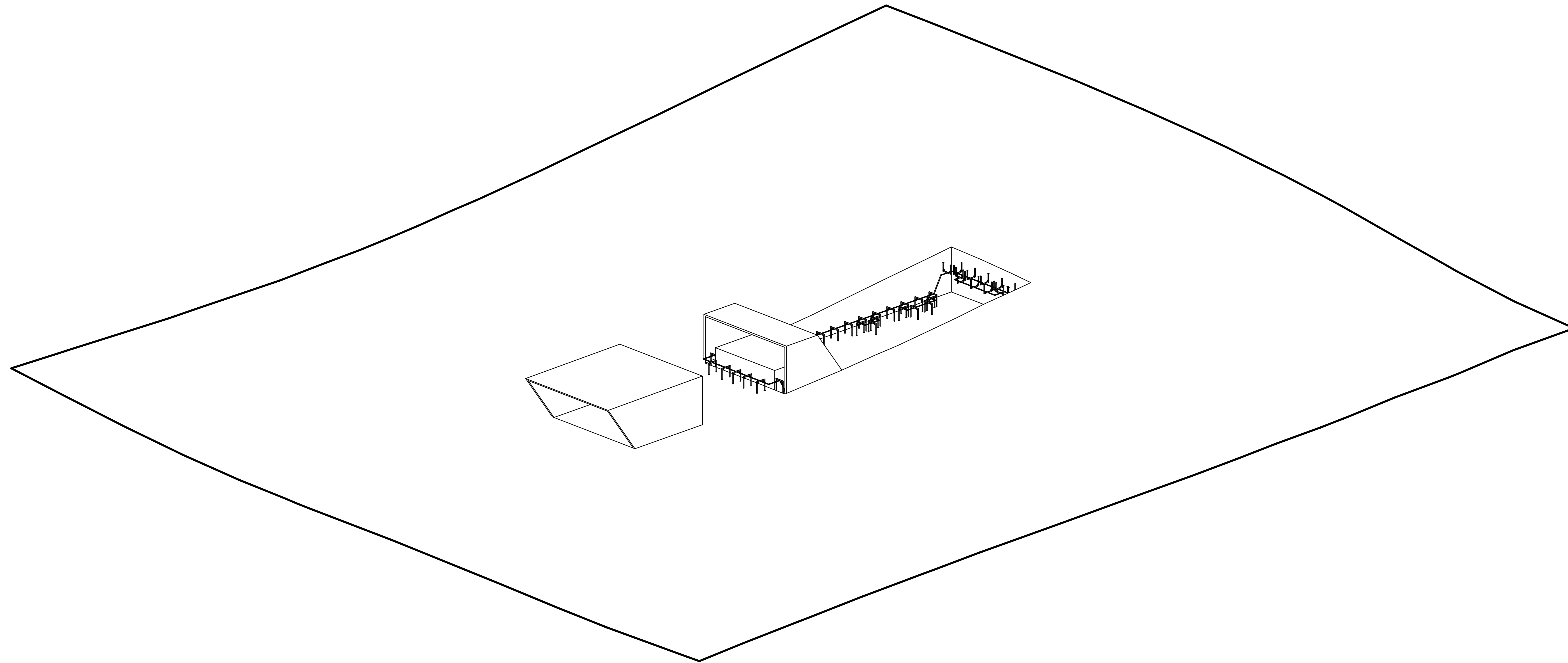
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# Building Design: MRF + Labs

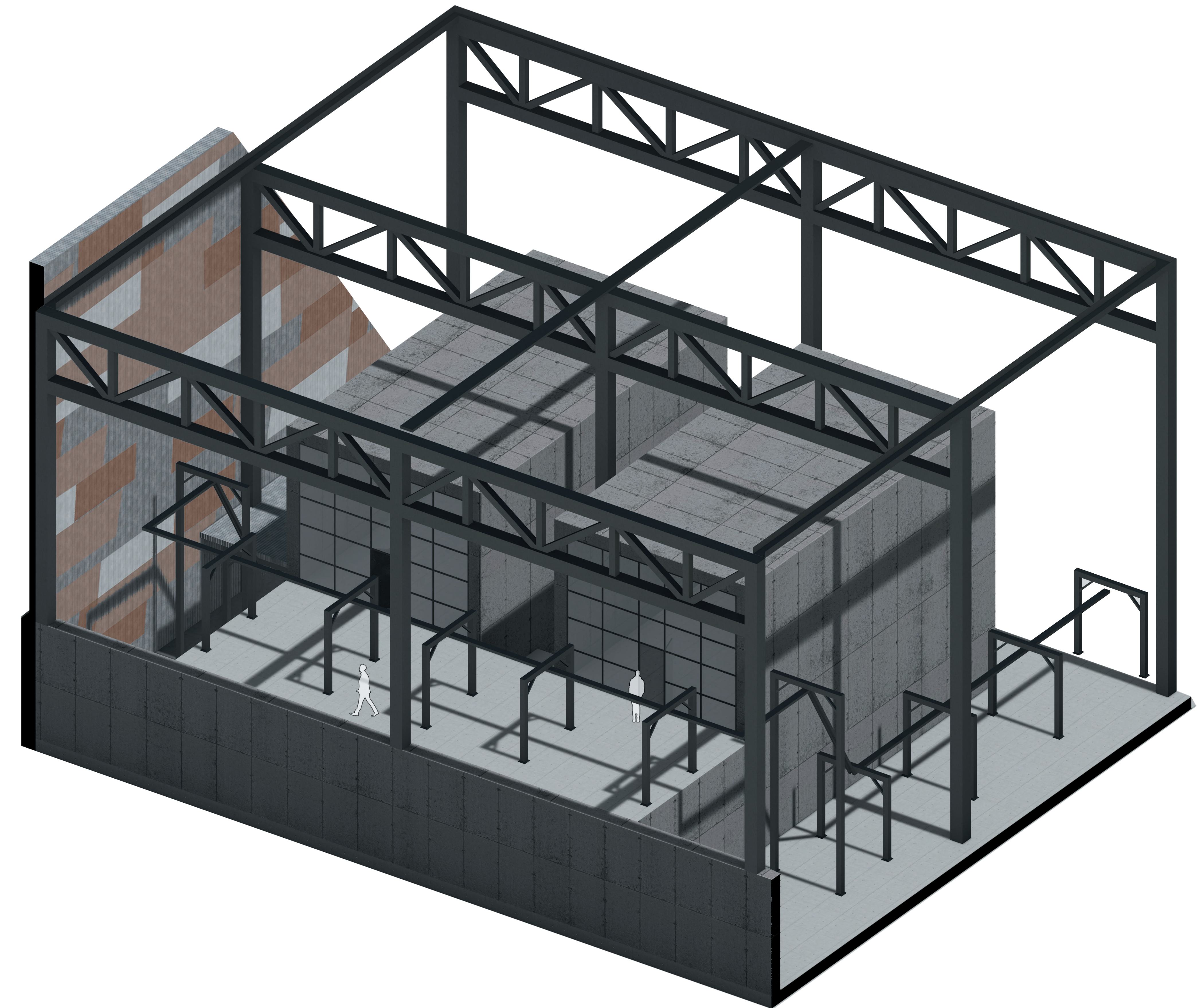
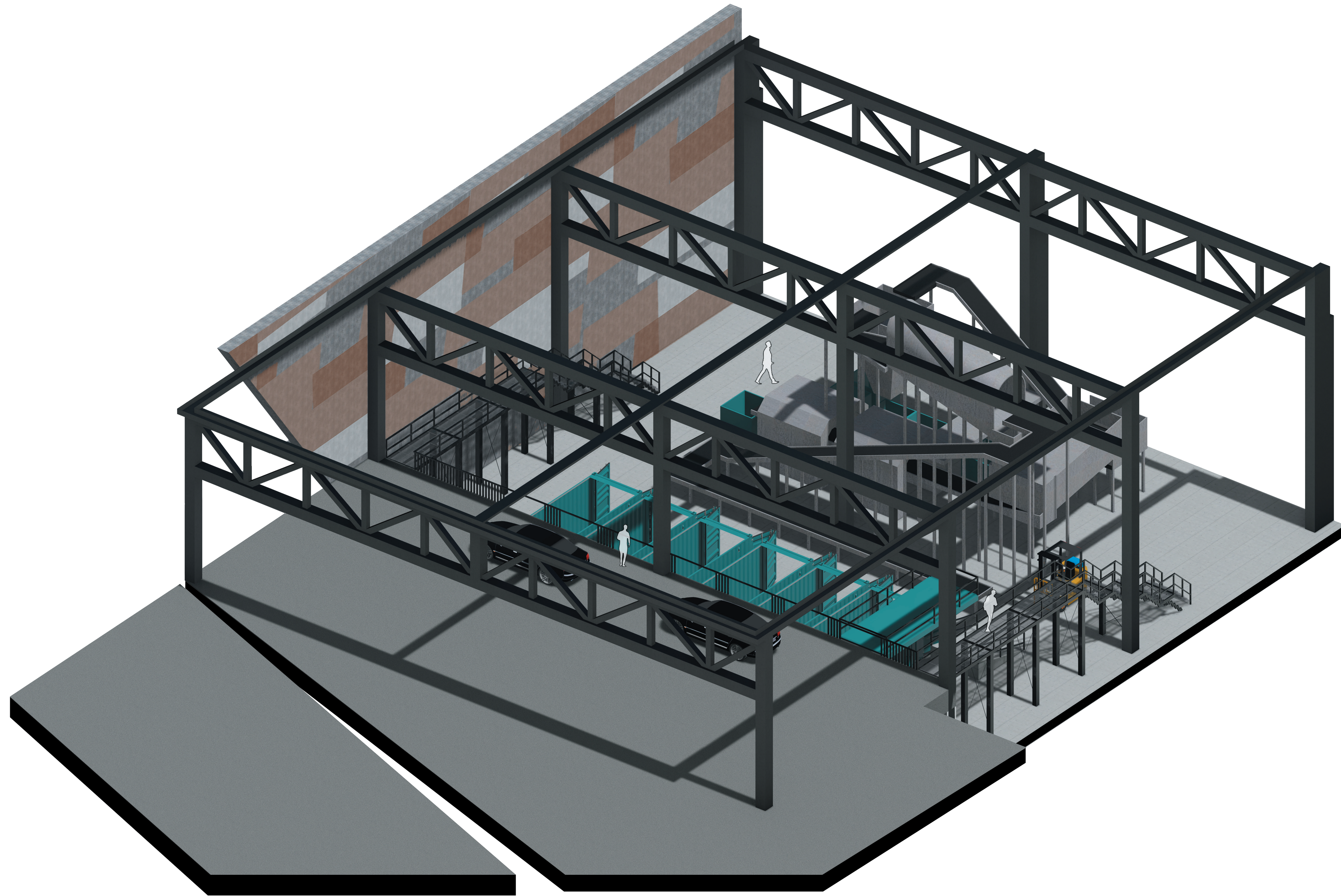
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# Building Design: MRF + Labs

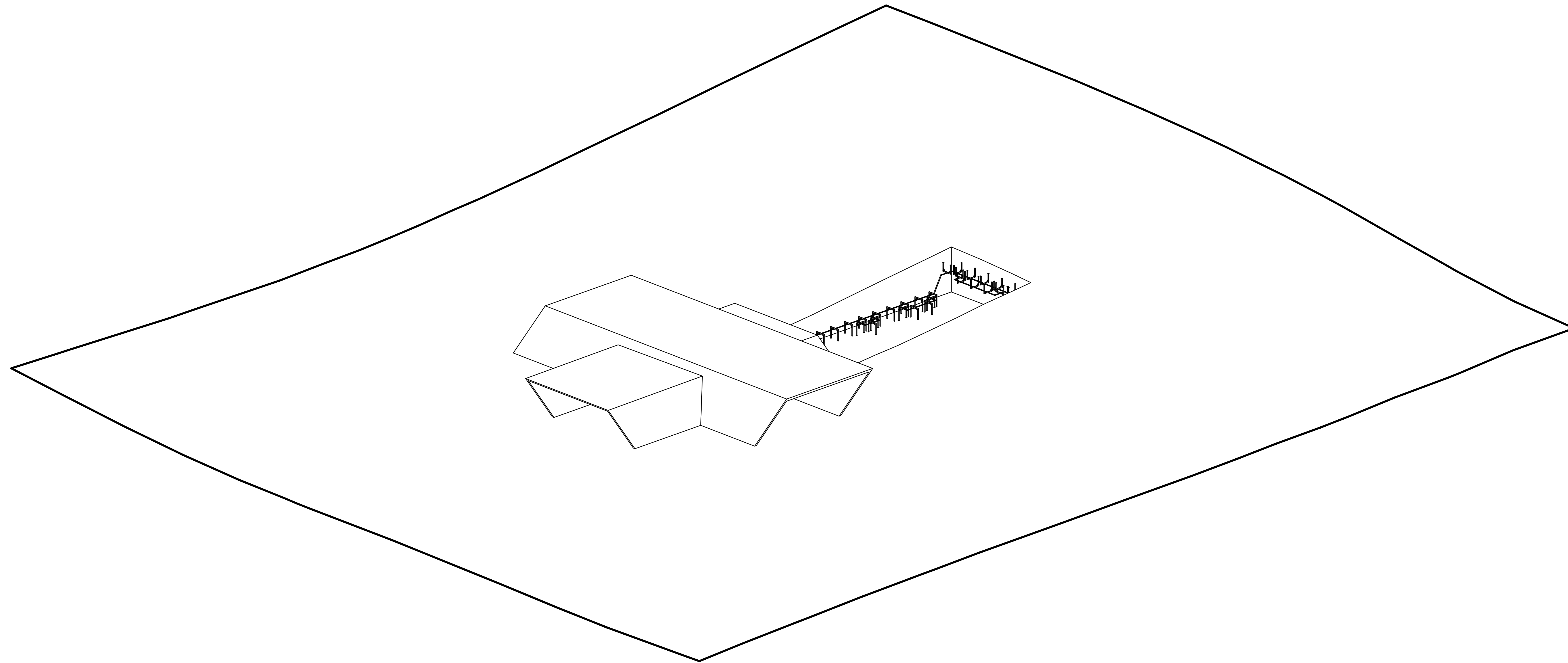
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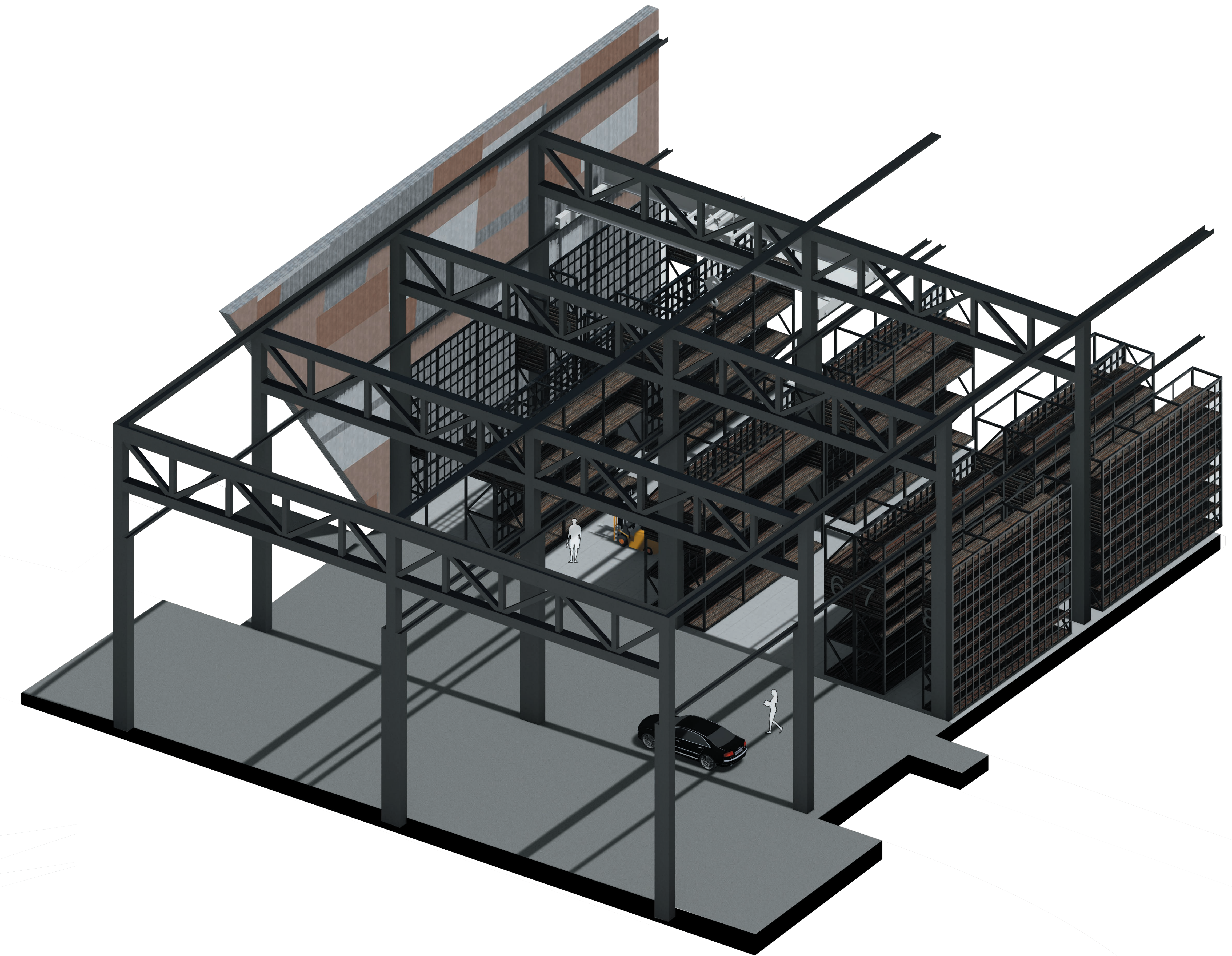
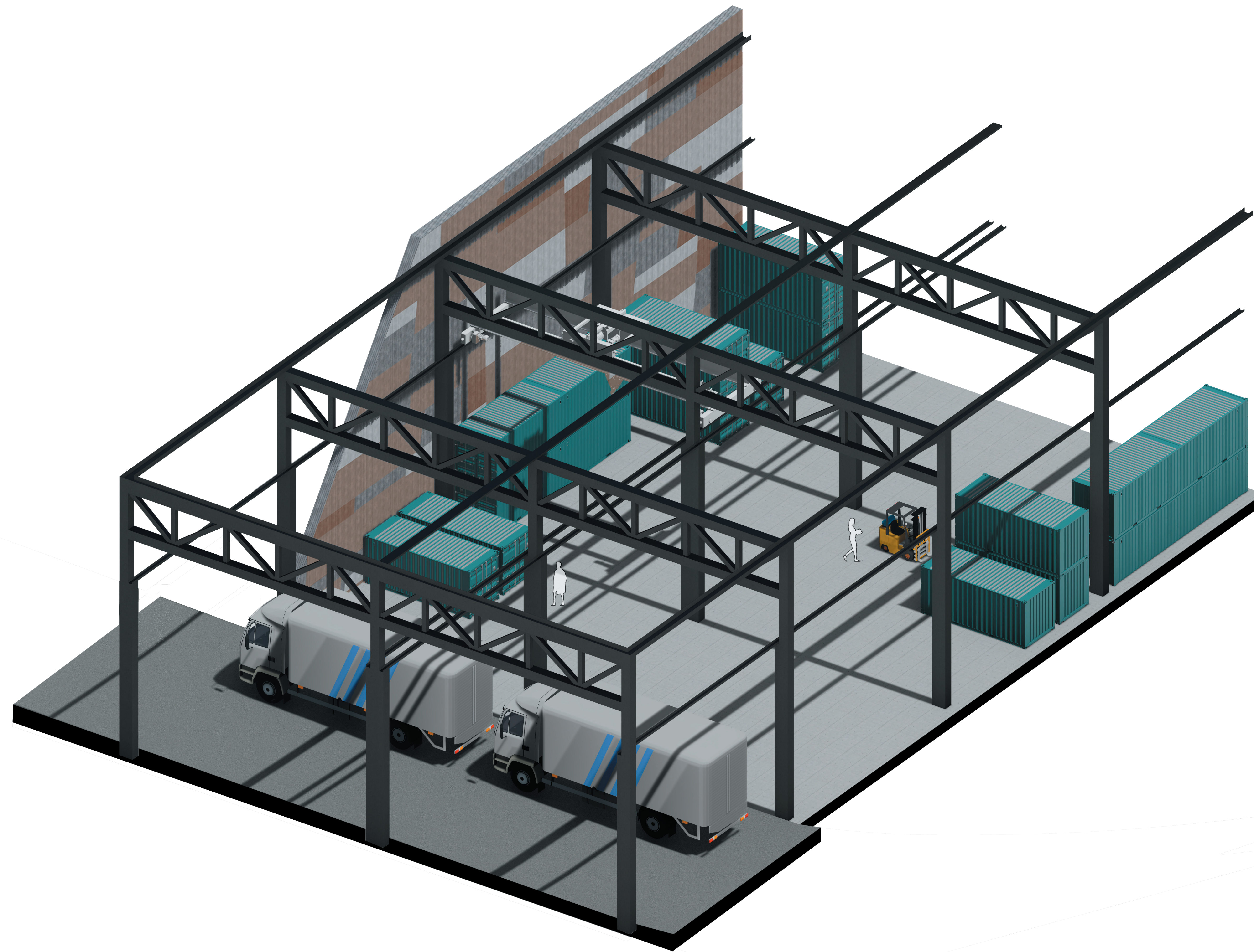
# Building Design: Truck Bay + Storage

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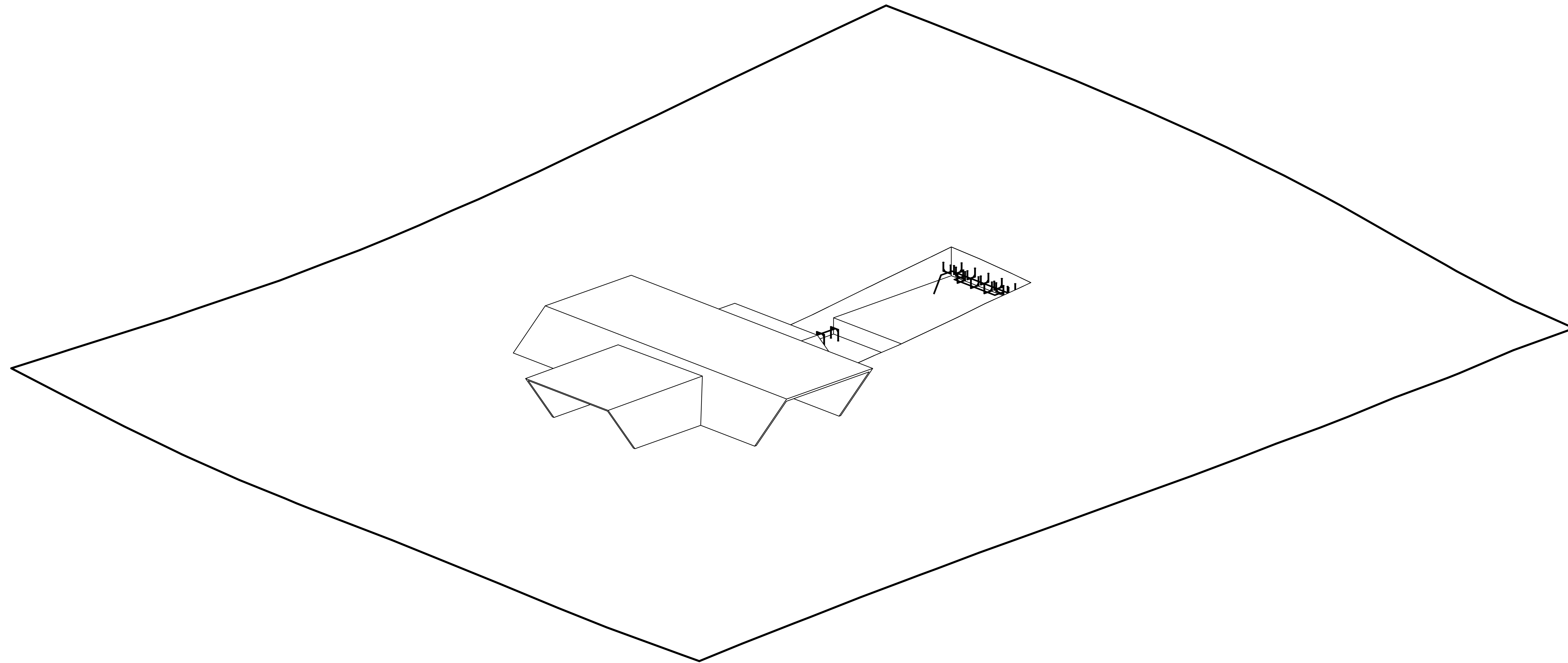
# Building Design: Truck Bay + Storage





# Building Design: Workshop

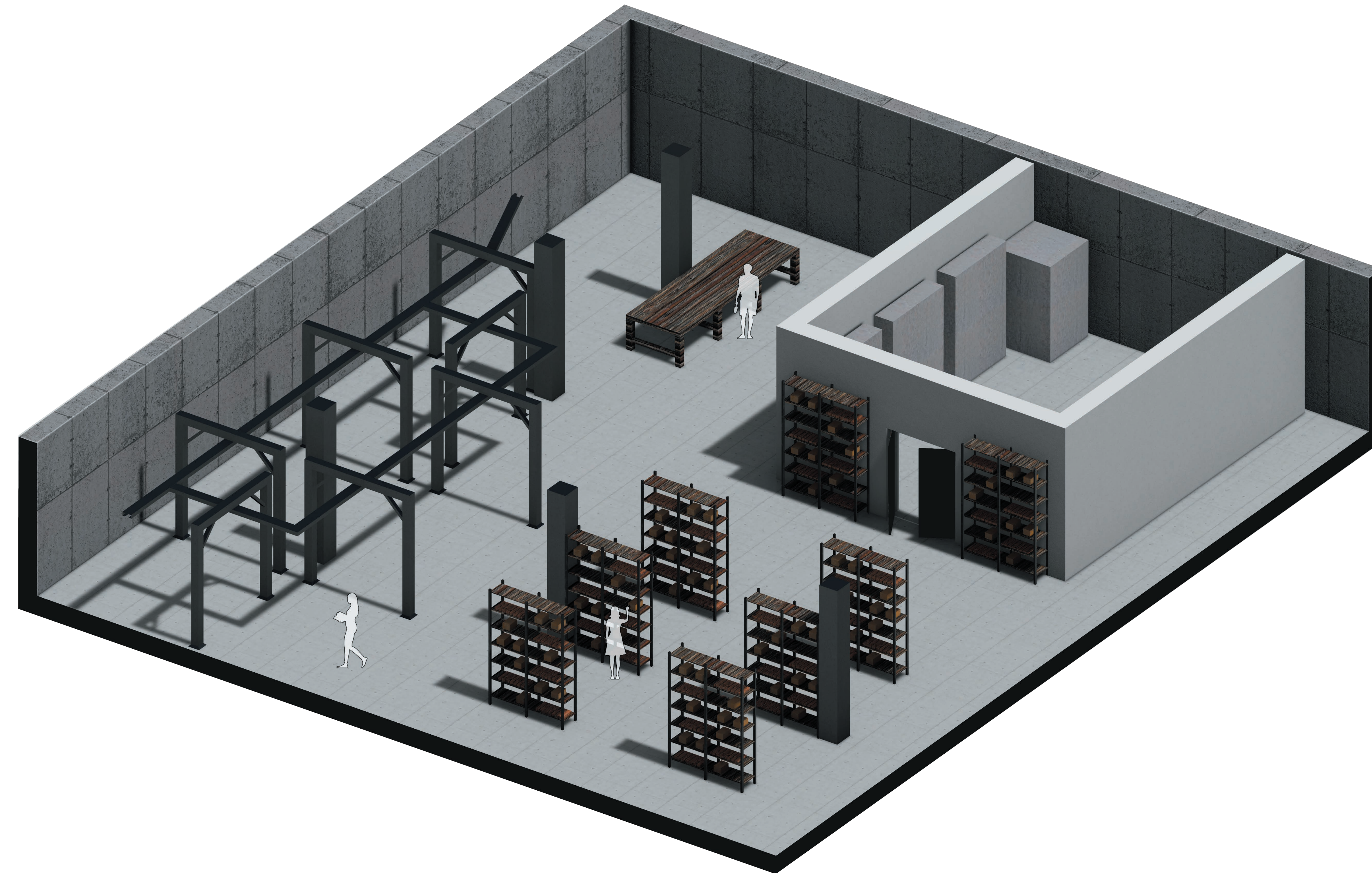
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# Building Design: Workshop

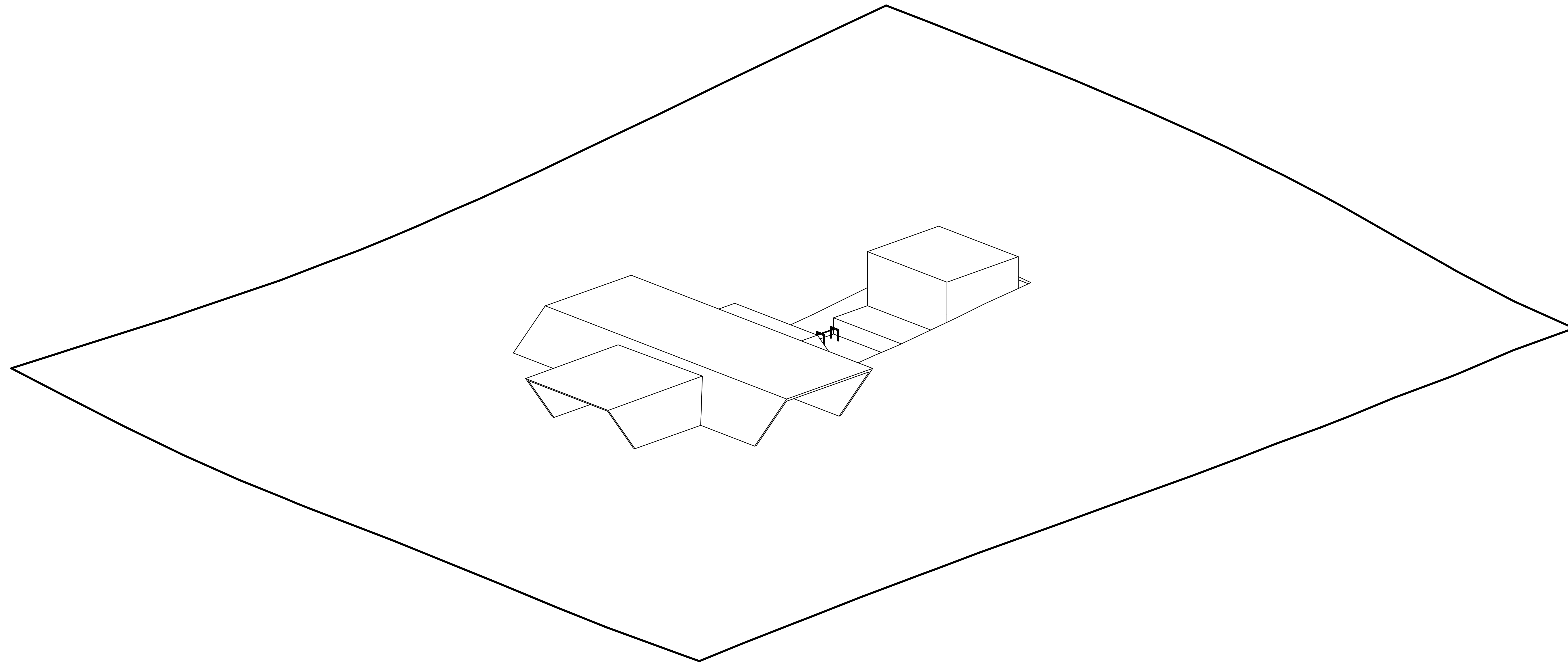
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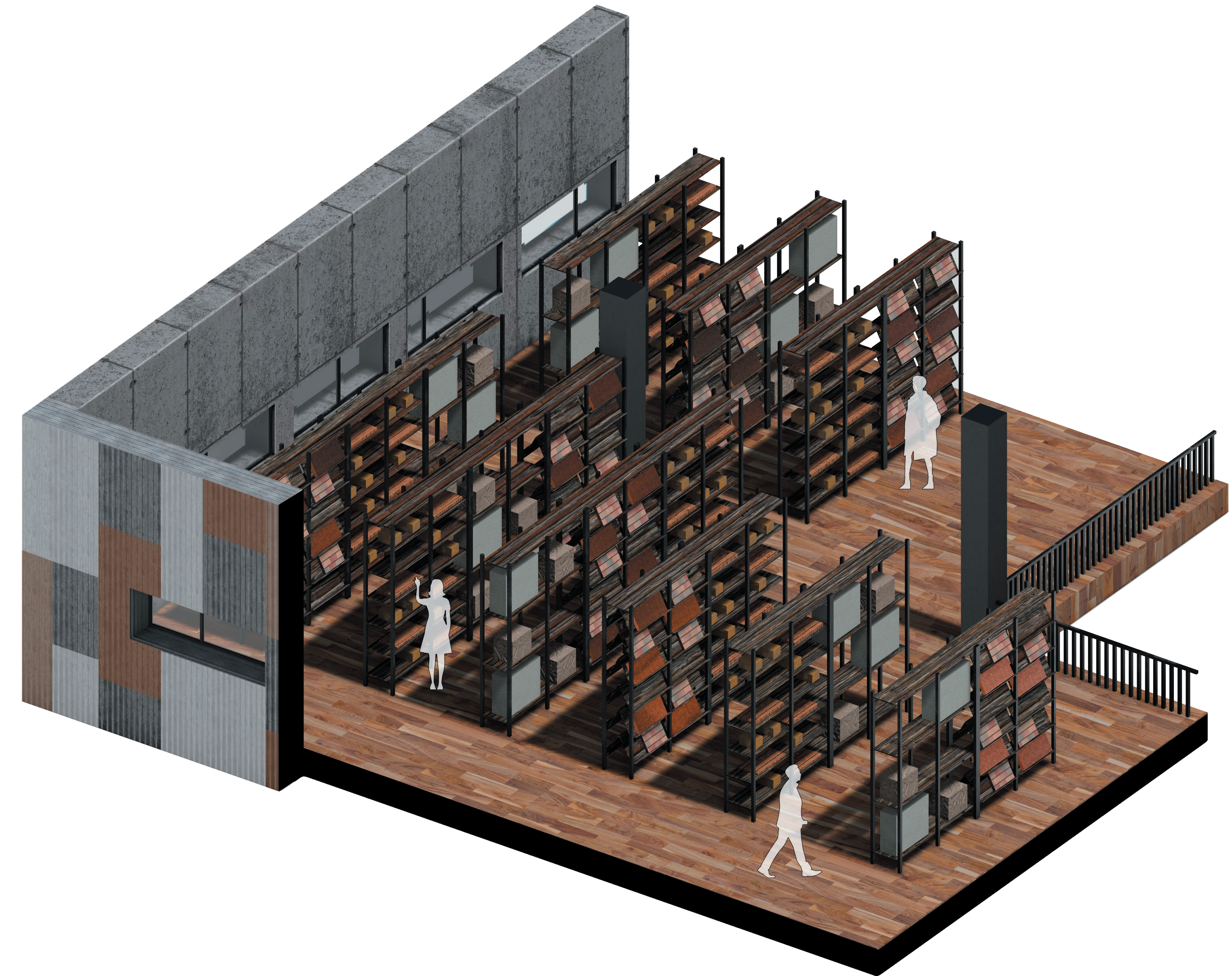
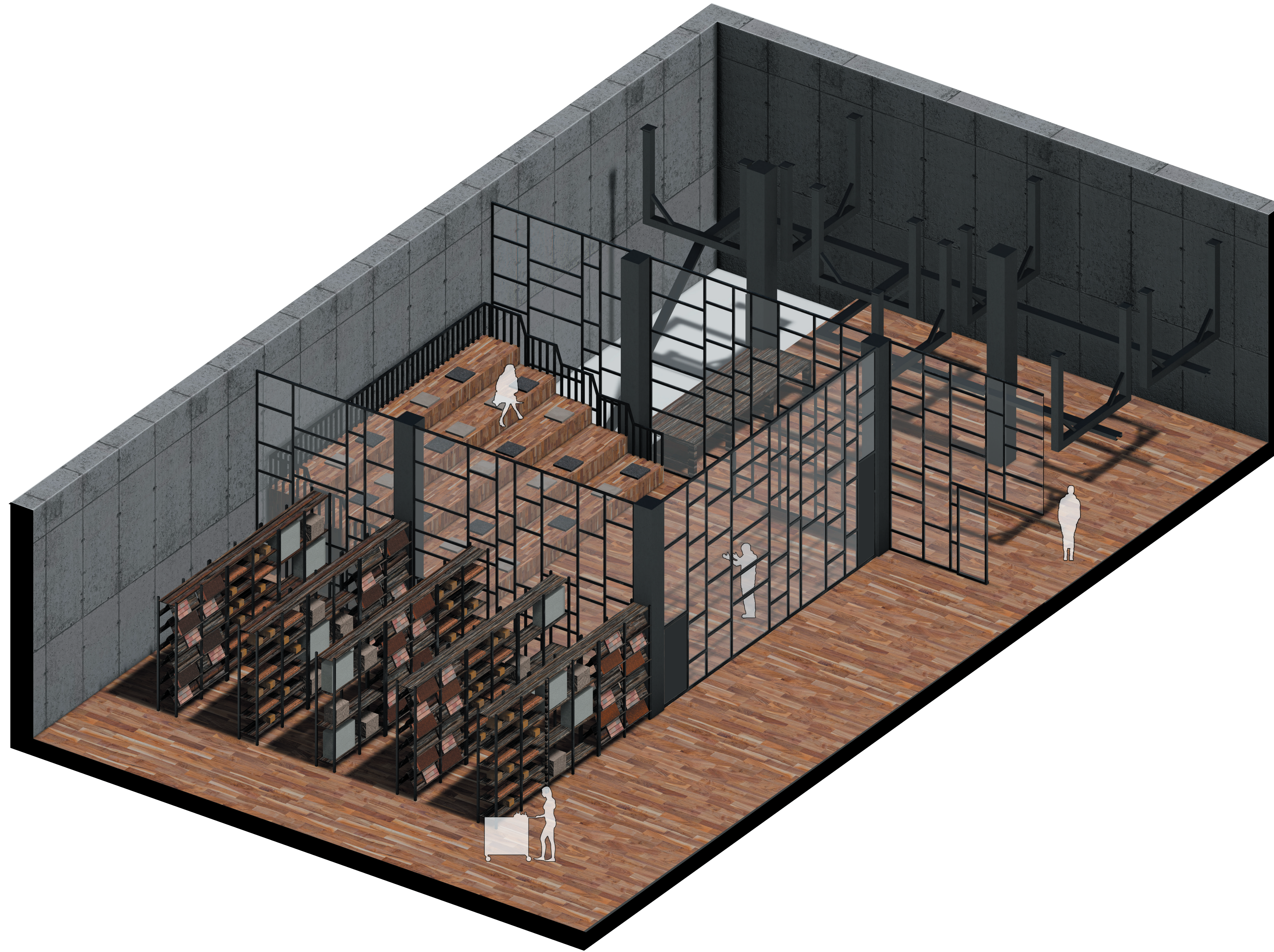
# Building Design: Material Library

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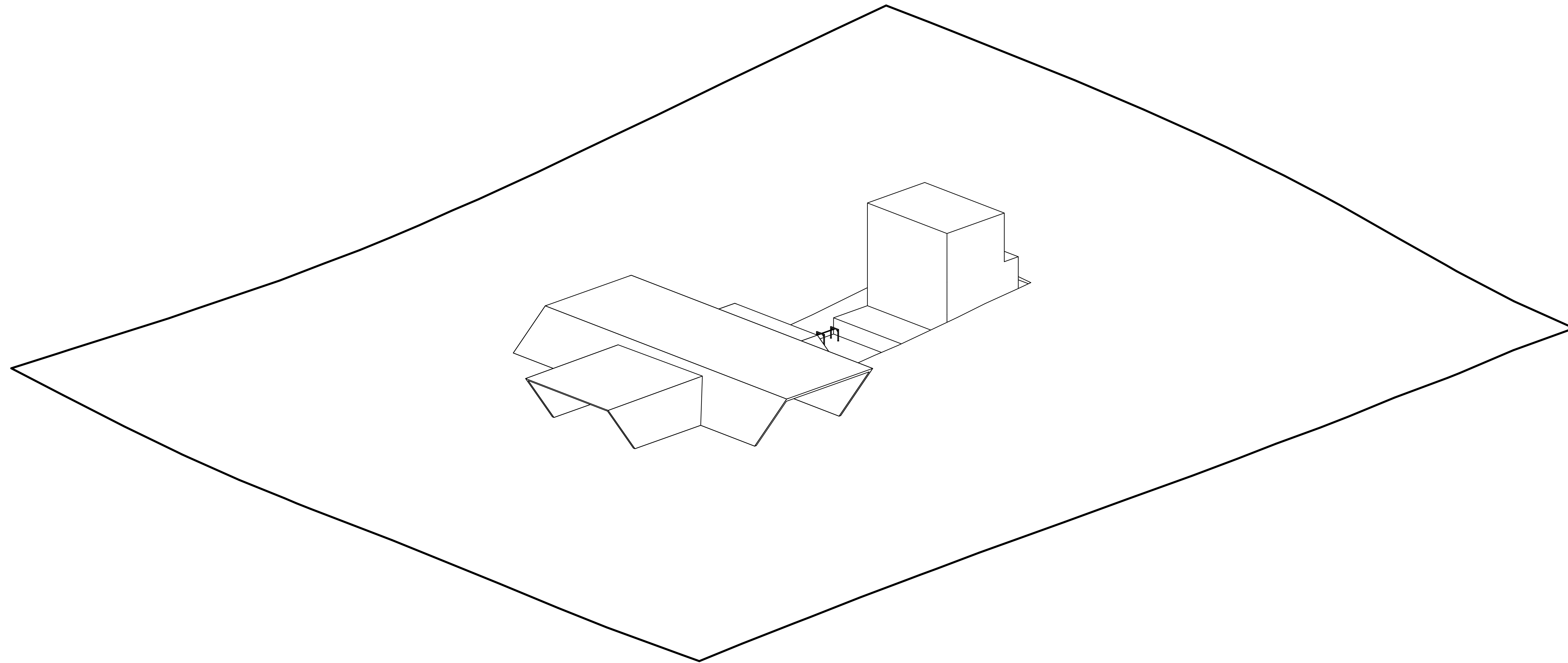
# Building Design: Material Library





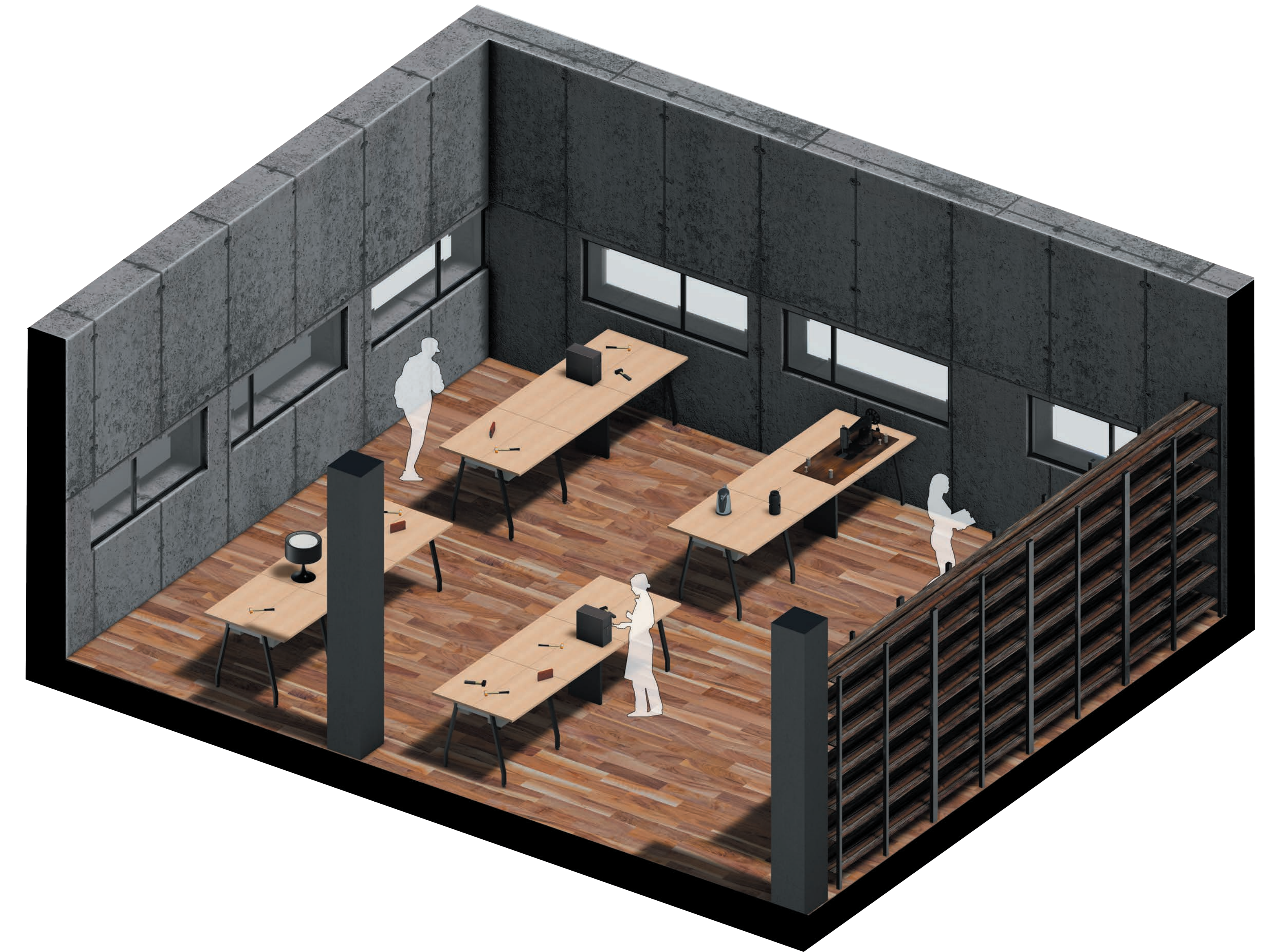
# Building Design: Education

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# Building Design: Education





# Human Scale

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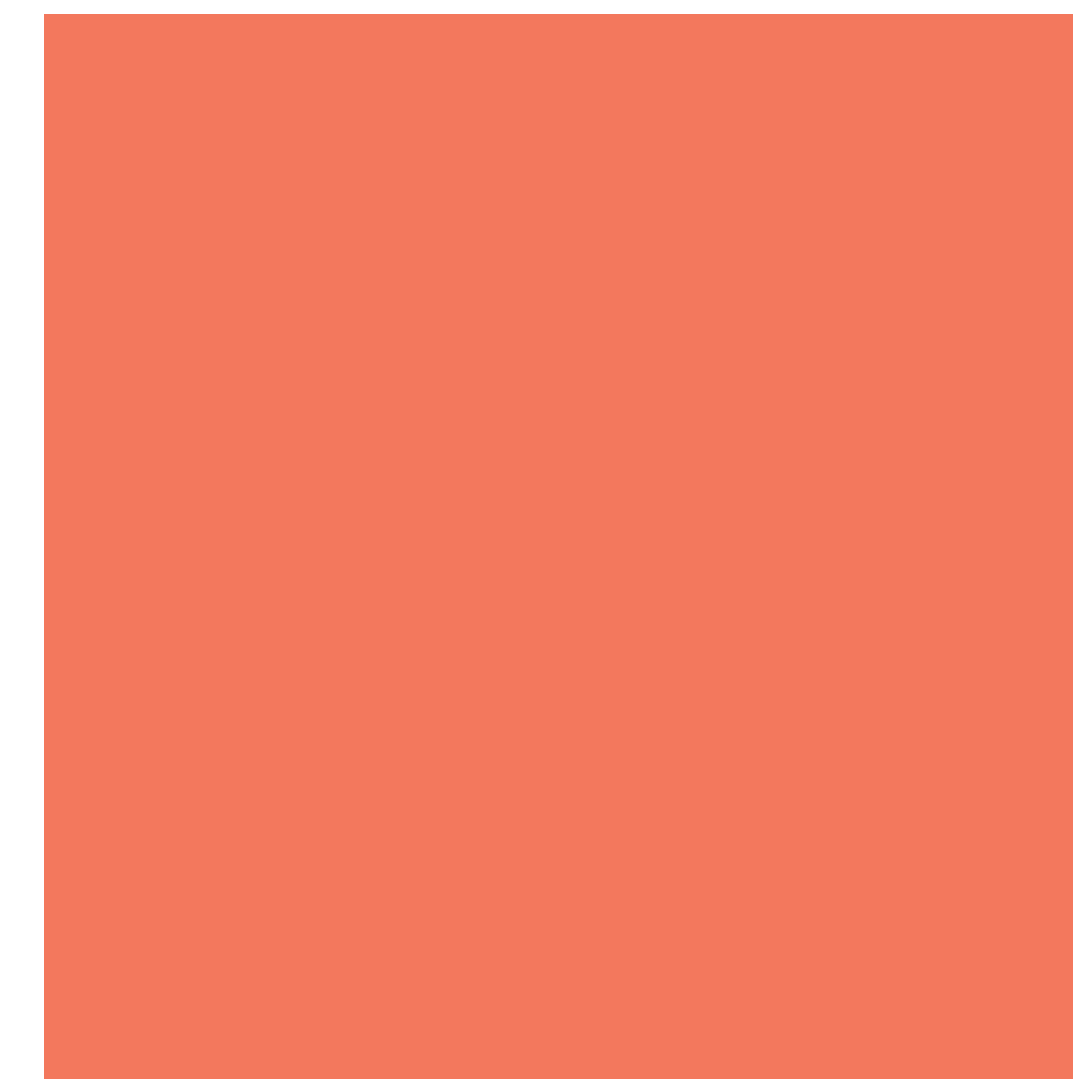


# Human Scale: Organization of Material

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LARGE



MEDIUM

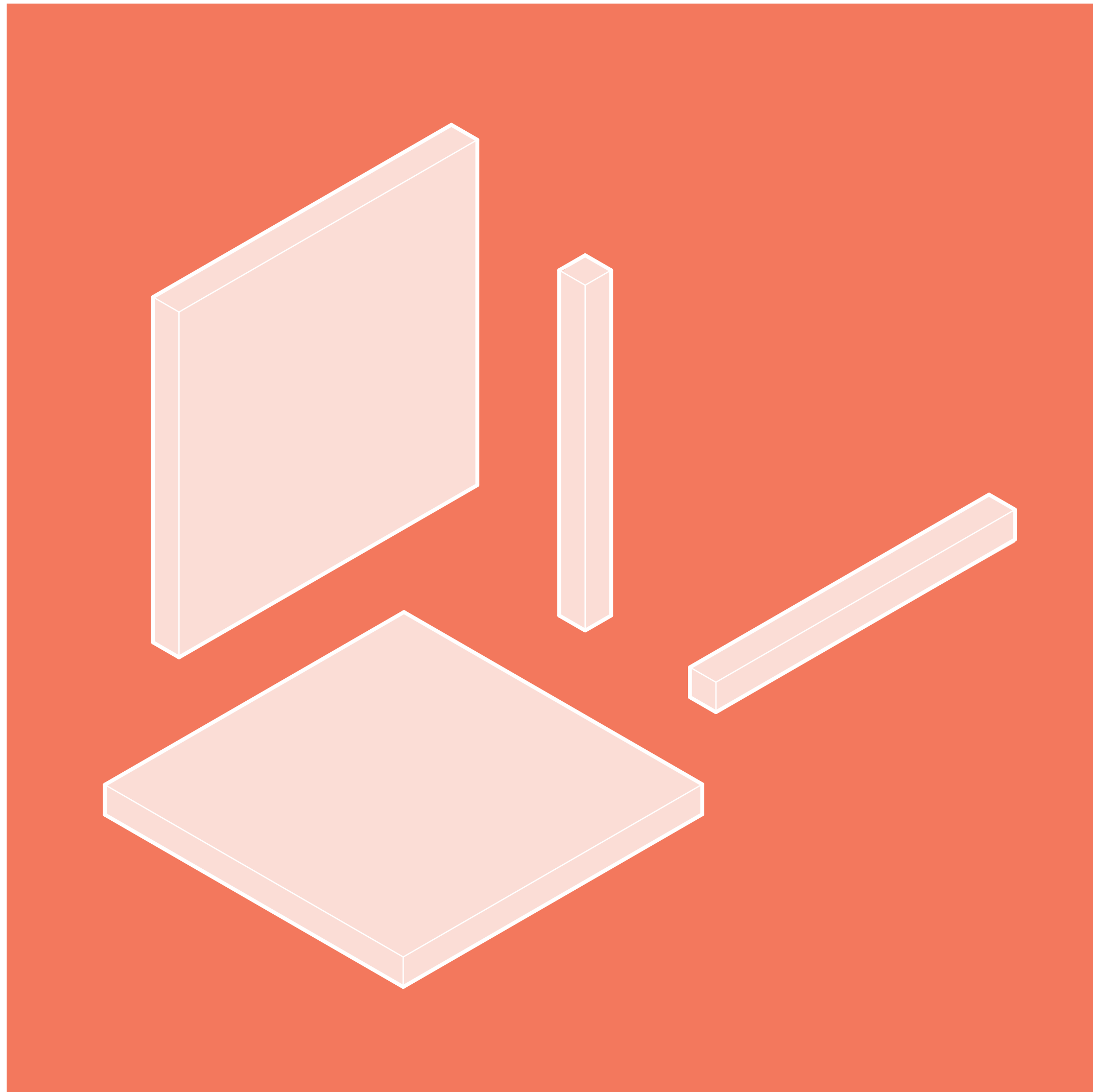


SMALL



# Human Scale: Organization of Material

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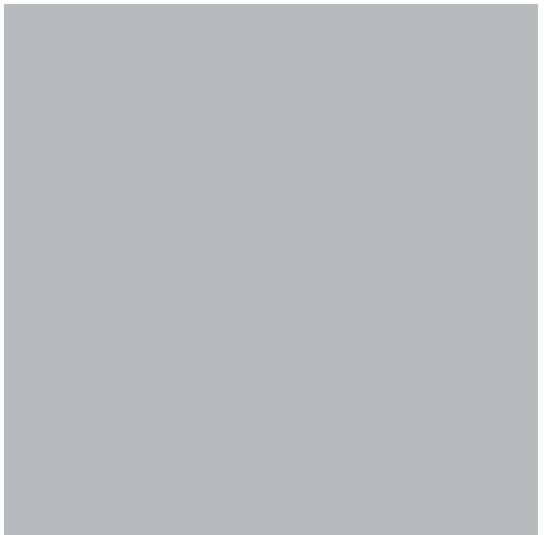


LARGE

STRUCTURAL  
columns, beams, floor / wall  
elements



MEDIUM



SMALL

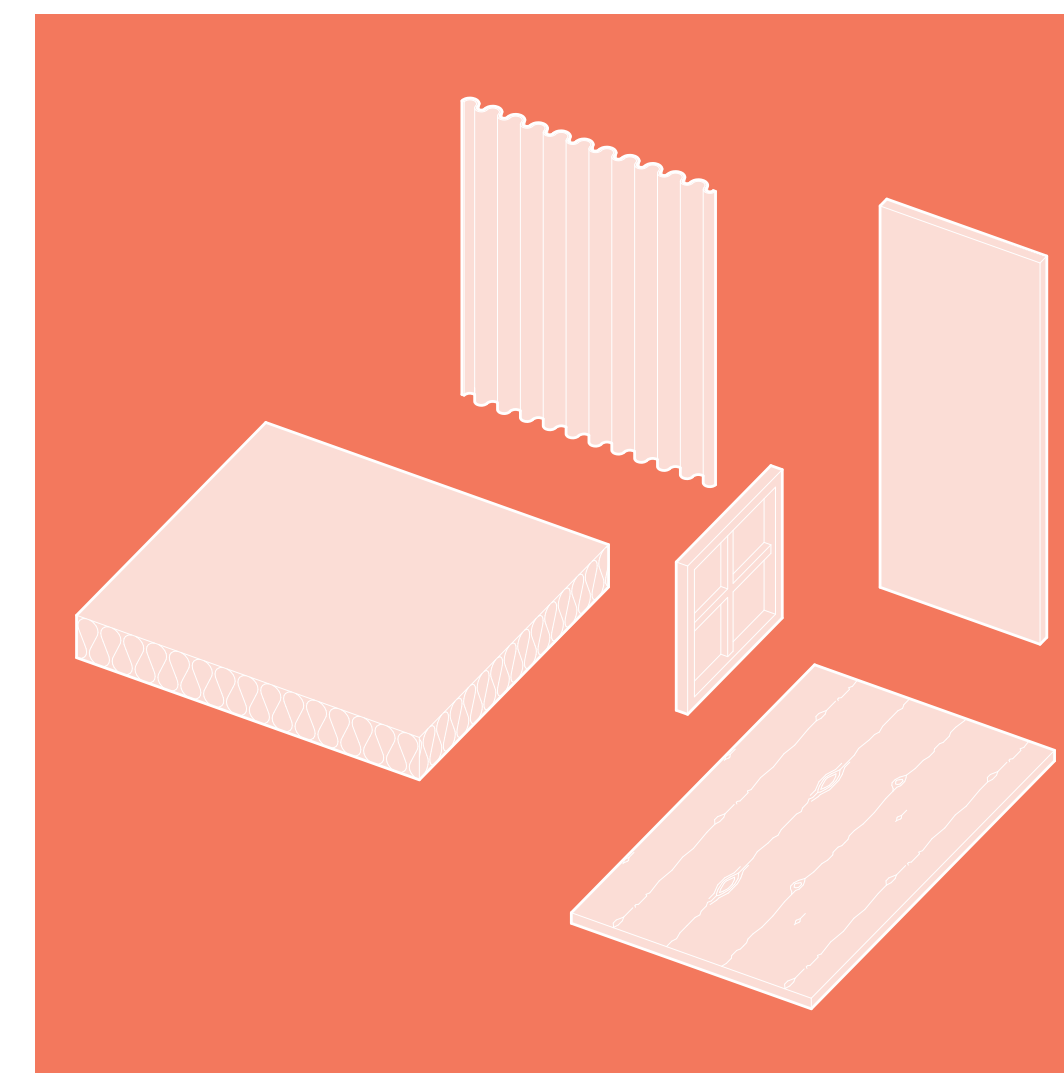


# Human Scale: Organization of Material

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LARGE



MEDIUM

SKIN  
plate materials, windows,  
doors, insulation

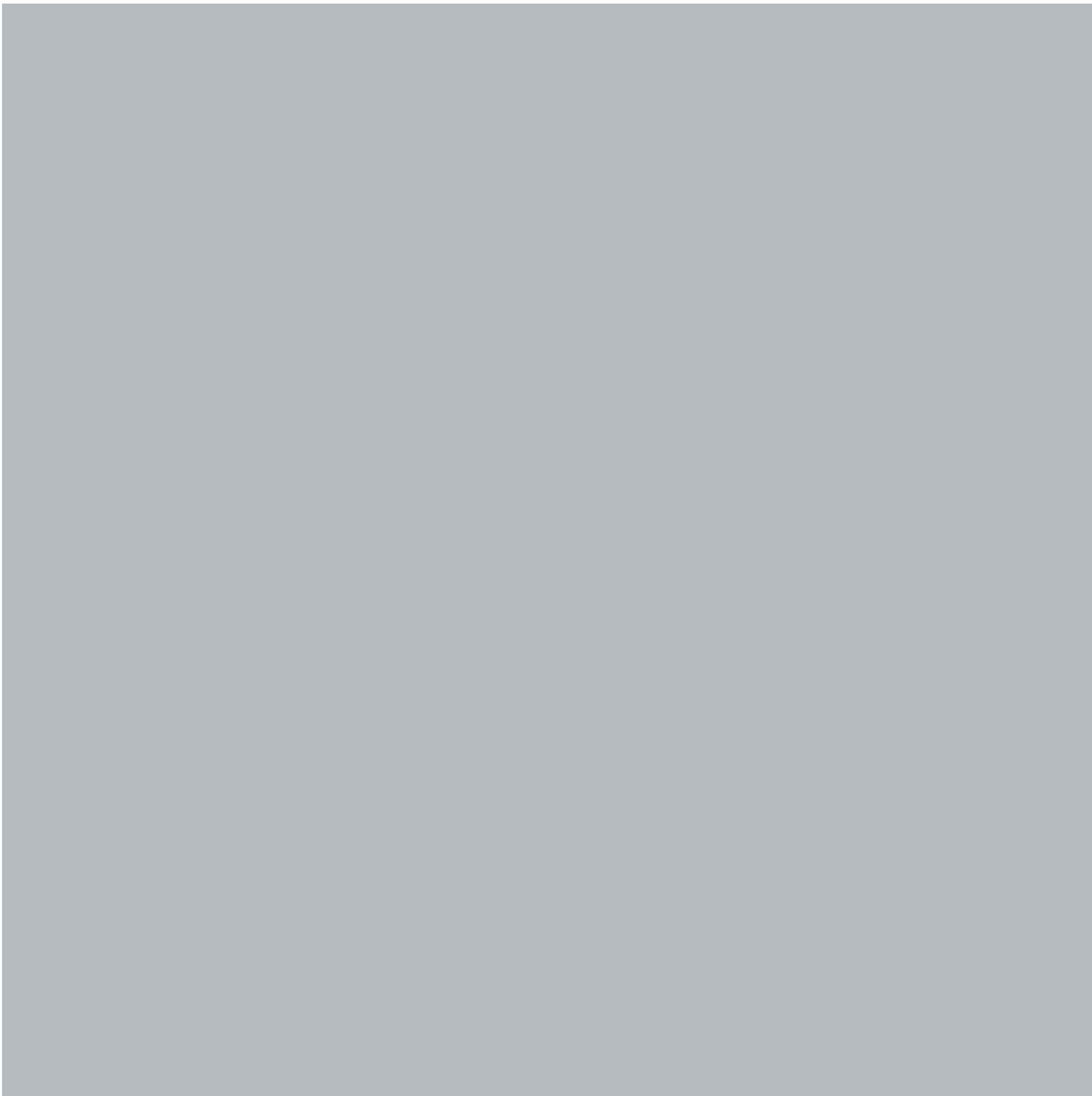


SMALL



# Human Scale: Organization of Material

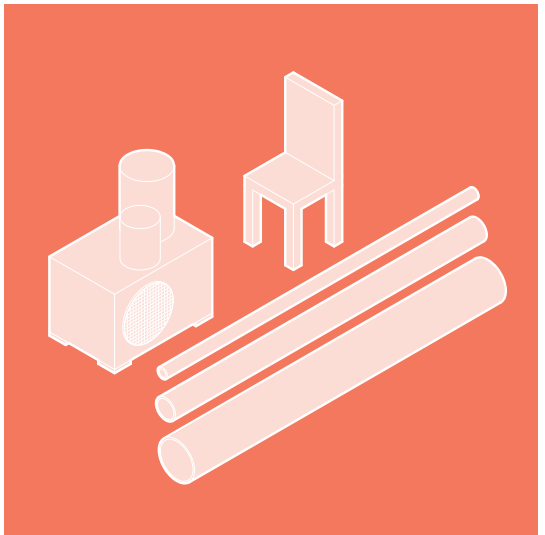
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LARGE



MEDIUM



SMALL

SYSTEMS  
energy / water distribution,  
ventilation

STUFF  
furniture, wiring, tubing



# Human Scale: Existing Materials





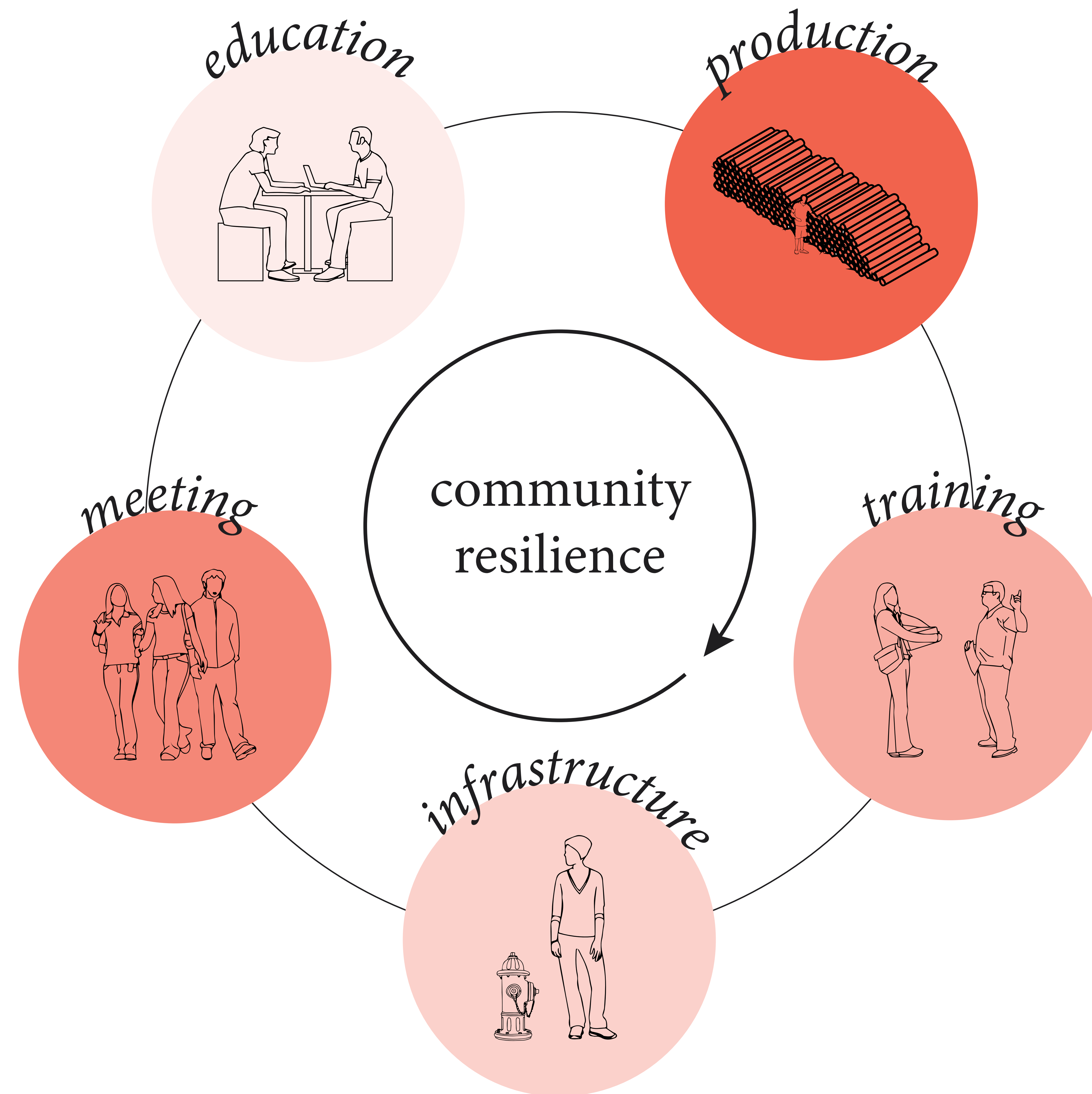
# Conclusion

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# Conclusion: Community Resilience

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# Conclusion



Identity



Community



Self Sufficiency



# Conclusion

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The City  
as a  
Center for Resources

The Building  
as a  
Center for Resources

The People  
as a  
Center for Resources





Thank you for your time!

Into the Gecekondur:  
the city as a center for resources

Nikita Maria de Zeeuw  
4431499