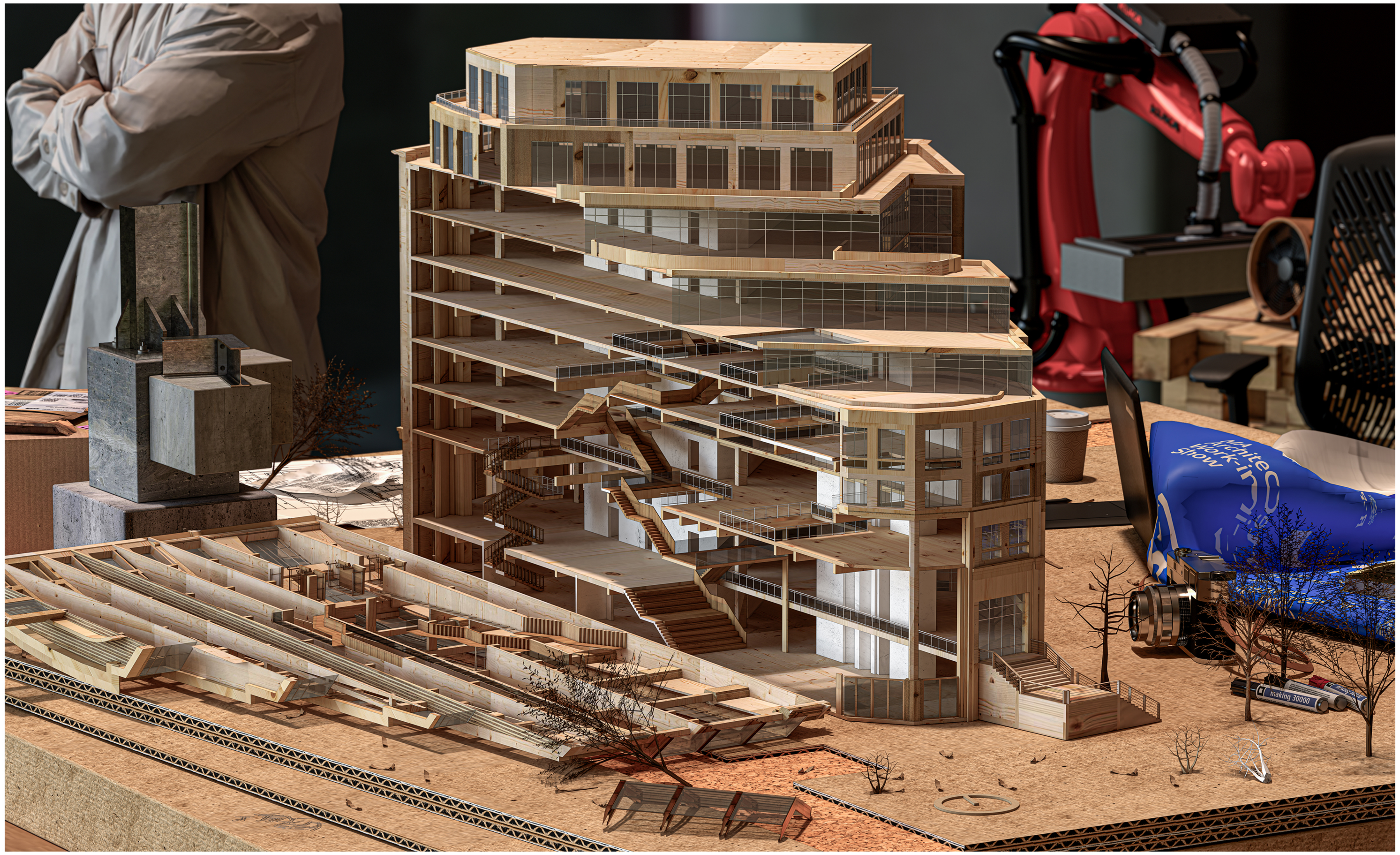
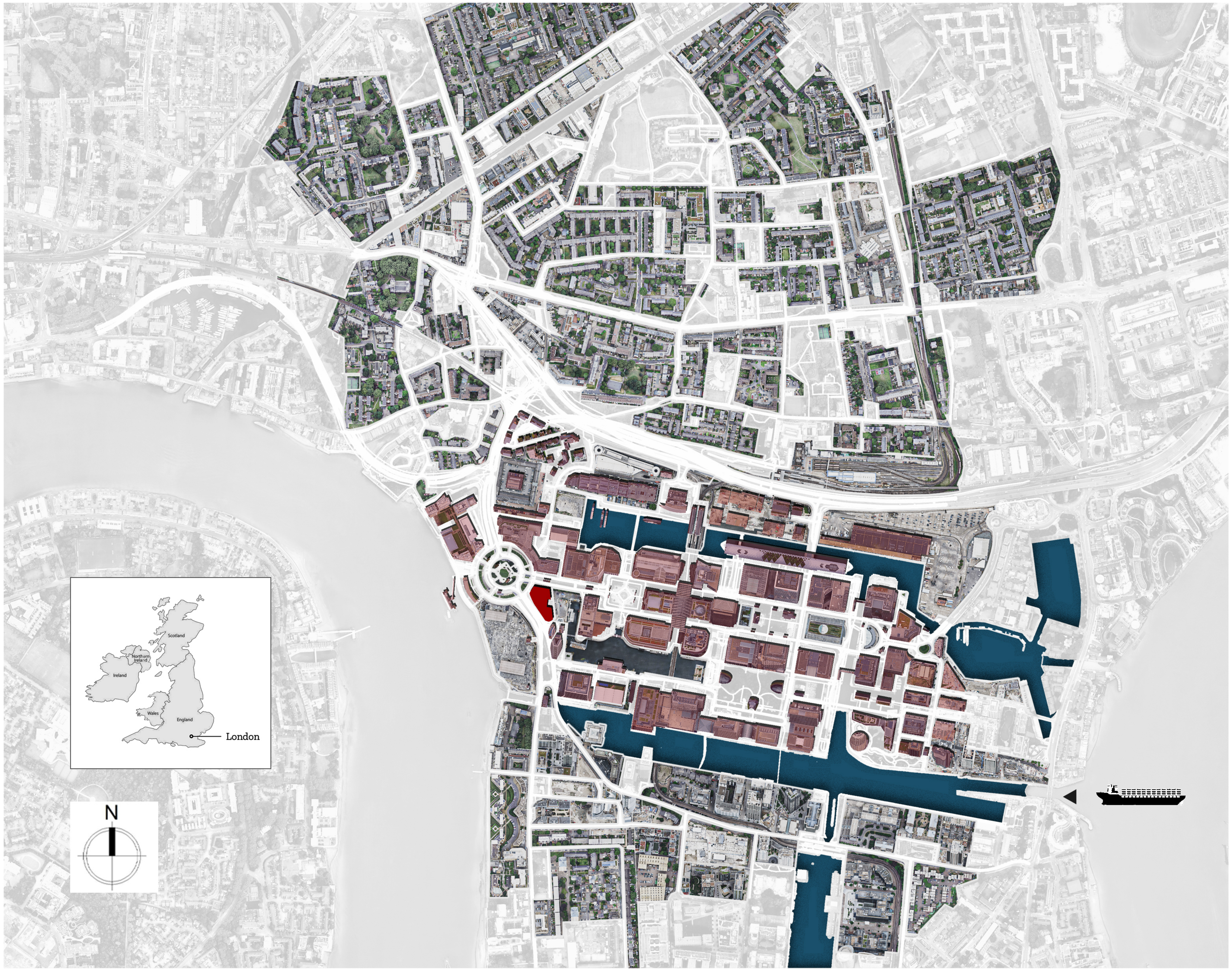
# “CO -- OPeration”

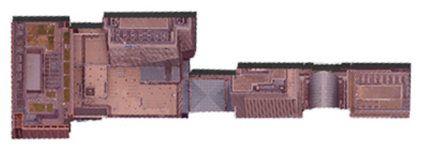


## A community that hug economic degrowth

Super reuse -- Huanyu Peng

## SITE ANALYSIS OF 15 WESTFERRY CIRCUS



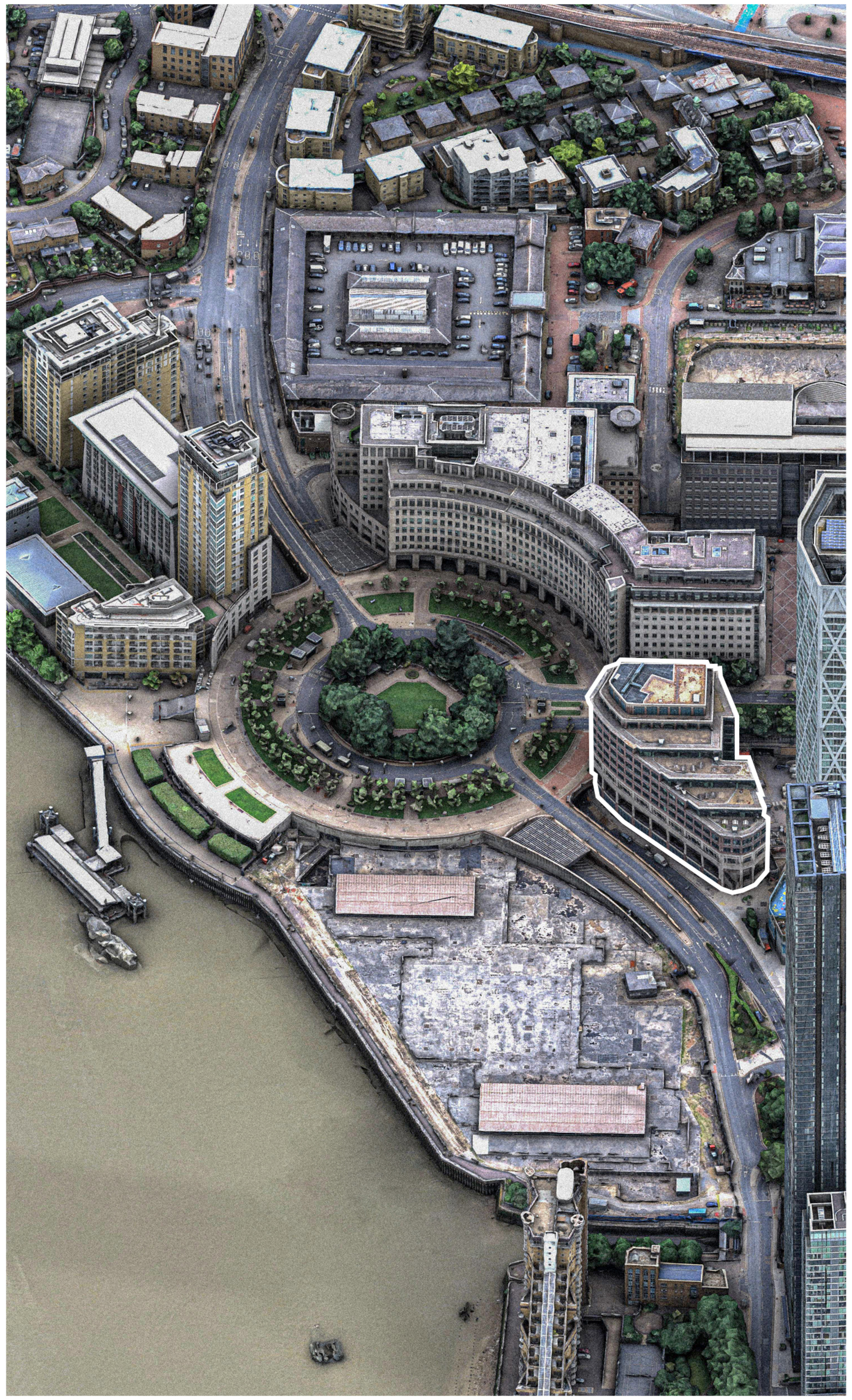
Canary Wharf Financial District

Canary Code Urban Residential Area

Urban Dockland

Site

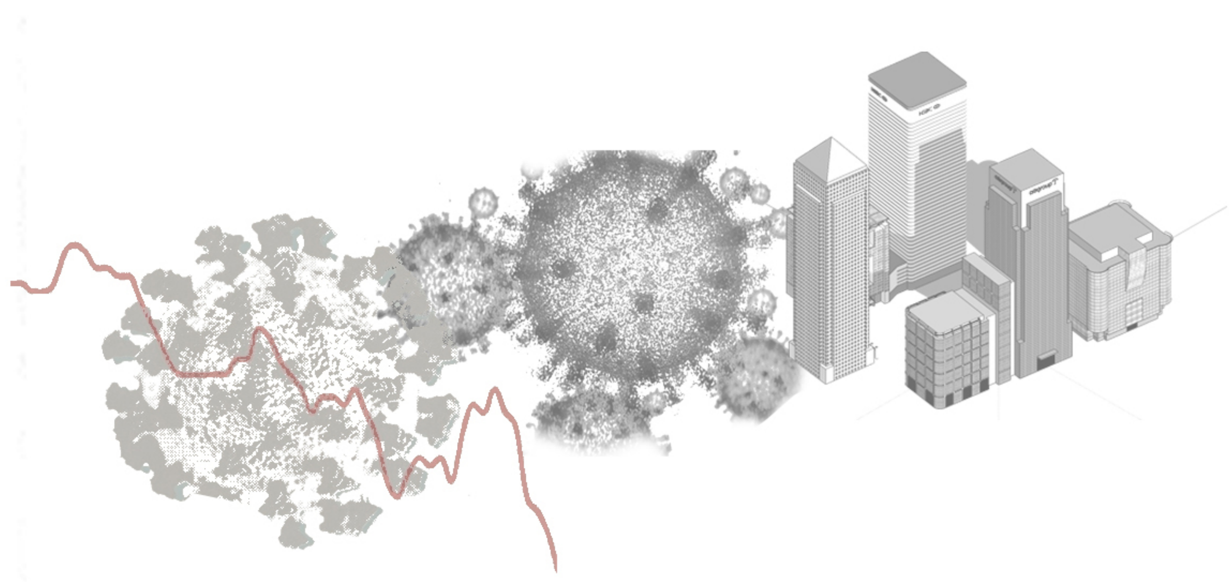
## FROM PORT TRADE TO FINANCIAL CENTRE



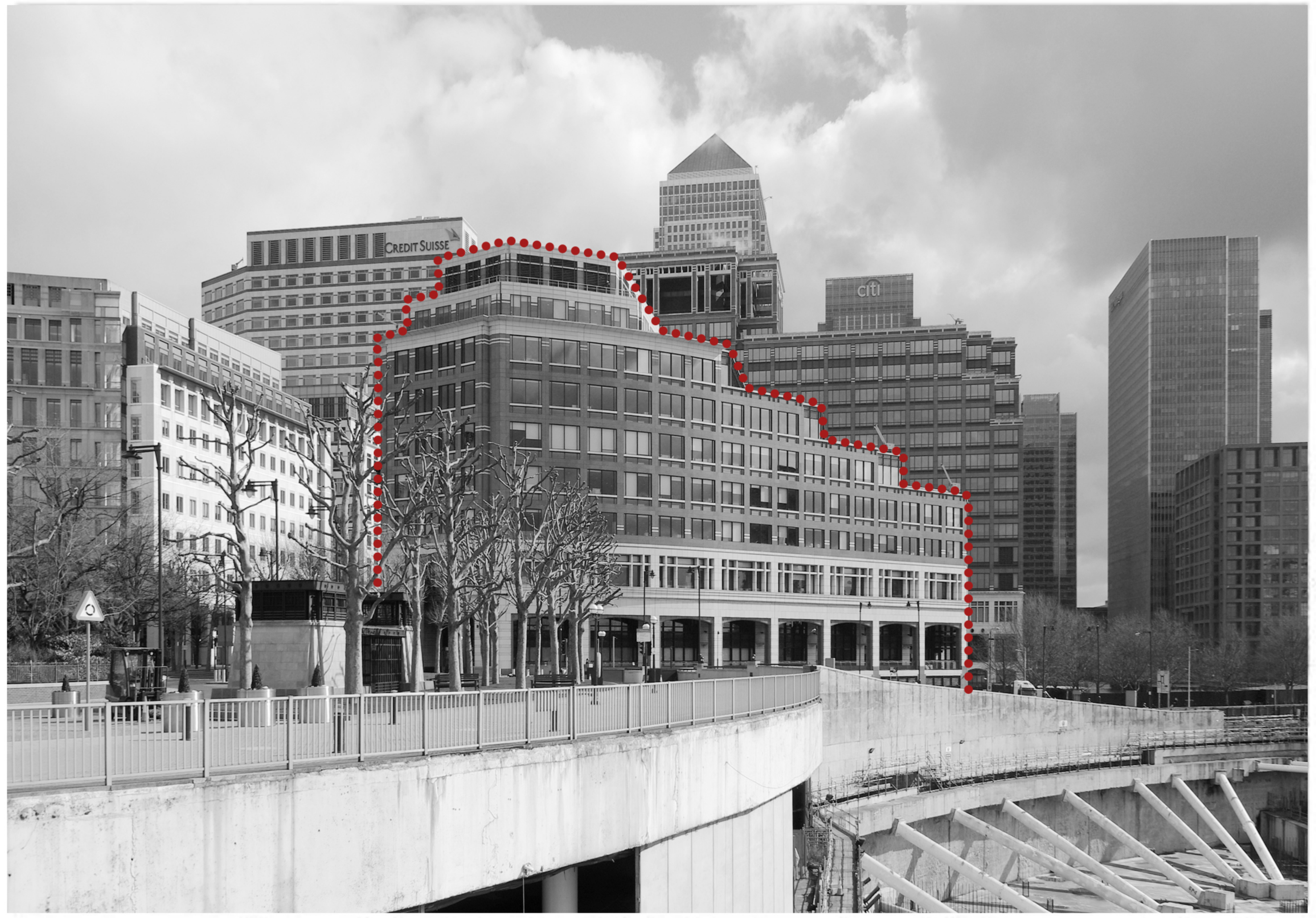
Canary Wharf was originally London's central trade port in the 19th century, leveraging the Thames River's U-shaped waterway to serve as the hub of the British Empire's transoceanic trade. It once supported two-thirds of Britain's international trade with its bustling round-the-clock cargo handling operations. After the port was abandoned in the 1980s due to the decline of shipping, it was transformed into a global financial centre through a public-private partnership model, forming a 'dual-core drive' with the old financial district.

# 15 WESTFERRY CIRCUS

## Background & Problems



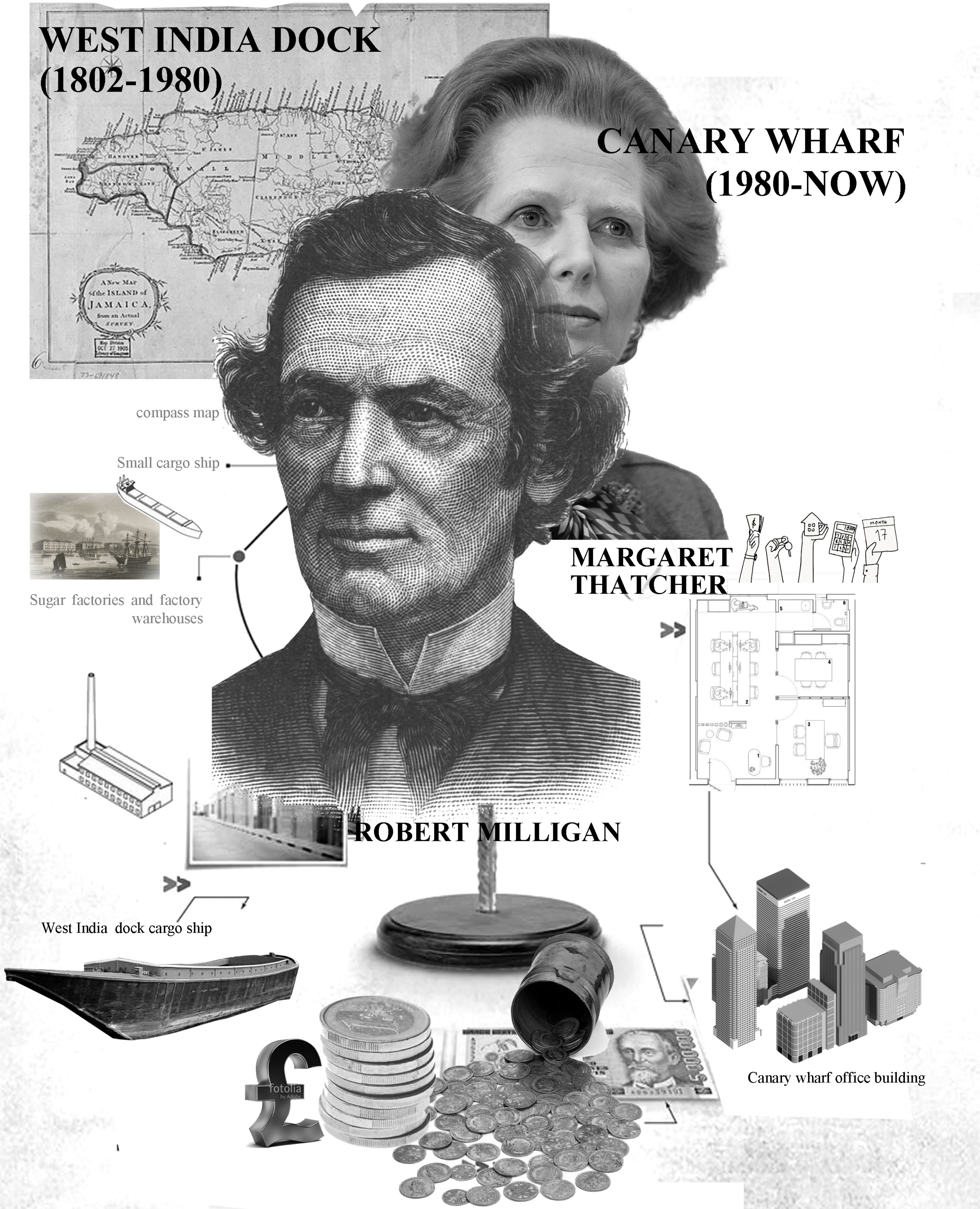
The impact of the global economic downturn in the current environment and the shock to the original working mode brought about by the pandemic from home. The vacancy rate of office buildings in canary wharf reached 20% (2024). Most office buildings, where the design standards were dominated by the late 20th century, have complex problems such as economy, single function and insufficient architectural flexibility



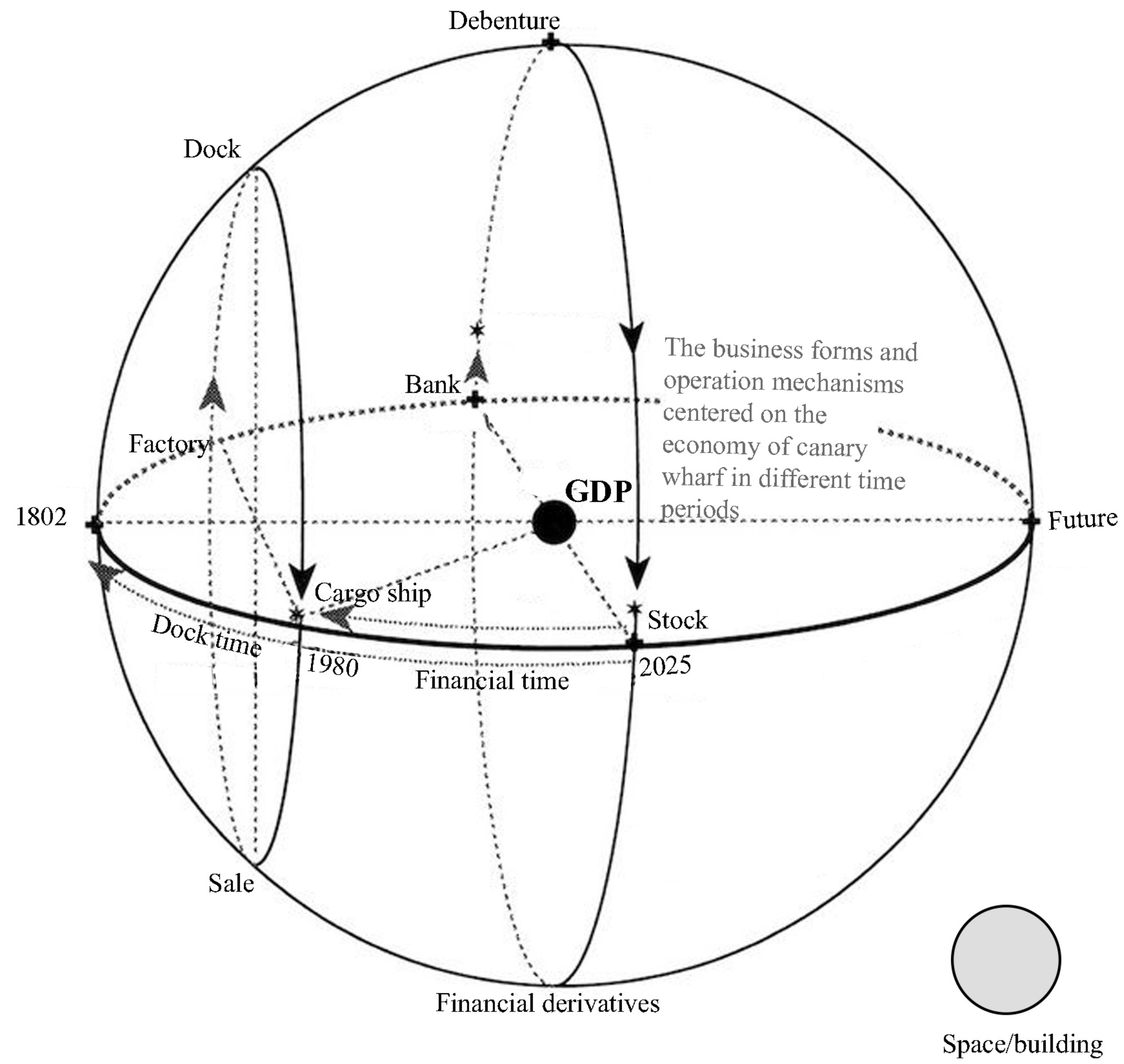

Construction began in November 1998. Its finish marked the completion of the Westferry Complex, the westernmost point of Canary Wharf financial estate.

Image shoot by author
The third floor: Basic on-site conditions . Original structure
Steel beam, core cylinder, cement floor
An empty "stranded asset"


THE RELATIONSHIP BETWEEN THE BUILDING LOCATION AND THE SURROUNDING SITE
PICTURE MADE BY THE AUTHOR




## BUSINESS FORMS IN DIFFERENT PERIODS




## ECONOMIC GROWTH AND SPACE

Against the backdrop of rapid economic development, the space in canary wharf has become an accessory and power around gdp development, as well as a symbolic product of ideology. The cabins, factories and ports derived from the past dock era. And the offices and trading venues in the current financial era. **Space has become a virtual machine masked by the economic growth bubble**

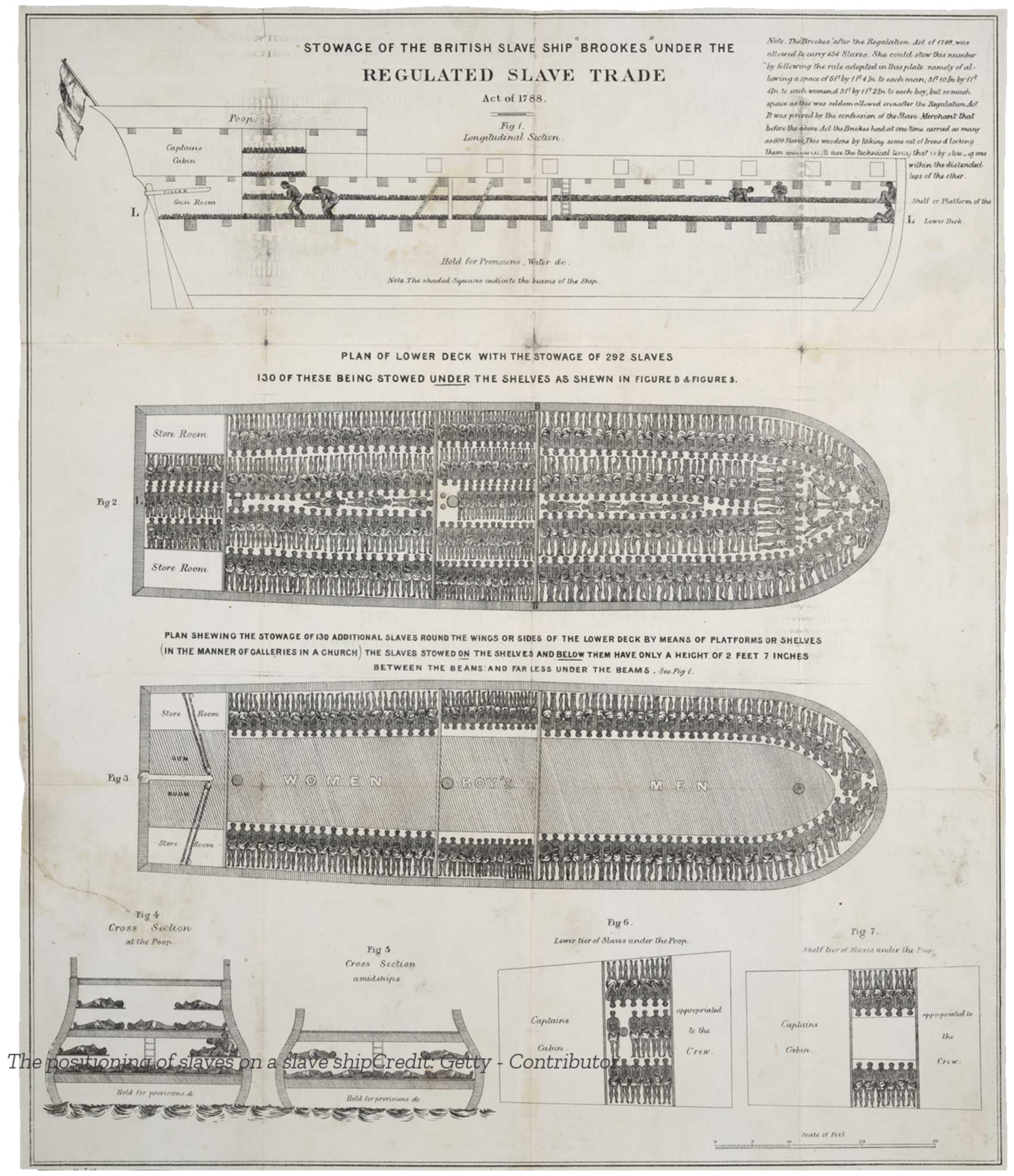
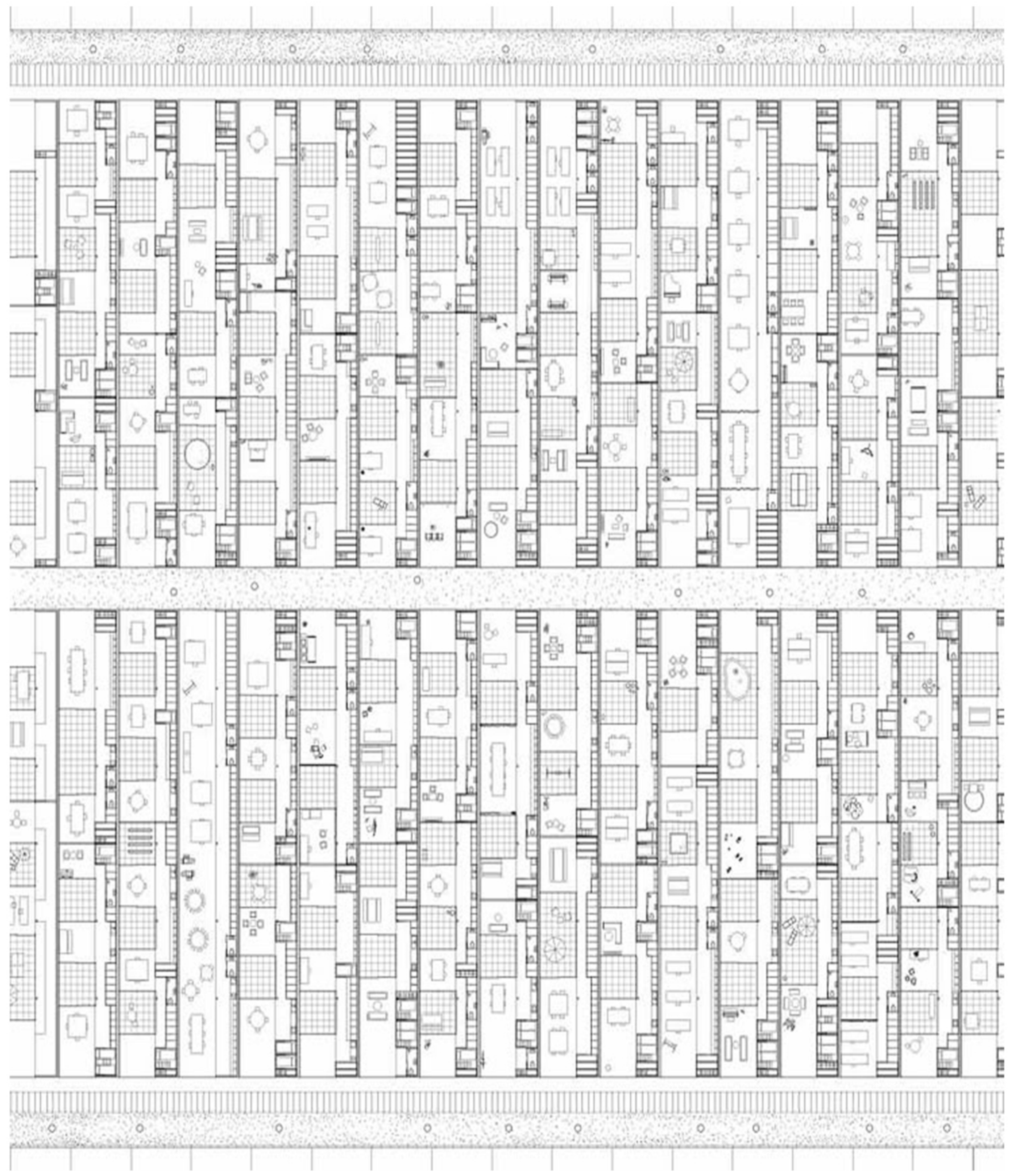



Image from the London dock museum



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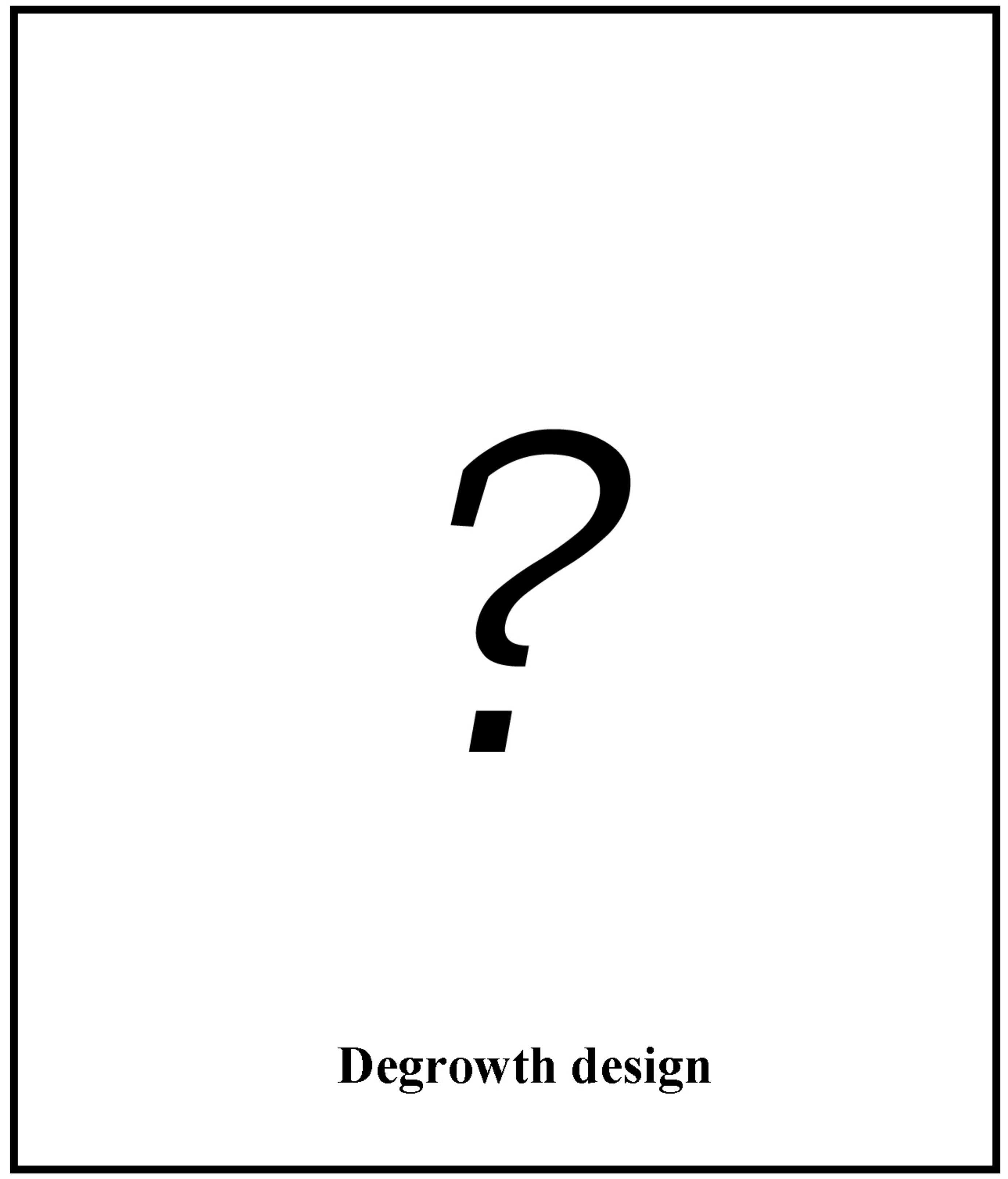



Image from the author

## CARGO SHIP SPACE AND CAPACITY

The hull design verifies that in the early stage of globalized capital, space was driven by the production motivation of maximizing labor, physical space was compressed, and space was a container serving capitalism

## OFFICE SPACE AND CAPACITY

During the past 30 years of globalized capital operation, physical space has still not escaped the essence of the theory that space is a machine. The capital production model triggered by spatial isolationism and cartography has been in use until now

## FUTURE SPACE?

How should the identity of future space be presented and expressed

# CASE STYDY

*Even before his time at the Bauhaus, architect Hannes Meyer had explored the concept of 'co-operation' in a variety of ways and across different genres. In 1924, he designed the Swiss Consumer Cooperatives Association's stand at an international exhibition in Ghent, Belgium. (Image: gta archive, ETH Zurich / Hannes Meyer estate)*

Hannes Meyer's "Co-op Architecture" transformed the school into a productive educational institution integrated with industry, emphasizing collective collaboration. He advocated that architects should act as laborers, connecting architecture and society through cooperation. He viewed design as a functional tool to meet public needs, not an expression of personal authority.

Meyer's theory manifests on two levels:

Interpersonal Collaboration:
Exemplified by the "Co-op Vitrine" displaying standardized, collectively produced items. This aimed to dissolve the alienation inherent in capitalism.

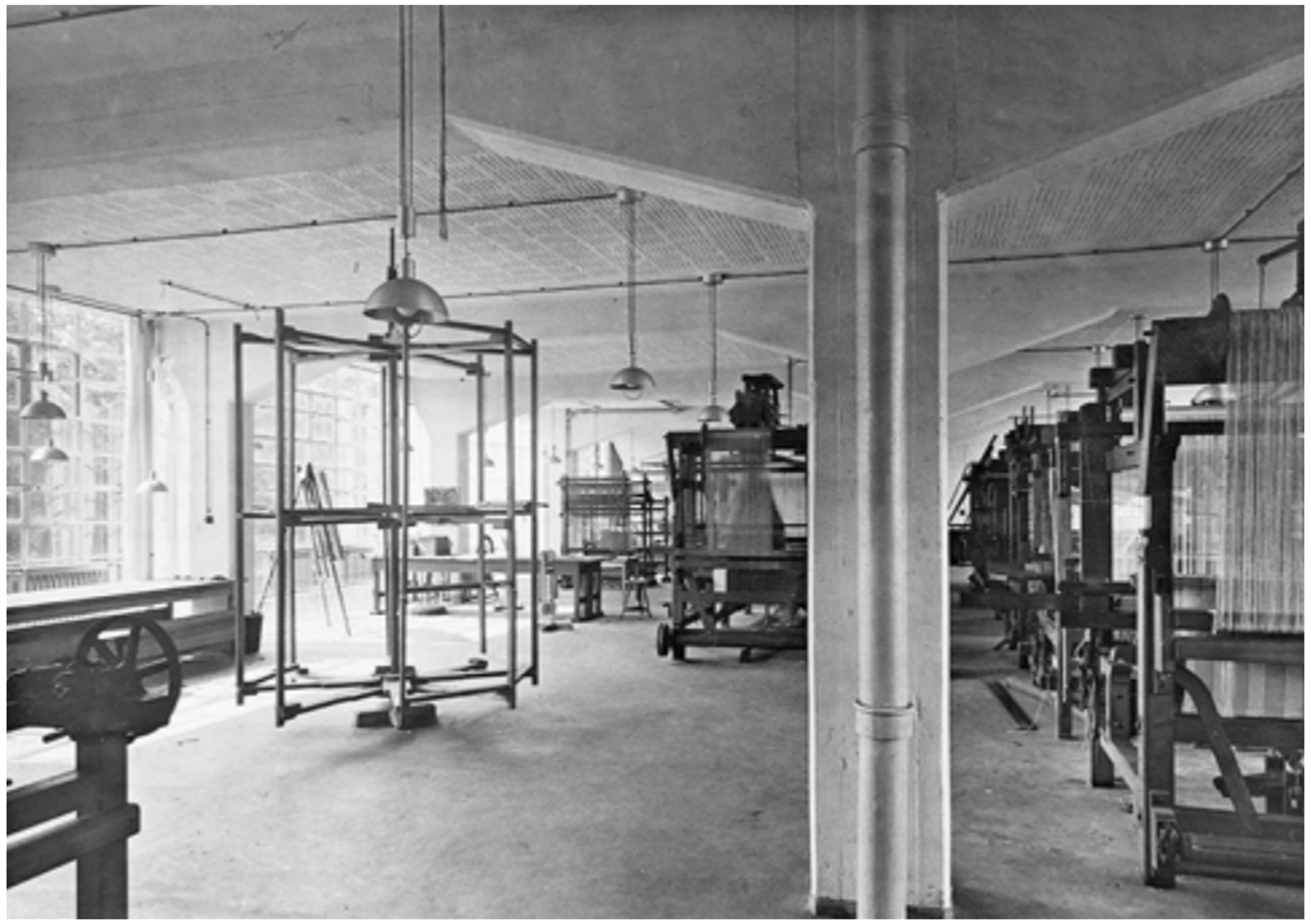
Social Collaboration:
Using architecture to educate the masses. For instance, the Federal School of the German Trade Unions (Bernau School) used features like red corridors to promote collective interaction, and its spatial arrangements reinforced communal life.

Core Contribution: Meyer transformed cooperation from a political concept into an architectural production method, reframing the architect's role as an "organizer" rather than the sole creator.

*Bed by Ludwig Leos in the exhibition How Soon is Now, Berlin 2014. Photo: Gregor Harbusch*


*Cover Bauwelt-Fundamente 1 with the co-op interior by Hannes Meyer, 1964*

# CASE STYDY

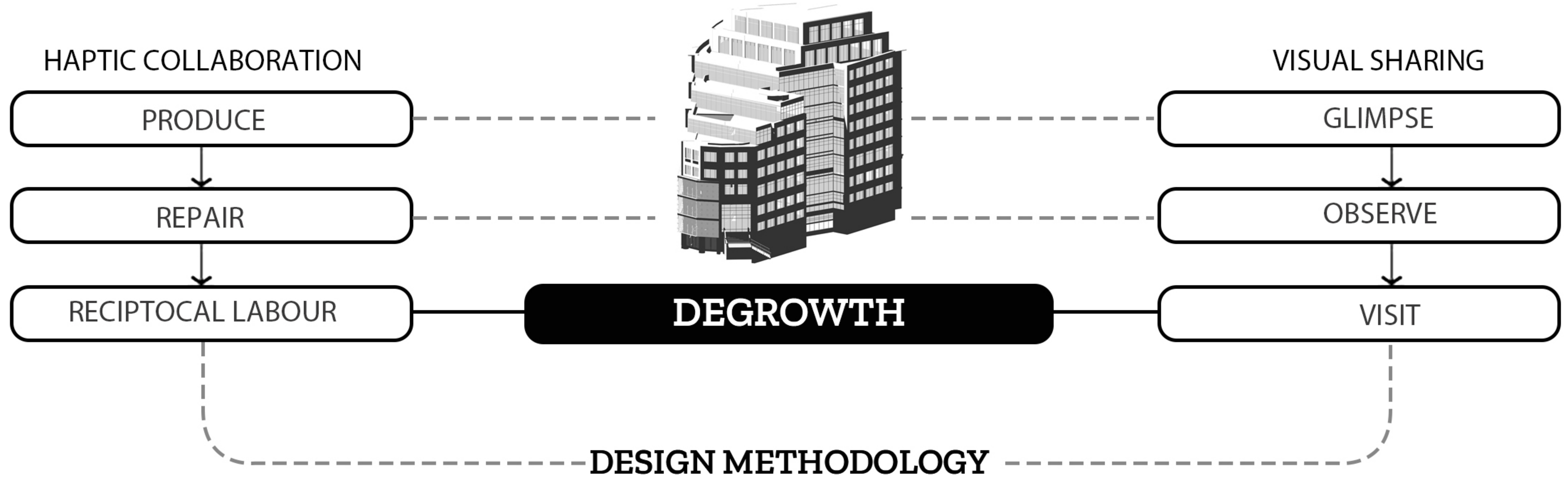


*Weaving workshop at the Bauhaus Dessau, 1927. Photo: Erich Consemüller*

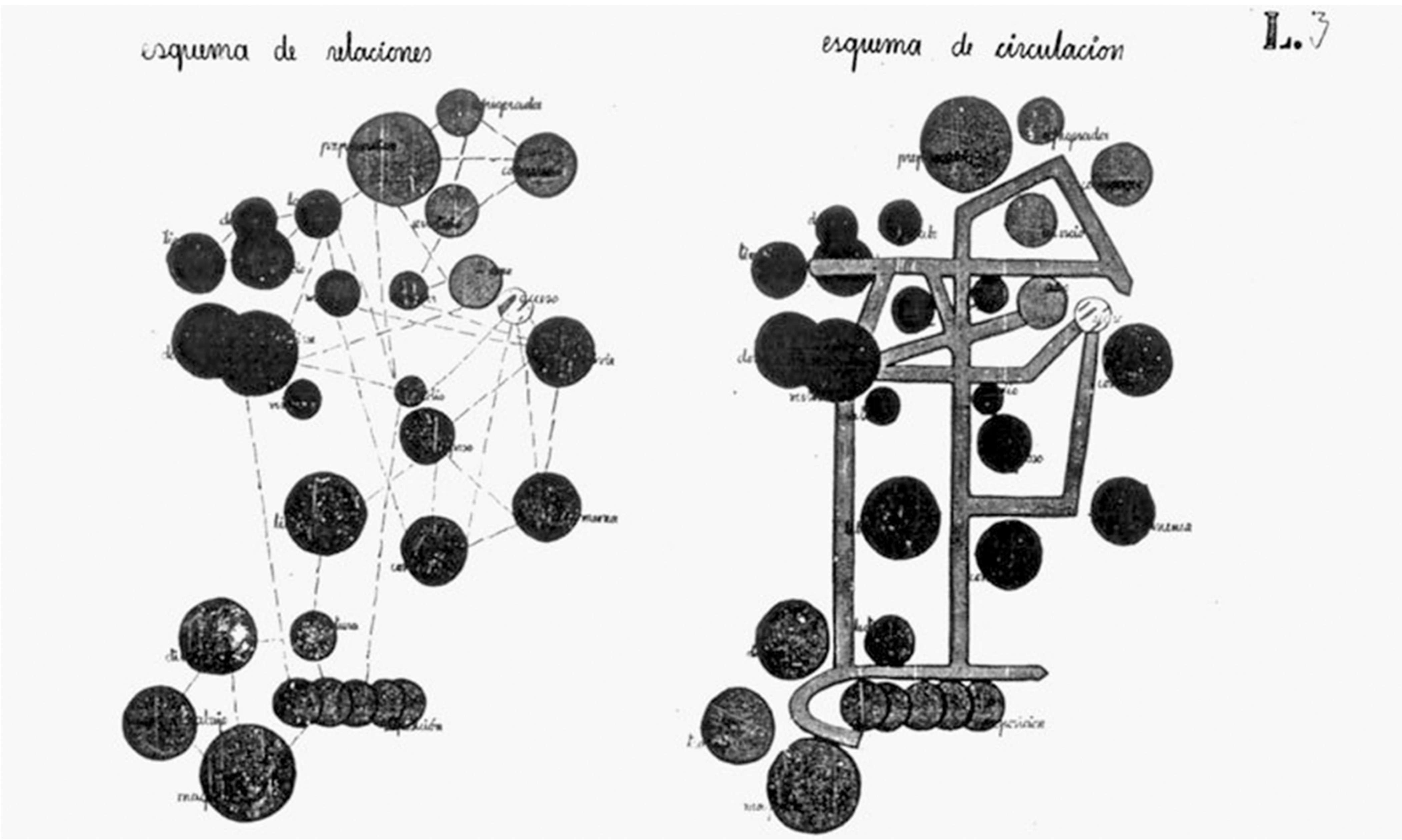
01 PARALLAX LOOP

*Anti-Utopian Architectural Design*

*Evotuionary Morphology For Parallex View- Historical Hermeneutics Of War*




*The role of the architect will change from master builder to spatial organiser.*

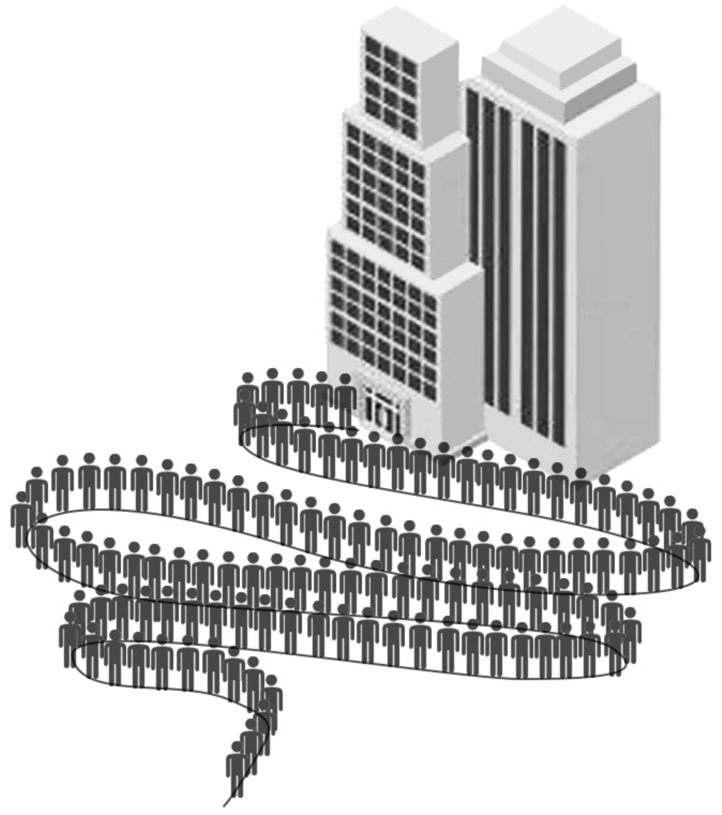



*Miguel Lawner: Relationship and Movement Analysis, 1946. Term paper from the course 'Architectural Analysis' taught by Tibor Weiner. Hannes Meyers neue Bauhauslehre: Von Dessau bis Mexiko (Bauwelt Fundamente, 164) Perfect Paperback – 29 Jan. 2019*

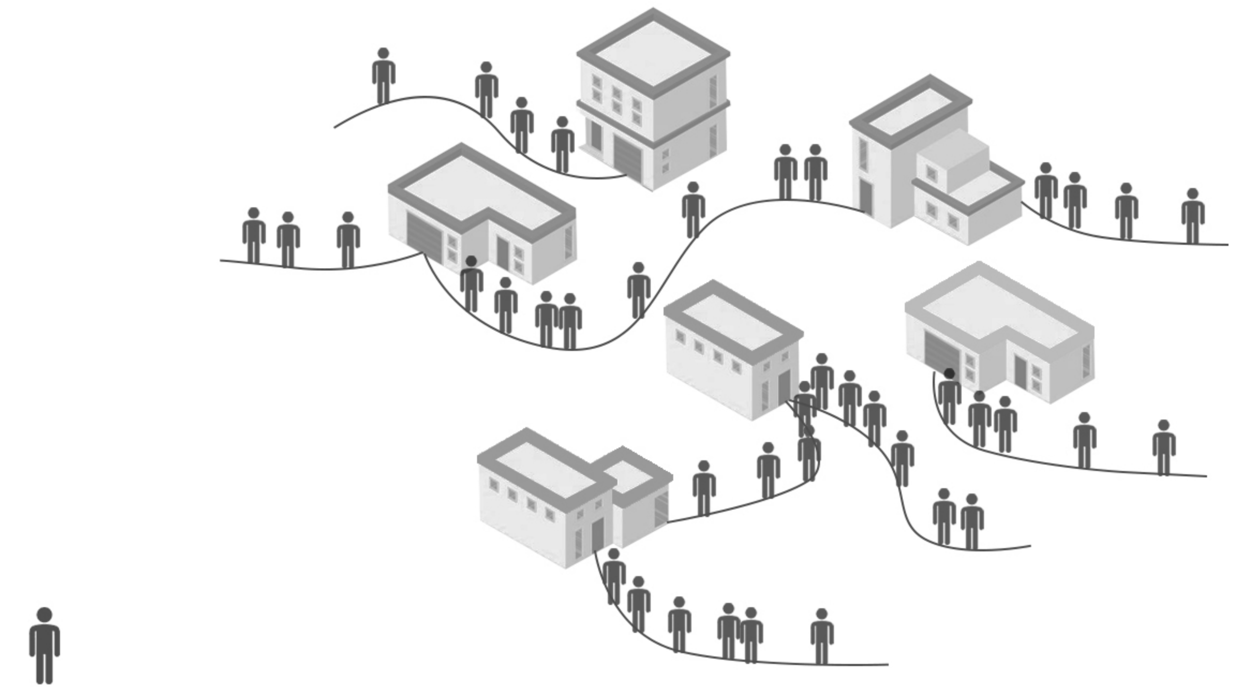
The project aims to transform the collective potential of collaboration in architectural production from a political concept into a practical tool to emancipate the working class from capitalism. Meyer views architects as laborers, for whom collaboration serves both as a collective mode of production and as a bridge connecting the product (architecture) with its producers (mass society). Collaboration represents the most valuable alternative social structure—one not built upon the production of surplus value, but rather founded on the collective needs and aspirations of the mass society that generates this surplus value.

We can broadly interpret the dual connotations of "collaboration": cooperation between individuals and, consequently, collaboration with mass society. This outlines a form of labor resistant to capital withdrawal.

In this way, architects themselves become organizers and experts by dissolving the contradictory separation between artists and other types of workers, thereby illustrating how architecture integrates art with life. Crucially, through three proposals—tactile collaboration, visual commons, and food democracy—the collaborative logic and material flow spaces in degrowth design labor are manifested, challenging the disguise and abuse of financial space. Architects possess the knowledge to refine design processes and integrate social needs with technology, assembling objects composed of socially solidified use values and visual codes.



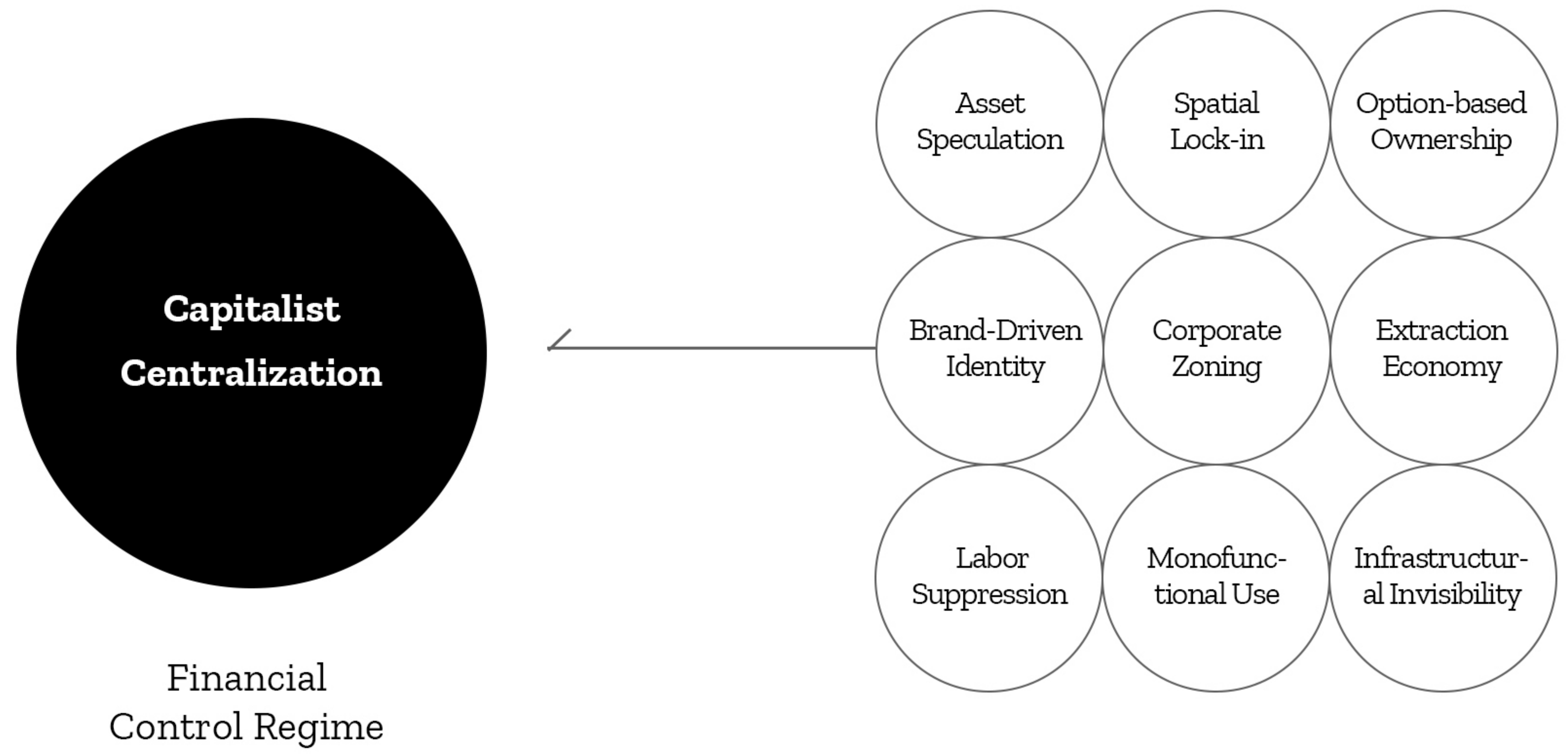
**Financial Control Regime**
Hierarchical Queueing



**Distributed Commons Network**
Horizontal Networking

Legacy of financial centralization defines space as asset, not commons.
Invisible ownership and extractive logic suppress spatial adaptability.
Capital's residues—options, brands, zoning—override collective use.

**Centralized Control**

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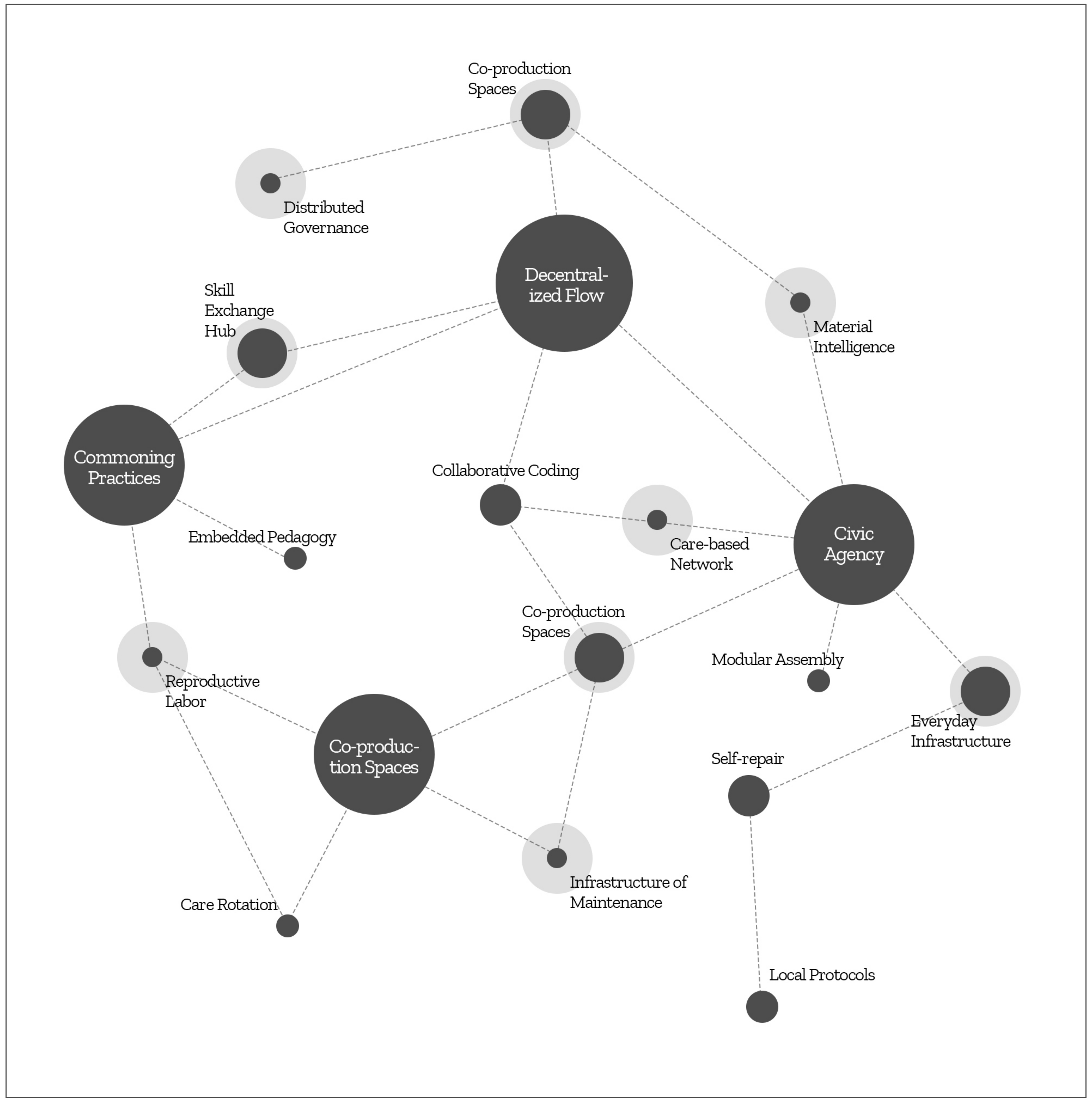


## METHODOLOGY

*Figure-1* *West India Quay - Museum of London Docklands, e-architect*

This photograph (Figure-1), embodies Hannes Meyer's (1930) vision of collaborative production: The working tools and equipment which, throughout their working lives, needed to be pushed, lifted, swung, hauled, dragged, and often by hand (Figure-3). Workers orchestrate a vertical workflow—sacks lowered via pulley from brick-arched windows to ground-level handlers with a transport cart. The unadorned masonry structure exposes raw functionality, rejecting aesthetic formalism. Laborers are active participants in this collective labor mechanism, transforming the warehouse into a decentralized coordination device (Figure-2). Like Meyer's Bernau School, space here serves as a material response to 'biology of life' needs: standardized logistics, collective agency, and a non-alienated workflow crystallized within utilitarian brick.

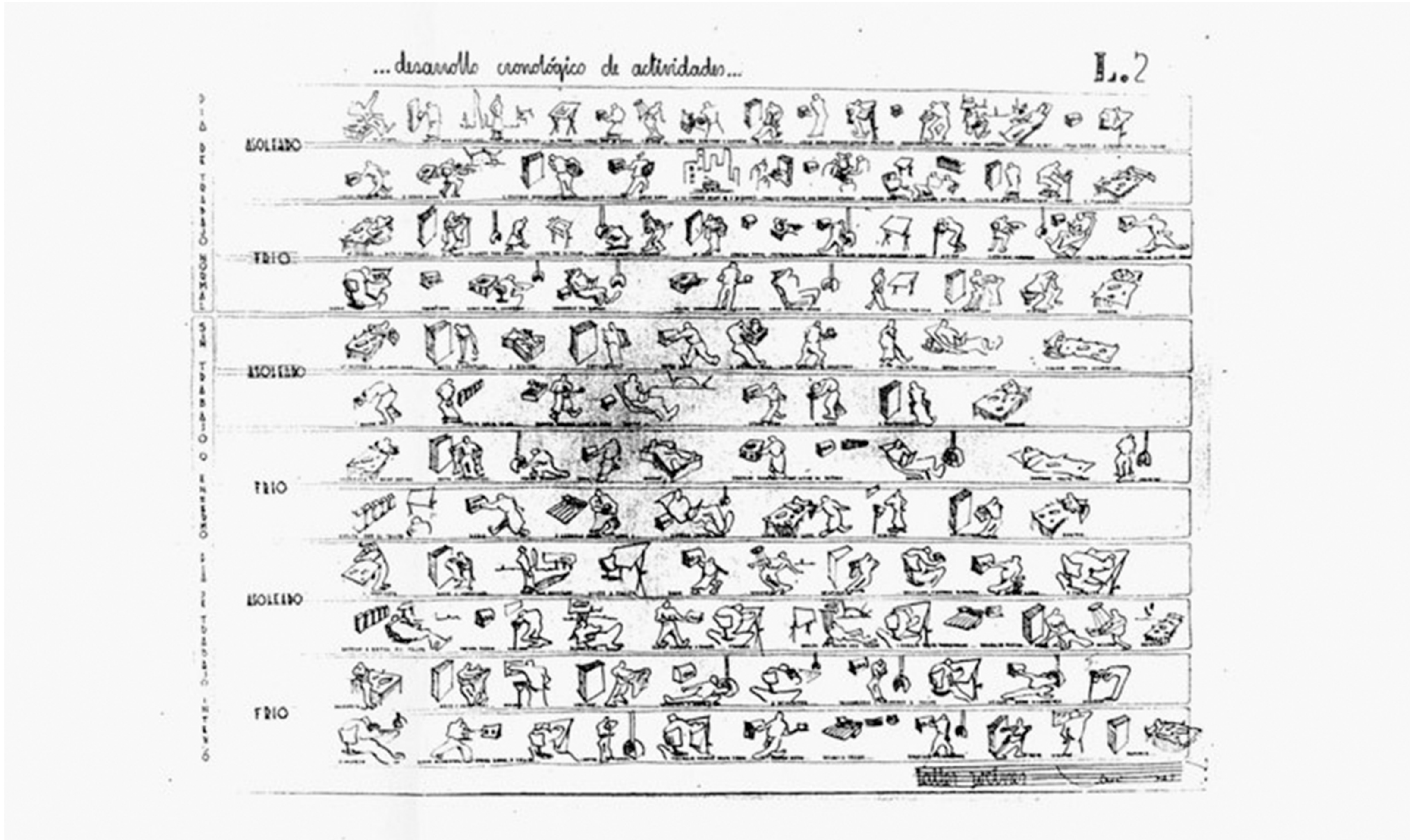



*Figure-2* *Student work by Miguel Lawner at Tibor Weiner's Architectural Analysis class, circa 1946. Chronological development of activities. Image Courtesy of Miguel Lawner. Hannes Meyer: Coop Architecture*

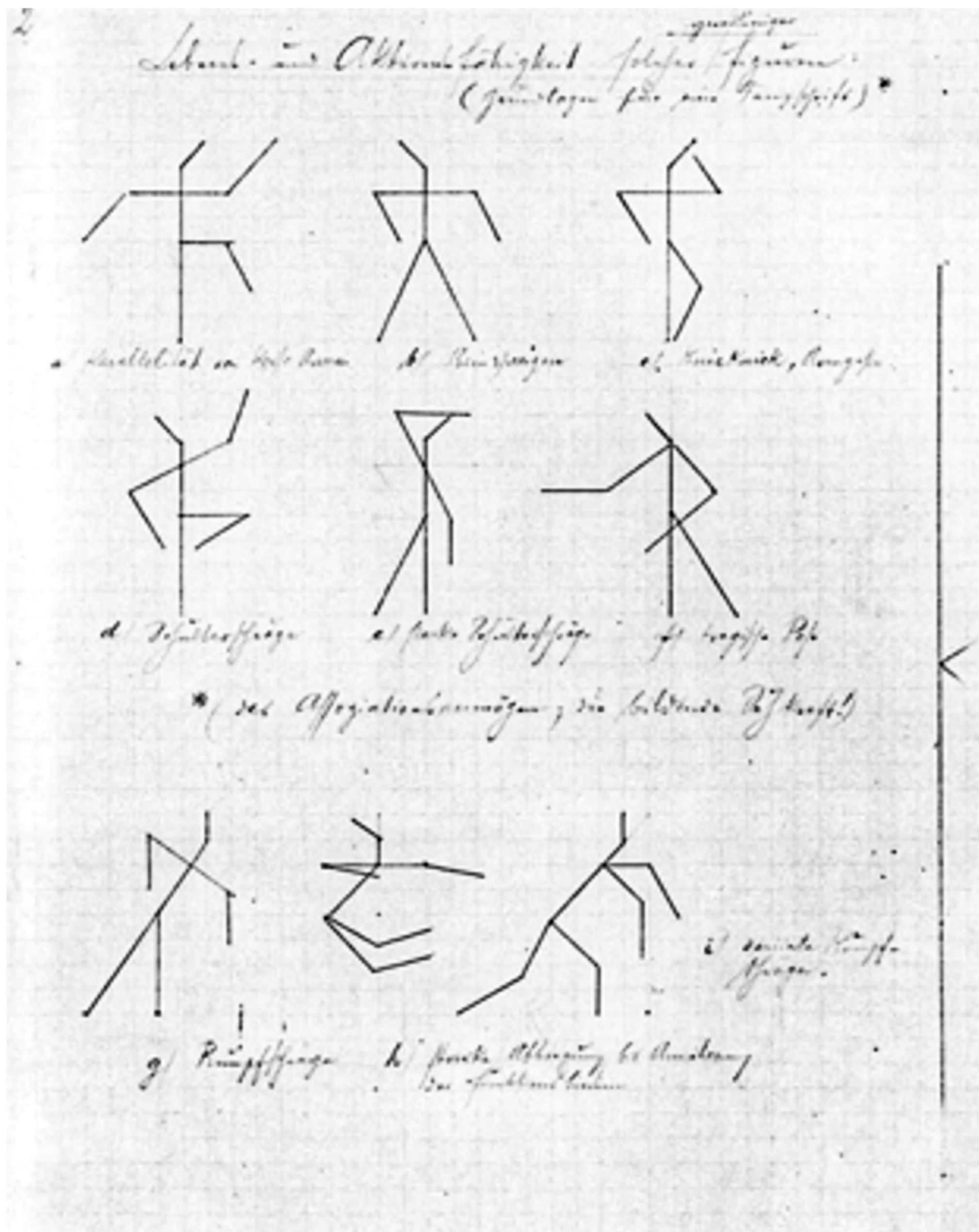


*Figure-3* *Oskar Schlemmer: The vitality and capacity for action of such straightforward figures. From: Der Mensch. Hannes Meyer: Coop Architecture*

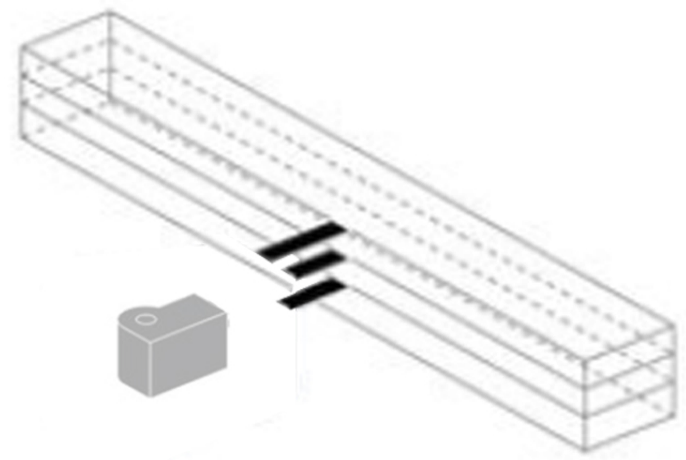


*Figure-4* *organise the logistics chain and combine space with movement*

The concept of a flat factory floor has been replaced by purely technical solutions— or layouts— that organise the logistics chain and combine space with movement, thereby efficiently managing workers and machines. However, the logistics order of factories is not limited to manufacturing but has gradually permeated all areas of production—from heavy industry to civil construction, from office buildings to universities—transforming assembly lines into 'thinking belts,' smoothing functional and sequential arrangements into open spaces and flexible planning, and disguising coercion as neutral free competition or cooperation (Figure-4).

# METHODOLOGY

***Figure-5*** *Docklands Development Corporation was set up in the early 1980s Museum of London Docklands: 'The past is problematic in this country'*


***Figure-6*** *Henry Tate's new ThamesRefinery in London's East Endbegins operations specialising incube*

The space acquires its social nature through collective labor (Figure-5). The exposed brickwork and industrial workflow mutually demystify each other, stripping away ornamentation to reveal functional essence (Figure-6). This scene embodies Meyer's concept that 'society produces its own architecture'—where workers, via non-alienated cooperation, command the means of production, transforming the warehouse into a material diagram of collective subjectivity (Figure-8).

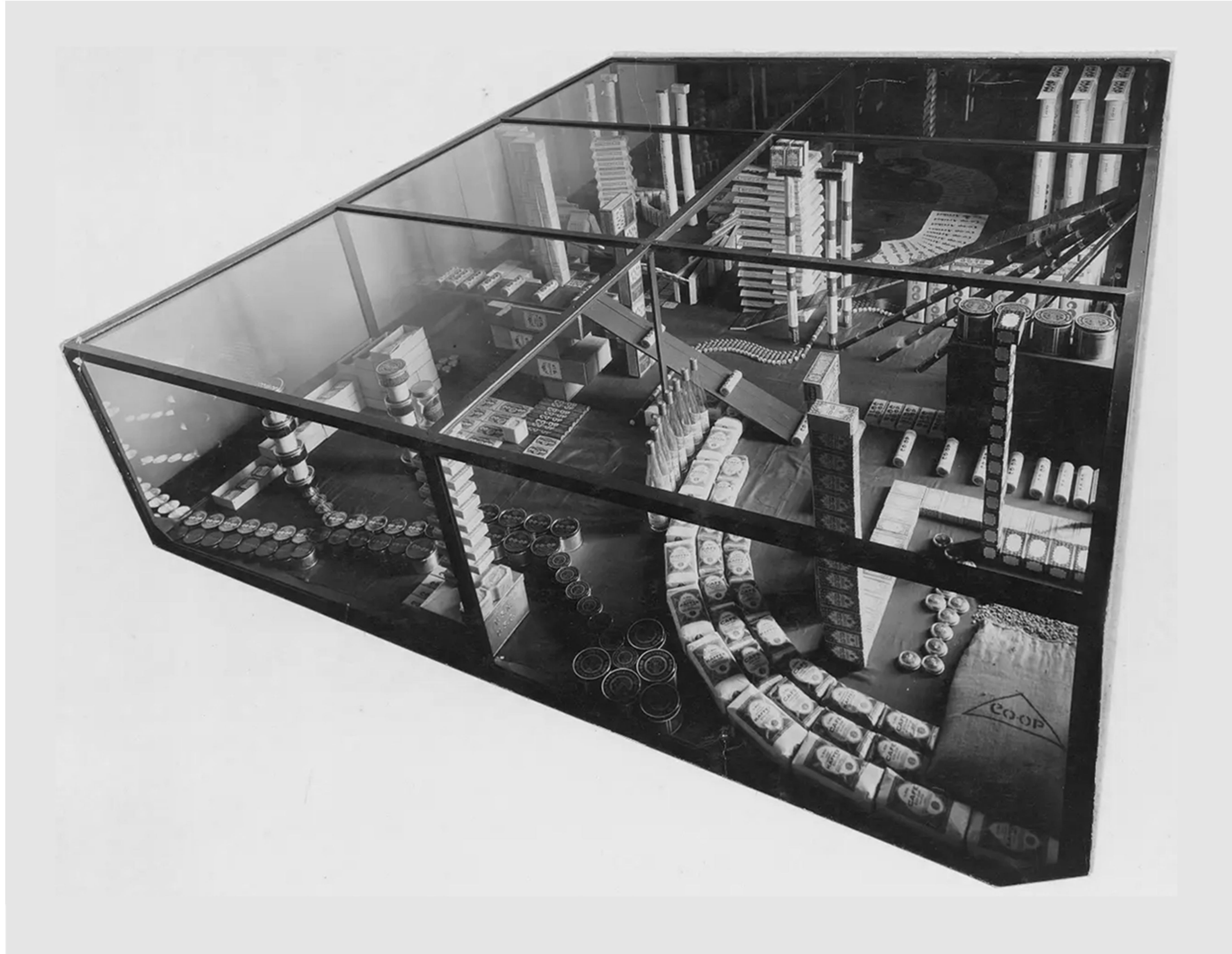



***Figure-7*** *Hannes Meyer arranged the packaging of cooperative products in display cases to form unusual and exciting spatial structures. (Image: gta archive, ETH Zurich / Hannes Meyer estate*

Co-op display a mode of production derived from the capitalist market economy and the alienation of ownership. Each product is presented as a group of objects without a centre, but still retaining individual identifiability. (Figure-7)

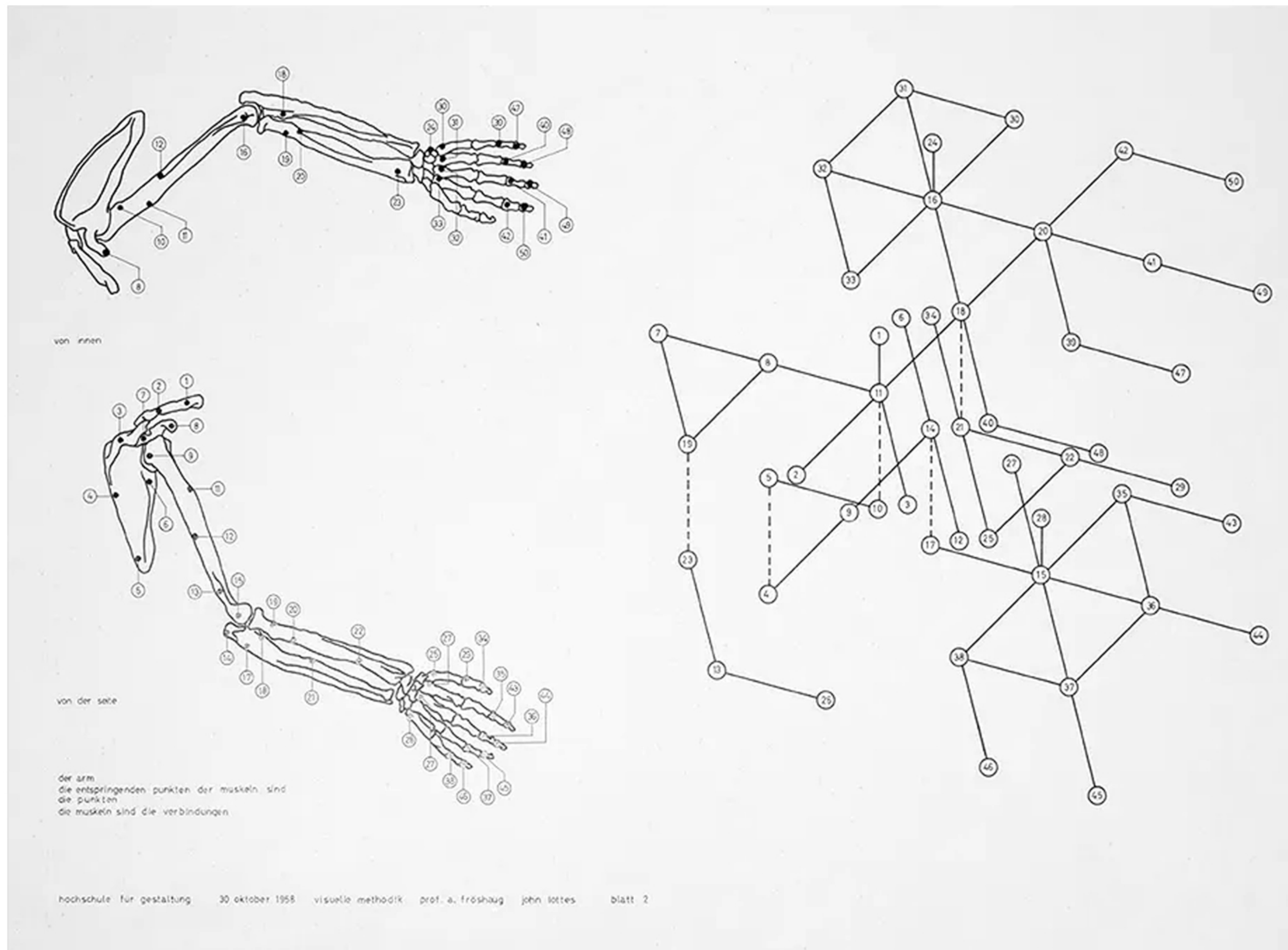


***Figure-8*** *John Lottes: Theory of Graphs. Visualisation of motion sequences and functions in graphical representation, 1958/59. Lecturer: Anthony Fröshaug*

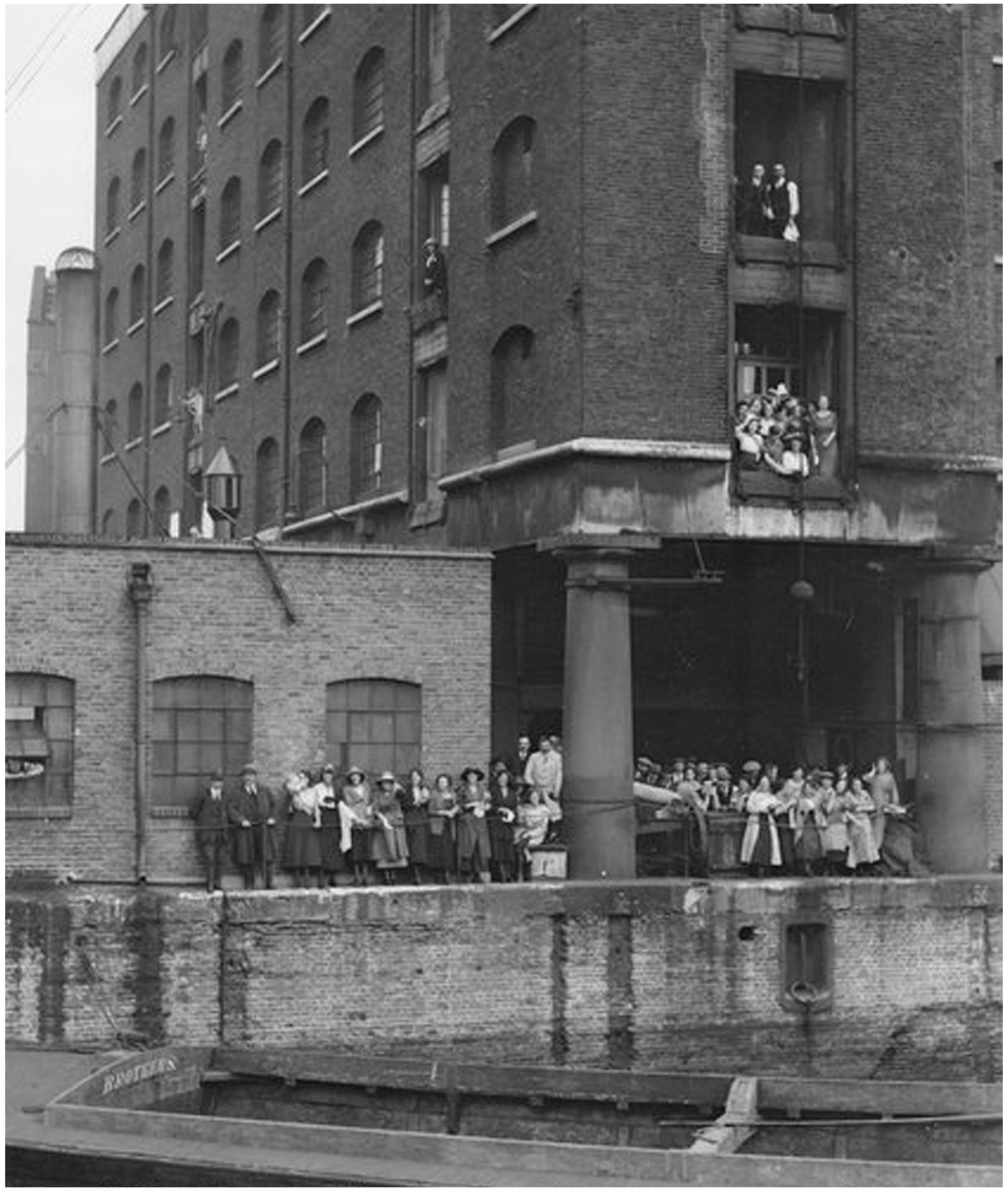
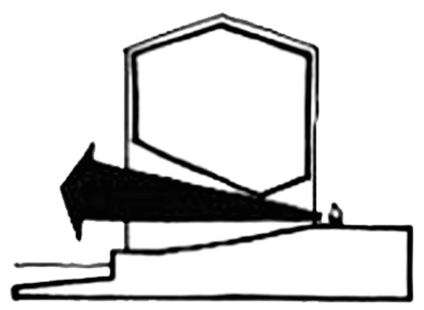


*Figure-9* *Crowds of people stand on a wharf and at a balconies on a warehouse above. A barge in the foreground. Bee-Mason, John Charles. Shackleton-Rowett Antarctic Expedition 1921-22*



The tiered balconies and docks forge a vertical visual-sharing system (Figure-9). crowds at mid-level gaze down upon the barge, while ground-level groups look upward toward the building, their reciprocal sightlines weaving a dynamic social interface. The brick facade dissolves spectatorship hierarchy through its non-hierarchical structure, its raw materiality amplifying collective presence. This decentralized visual network materializes Meyer's 'socio-spatial continuum': by orchestrating multi-directional vistas, architecture becomes a silent intermediary for mass collaboration.


***Figure-10*** *On a small stage, lever worked with the Geneva-based actor couple Jean-Read to stage short pantomime scenes depicting various aspects of cooperative living. (Image: gta archive, ETH Zurich / Hannes Meyer estate)*

*Hannes Meyer, co-op theater (1923) | The Charnel-House, Hannes Meyers neue Bauhauslehre: Von Dessau bis Mexiko, Philipp Oswalt, 2019*

Spatial continuity is social continuity. Architecture, by orchestrating multi-directional vistas, becomes a theater for mass collaboration (Figure-10). In this space, the vertical dimension of the steps and the horizontal repetitions of signage ('CO-OP') forge a tensioned visual network. The tiered theater, elevated through its stepped platforms, constructs an egalitarian field of mutual gaze—where intervisibility among spectators ignites collective consciousness (Figure-11).

***Figure-11*** *Untitled (sketch by the young Bauhaus stage with Naftalie Rubinstein and Werner Siedhoff), 1930. Photo: Marianne Brandt*

# METHODOLOGY

*Figure-12* *The Port of London Authority operated an extensive railway system from which goods could be transported in and out of London and connect with the national network. Here the PLA's Engine No. 203 waits beside the Clan Line's cargo ship Clan Maclennan at Tilbury Docks. (© PLA collection/Museum of London)*

*Figure-13* *Jim Alinder, Sea Ranch Condominium One, Unit 9. From: Donlyn Lyndon (2009) The Sea Ranch, Journal of Architectural Education, 63:1, 86.*

*Figure-14* *Edward B. Allen, View of a characteristic unit volume in section perspective. From: Donlyn Lyndon (2009) The Sea Ranch, Journal of Architectural Education, 63:1, 89.*

The material flow logic of the dock railway system (Figure-12), manifested in the crane track network and cargo circulation paths—is transposed into a spatial flow syntax in Moore's Sea Ranch Condominium (Figure-13): Split-level stairs echo the dock's elevation shifts, while the wedge-shaped loft reconfigures cargo-hoisting trajectories. Both spaces share Meyer's 'collaborative code': mechanical collaboration (hoist-tracks) in industrial heritage ascends to tactile collaboration (shared hearth/long table) in the dwelling, transforming space into a 'resilient interface' against capital alienation. This constitutes the historical archetype of your 'community skills exchange': material flows ultimately rewrite the grammar of social production (Figure-14).

## METHODOLOGY

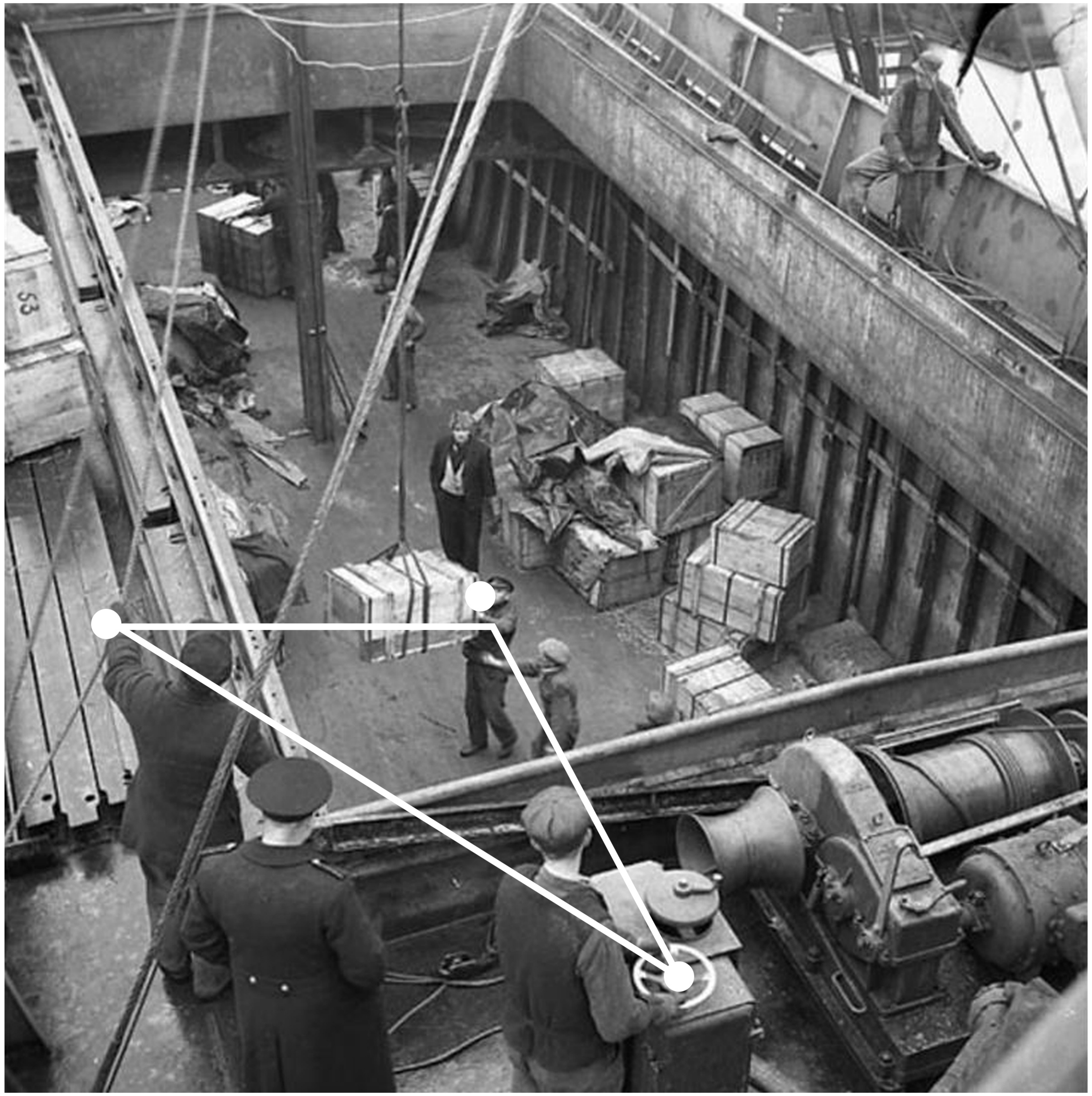
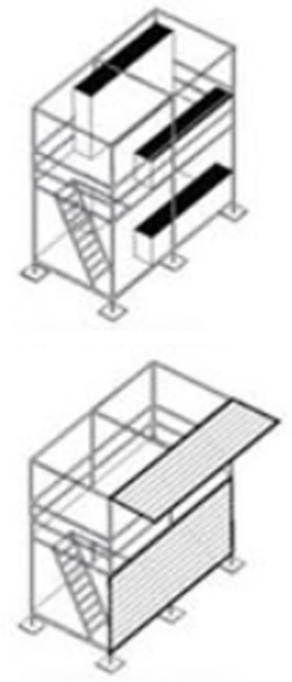


*Figure-15* *Lemons being unloaded from a ship in dock. Mud, Flood And Blood: Photos Of London's River Thames 1895-2000*

This image exhibits the spatial productive topology of early 20th-century cargo hold operations (Figure-15): within a three-dimensional grid defined by steel-timber composite structures, crane cables, parabolic cargo trajectories, and workers' bodily movements constitute a dynamic mechanical chain. Through vertical hierarchical control (operation layer/command layer/execution stratum), space is encoded as a precision instrument for non-alienated labor. Architecture emerges as a material diagram of social production—its collaborative logic crystallizes the mechanical



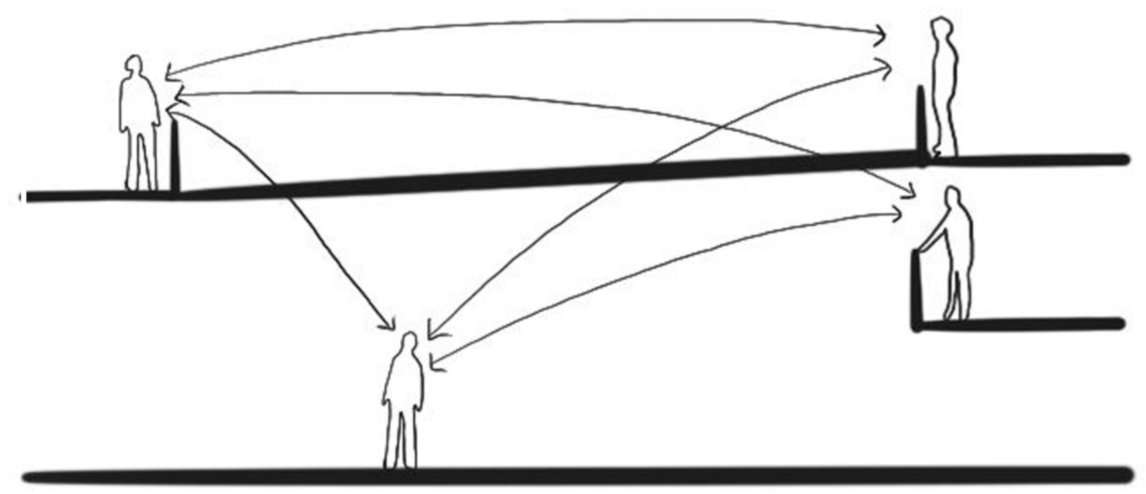
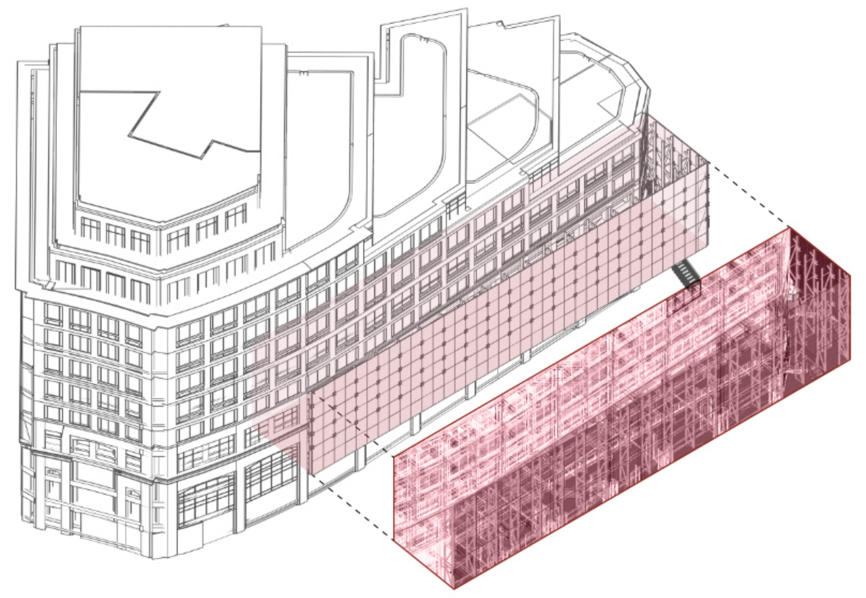


*Figure-16* *Spatial productive topology and visual network analysis*

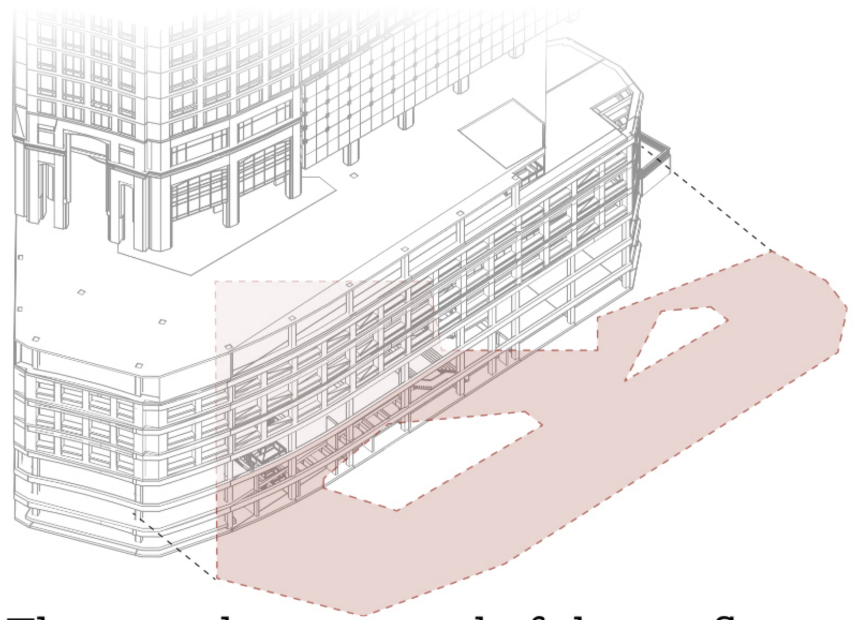
*Figure-17* RENOVATION OF OLD BUILDINGS IN THE PORT AREA

Level Up , 2018/ Brett Mahon, Joonas Parviainen, Saagar Tulshan, Shreyansh Sett

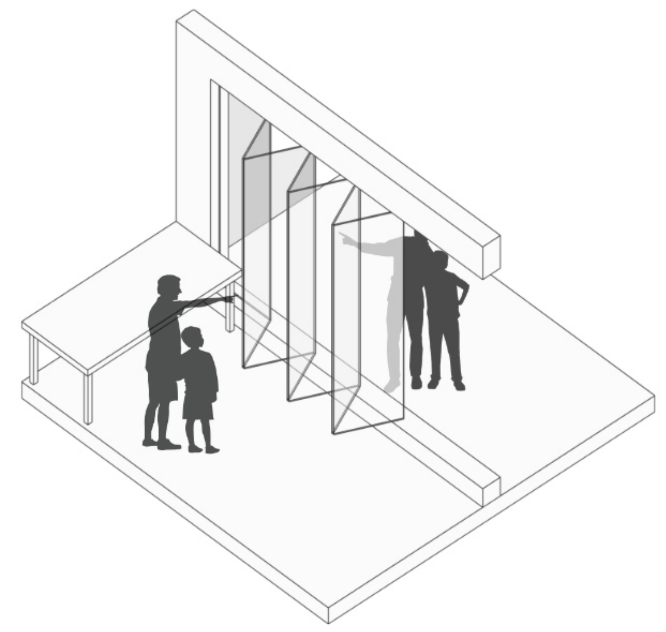
The mechanical collaboration system where crane tracks and hoisting cables form rigid material flowlines (Figure-15) : epitomizes Meyer's prototype of architecture as a 'production organizer'. The transformed space (Figure-16) transposes this into a flexible social syntax: the warehouse platform, reconfigured as tiered steps, enables vertical visual-sharing (mutual visibility of labor across stepped planters), while exposed rail bolts are reborn as tactile collaboration interfaces. Together, they materialize 'spatial continuity as social continuity'—elevating the logistical code of industrial heritage (Figure-15) into a visual democratization of communal production (Figure-17), forging resilient networks against capital flight.



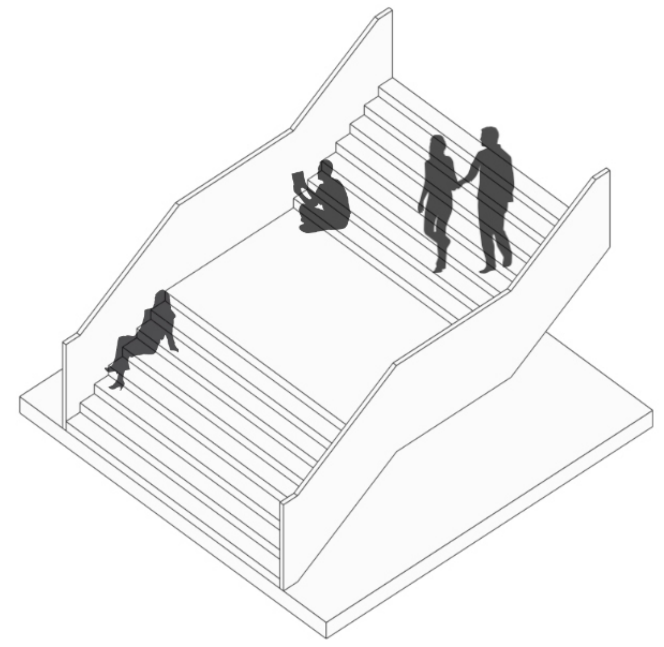
Redesign in the form of localised spatial blocks and highlight the wholeness of the remodelled part by means of a complete façade



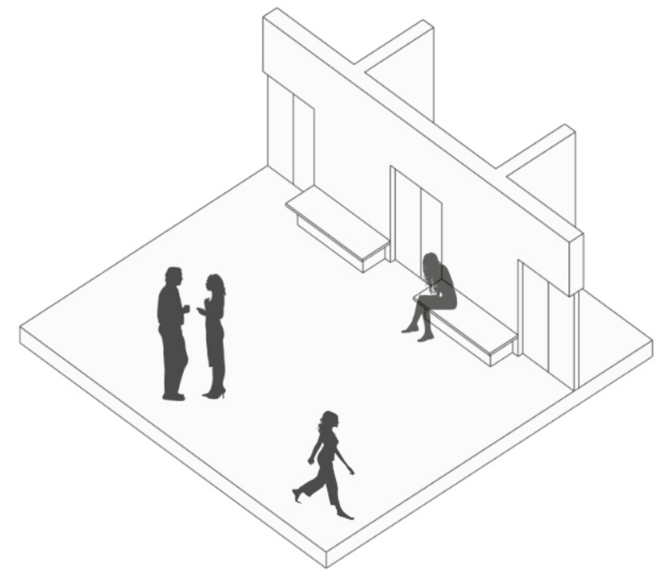
The complete removal of the 1st floor slab improves the openness of the space and gives the space the opportunity to be communalised.



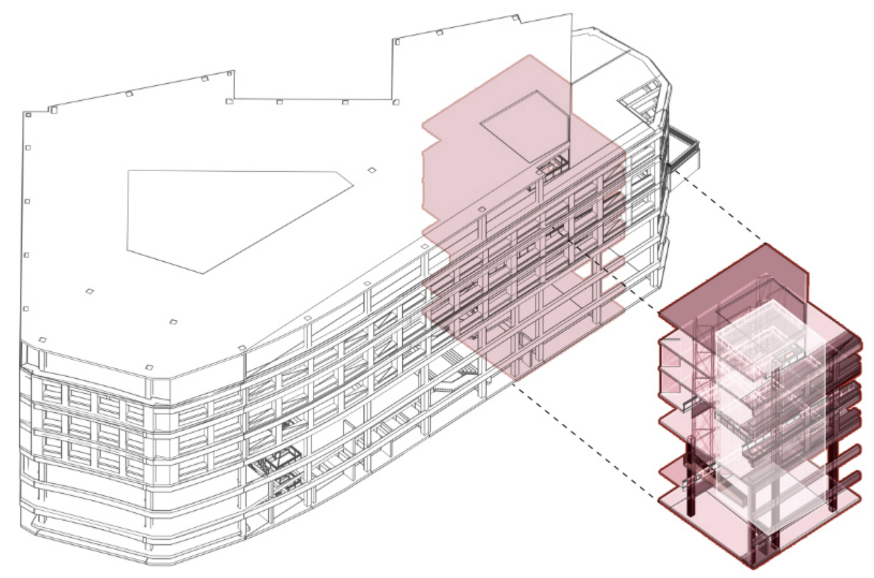
Visual Interaction



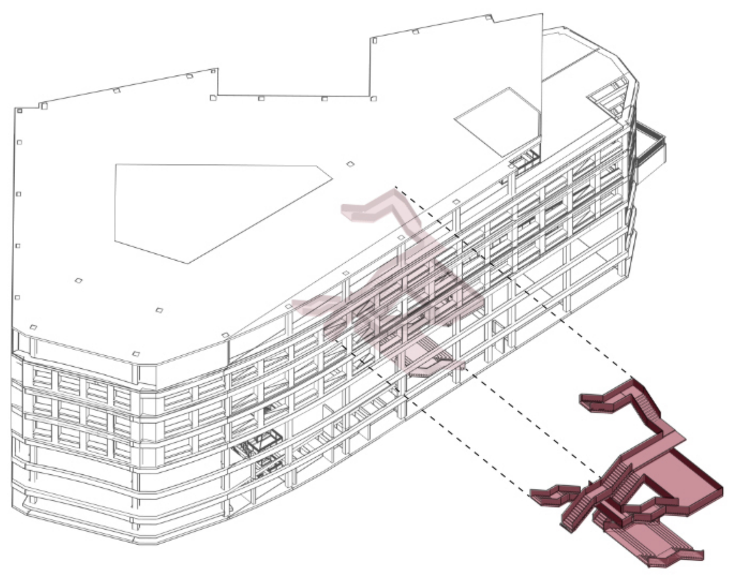
Cubic Transport-Activity



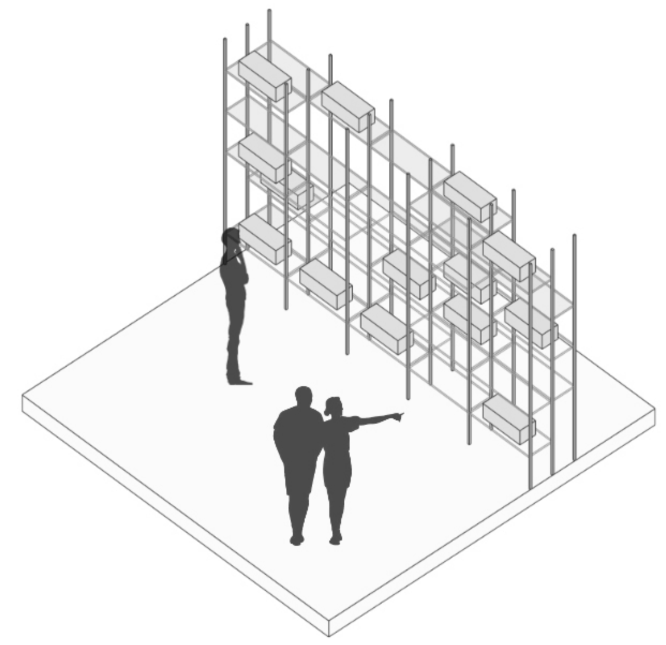
Open Space



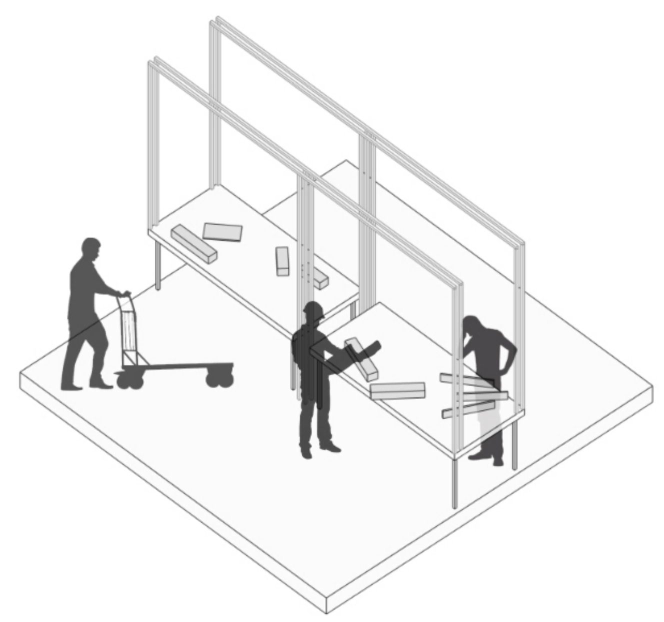
Embedding vertical heights to improve the connection of views within the building.



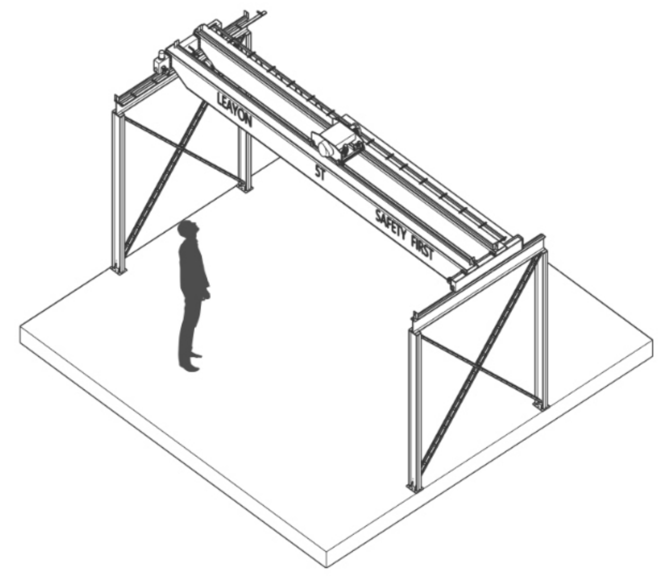
A continuous traffic system has been designed in the renovation area to increase the interest of vertical space and the richness of visual connections.



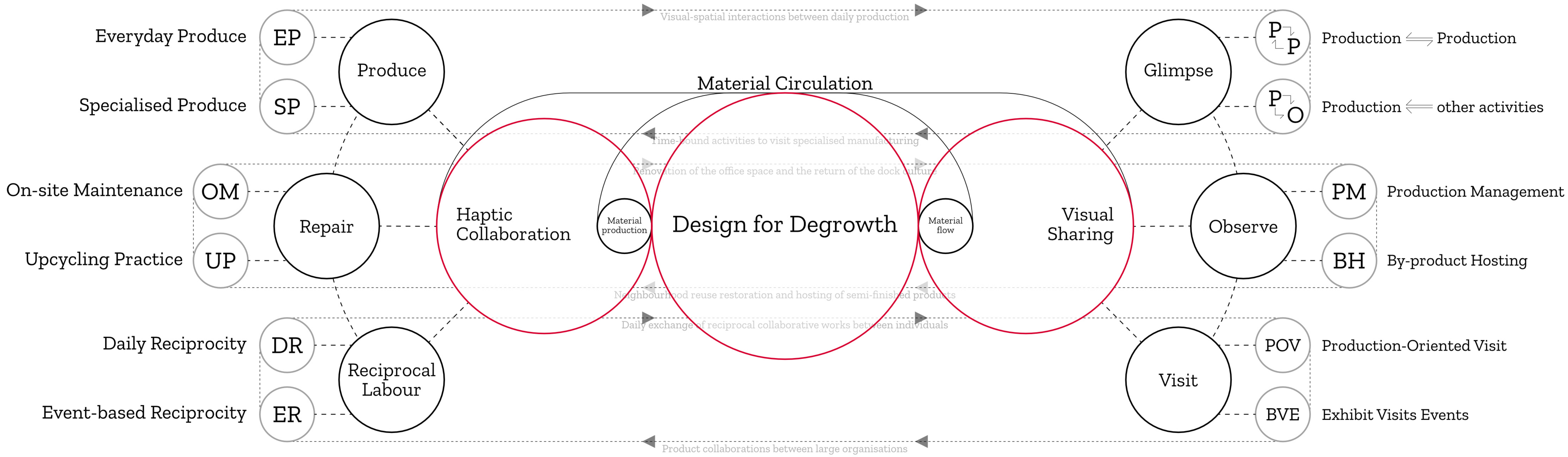
Exhibit, Storage Space

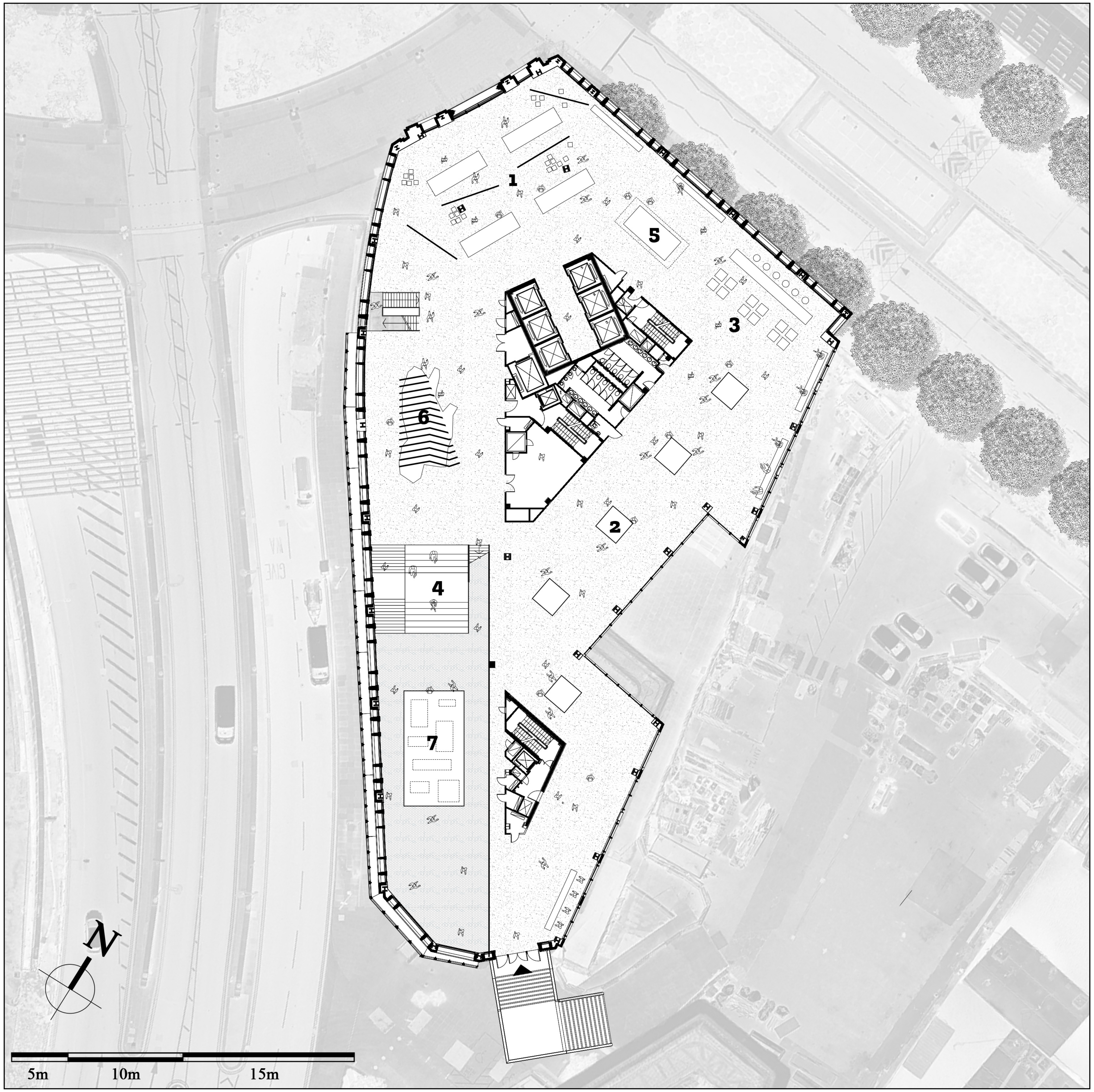


Multi-Use Facilities



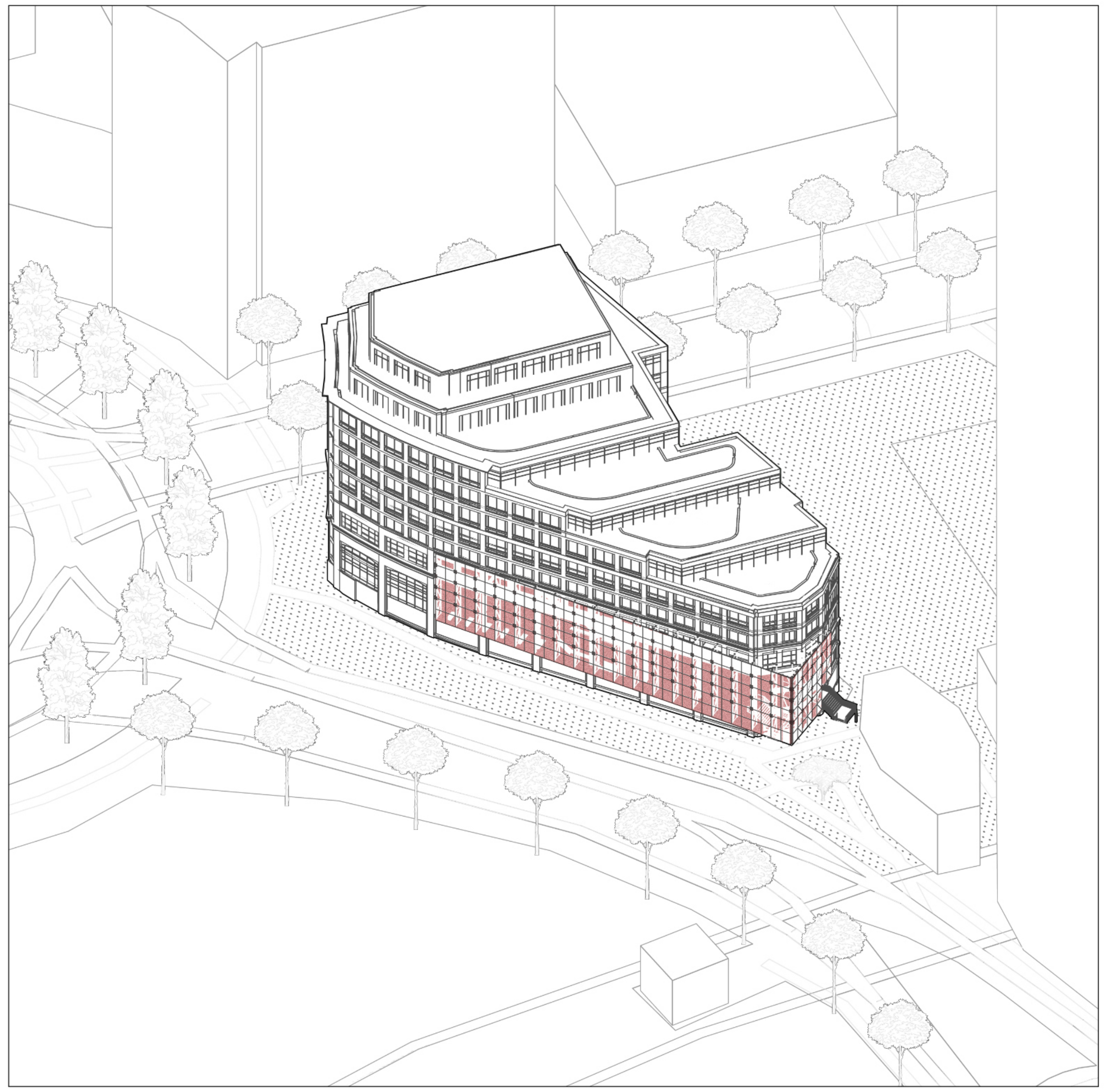
Dockside Element






1.Co-Making Workshop 2.Dock Archive Zone 3.Civic Bazaar 4 .Urban Assembly Theatre

5.Flexible Platform 6.Tactile Library 7.Repair Clinic·



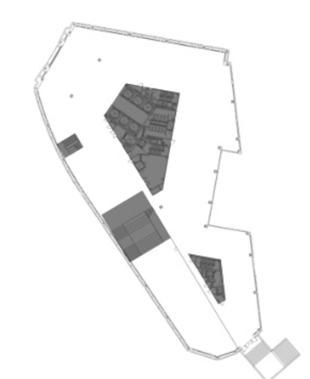
The spatial configuration reflects a degrowth-oriented design strategy, where spatial reuse, functional layering, and minimal architectural intervention define the transformation.

Programmatically, the plan prioritizes collective functions such as the library, workshops, dining, and sports areas, emphasizing shared use and active maintenance over expansion. Circulation is interwoven with public zones to promote visibility and informal interaction.

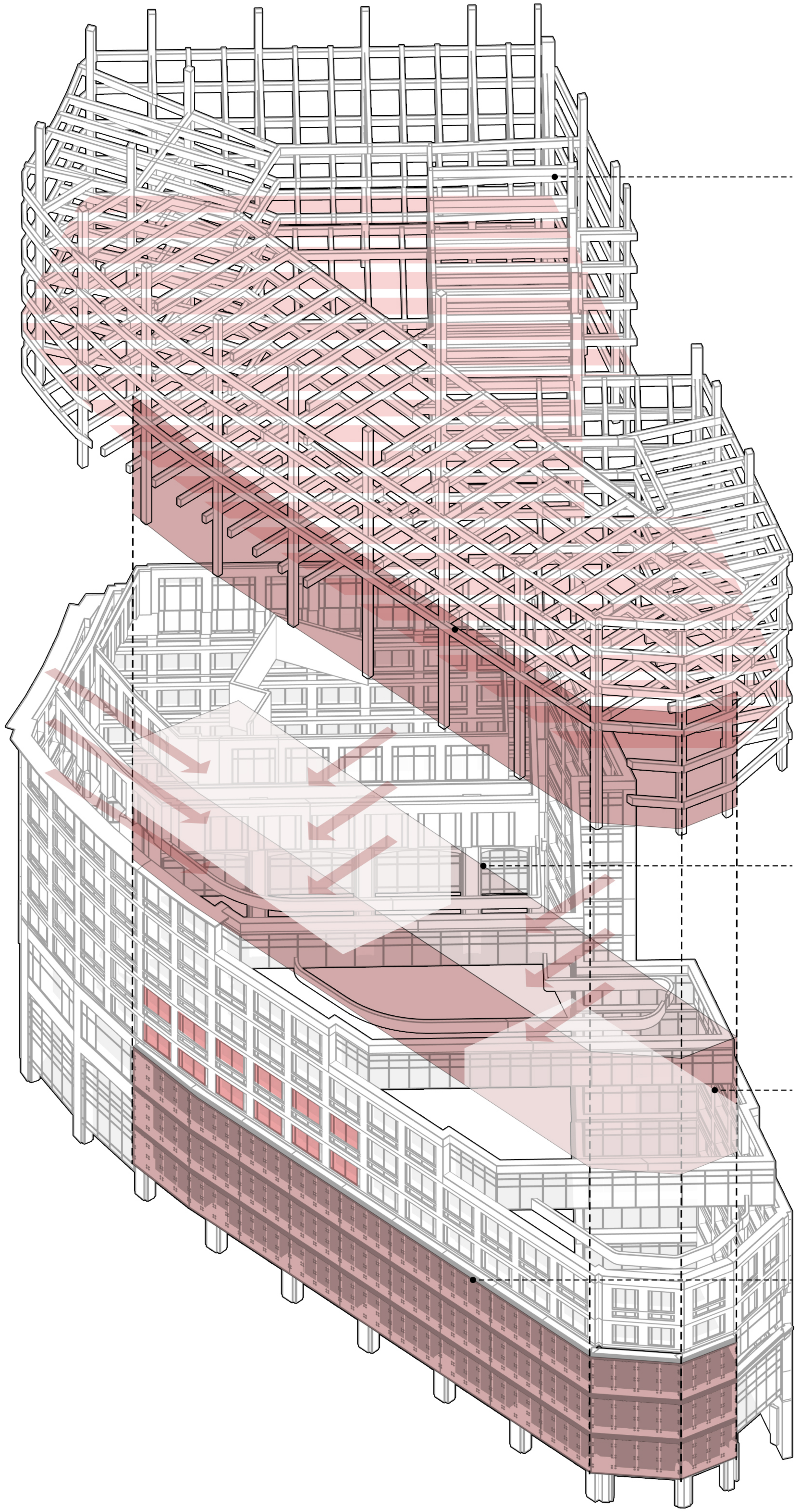
From the exterior, the new curtain wall structure—inserted on top of the existing architectural frame—amplifies transparency and marks the renovated portion with a distinct identity. This juxtaposition between old and new frames a visual narrative of adaptive reuse, rather than erasure or total replacement.

Functionally Influenced

Functional Concentration



Vertical Visual/Spatial Connection Zone



Apart from the complete removal of the second-floor slab and beam system, the rest of the building structure remains unaltered. Based on the retention of the main beams, most of the floor slabs were removed to allow for a reorganization of spatial functions.

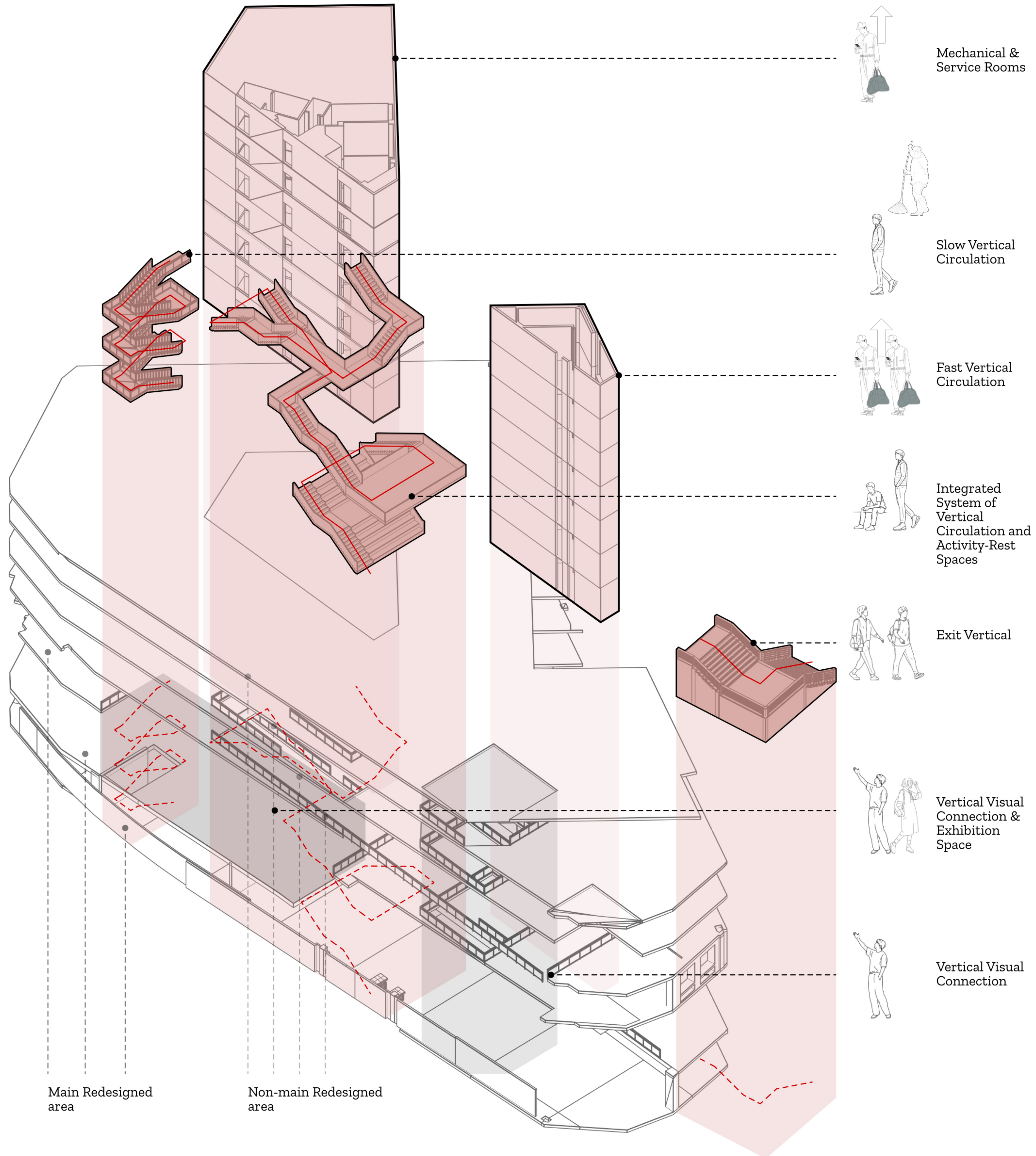
In the primary renovated modular space, the beam-column structure was comprehensively reconfigured to ensure visual openness. This structural adjustment also allowed for greater flexibility in spatial programming and the arrangement of facilities.

The primary renovation area is designed to become the most integrated part of the building in terms of spatial organization, visual connectivity, and circulation.

The double-height area features strong visual connectivity and serves as an open functional zone.

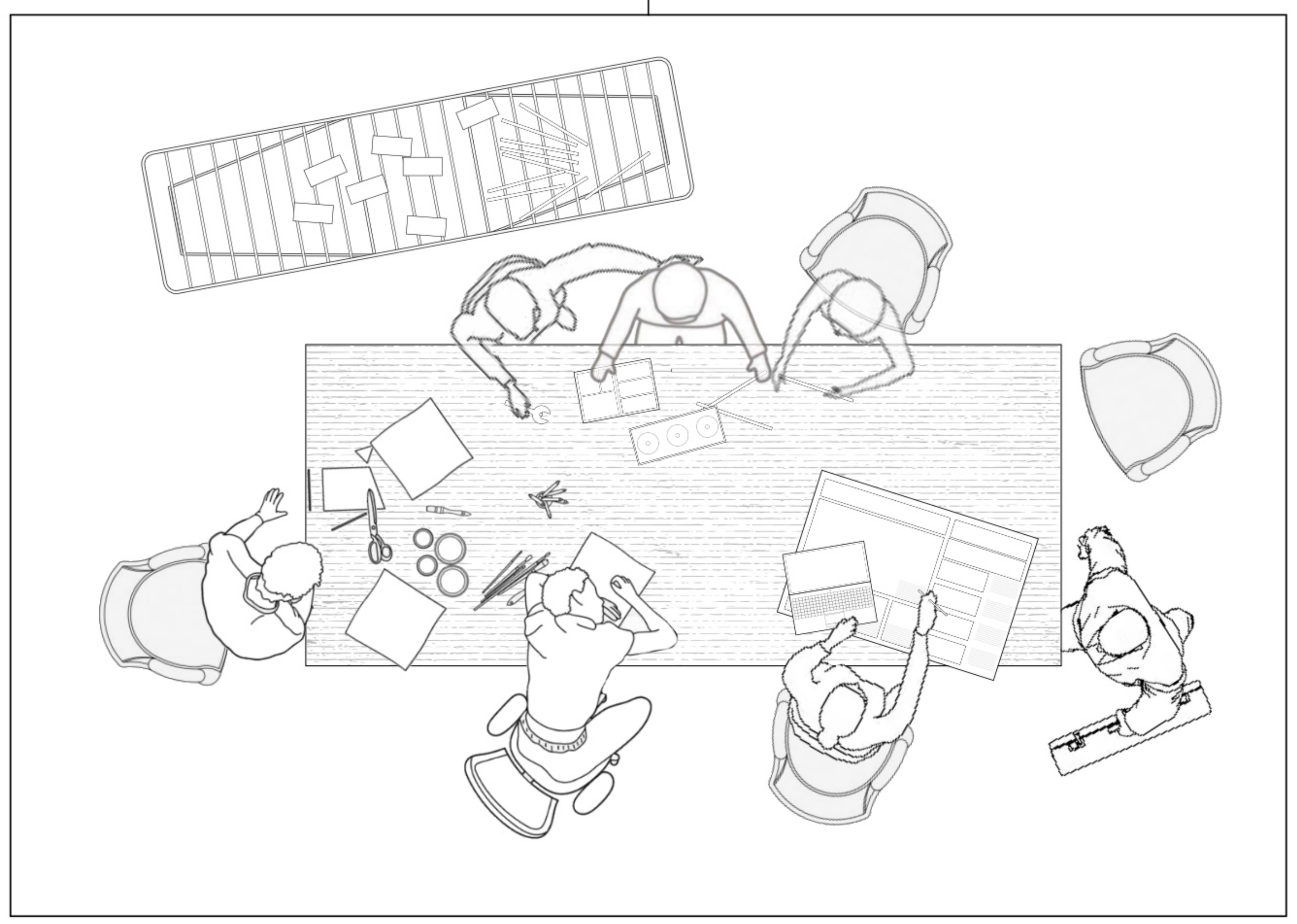
On the façade, the original building conveys a strong sense of modular repetition and material heaviness.

In response, the primary renovated area adopts a fully glazed façade, giving the intervention a lighter visual presence and reinforcing its overall coherence.

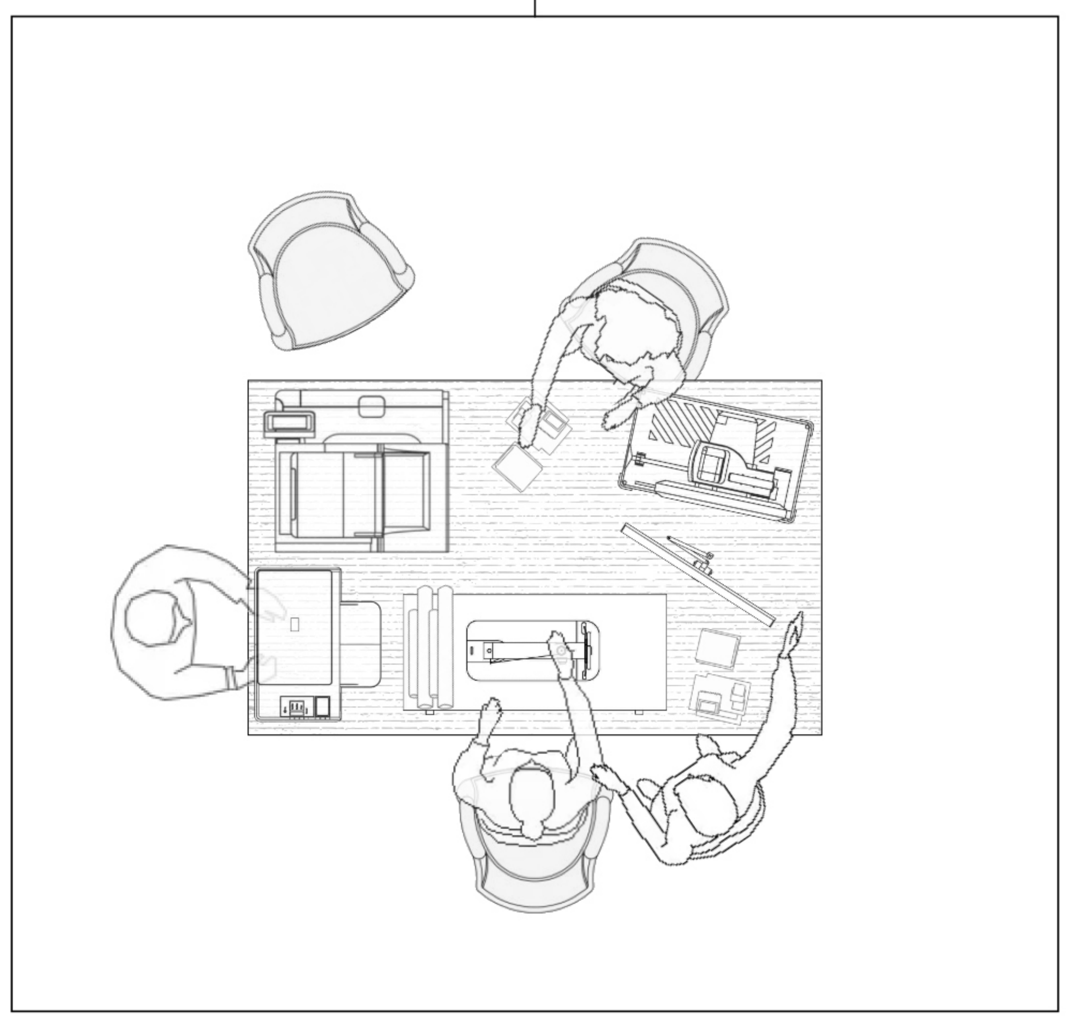



Selective removal of slabs and structural reconfiguration enable openness, flexibility, and spatial redistribution, while retaining most of the original structure. Key areas are opened vertically and horizontally to support collective use and spatial continuity. Lightweight glazed façades replace heavy original cladding, enhancing transparency and integration.

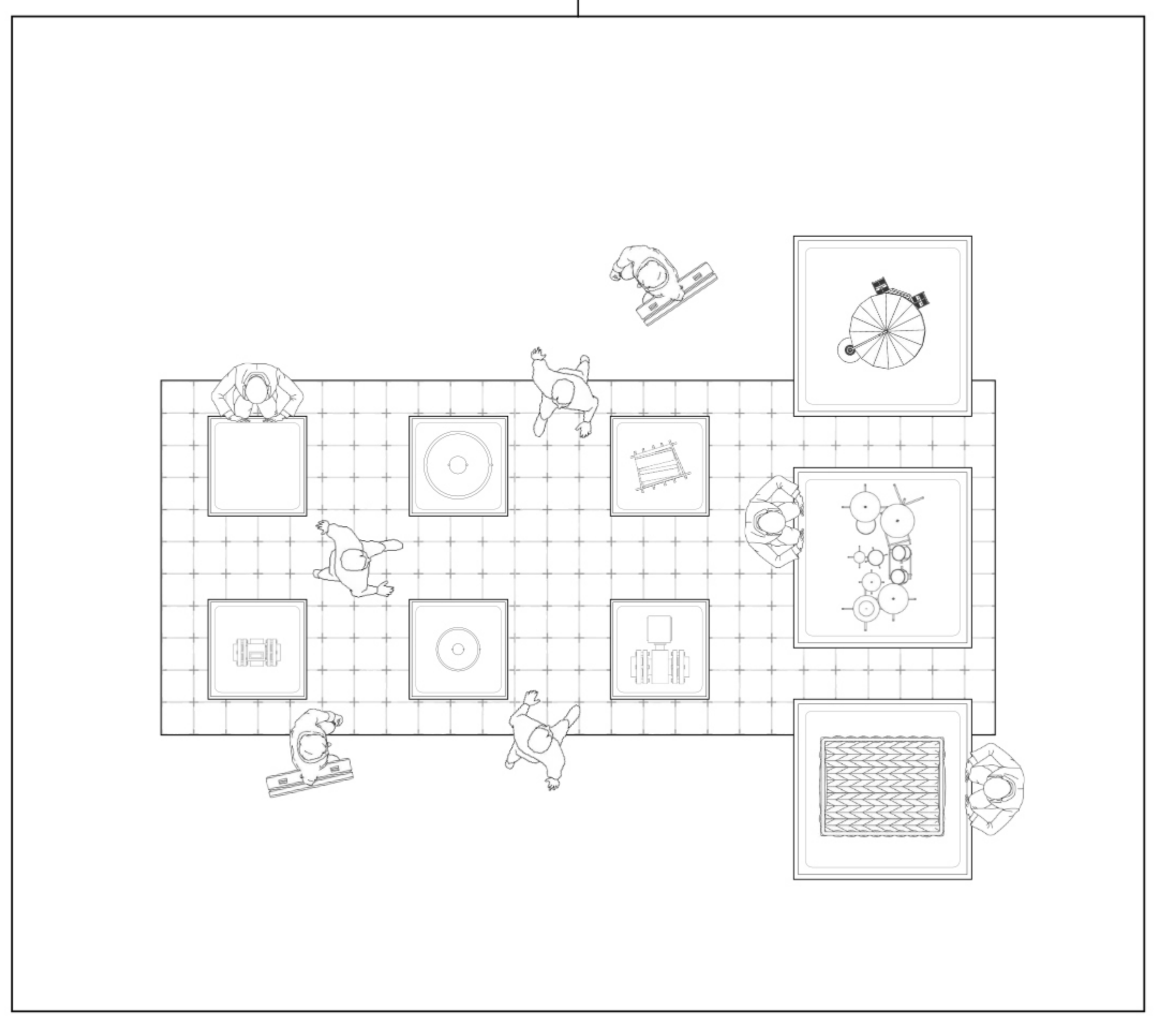
Diverse vertical circulation systems—slow, fast, and hybrid—support varied movement rhythms and foster social interaction. Visual connections and exhibition zones are embedded along circulation paths, enhancing shared visibility. Together, these strategies promote collective access, embedded care, and spatial porosity across the building.



Daily-Making



specific-Making

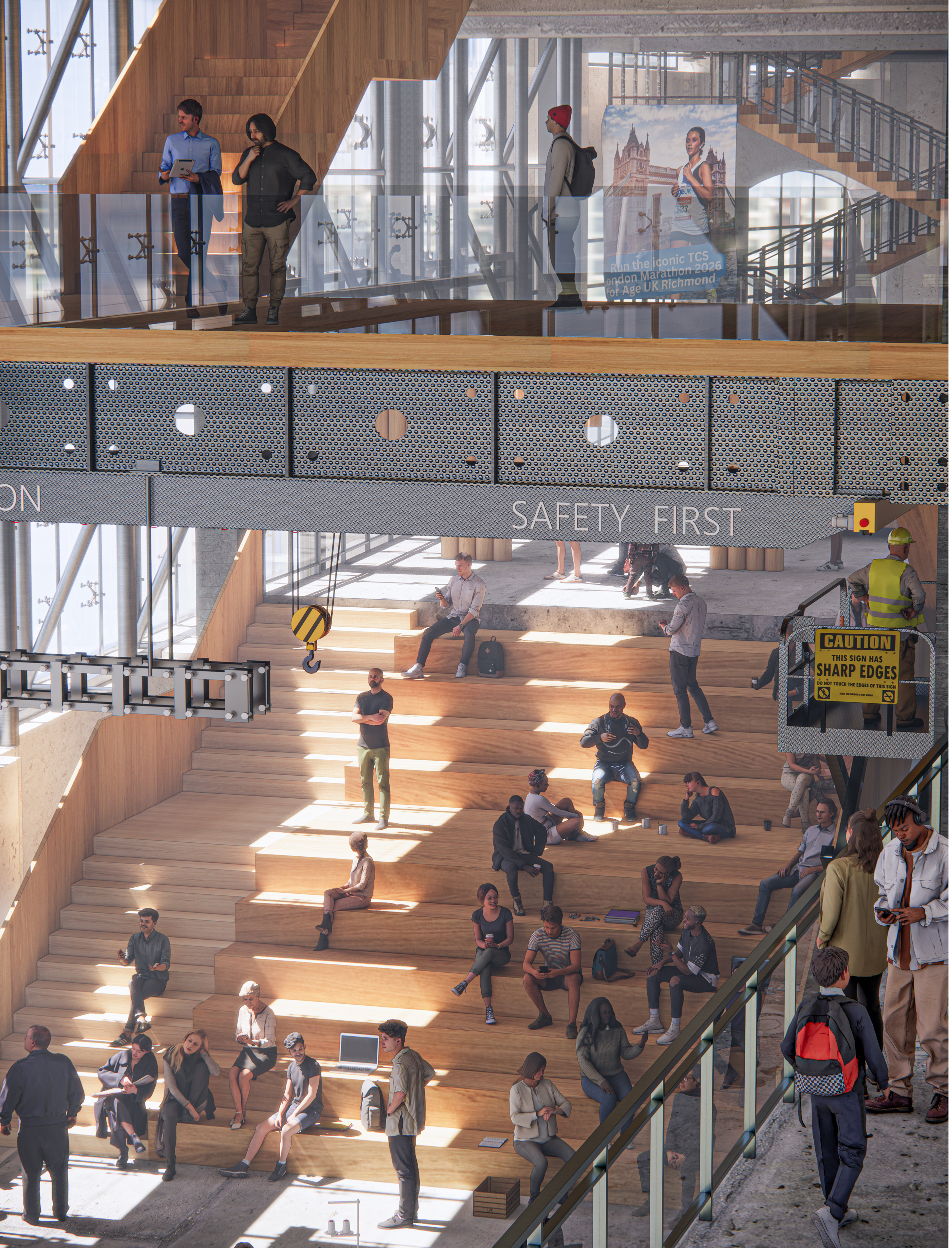


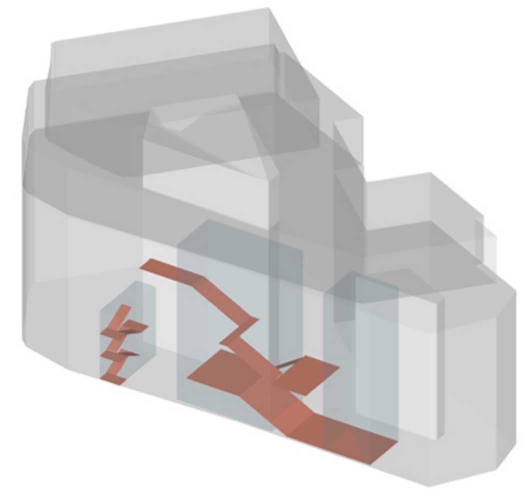
Exhibition

To support Visual Sharing and Haptic Collaboration within a Degrowth Design framework, the architecture encourages spontaneous social interaction.

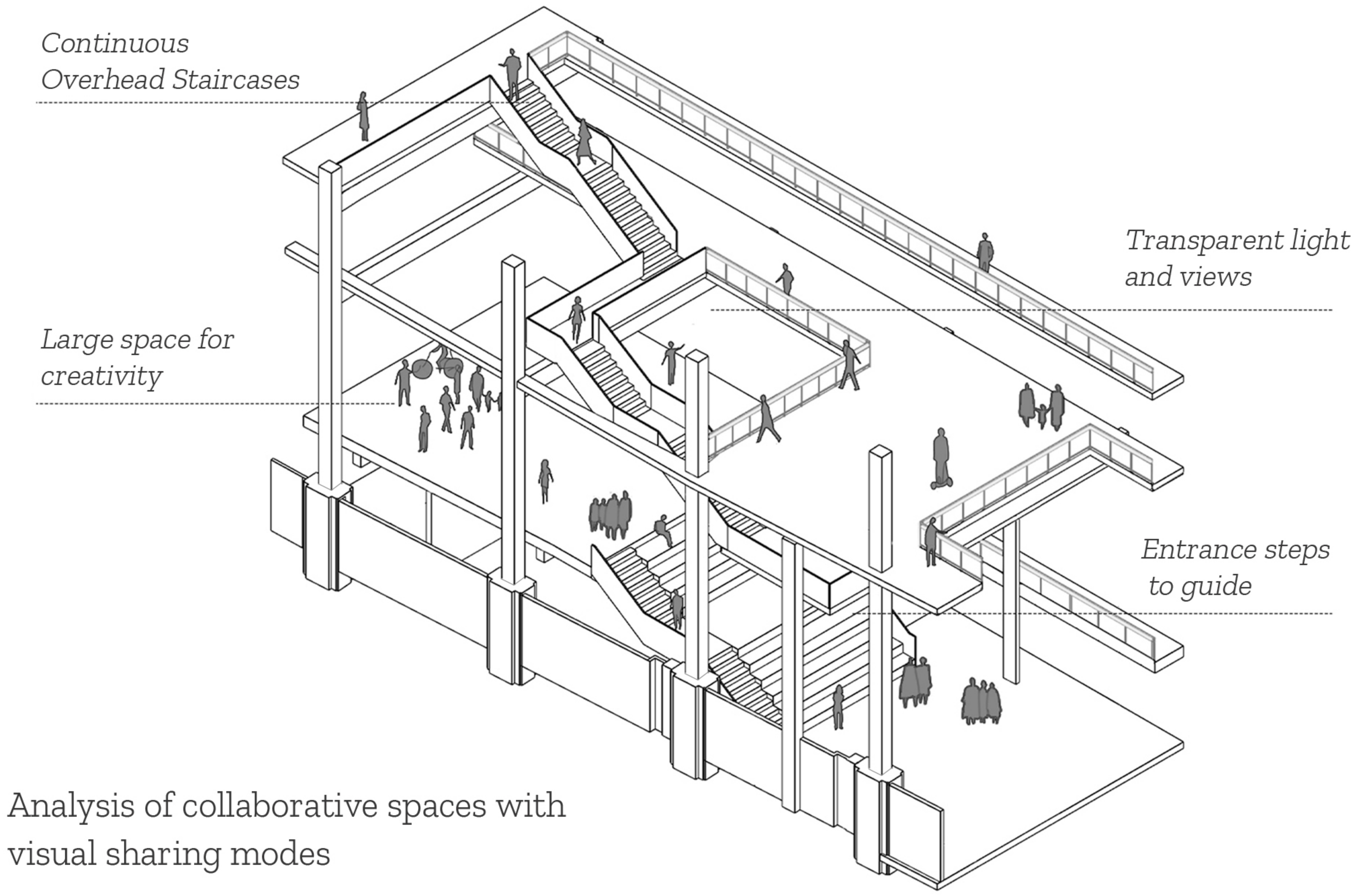
Rather than relying on fixed partition walls, the interior remains largely open beyond the core circulation shaft.

Tables, tools, and shared facilities are strategically placed to differentiate user groups and cultivate diverse spatial atmospheres, allowing functional zones to emerge organically.

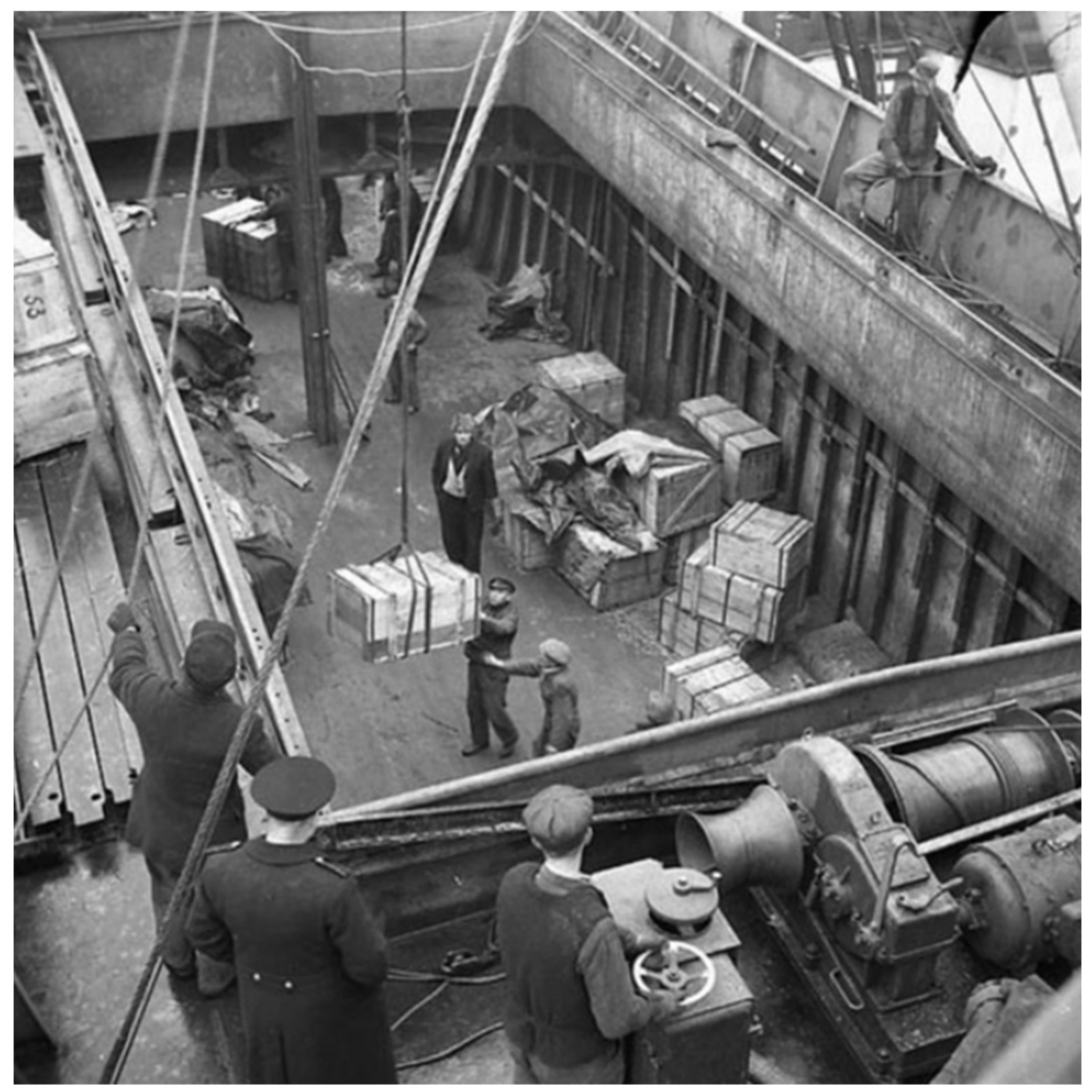


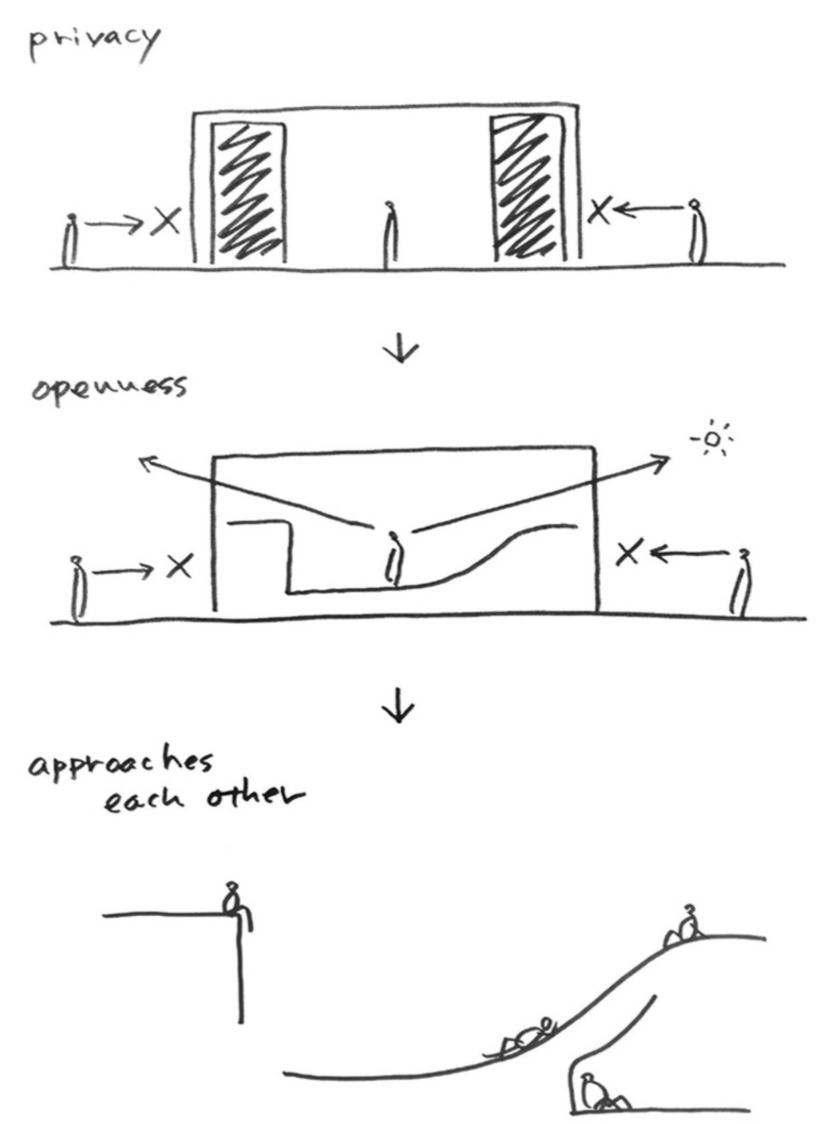
By activating vertical circulation as social space, the interventionbreaks down hierarchies of access and fosters a shared spatial logic.The large open volumes not only offer flexibility for creative labor, butalso reinscribe the building with new meanings rooted in cooperation,maintenance, and care-departing from extractive capitalist models.




Analysis of collaborative spaces with visual sharing modes

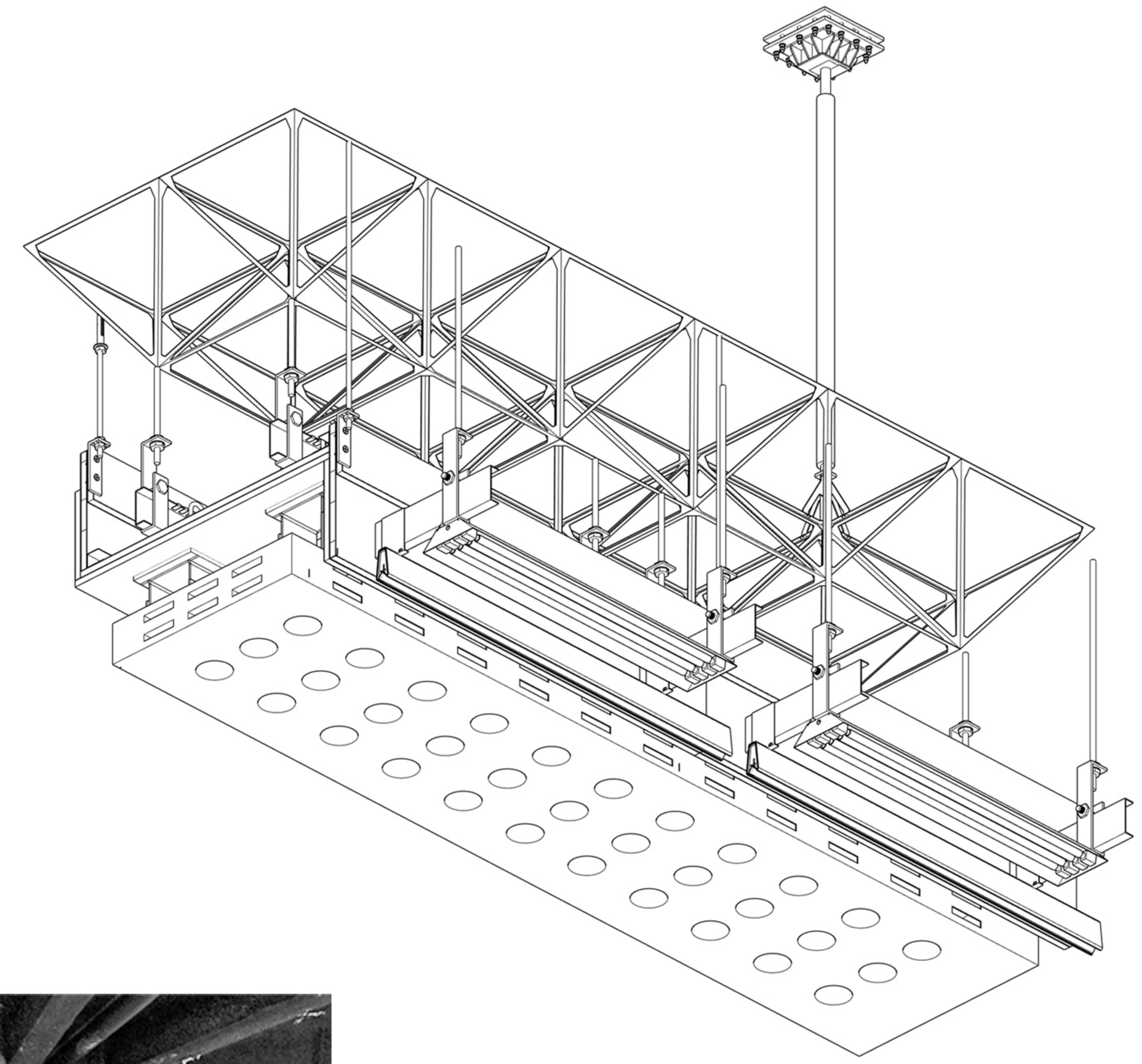


*Lemons being unloaded from a ship in dock. Mud, Flood And Blood: Photos Of London's River Thames 1895-2000*




*The sketches of visual collaborative space designs*

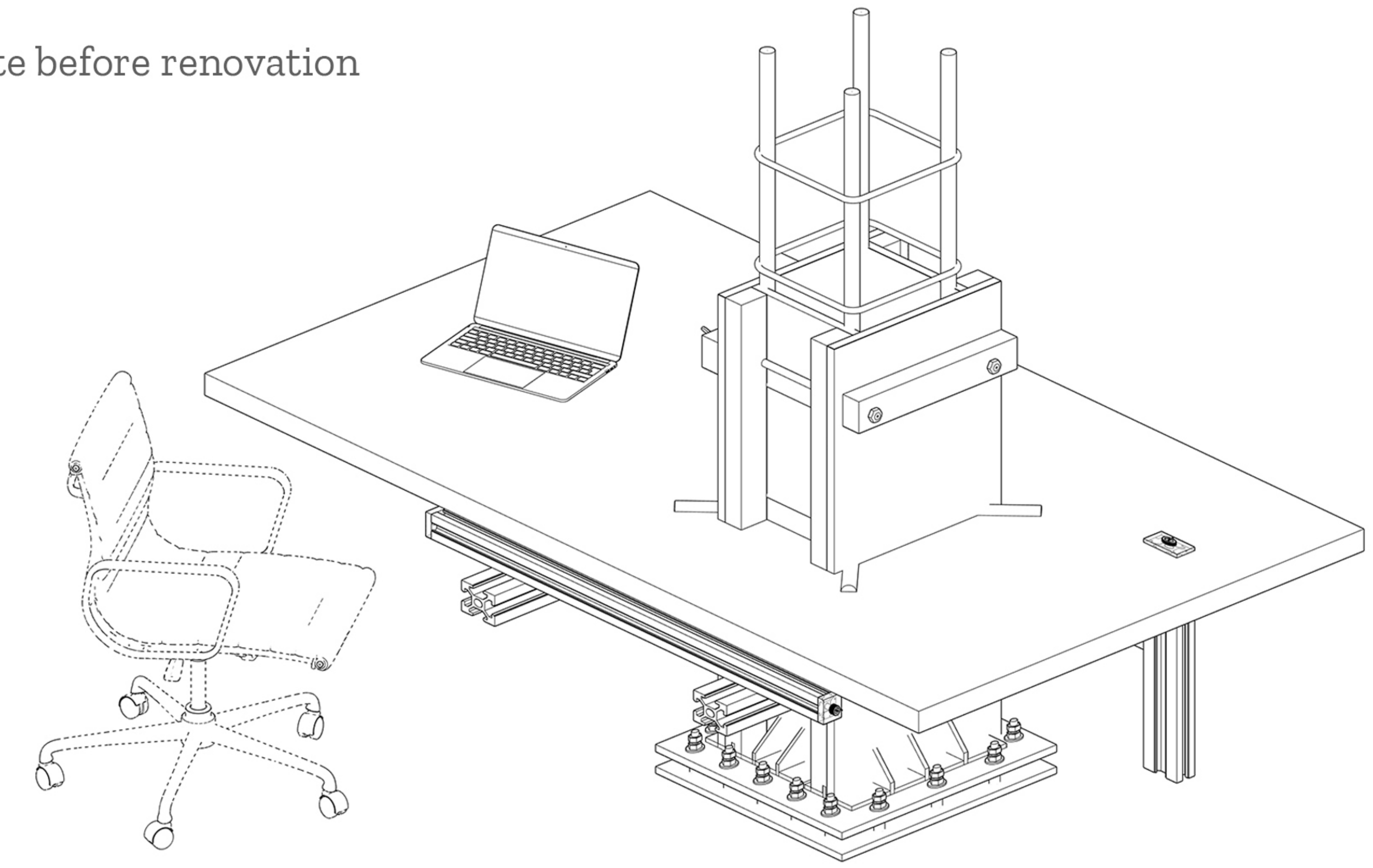

RENDERING OF THE URBAN COMMUNITY SKILLS EXCHANGE COOPERATIVE



site before renovation

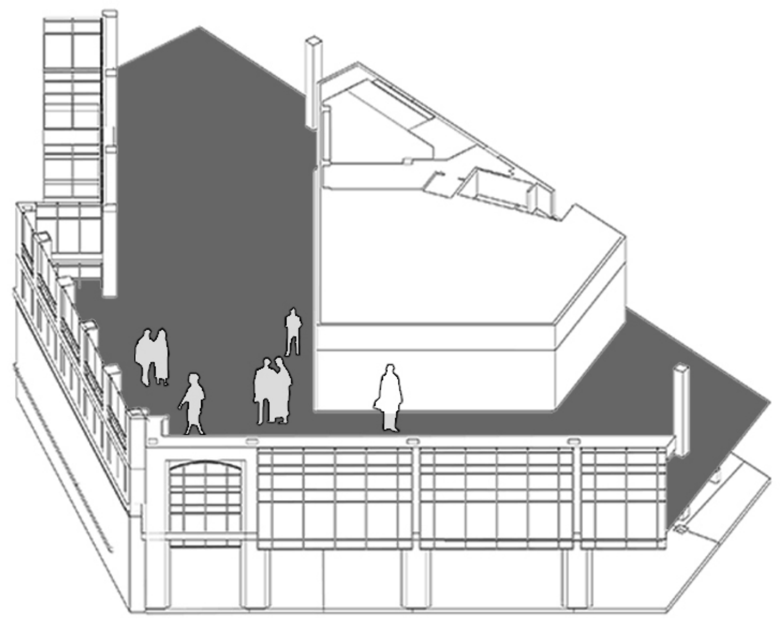
### Ceiling-Mounted Circulation Unit

Suspended between interior and exterior, the unit serves as a flexible infrastructure for light, air, and goods circulation, blurring the boundaries between production inside and flows outside.



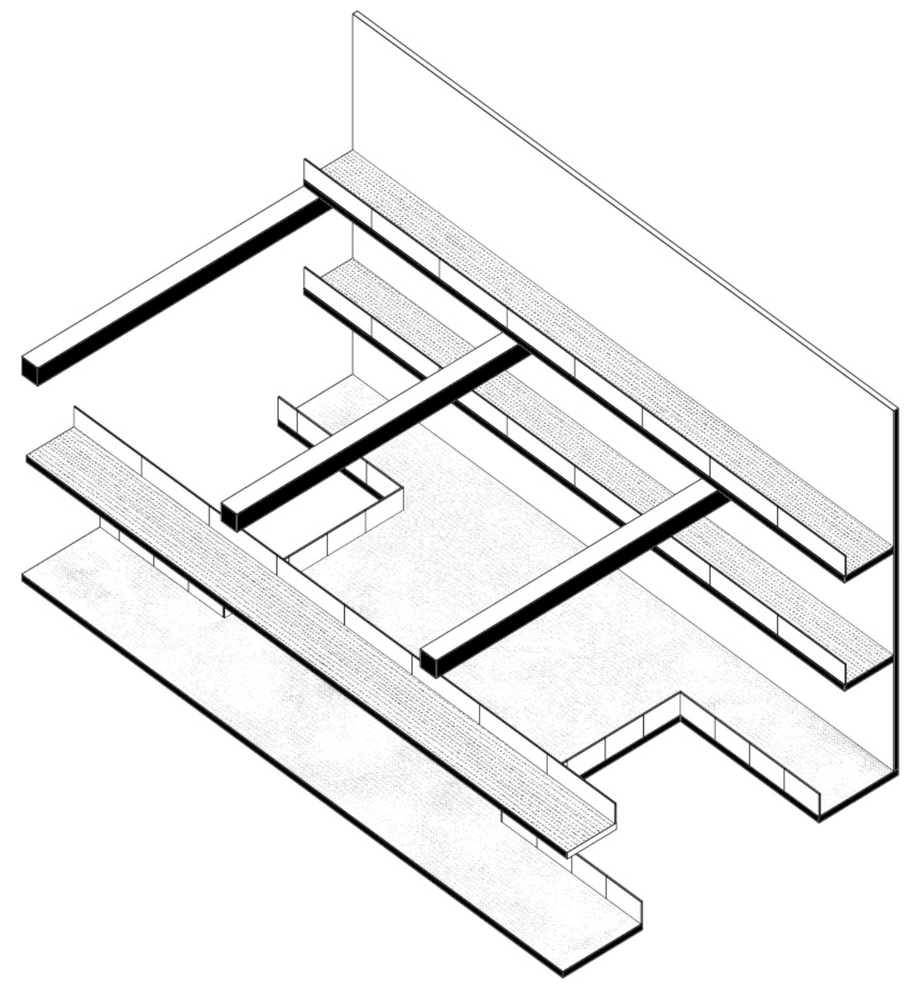
### Column-Table Hybrid Assembly

In response to the dense grid of columns inherited from the original industrial shell, this structure fuses load-bearing elements with work surfaces.

### Open Workshop for Civic Production

This double-height workshop reclaims a former industrial floor into a vibrant site of collective making. Blurring boundaries between technical labor and cultural expression, the space houses a bike repair lab alongside poster-making zones for civic events such as the London Marathon. Designed for high visibility and shared ownership, the layout invites active public participation and repositions architecture as an open infrastructure for everyday cooperation.

site before renovation

Food Network

The Tactile Library is a public workshop space that combines sensing, making and learning. In this area, materials, machines and bodies work together to create a tactile, manipulative and reconfigurable "knowledge library", where KUKA robotic arms act as "tentacles" for the transmission of knowledge, guiding the reassembly of materials and the reconstruction of memories. Workers, designers and citizens collaborate to produce not only objects but also relationships and narratives.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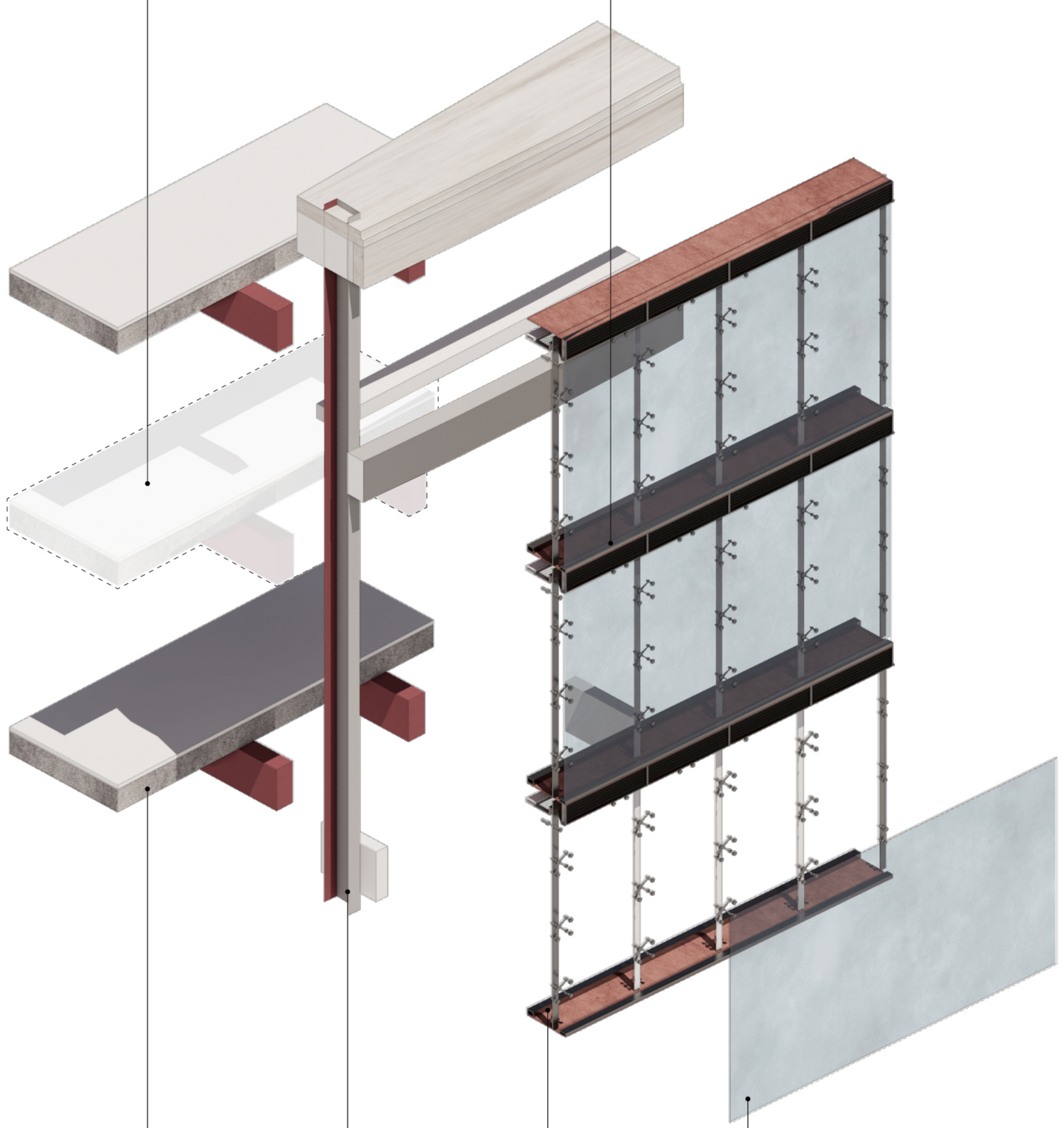
site before renovation


The KUKA digital Robot of tactile Library




In the curtain wall design, we respected the original architectural facade framework while introducing a new lightweight curtain wall structure on the exterior. Large continuous glass panels were used to enhance transparency in the renovated area, creating a striking contrast with the rest of the building.

## *Updated Façade Rendering*


From the exterior, the updated façade presents a clear contrast to the original through its materiality, compositional logic, and surface quality.This transformation enhances the visual openness of the new programmatic elements, allowing the building to emerge as a more open and publicly engaging presence—one that reconnects with the cultural landscape of the docklands.


EXTERNAL SECTION RENDERING

# CO -- OPeration”

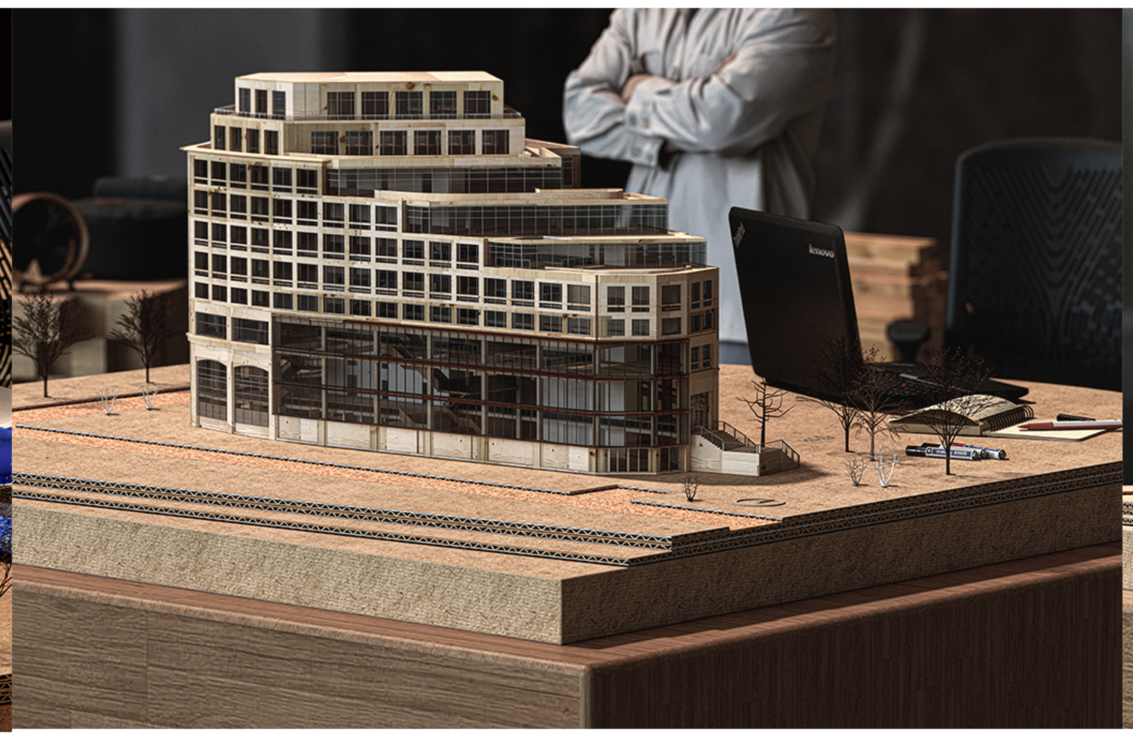
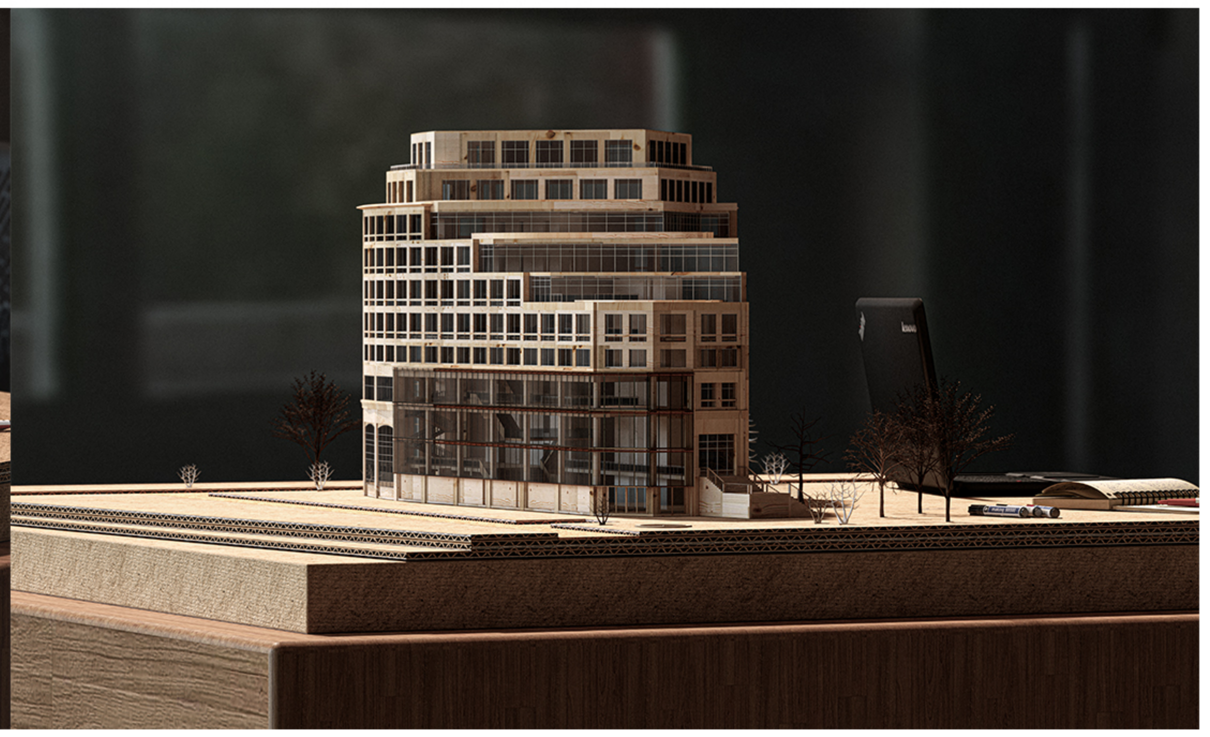
## A community that hug economic degrowth

Canary Wharf is merely a virtual machine under the cover of the economic growth bubble.
A very common problem at present:
Once the company moves out of a typical modern office, how will all the disposable and rigid financial metabolites left behind be dealt with?

The project explores a language of inclusiveness and reuse.
Refuse to turn the dock heritage into a symbol of capital nostalgia.
Rather, it is to liberate the space of the wharf in production.
The legacy code of collaborative logic and material flow.
It aims to create a spatial element that is partly inherited and partly designed.
The concept of "tolerance"

This method aims to replace the "new construction" development model often proposed in financial investment portfolios.
So as to encourage the economy to grow
The role of architects will shift from architectural masters to curators.
With the new cooperative coding and labor network
Carefully plan an urban community skills exchange.
Capitalists are abandoned by citizens Stay away from extractive economies and financial production.
Turn to maintenance, management, repair and care. Establish a close relationship between the urban dock and the community system
The aim is to endow the space itself with resilience to resist the withdrawal of capital.

Through tactile cooperation, visual sharing, and food democracy
These three types of collaborative logics and material flow Spaces
Challenge the disguise and abuse of the financial space
Reduce reliance on globalization and address climate change
The interior has participated in the transformation of the dock heritage and spatial form.
Individuals and families benefit from shared resources, collective efforts and reciprocal labor.
Thereby reconstructing collective memory and identity declarations

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