

Tokyo Pop Lab  
Bee Breeders Competition

A Discourse on Architecture and Popular Culture

Arch 346: Competitions Elective  
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Fig. 1 Overall Building Render

## Introduction and Objectives

“The Tokyo International Popular Culture Laboratory is Bee Breeders’ latest architecture competition in which architects and enthusiasts are asked to submit designs for an institution that will teach students the history of popular culture and prepare them for future ones. Since Tokyo has such strong connections to its own cultural roots, it has easily absorbed international trends and become seen as the heart of Asian popular culture. Participants are asked to research and incorporate local and international trends in order to make their designs both creative and relevant.”

“We ask architects and designers from all over the world to think of a space that could host multi-disciplinary creative individuals and provide them with a high quality education space. As creative individuals become more and more versatile in their skills, a more innovative approach to teaching will be needed. Therefore, in order to deal with future pop culture trends, the teaching environment should not be focused on isolated classrooms. Instead, the Pop Culture Lab should encourage interaction between different creative industries and fields of study with a crossover of multipurpose experimental spaces.”

- Bee Breeders Competition Brief

## History and Research

Oxford dictionary defines pop culture as, “Modern popular culture transmitted via the mass media and aimed particularly at younger people,” yet it has become a much looser term that umbrellas everything from trends, to “common culture,” to the opinion of the mass. Although the idea floated around throughout history, pop culture made its landmark after World War II, where commercialization, brands, design and technology all hybridized together and boomed. Pop culture became commercial culture, and has transcended through the decades, ever adapting and transforming. In

addition, new technological innovations, such as television, radio, movies, photography, books and art continue transform the world into a globalized culture, strengthening the network of exchange. Today, pop culture is a worldwide phenomenon, intangible and interdependent, political and social, instantaneous and arbitrary, resonating through the actions and opinions of the mass.

**Our goal for this building is to document this zeitgeist, archiving the past, broadcasting the present, and nurturing the future.**



Fig. 2 Commercialized American Pop Culture through advertisements, television, publicity and art

### Site Context:

The site is located deep in the center of Tokyo, steps away from the Imperial Palace and adjacent to a junior and senior high school. The site is currently an existing parking lot, and is a 2079 sq m plot, with a 63.4 max length and 34.4m max width. The surrounding density is low to medium density, stories ranging from 2 upwards to 14. One of the major concerns was the idea to

locate such a program in a minor street and quiet neighbourhood. However, this would result in a much more sincere and authentic design, not to be loud or demanding, but refined and reserved. We determined that the maximum height of the building was to be 20m, rising four storeys above ground to settle into the surrounding buildings.

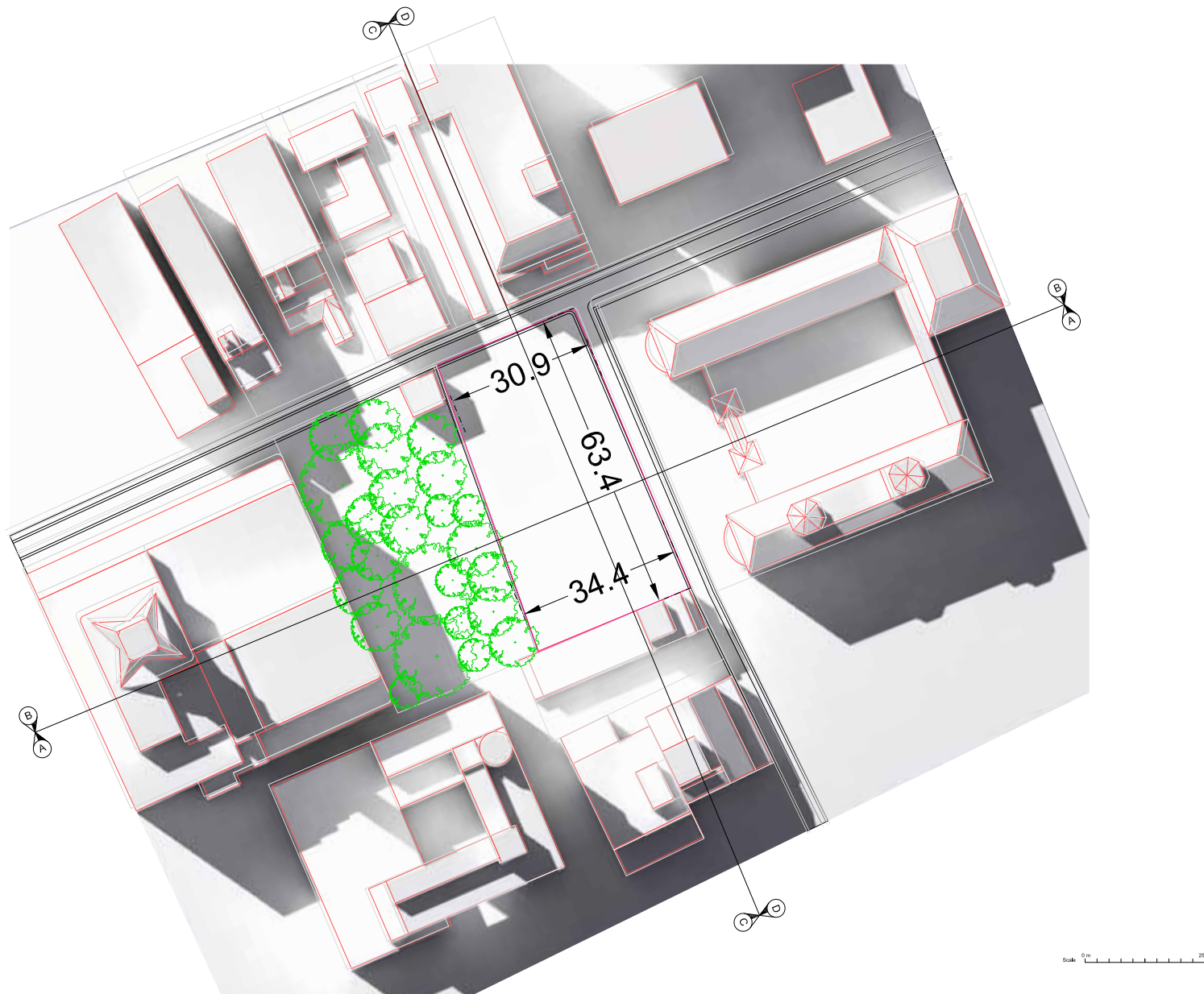


Fig. 3 Site Plan



Fig. 4 Aerial and Street Level Views of the Site

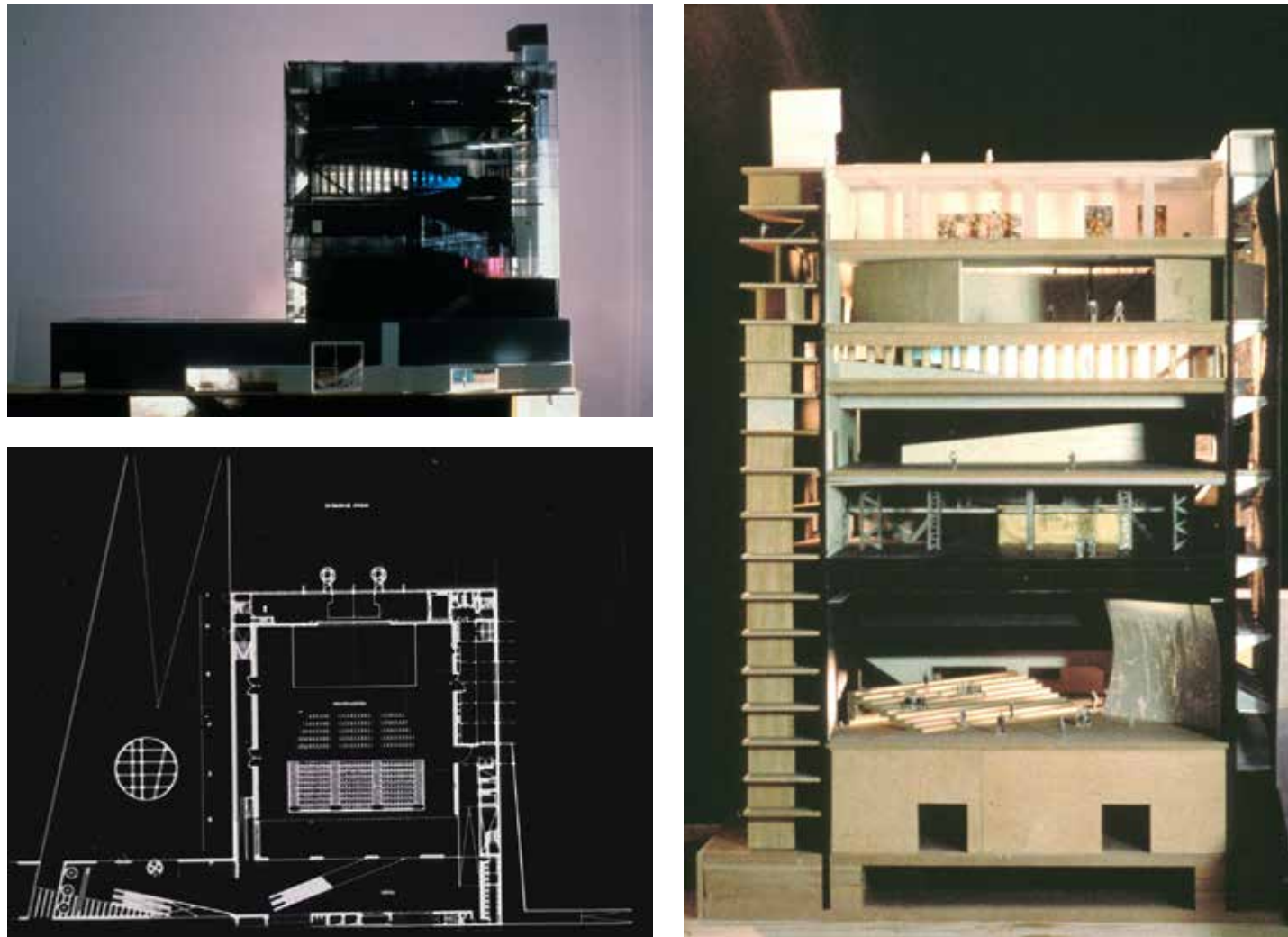


Fig. 5 OMA's Zentrum für Kunst und Medientechnologie: Model and Plan

### Building Development and Program Precedents:

We found strong precedents in the program organization as well as building narrative in older projects by OMA. In ZKM, or Zentrum für Kunst und Medientechnologie, we found that the conceptual framework resonated with the task we have been given, in such that the “organizes a large number of different programs in a way that while their particular needs are respected, their coexistence insures maximum mutual influence; their interface generates hybrid

condition.” This is architecturally achieved by pushing all necessary “closed wall” programs (such as administration, classrooms, workshops... etc) around the boundaries of the building, and allowing huge arenas of hybridization to occur within the middle, unobstructed by any partitions. As OMA has put it, this forum would be “a Darwinian arena where different media- classical and futuristic – can compete and influence each other.”

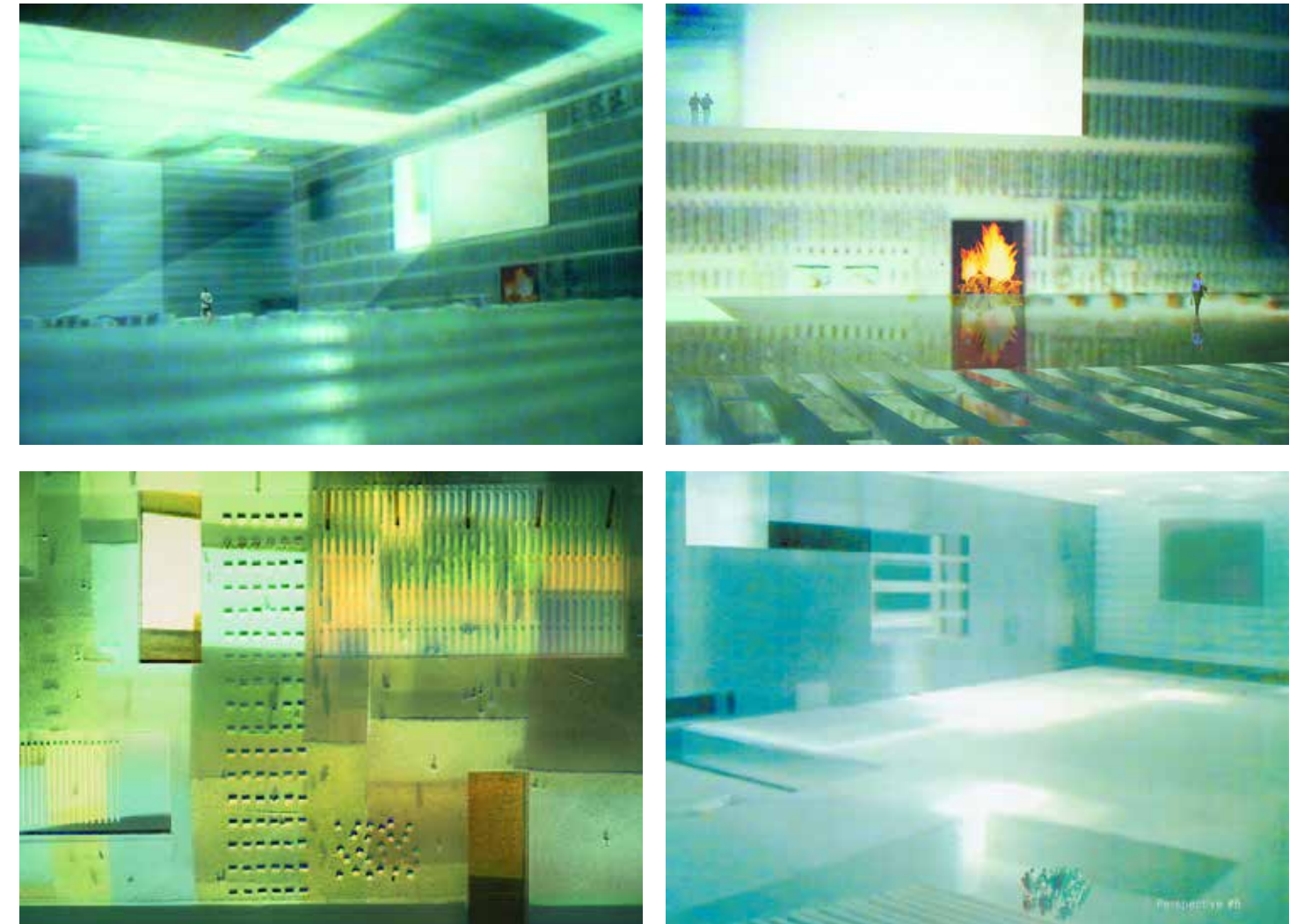


Fig. 6 OMA's Kansai Khan Project: Photo-collages

OMA's Kansai Khan is another project that reflects a similar narrative. It is a national library in which the ceilings, floors and walls are all occupied by the whole program, leaving the interior space completely liberated of any program. This void space then becomes its own program; its function

comes into existence whenever it is called upon, and dissolves when disregarded. It is a “living room” for the occupants to use as “anything: reading room, landscape, meditation space...,congresses, emptiness, anything.”

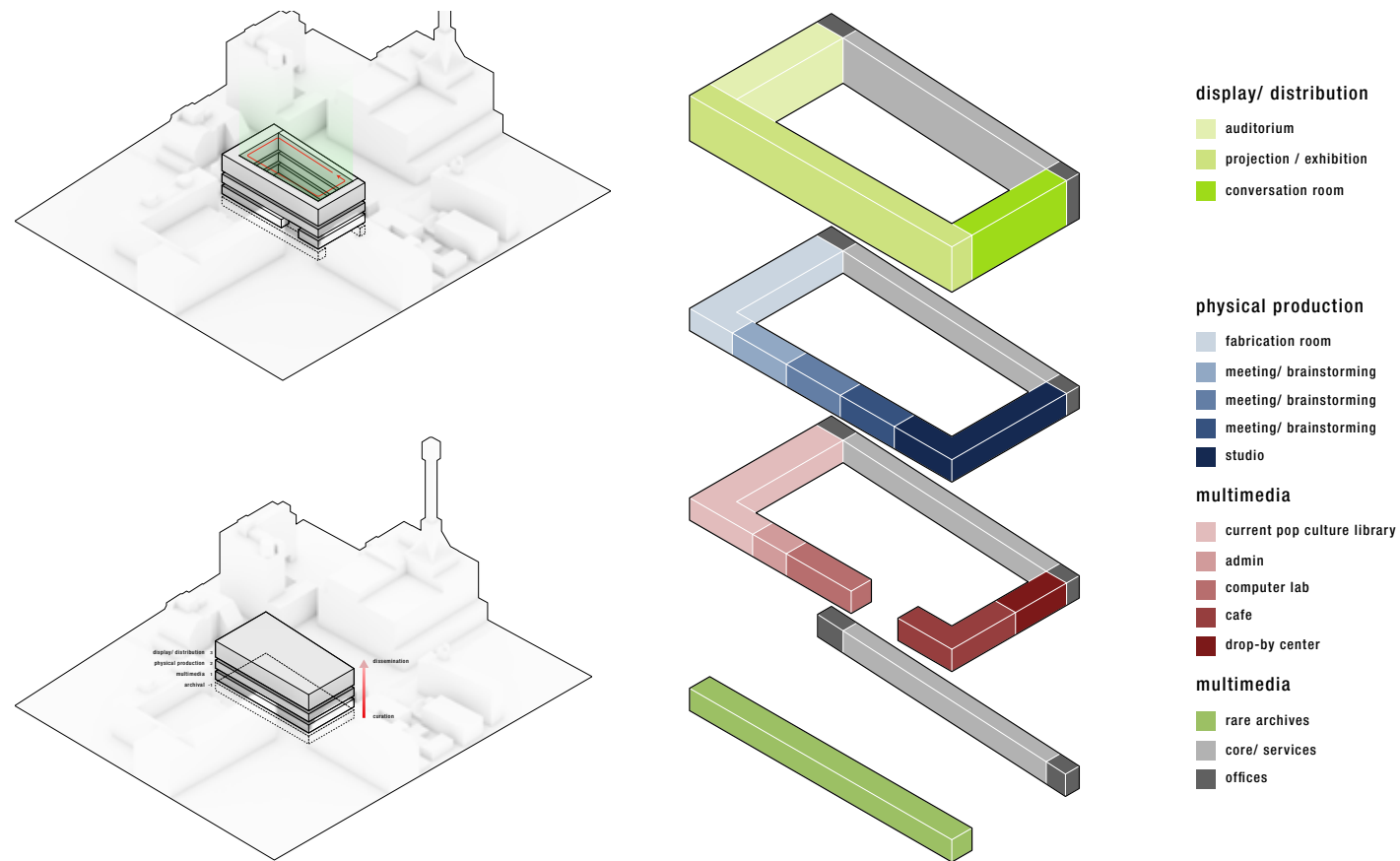


Fig. 6 Massing diagrams and programmatic organization

We found this gesture to be particularly compelling in our case; this type of “infinite room” was able to encapsulate such an ever growing thing such as pop culture. By categorizing the building first through its floor plates, we were able to break down the task of containing pop culture into four different stasis, display/distribution, production,

multimedia and archive. This order then allows a gradual progression of order into disorder; the archival sector completely curated and inspected, and graduating into the top floor, where ideas are displayed and distributed freely; a cloud of uncertainty and ideas.

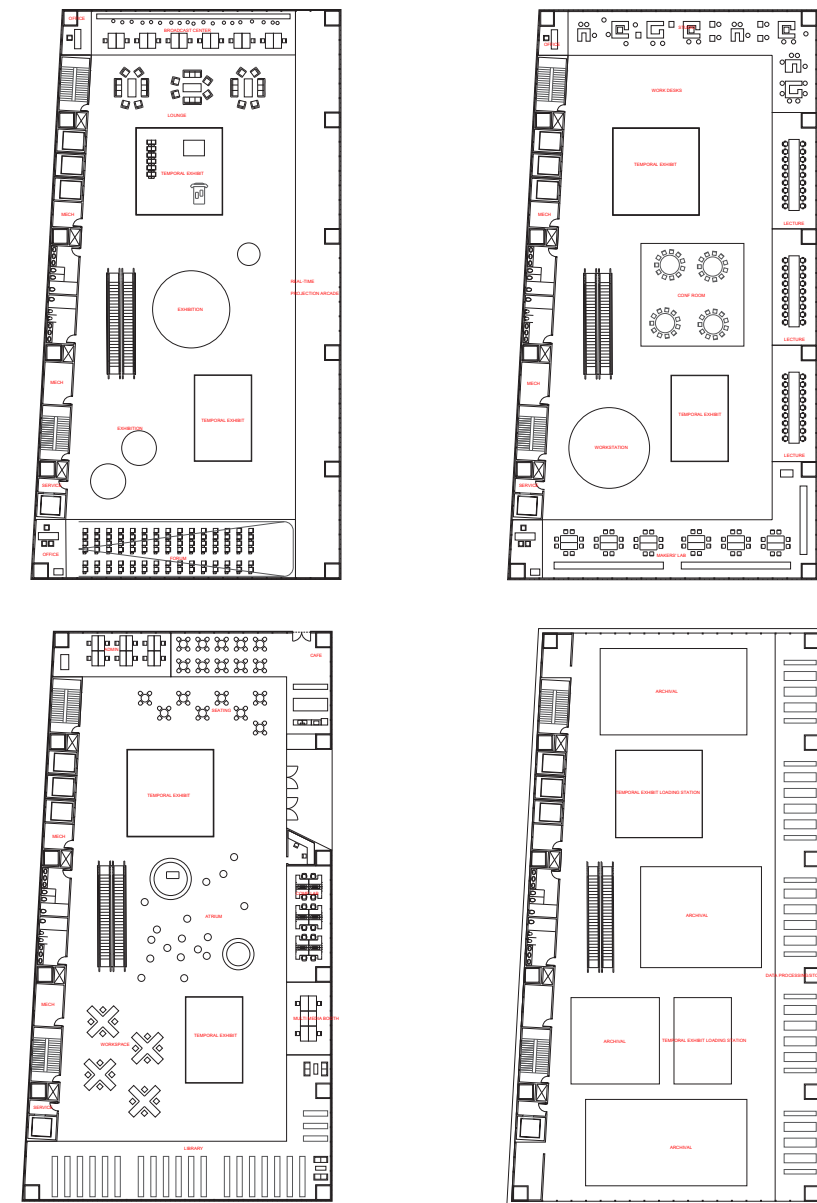


Fig. 7 Floor Plans

At the same time, this organization achieves a temporal matrix to accommodate pop culture. The past is reflected in the archive space, where visitors can view documented trends of culture in specified periods. The present is accommodated in the multimedia and physical production space, where education is heavily focused and visitors can interact with current media. Lastly, instead of predicting the future, the display/distribution floor

encourages the visitors themselves to self-reflect and partake in the creation of future trends and topics, with programs such as auditoriums, broadcast stations and conversation rooms. The “arenas” in each floor then adapt to its needs, ever changing and at points becoming galleries of archives, cafes and digital classrooms, and a large open forum for the exchange of discourse.

## Structural and Material Development

In order to achieve such a large span, research into structural technologies was required. Indeed, the most iconic and suitable project that came into mind was Renzo Piano's Centre Pompidou. In order for the building to achieve

such a liberated floor plate, deep trusses spanned across the building, then connected to columns and tension cables on each end to bend the beams upward, preventing sag.



Fig. 8 Section Perspective of Centre Pompidou

Similarly, OMA's Parc des Expositions explores the structural idealism of a Vierendeel beam in order to achieve the same requirements for large spans. These beams transform into columns, and become a three dimensional modular system

that allows for simple "plug-in" interfaces for the exhibition spaces.



Fig. 9 Renderings from OMA'S new PEX



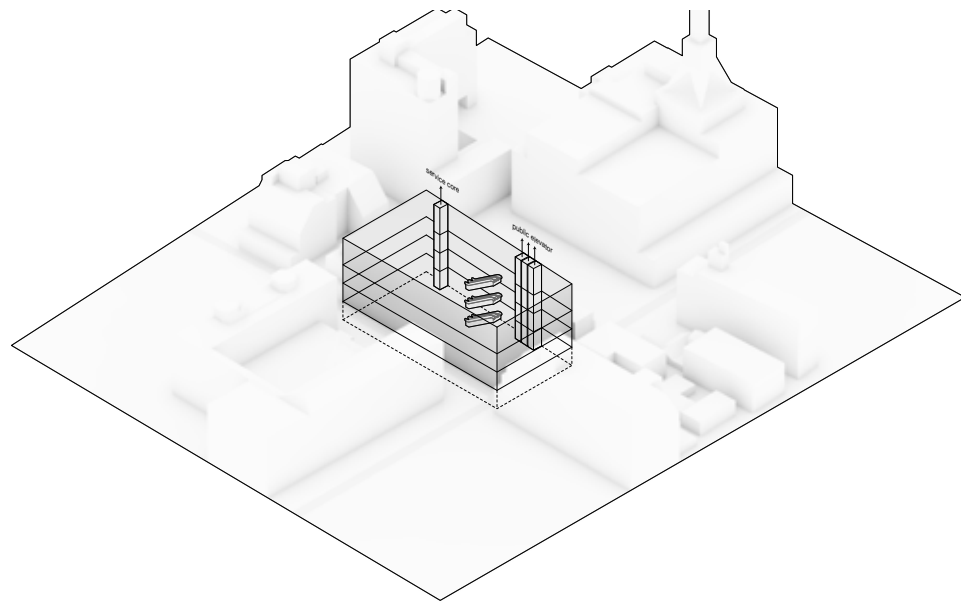


Fig. 10 and 11: Top Floor Render and Circulation Diagram

Our project hybridizes both of the two ideas and accommodates it for the appointed program, where our superstructure becomes these deep Vierendeel beams that allow digital broadcast systems to be attached, as well as physical pieces. The columns, hidden within the outer corridor, house the mechanical and circuit system. The

system of bays create a modularity within the building, a matrix in which digital discourse may be organized in the physical realm.

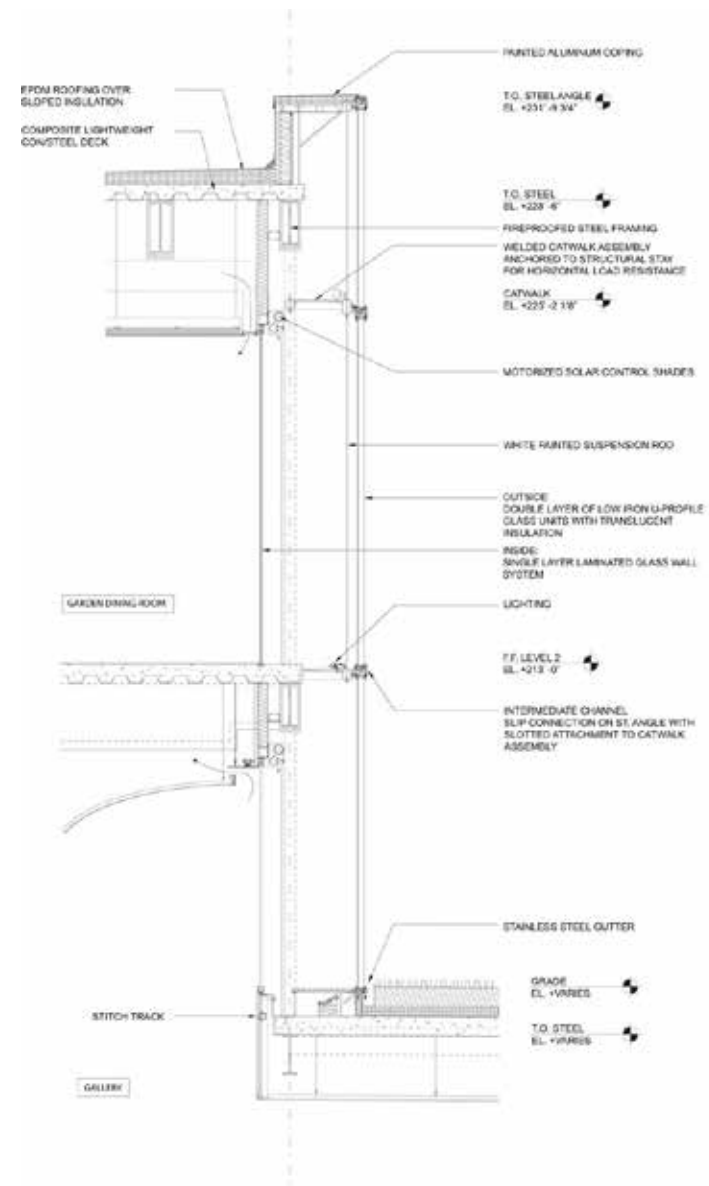


Fig. 12, 13, 14: Polycarbonate Installation Details and Photos from Steven Holl's Nelson Atkins Museum

When we began to discuss the facade of our building, we decided that rather than choosing a loud type of iconicism, a more refined and practical facade would give the building its own merit. We looked at options of steel cladding, glass, and concrete, however, ended up choosing a polycarbonate finish. We looked at Steven Holl's Nelson Atkins museum, which imbued a sought after sense of dignity. In addition, the way that

the polycarbonate diffused the light into the space allowed for a neutral canvas to work with and allowed for digital projections to be projected onto the plane. At night, the whole building would be lit up and would glow in a variety of colours, representing the mutative nature of pop culture itself.

## Movable Floors

One key idea of the building was the layers of past, present and future within pop culture. We found that vertical circulation for the visitors was simply not challenging enough to the dynamic of the building, so we proposed two large bays of movable floors. These floors could be accommodated with any exhibit, and can break the barriers of the vertical separation imposed by the building structure. This allows parts of

the past to interact with the future, the future to interact with the present, etc, an infinite number of possibilities to hybridize and mutate.

This was largely inspired by the engineering done in OMA's Bordeaux House, where the idea of the movable living room dominated the design of the buildings, penetrating through the three different layers of spaces.



Fig. 15: Movable Room in OMA's House Bordeaux



Fig. 16: Rendering of Moving Floor

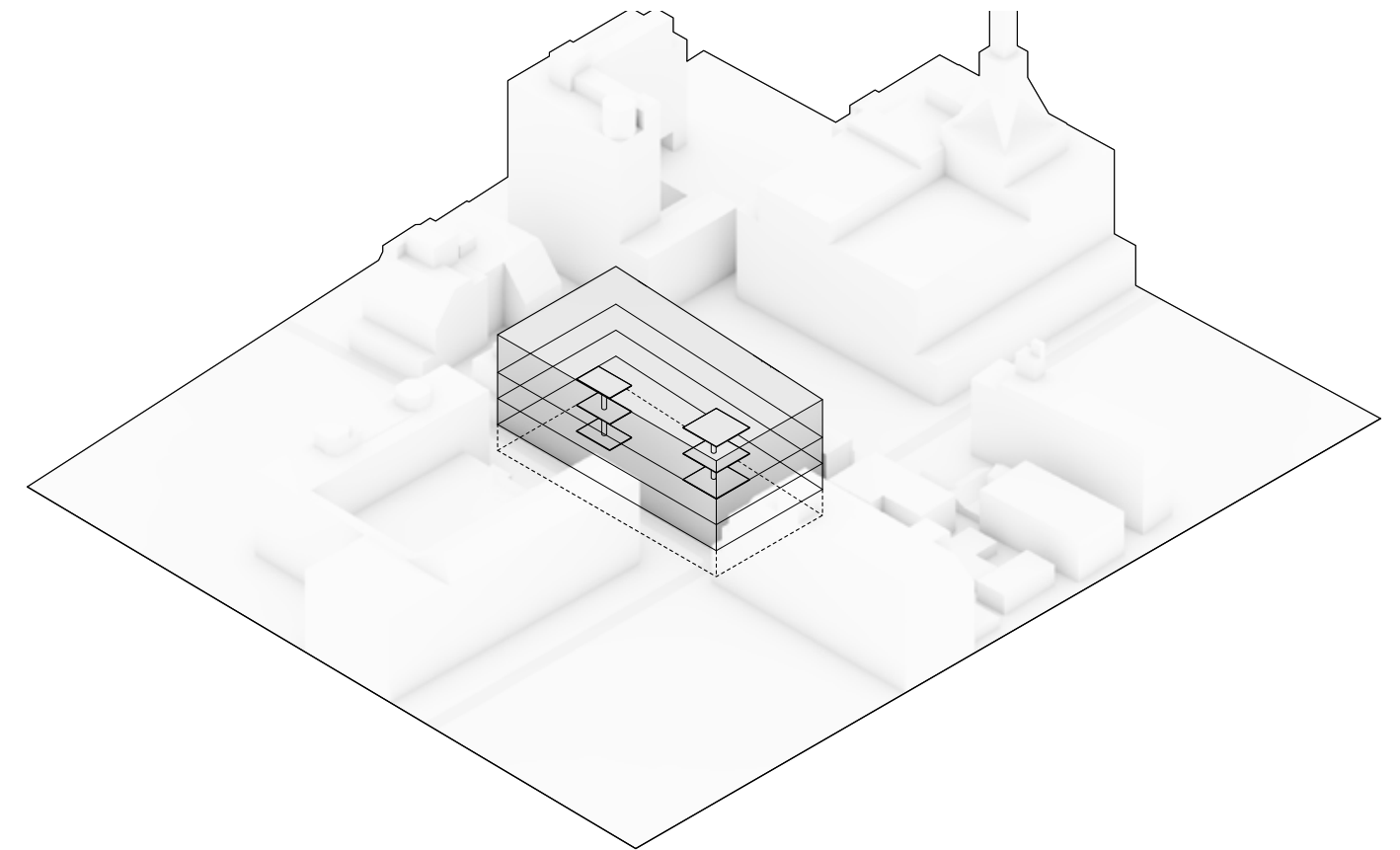


Fig. 17: Diagram showing location of lifts within mass



## Conclusion

Popular culture, by its very nature is tied into the present-current events; and the site is located in Chiyoda which directly translates as a field of a thousand generations. This project seeks to redefine how we experience pop culture. It brings together the three elements of a museum/laboratory: Archival, Production, and Display. The

center is then a self sustaining laboratory where the storage, creation, and display of products can co-exist under one roof. The building responds to the quiet nature of its neighbourhood in Tokyo by being a quiet machine for the generation, cultivation and discourse of the ever changing phenomenon of pop culture.

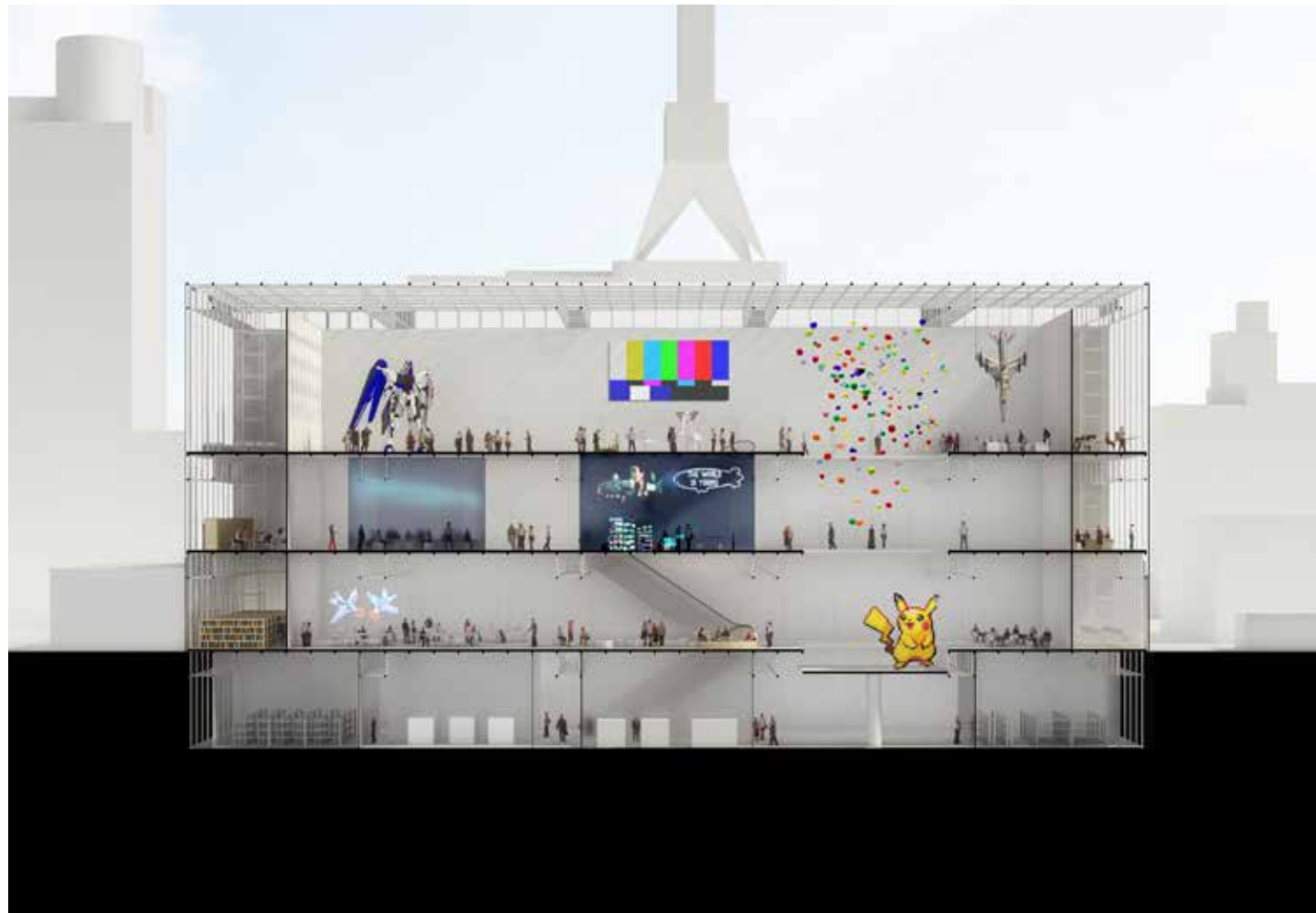


Fig. 18: Section Perspective

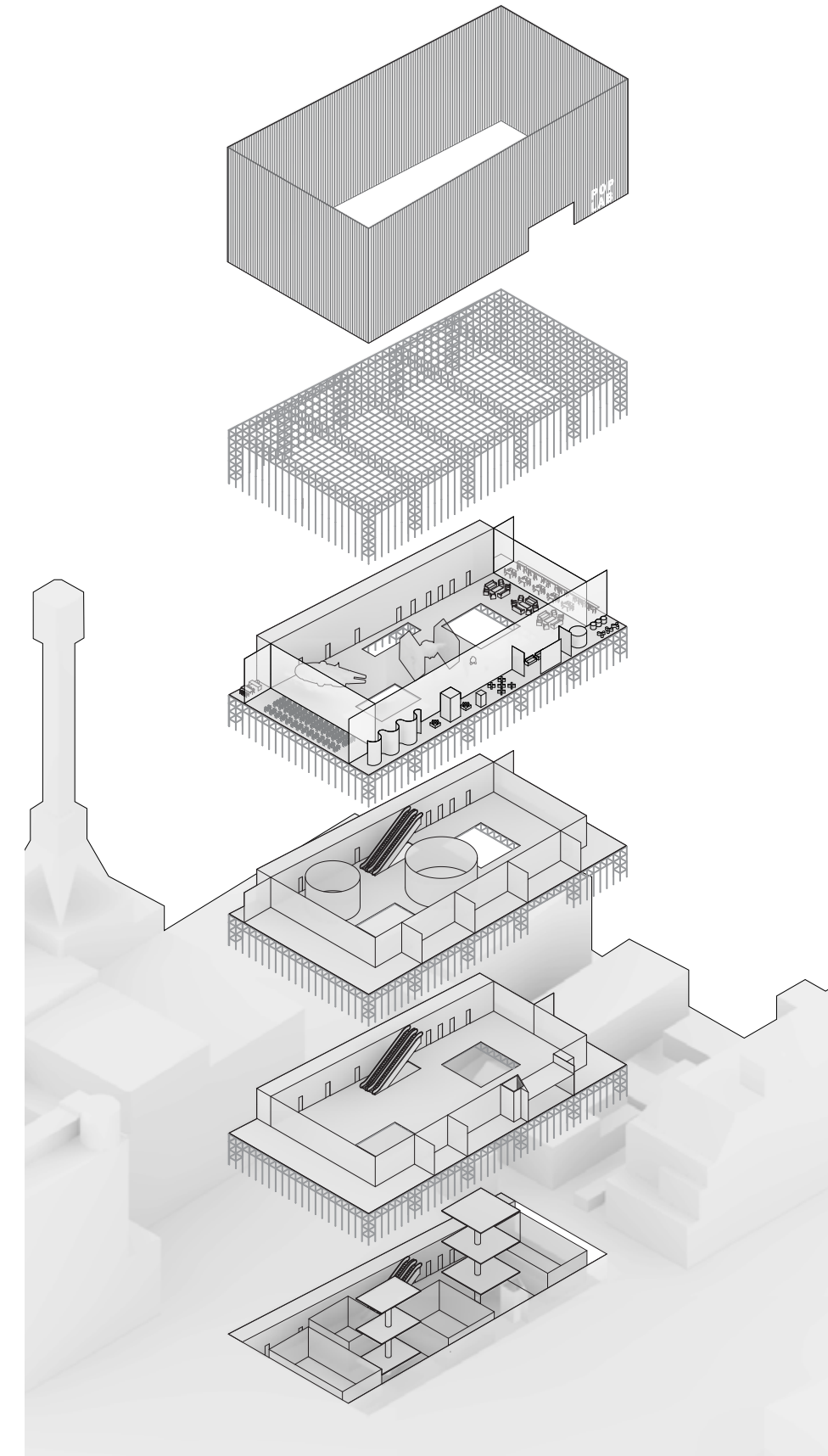


Fig. 19: Exploded Axonometric

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Thank You