

IL RACCONTO DEL PROGETTO PROGRAMMA E PROCESSO

FRANCESCA VARGIU

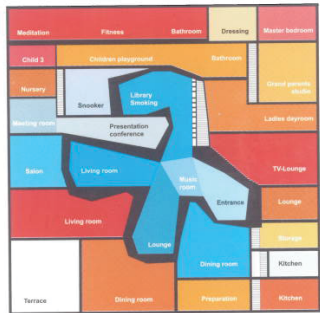
14 DICEMBRE 2011



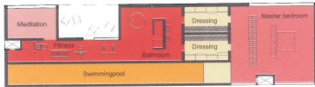
SCUOLA DEL DESIGN / POLITECNICO DI MILANO/BOVISA
LABORATORIO DI METAPROGETTO / 2.L| sez.I3 / a.a. 2011-2012

FRANCESCA MURIALDO, ALESSANDRO COLOMBO
CRISTINA FOGLIA, FRANCESCA VARGIU

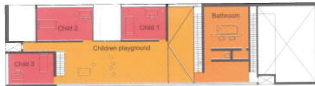
01/
PROGRAMMA



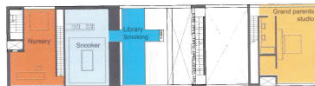
CASA VERTICAL. Sección / VERTICAL HOUSE. Section



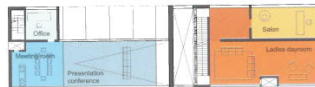
Nivel 7 / Level 7 (122 m)



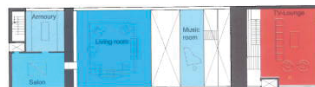
Nivel 6 / Level 6 (119 m)



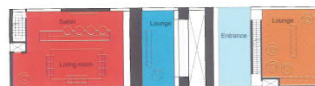
Nivel 5 / Level 5 (115 m)



Nivel 4 / Level 4 (112 m)



Nivel 3 / Level 3 (105 m)



Nivel 2 / Level 2 (100 m)

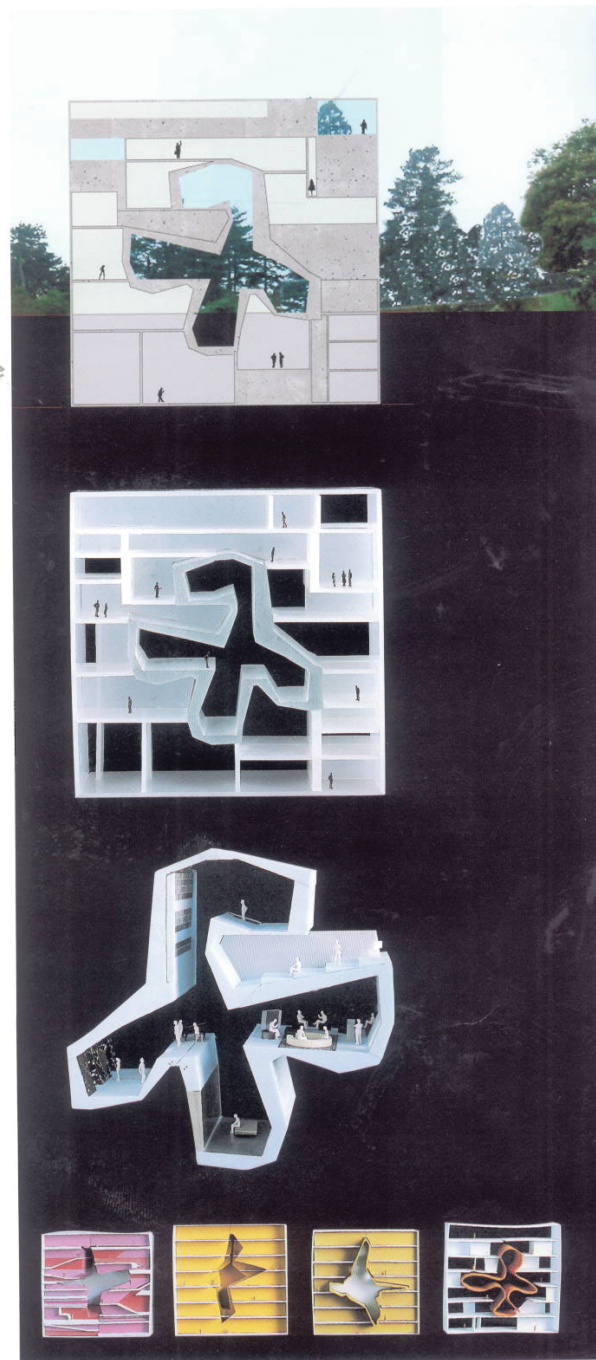


Nivel 1 / Level 1 (95 m)

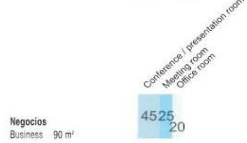


Nivel 0 / Level 0 (92 m)

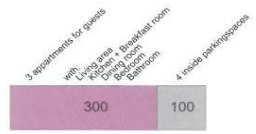
Atarde al jardín. Garden elevation



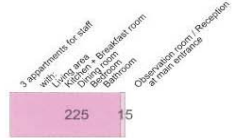
CASA REPRESENTATIVA / REPRESENTATIVE HOUSE 475 m²



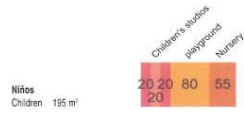
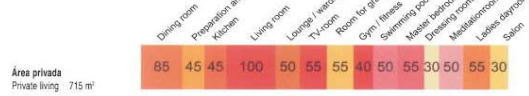
CASA DE INVITADOS / GUEST HOUSE 400 m²



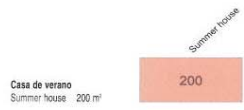
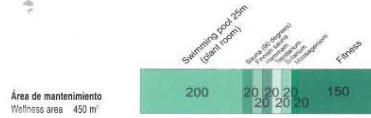
VIVIENDA DE SERVICIO / STAFF HOUSE 270 m²



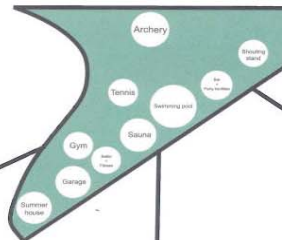
CASA PRIVADA / PRIVATE HOUSE 910 m²



AREA DE DEPORTE Y MANTENIMIENTO / SPORTS AND WELLNESS AREA 925 m²

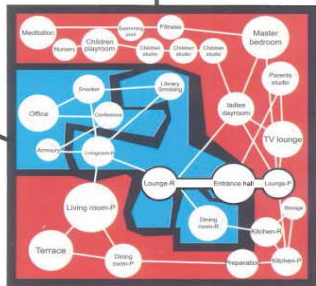


ACROPOLIS



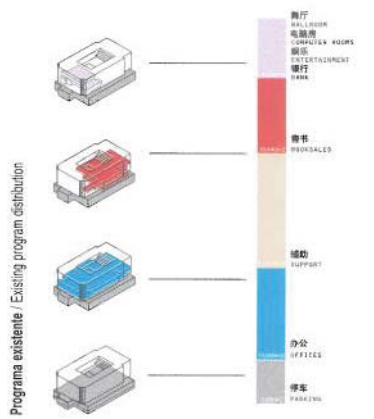
Staff apartments

Guest apartments

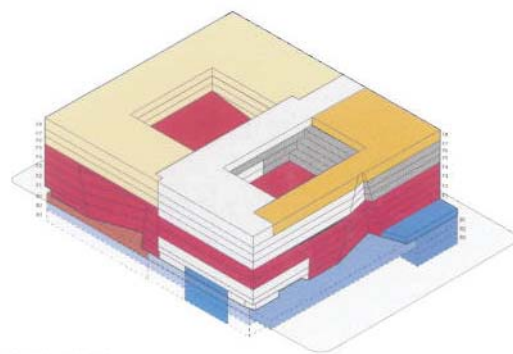


REPRESENTATIVE

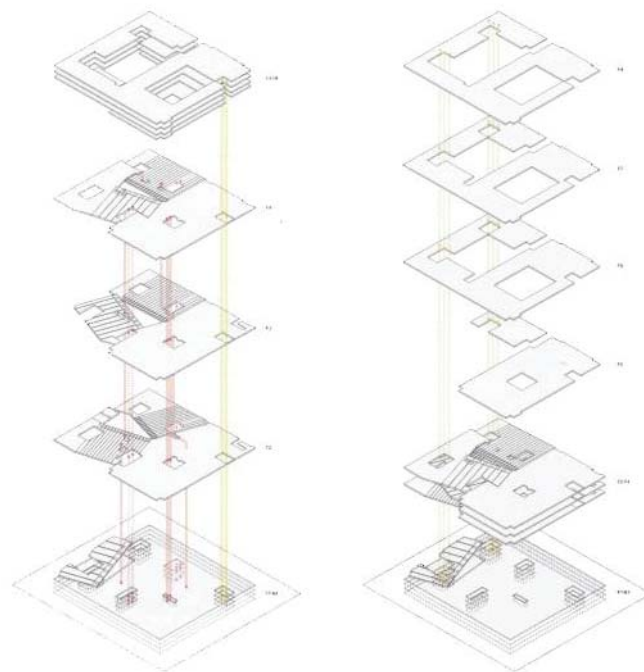
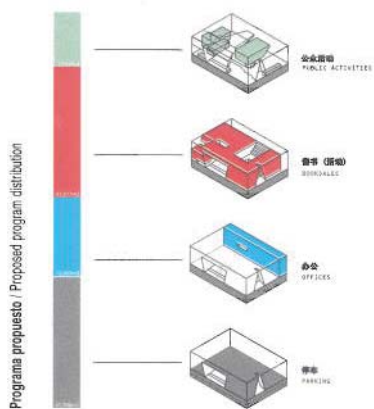
PRIVATE



Distribución del programa / Program layout

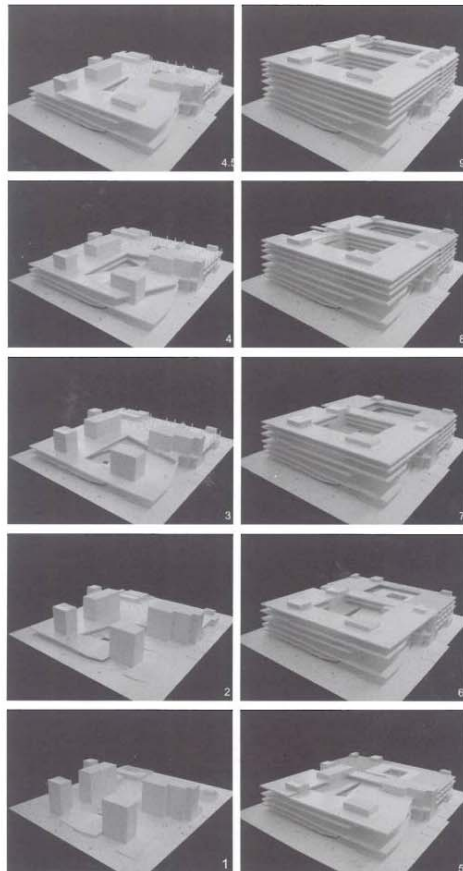
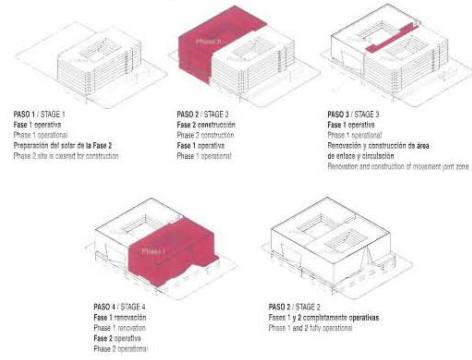


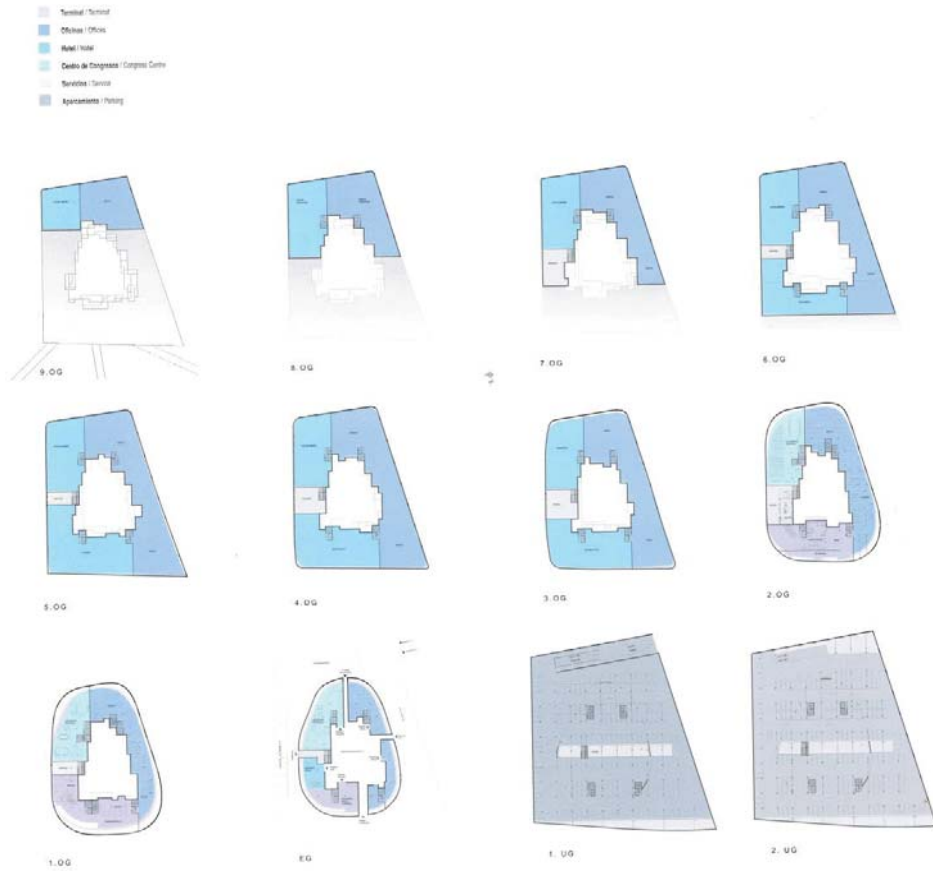
- Tienda BBB / BBB bookstore
- Oficinas de alquiler / Leased office area
- Oficinas BBB / BBB office
- Banco Communication / Communication bank
- Compañía Sinosteel / Sinosteel company
- Paseo subterráneo / Subway
- Aparcamiento / Parking
- Aparcamiento bicicletas / Bike parking
- Instalaciones / MEP plant



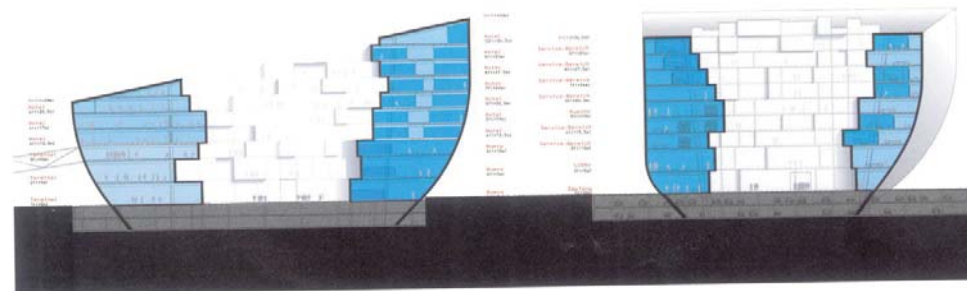
Axonometría de circulación vertical / Vertical circulation axonometric

Descripción de las fases / Phasing description





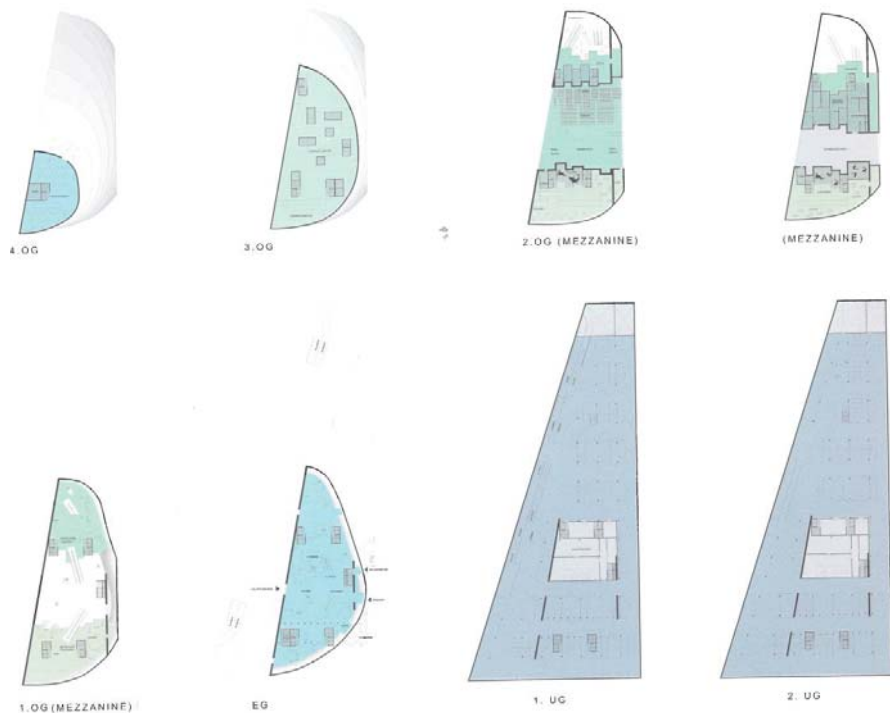
0 m 10 m



TERMINAL DE CRUCEROS. Plantas y secciones / CRUISE TERMINAL. Floor plans and sections

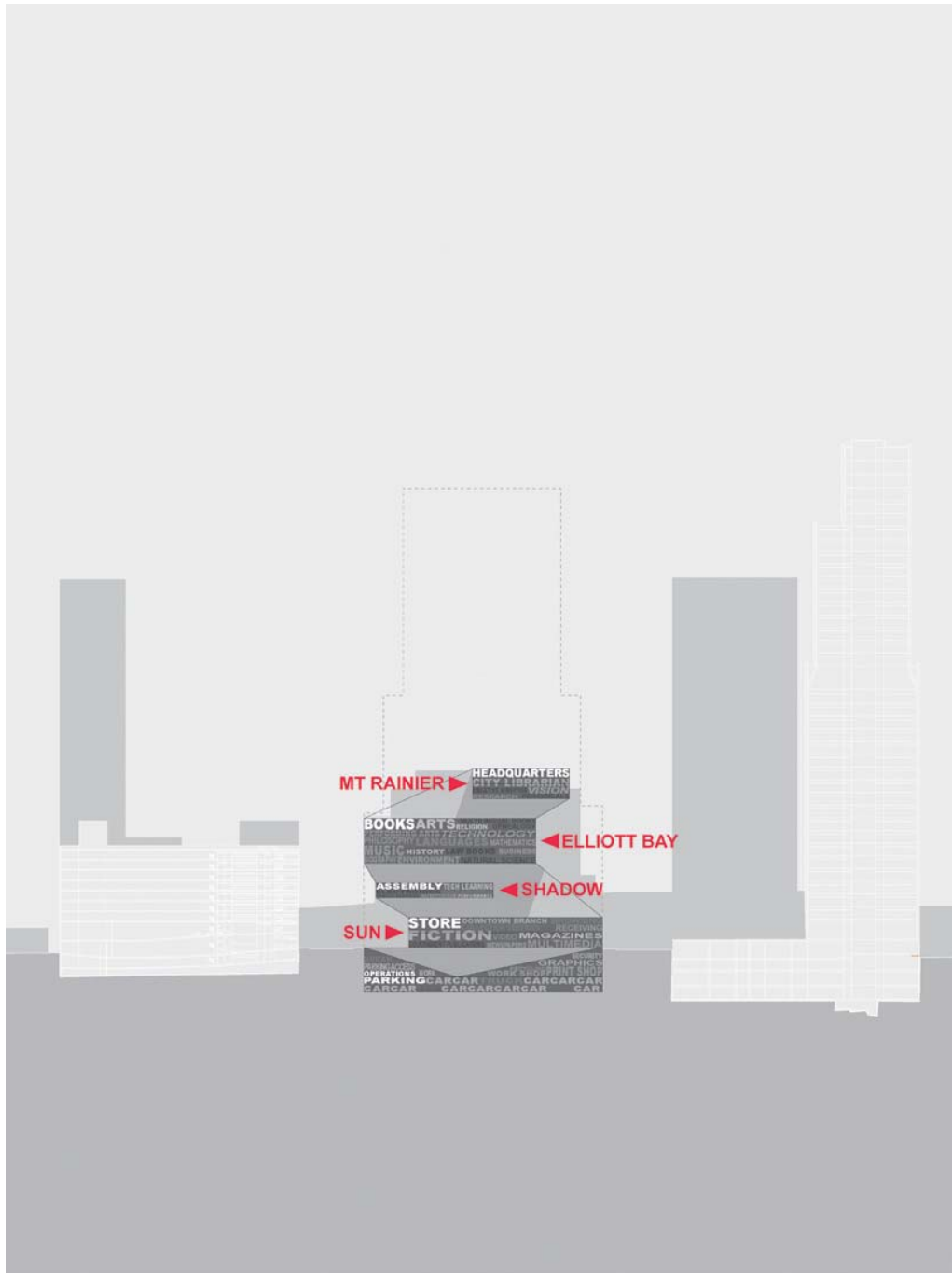
oma/hamburg hafencity/amburgo/2004

- Area pública / Public
- Teatro / Theatre
- Acuático / Aquatic
- Centro de la Ciencia / Science Center
- Servicios / Service
- Aparcamiento / Parking

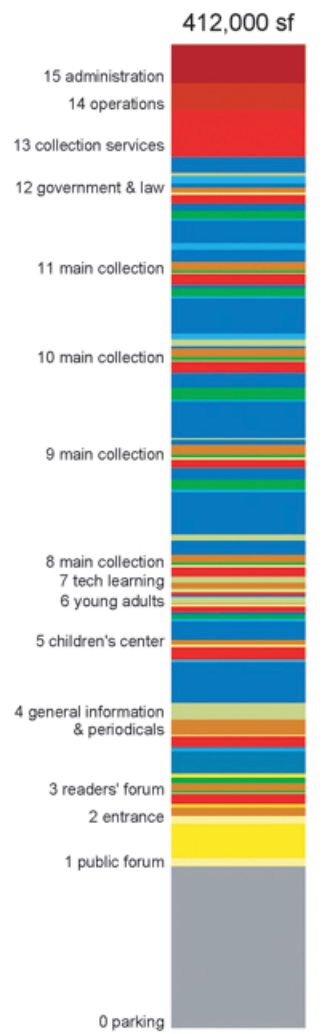


0 m 30 m

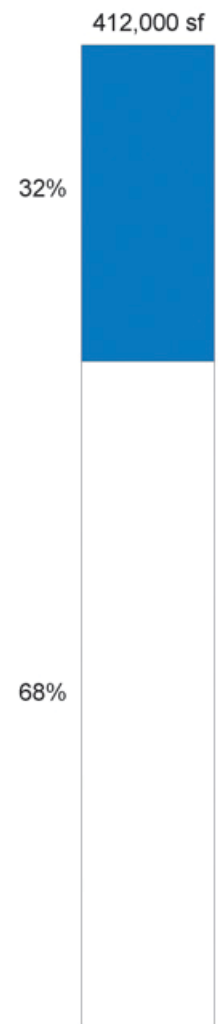




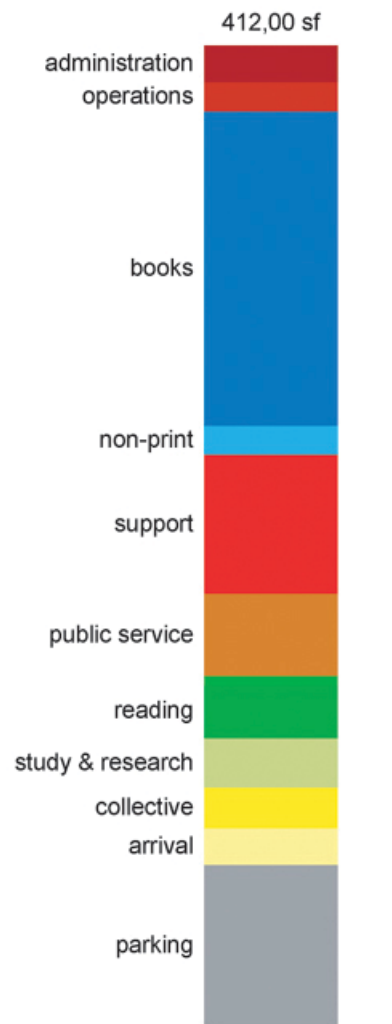
oma/seattle central library/seattle/USA/2004



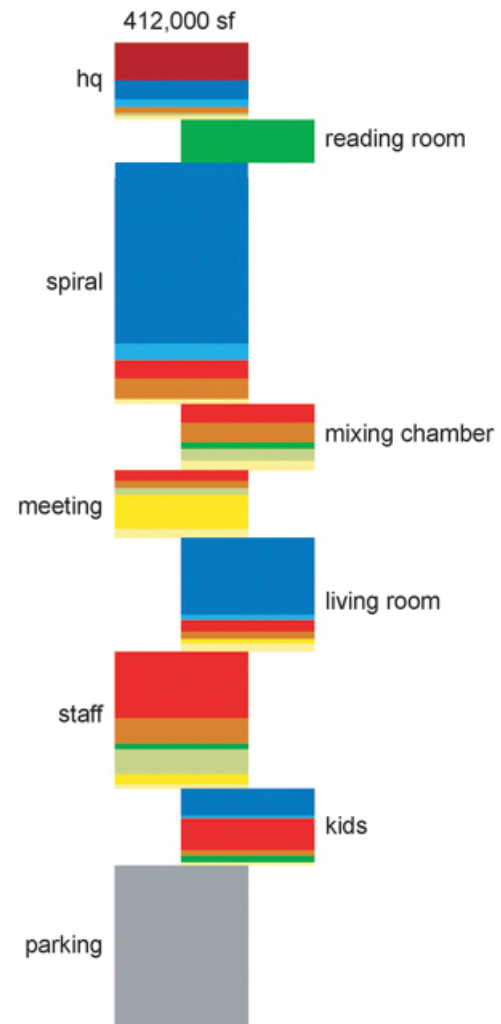
original program



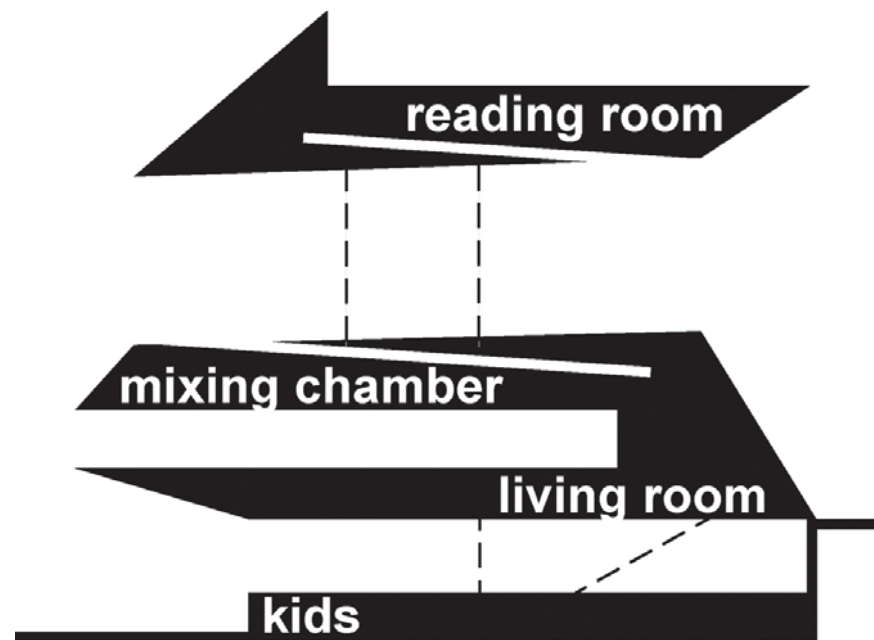
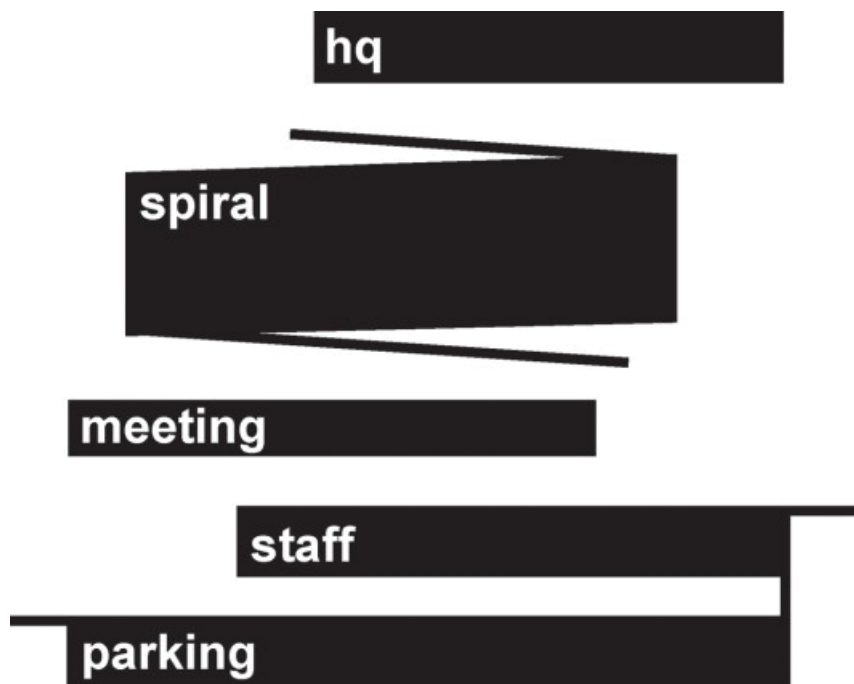
blue = books

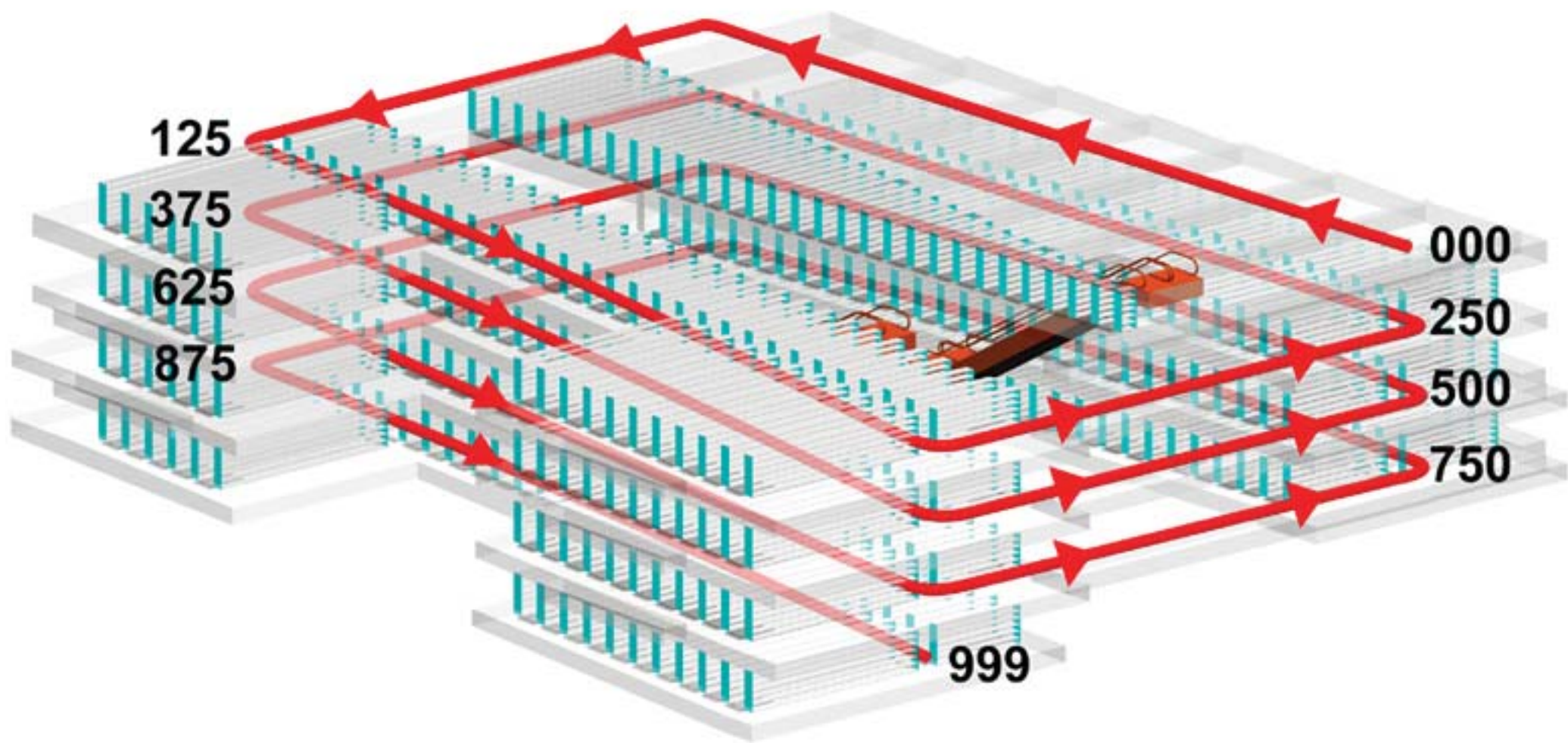


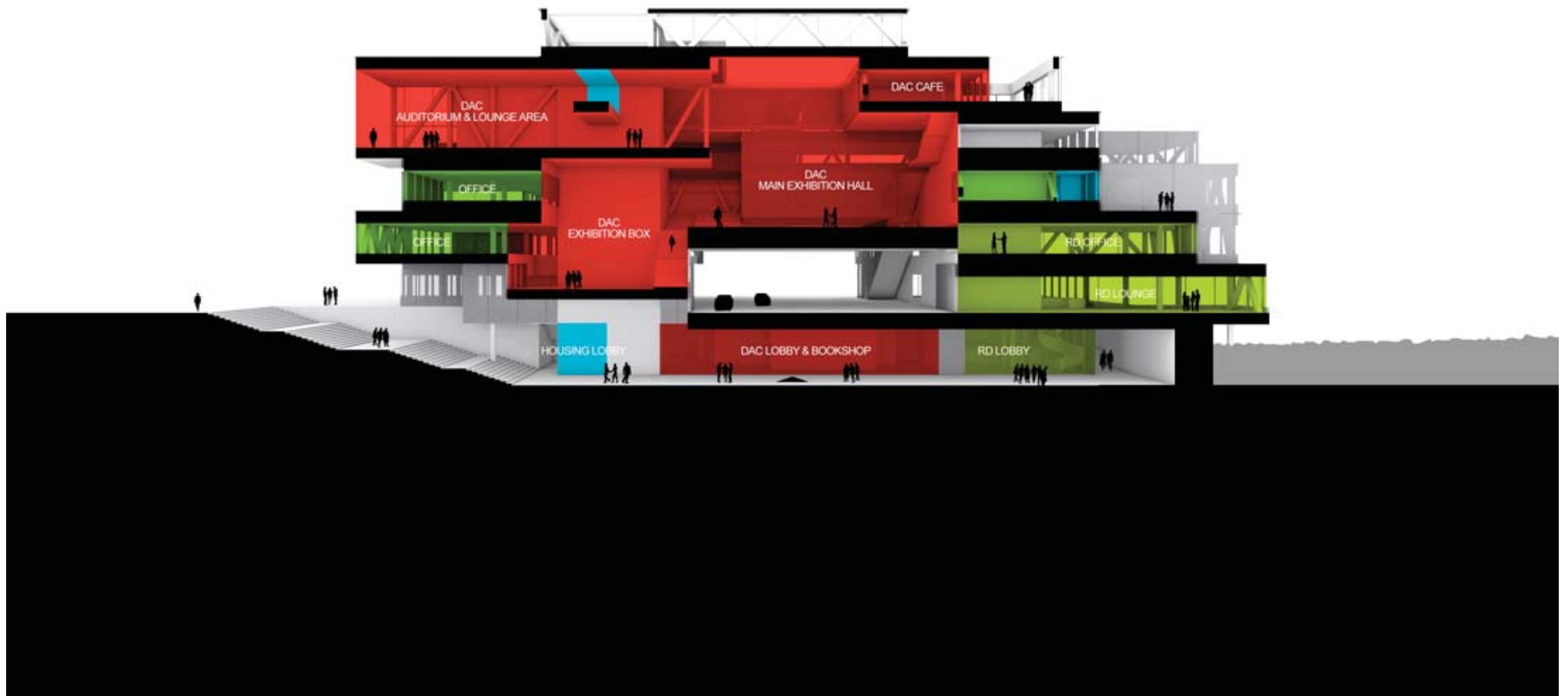
program consolidation



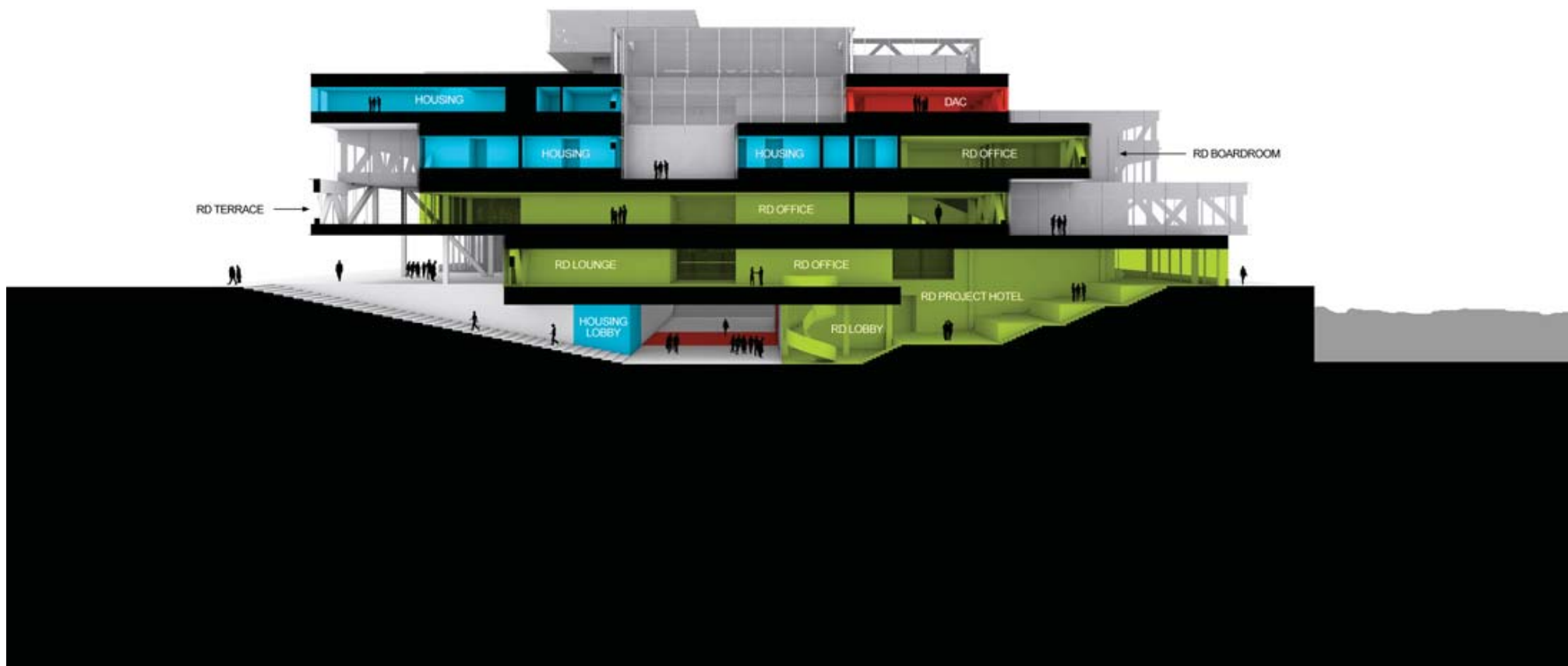
program reshuffle

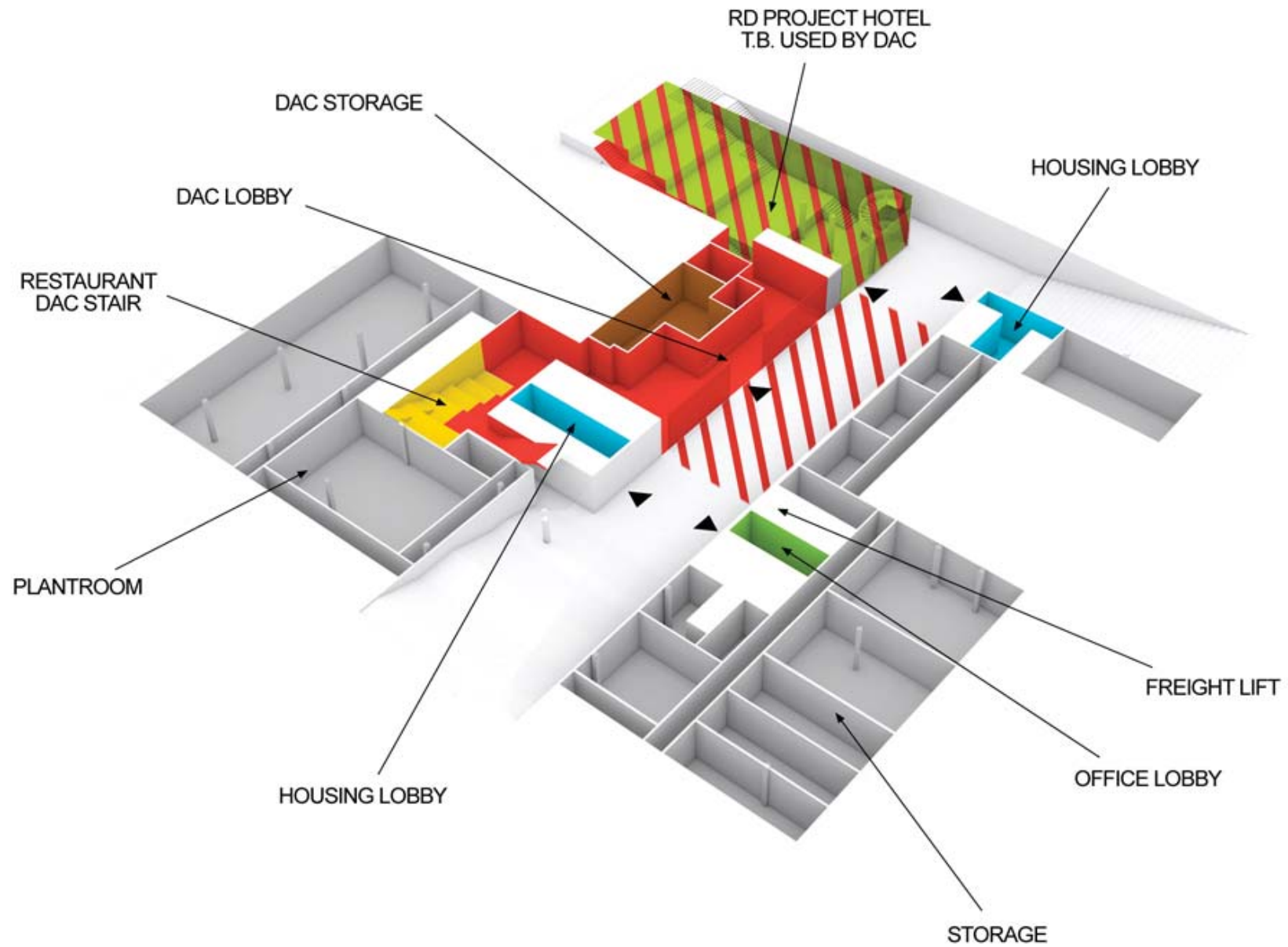


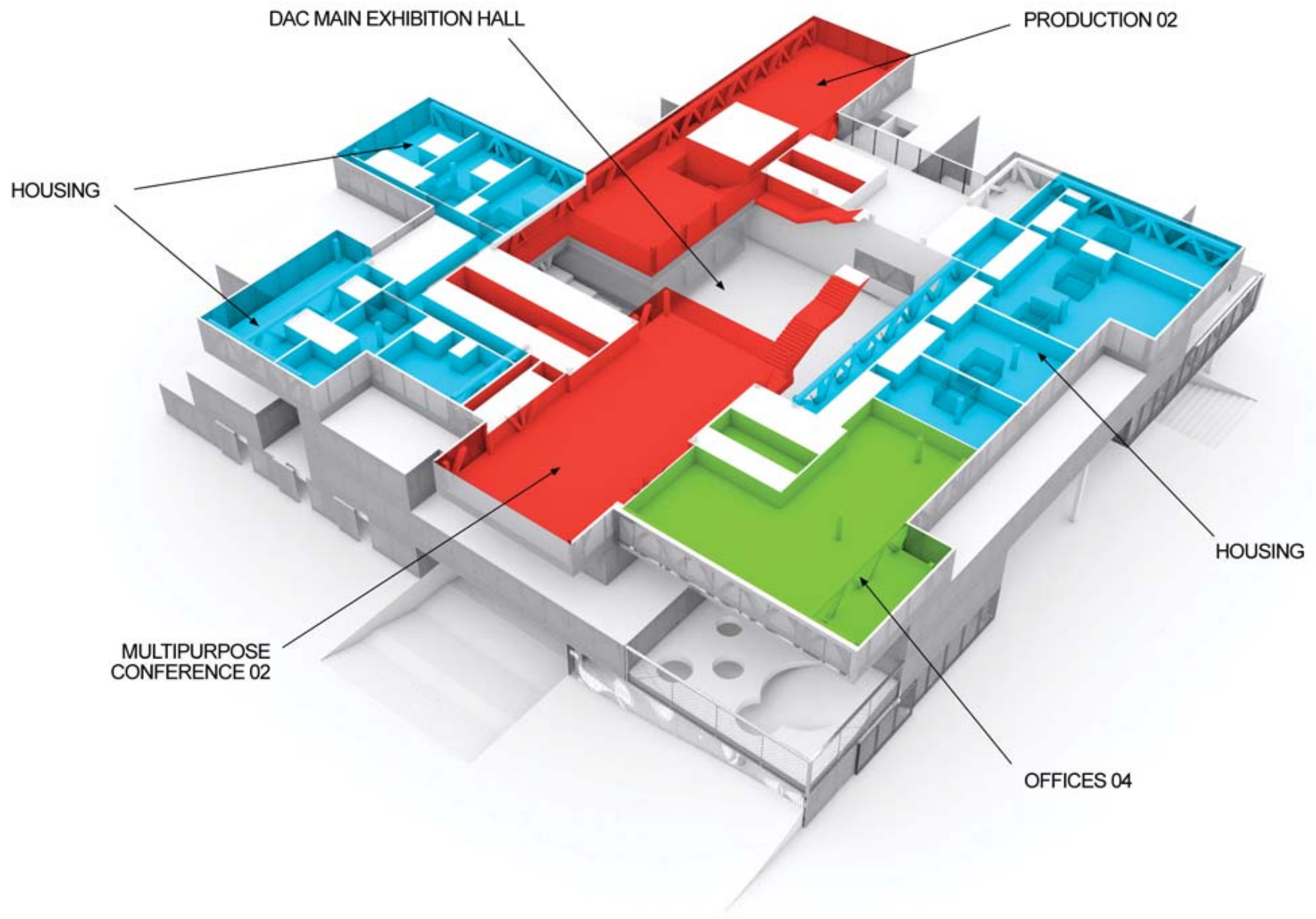


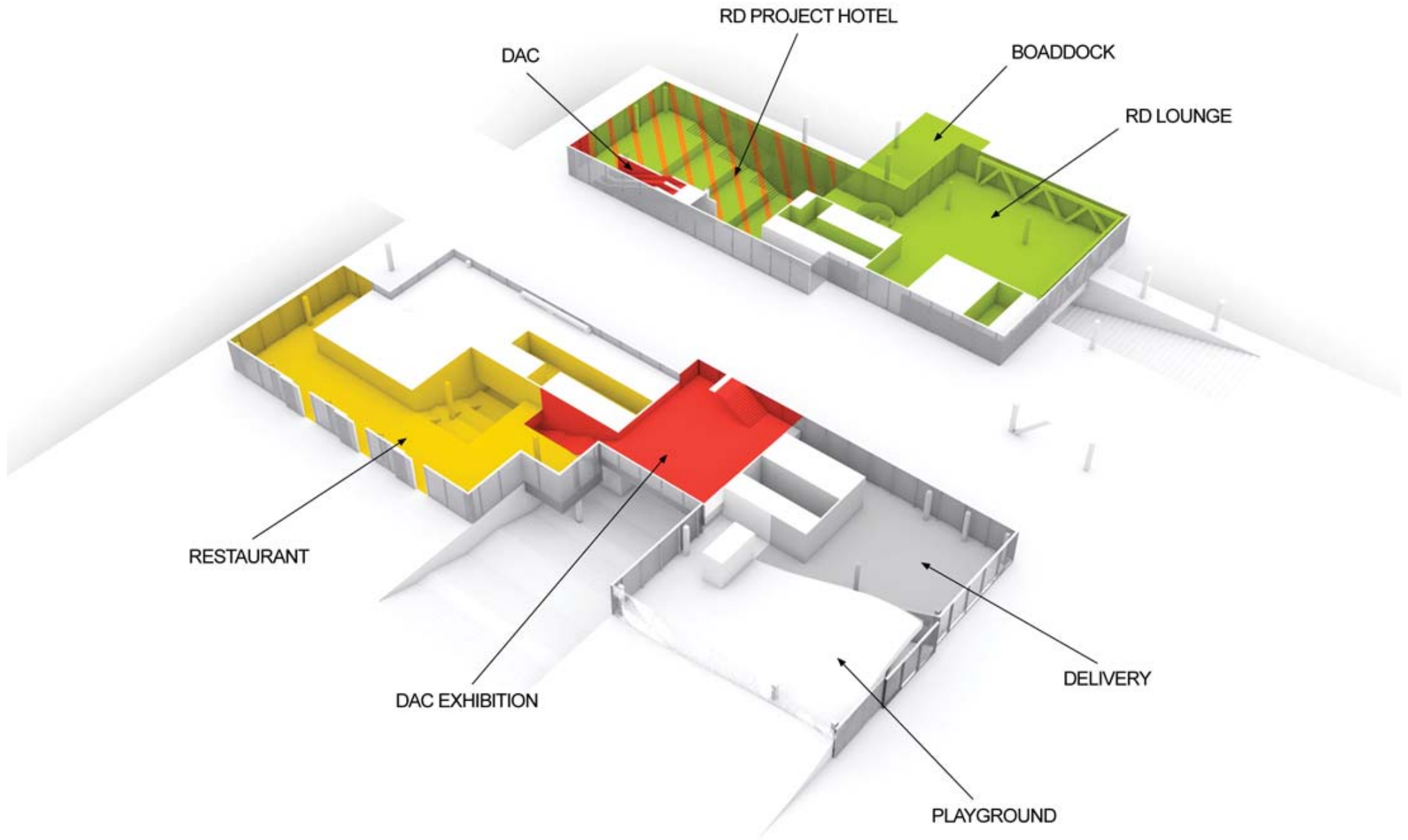


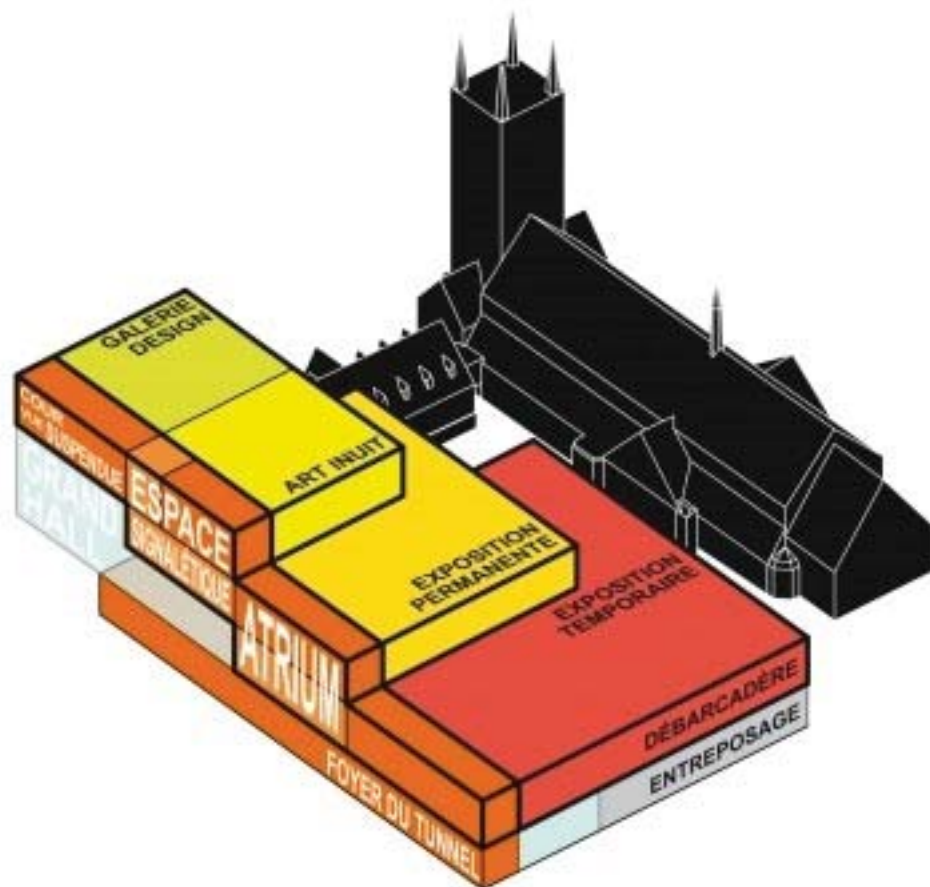
oma/bryghusgrunden mixed use/copenhagen/2008









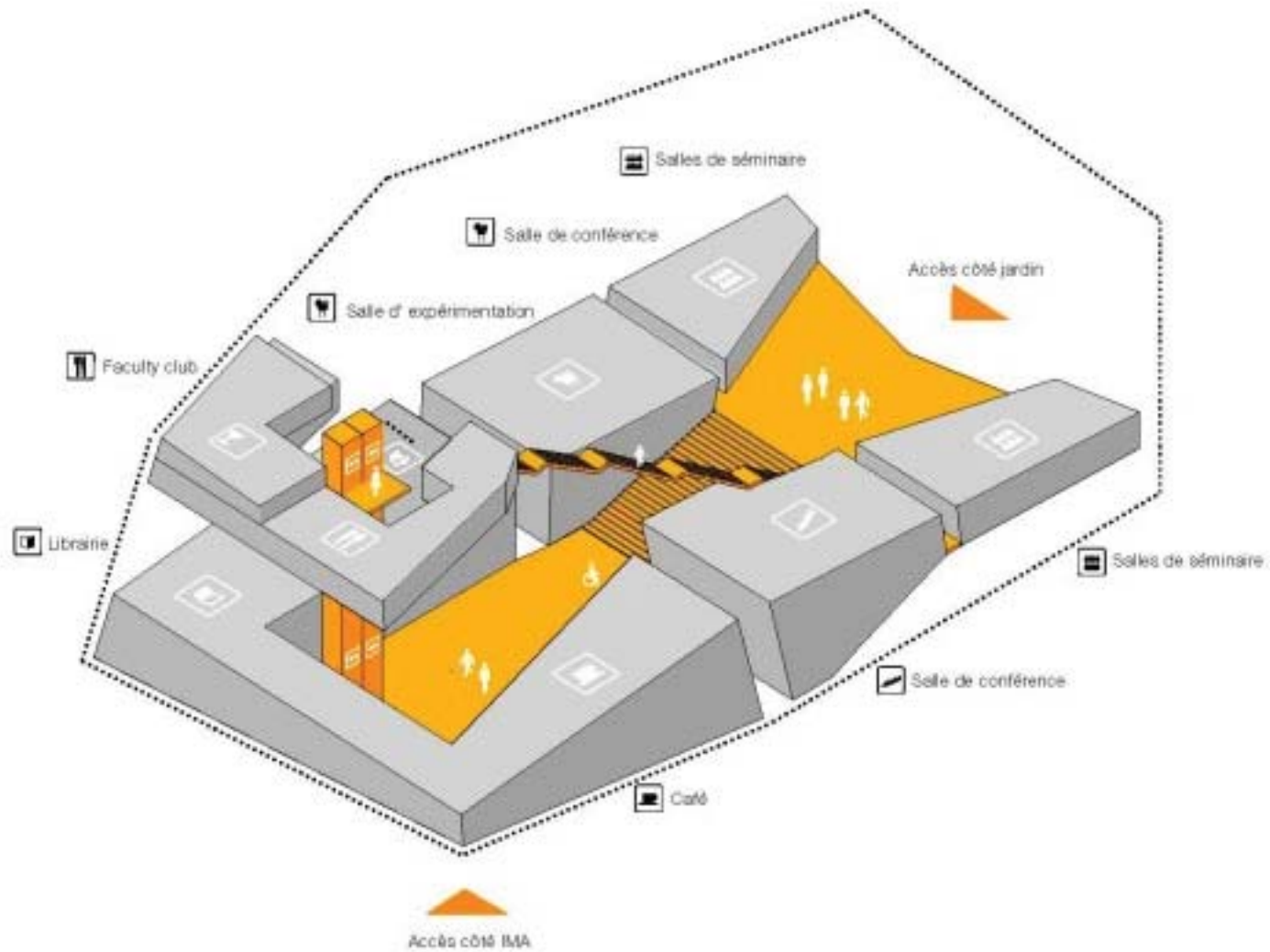




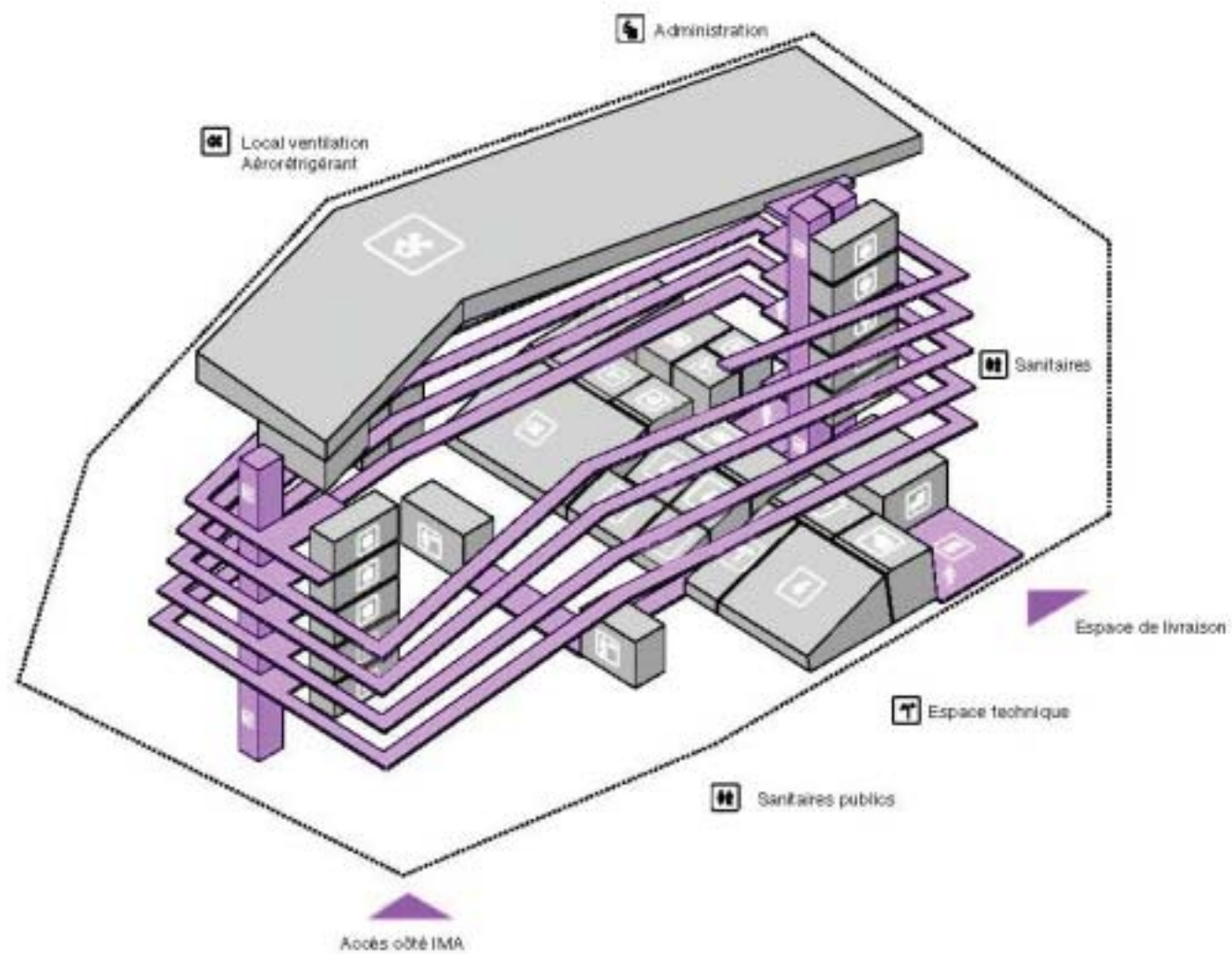
big/new national gallery/groenlandia

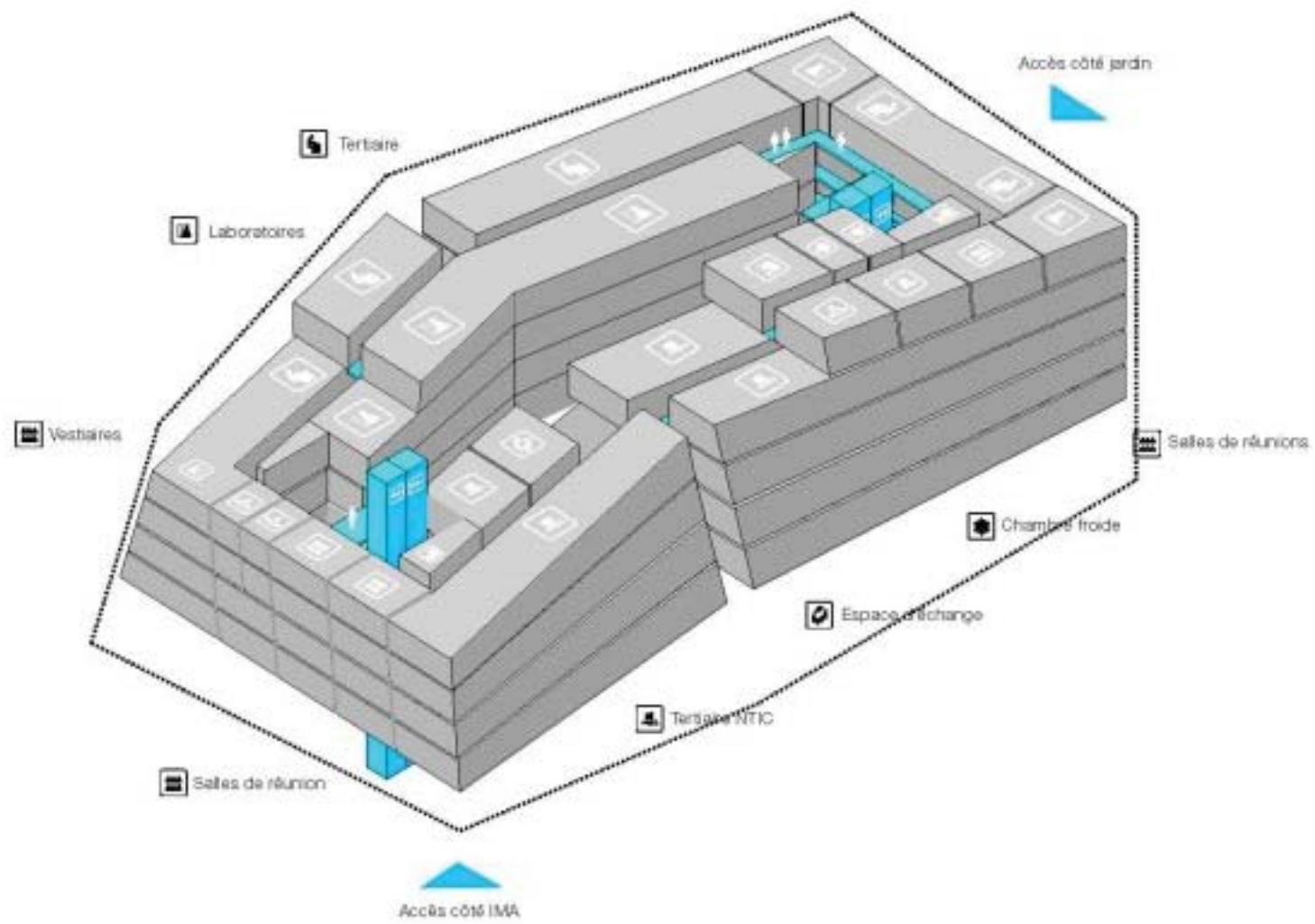
ISOMETRIC OVERVIEW

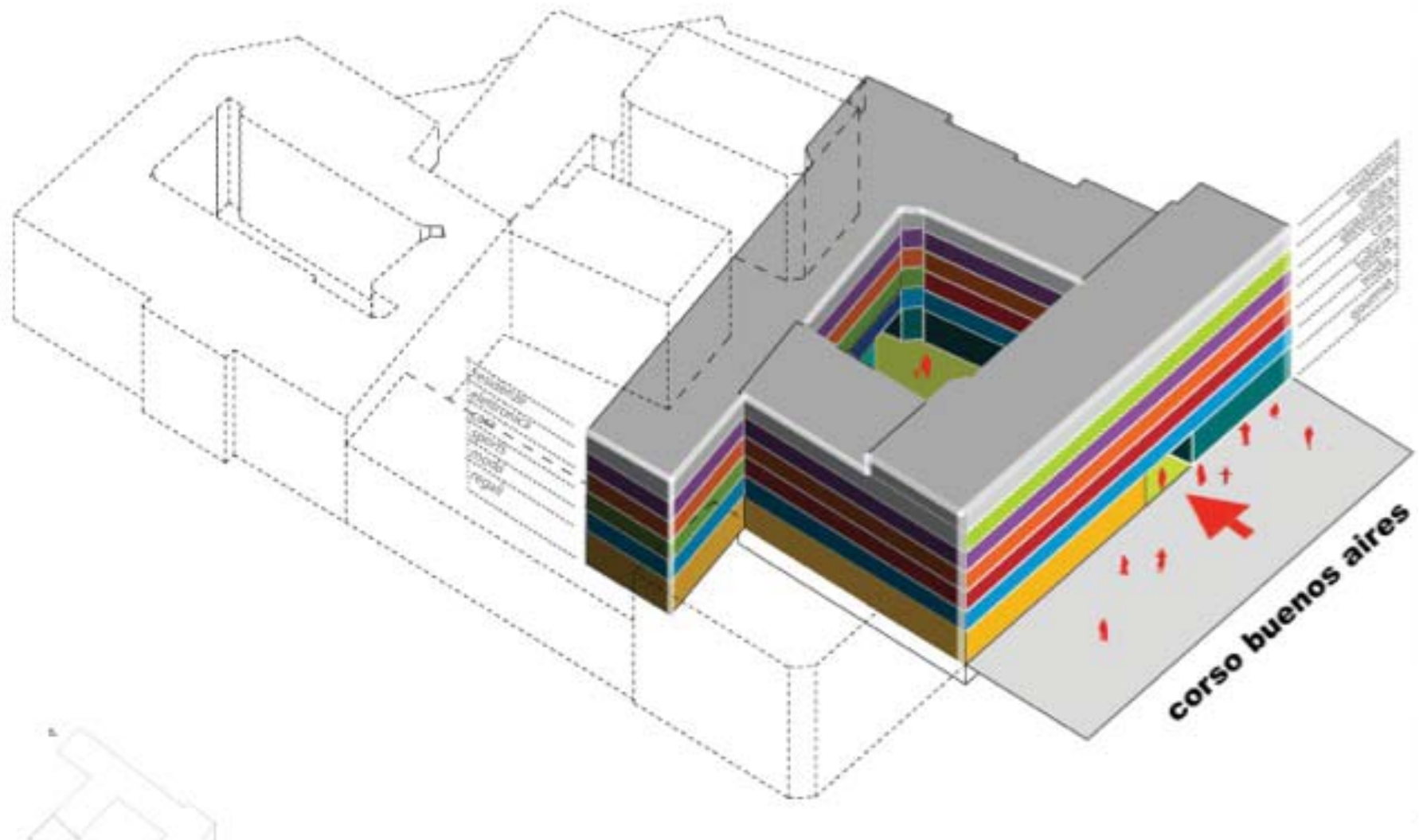




big + off/research centre of the university of jussieu/parigi/francia/2011



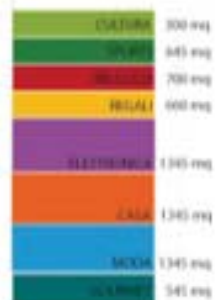




francesco librizzi, stefano maderna/corti di baires/milano/2008

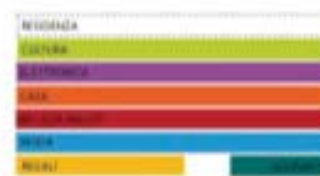


PROGRAMMA



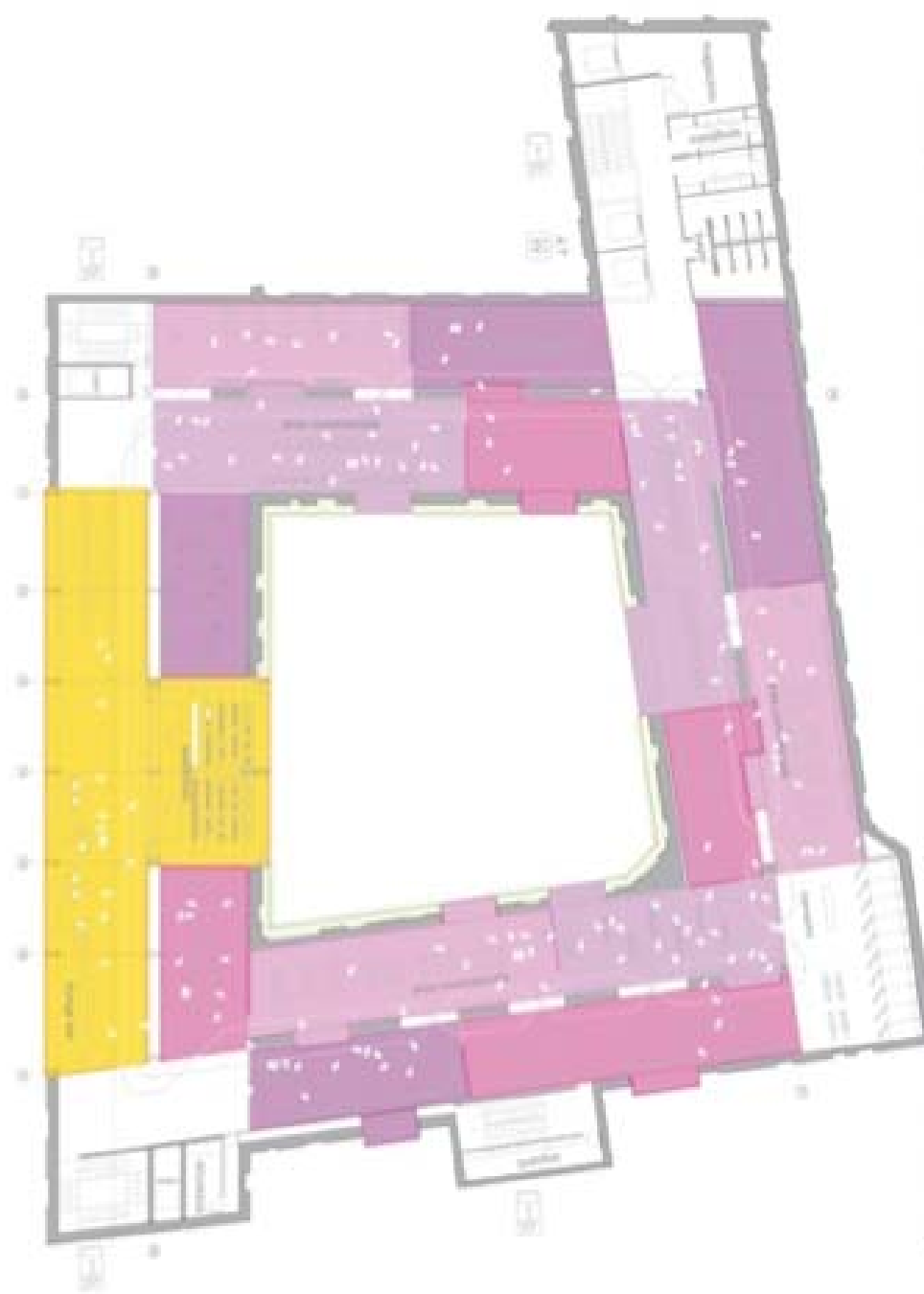
PROPOSTA

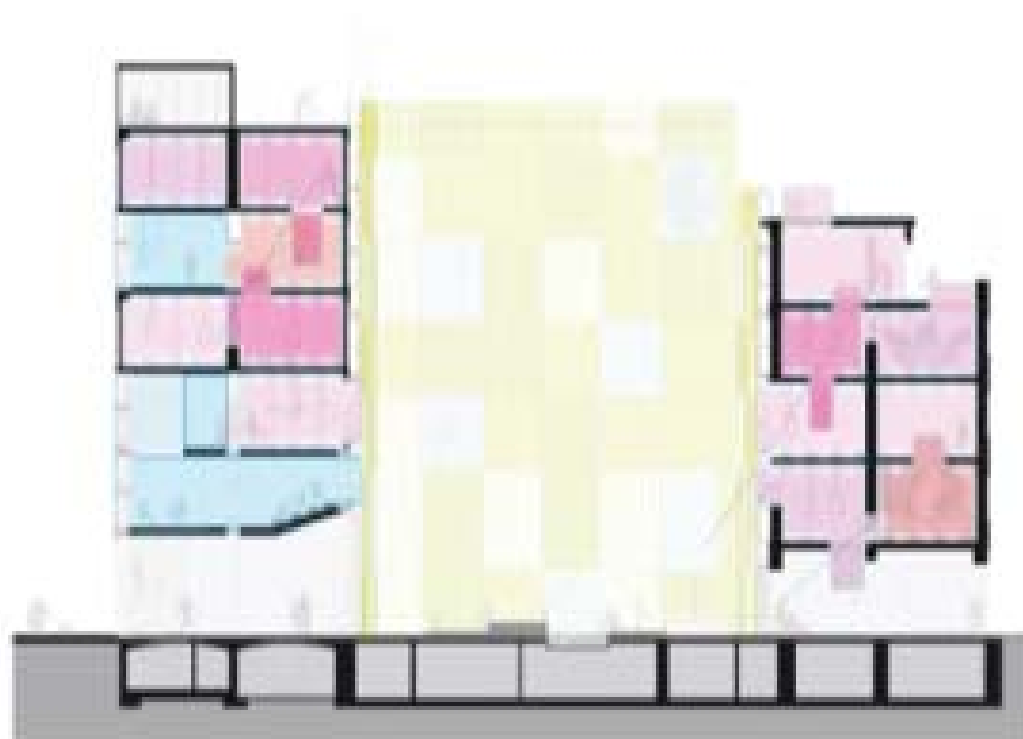
SEZIONE 1-1

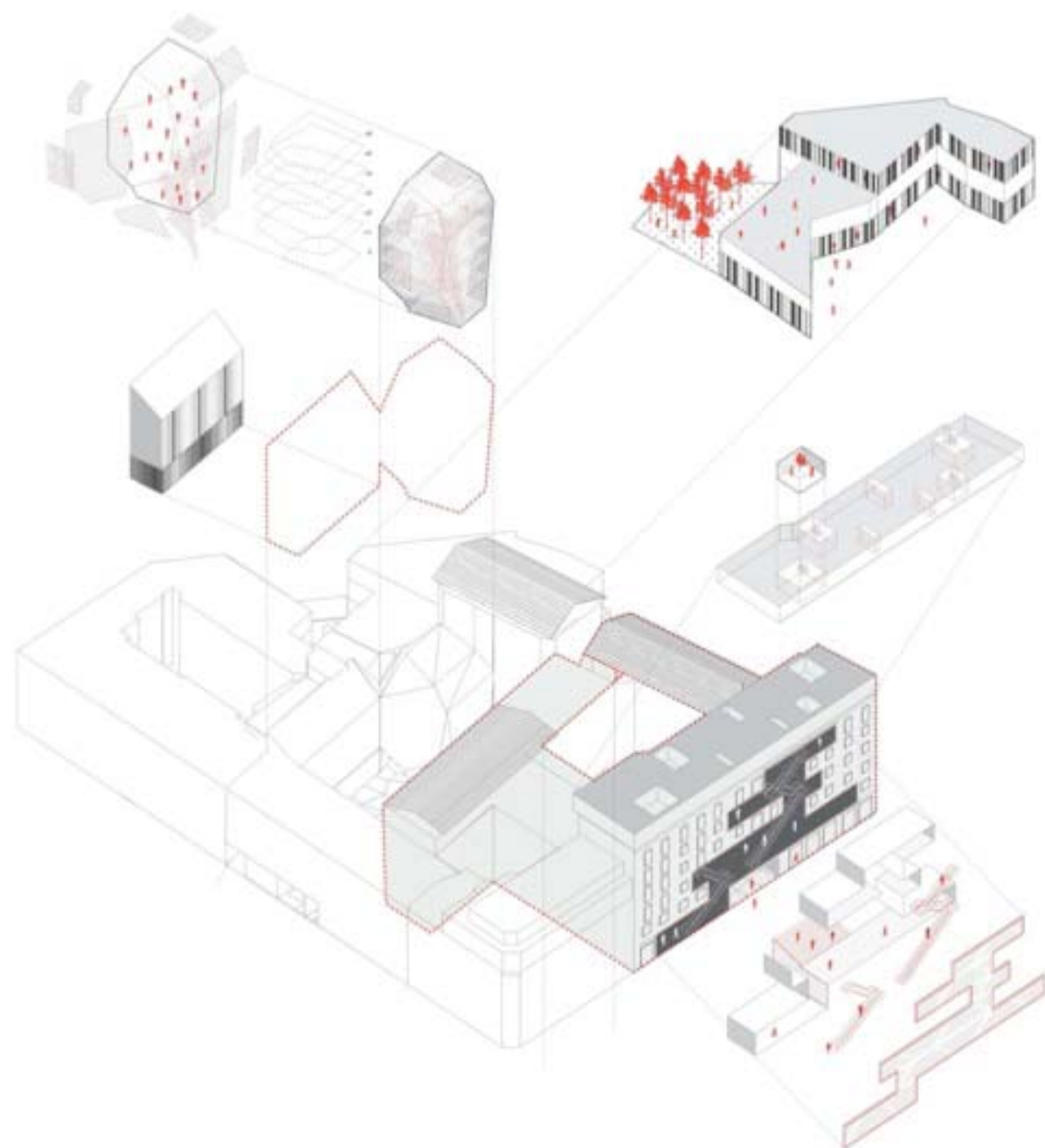


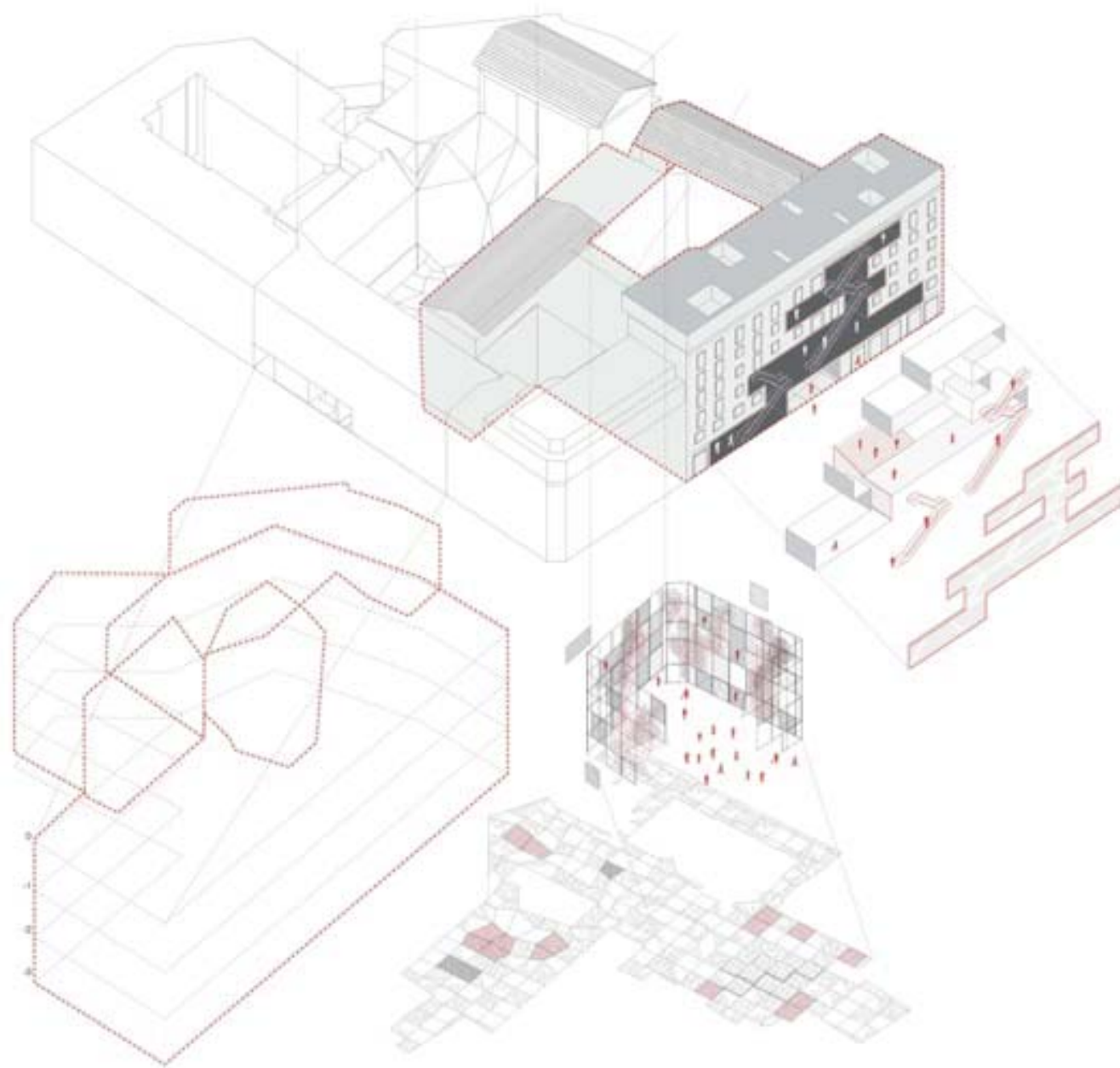
SEZIONE 2-2

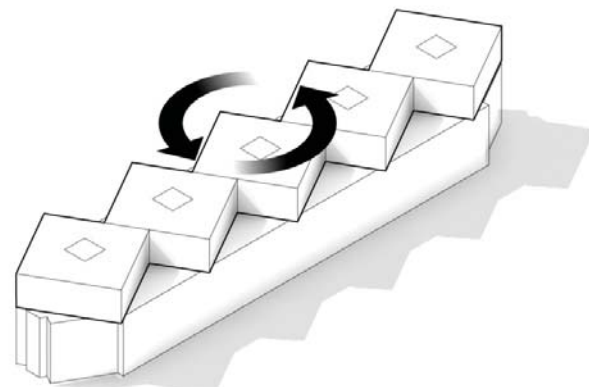
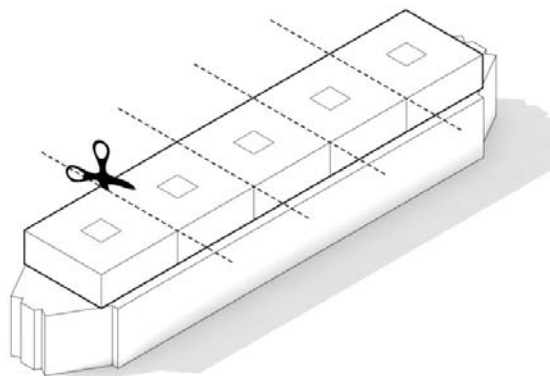
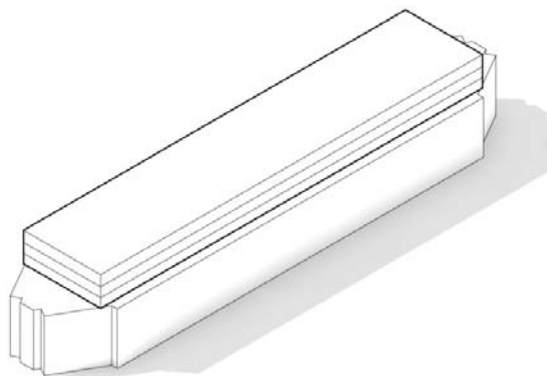


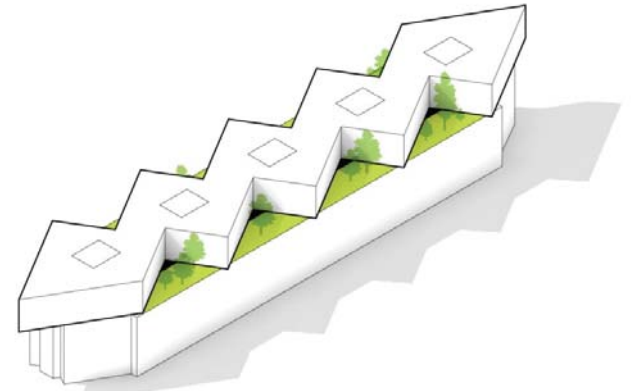
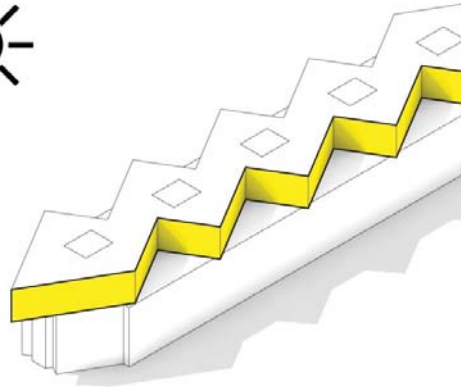
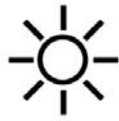
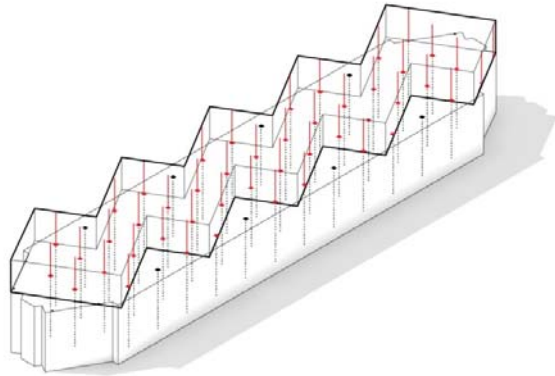


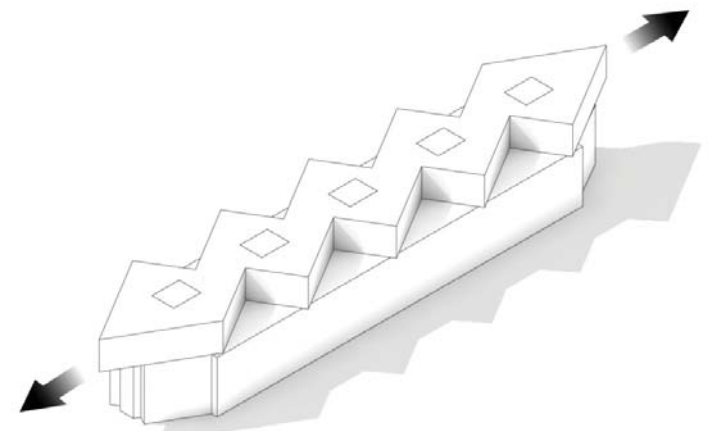
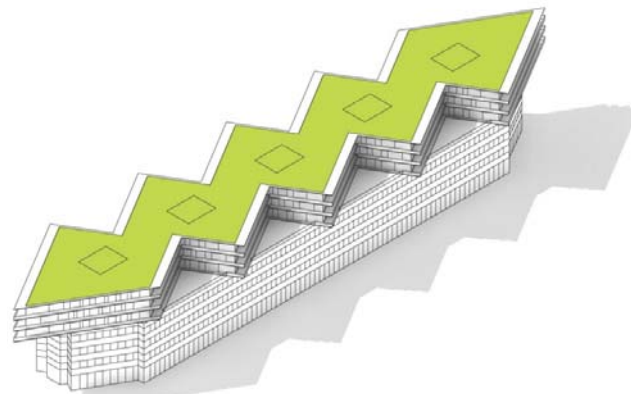
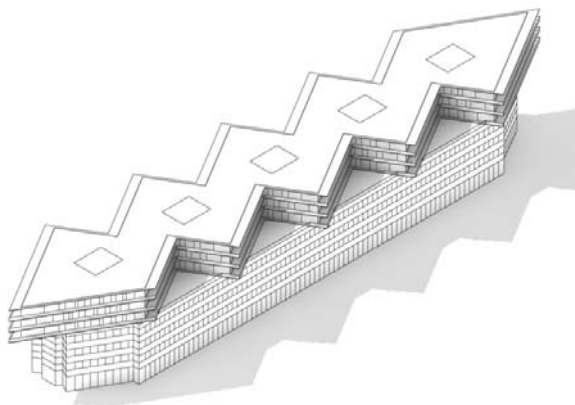


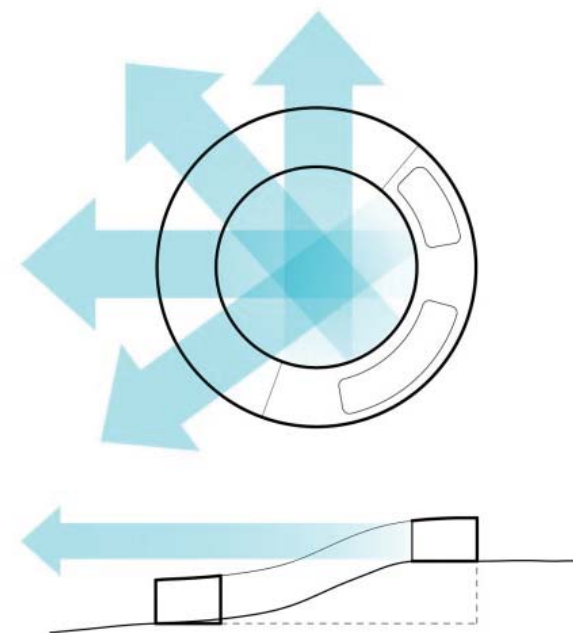
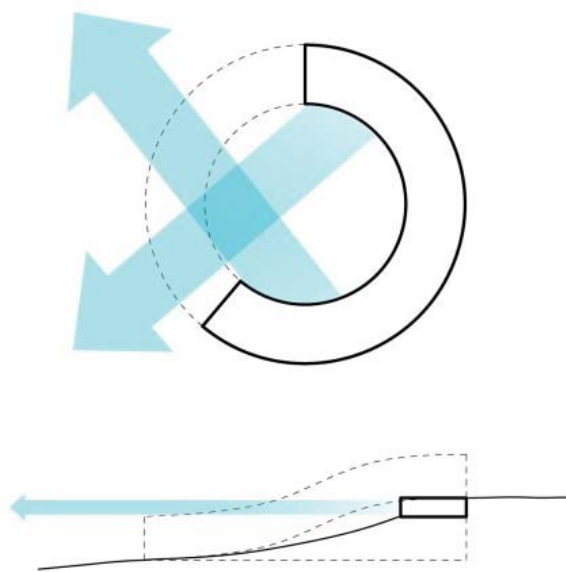
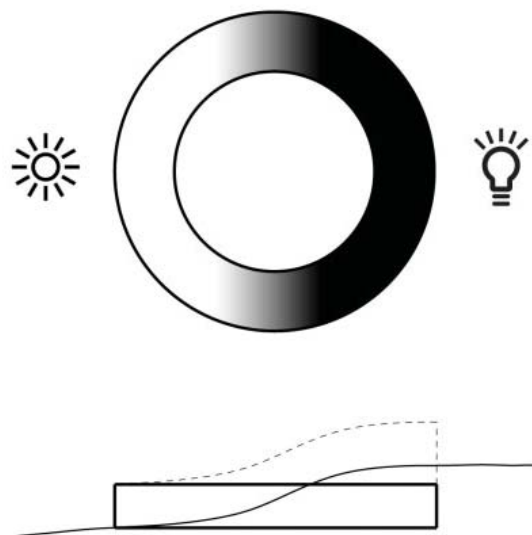




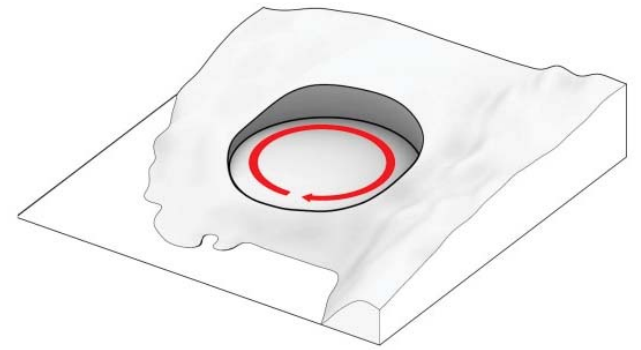
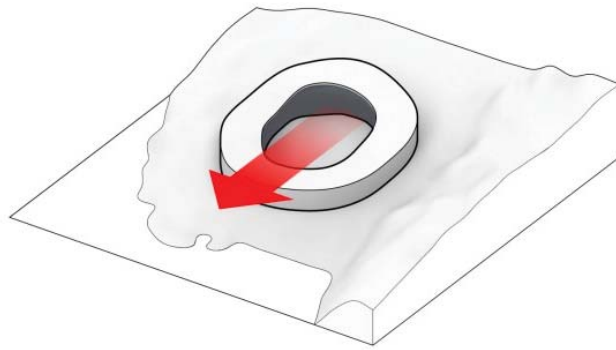
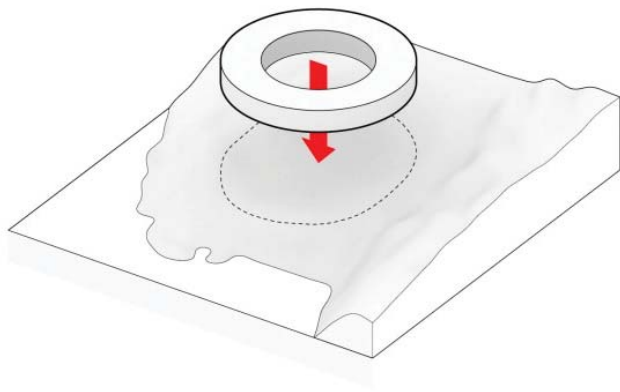


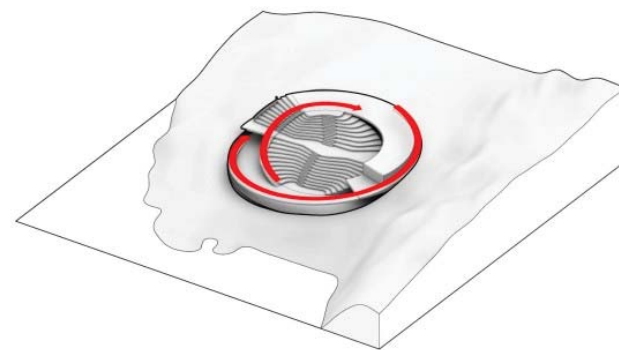
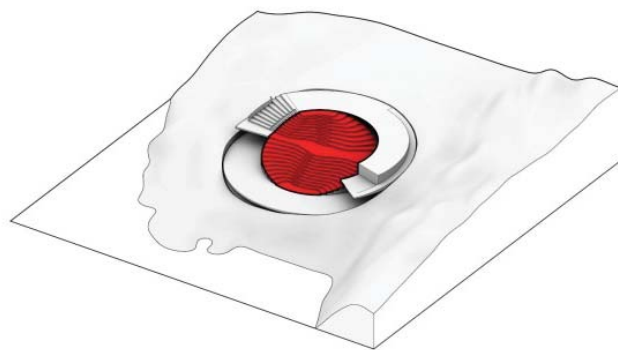


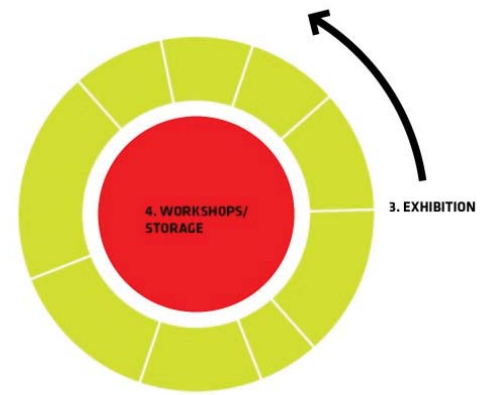
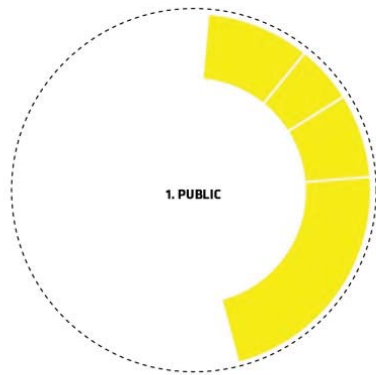


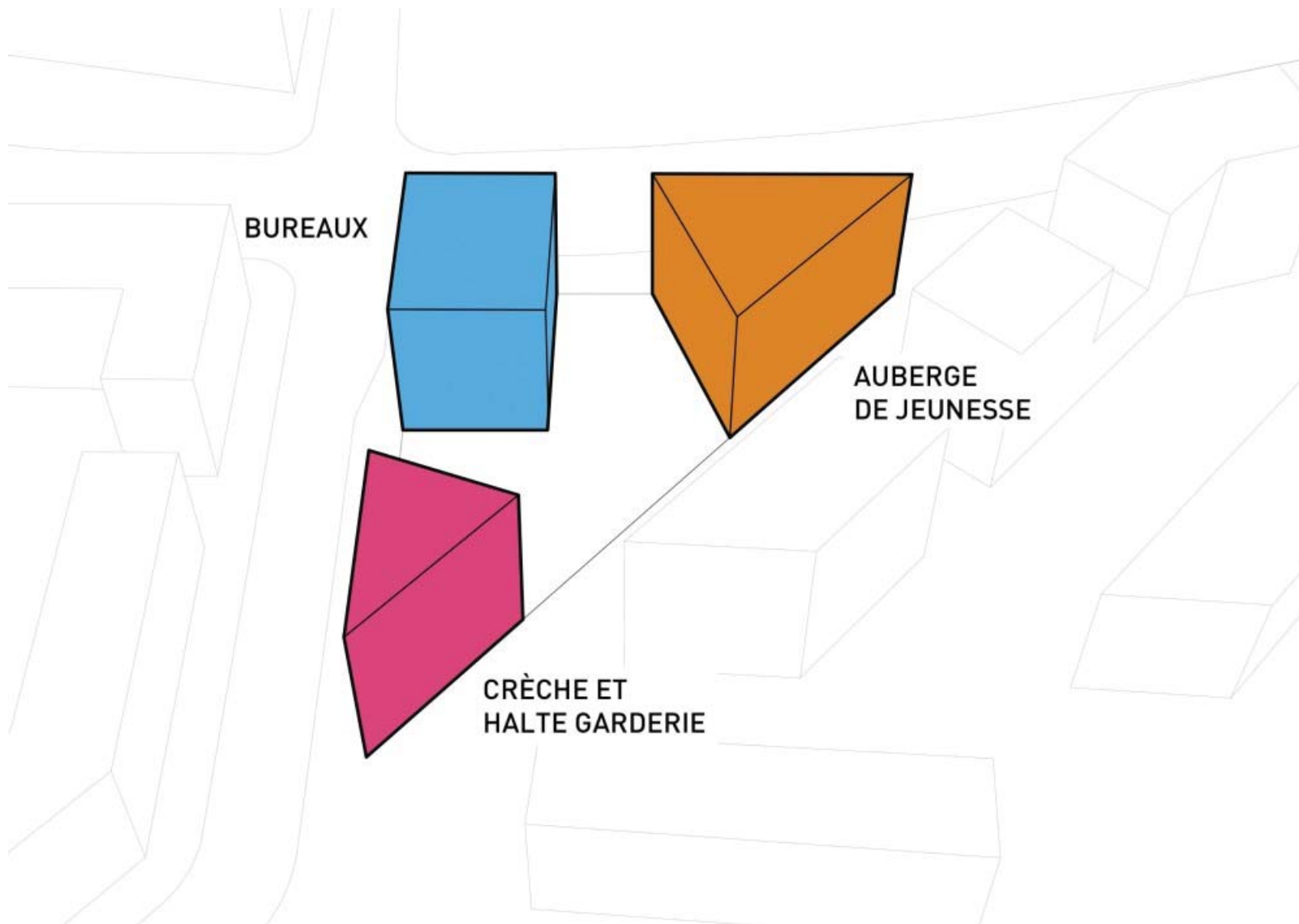


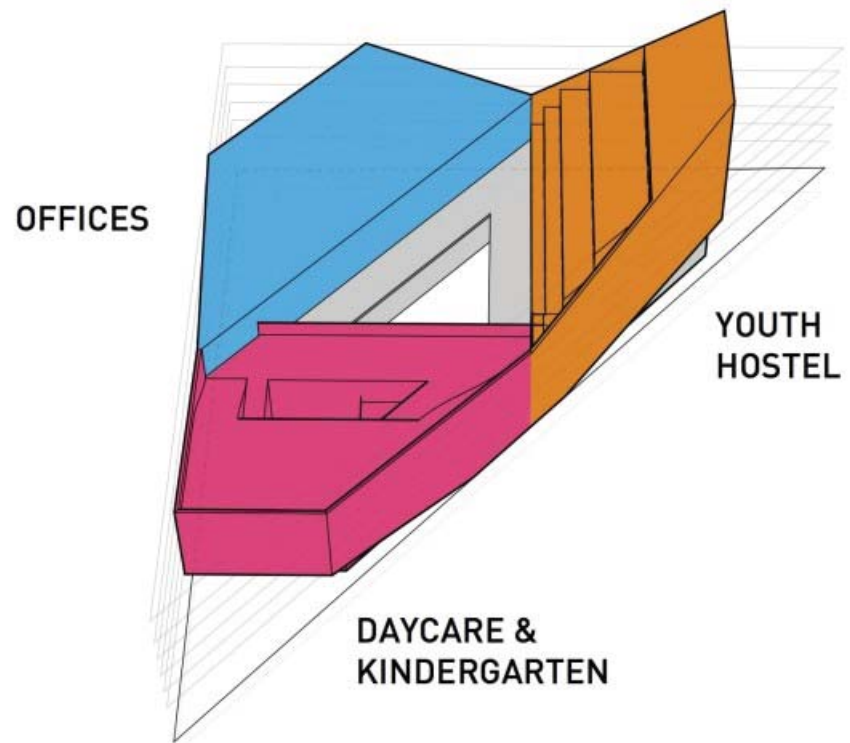
big/new national gallery/groenlandia

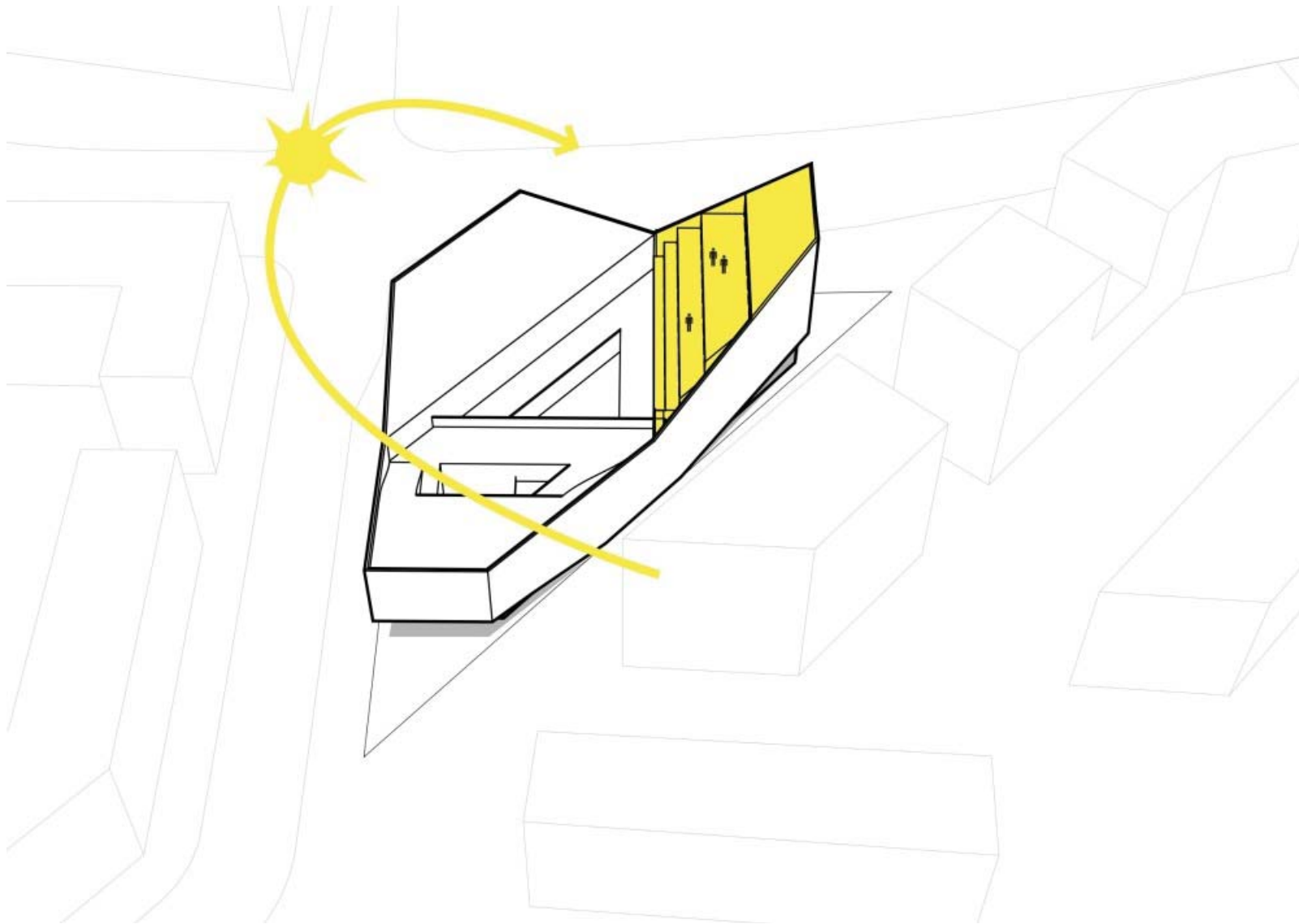


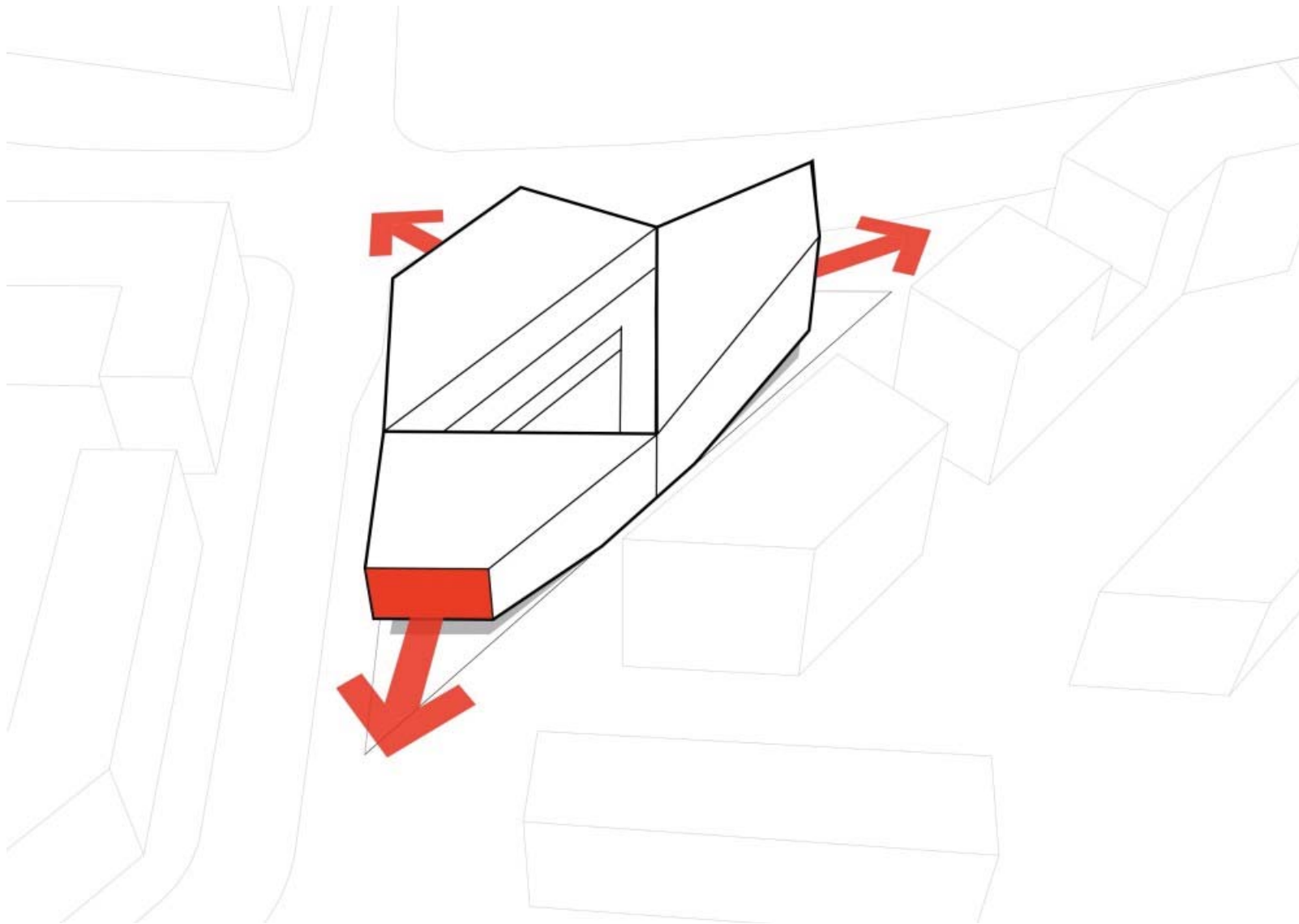


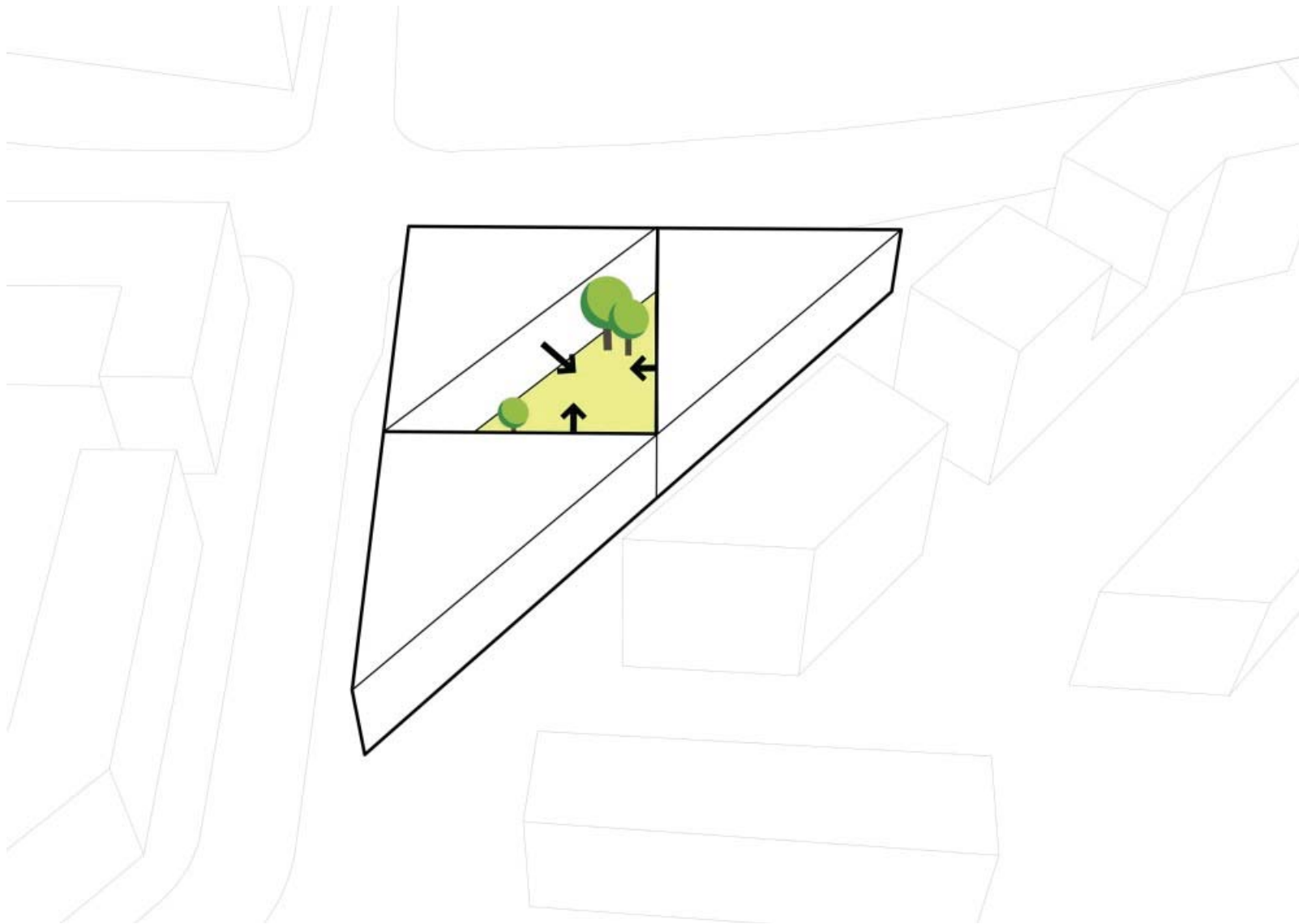


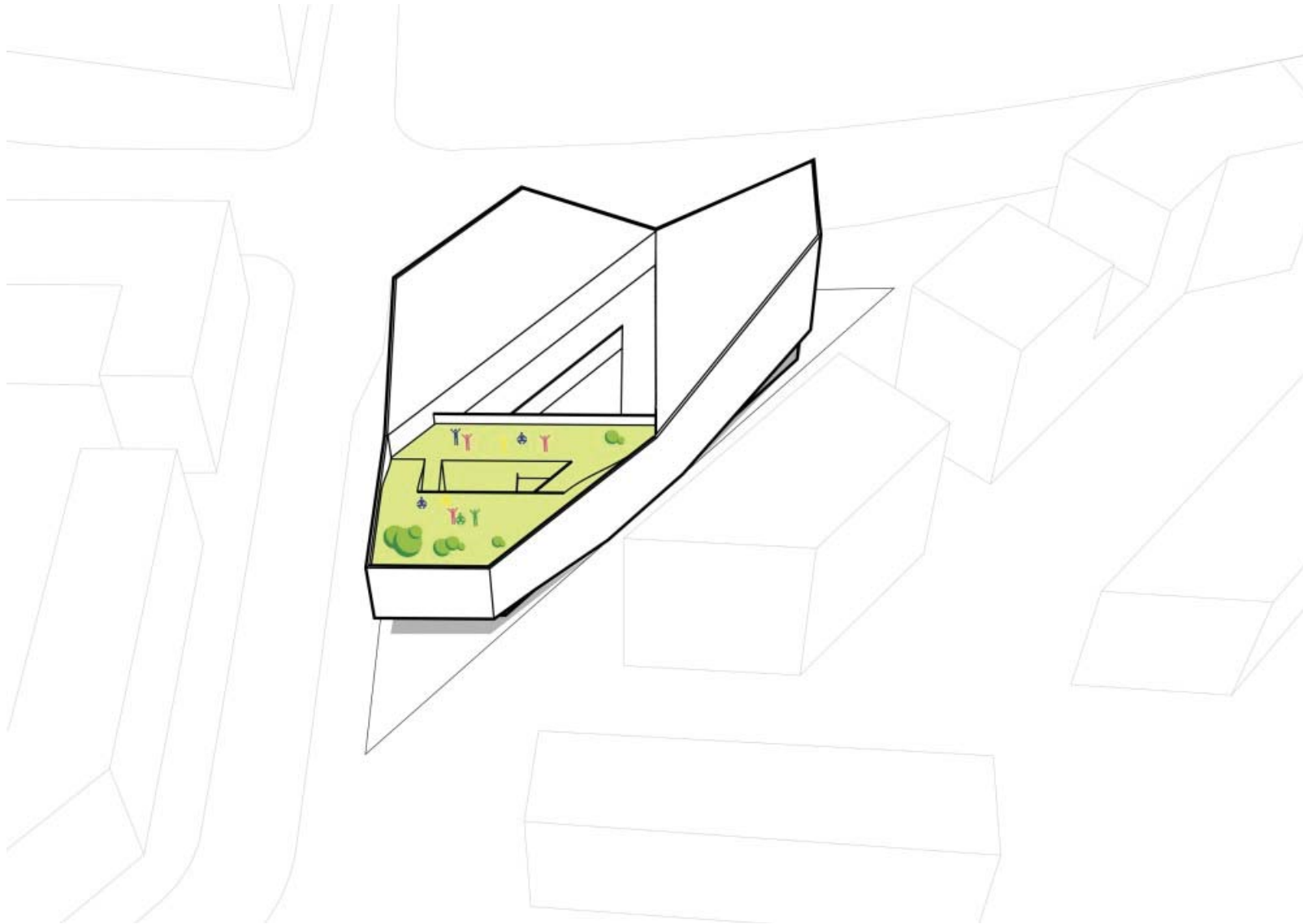


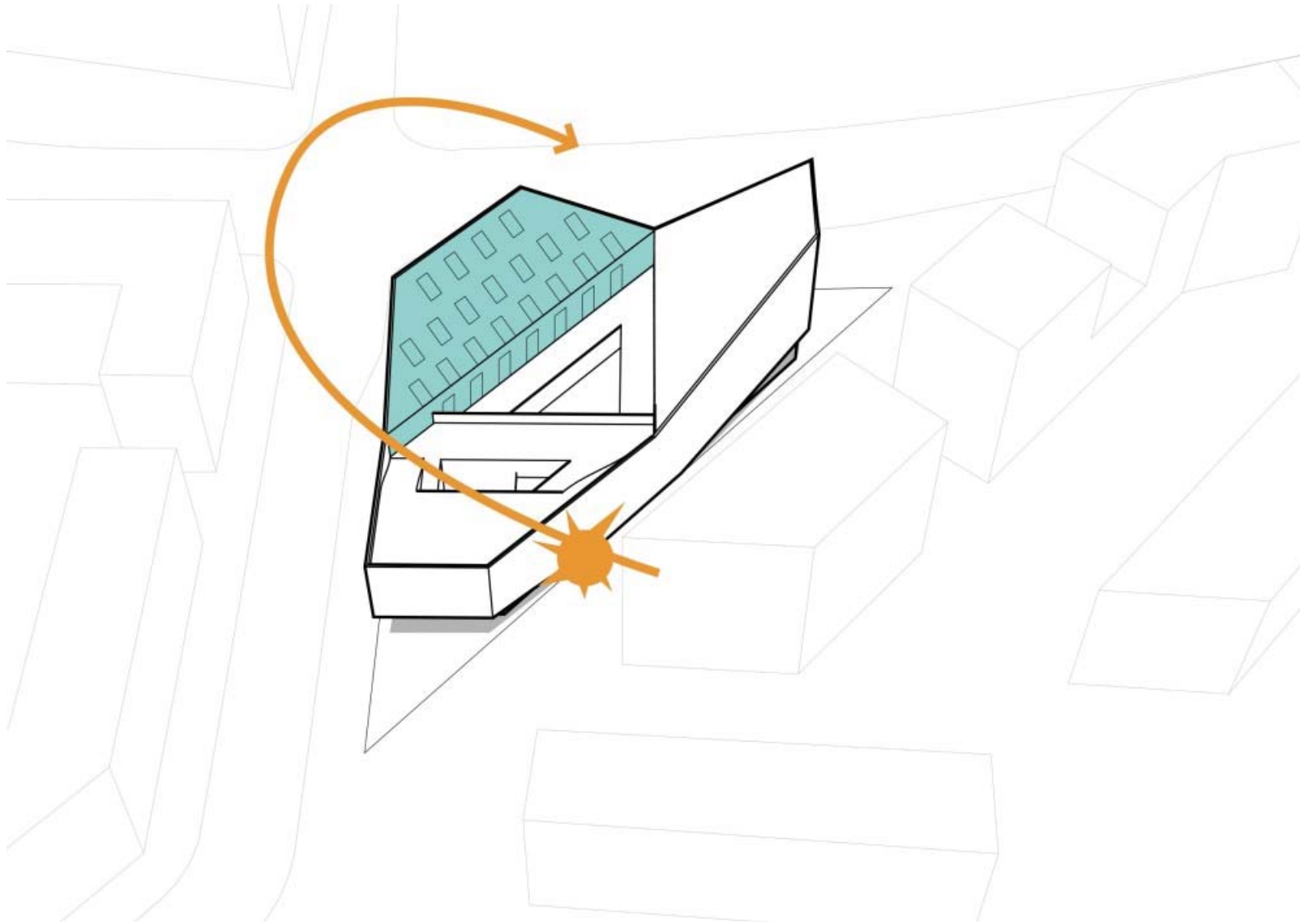


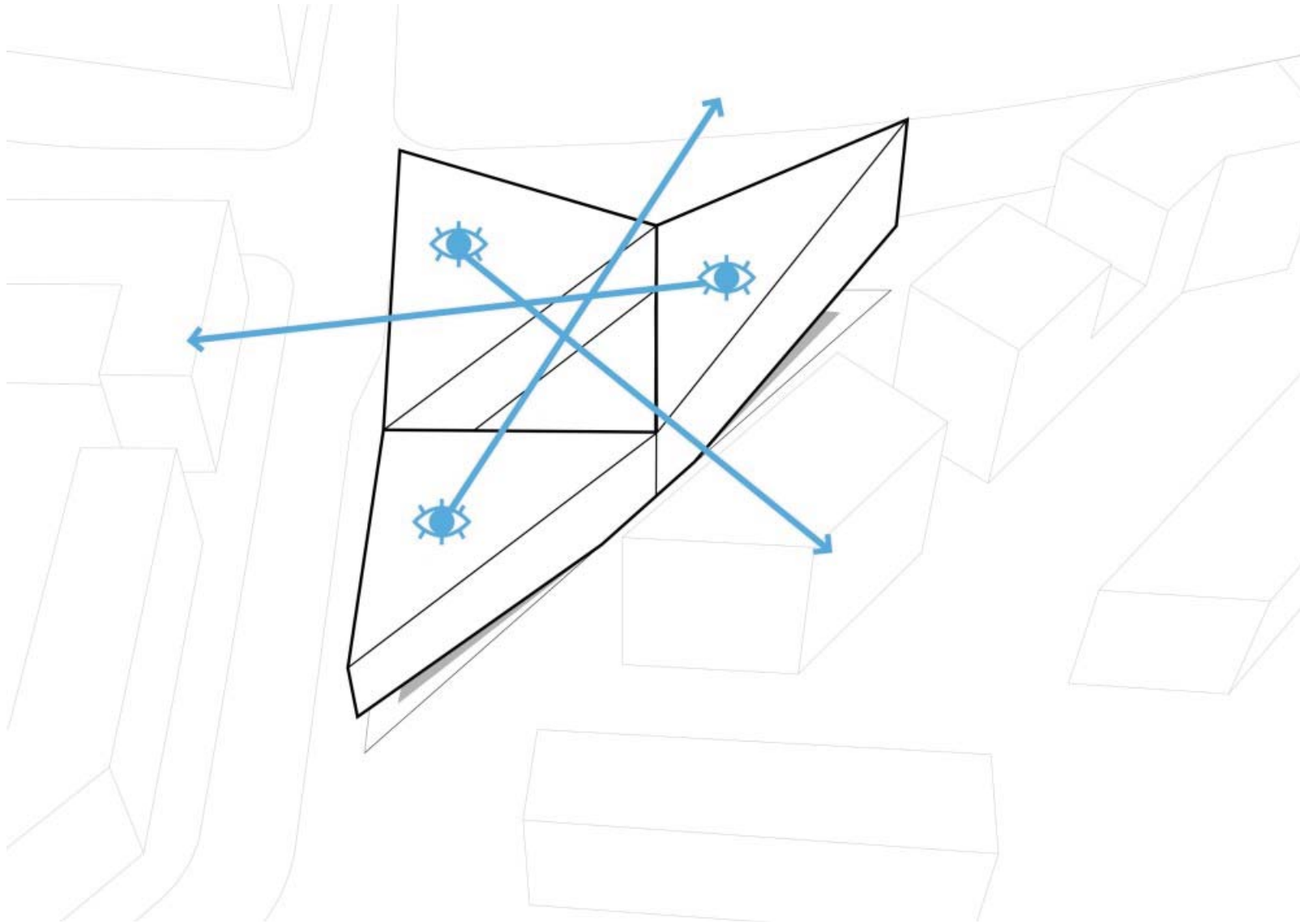


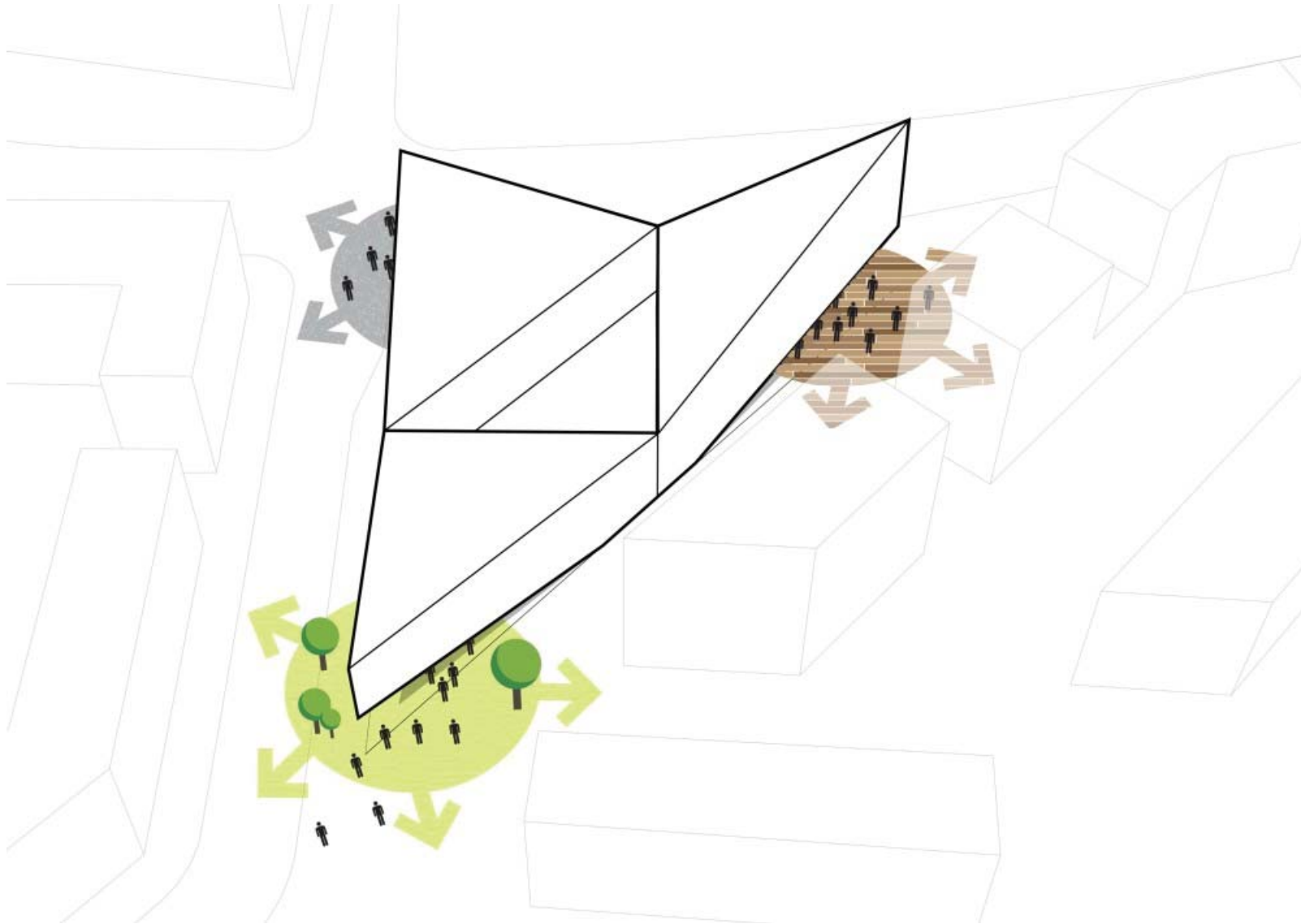






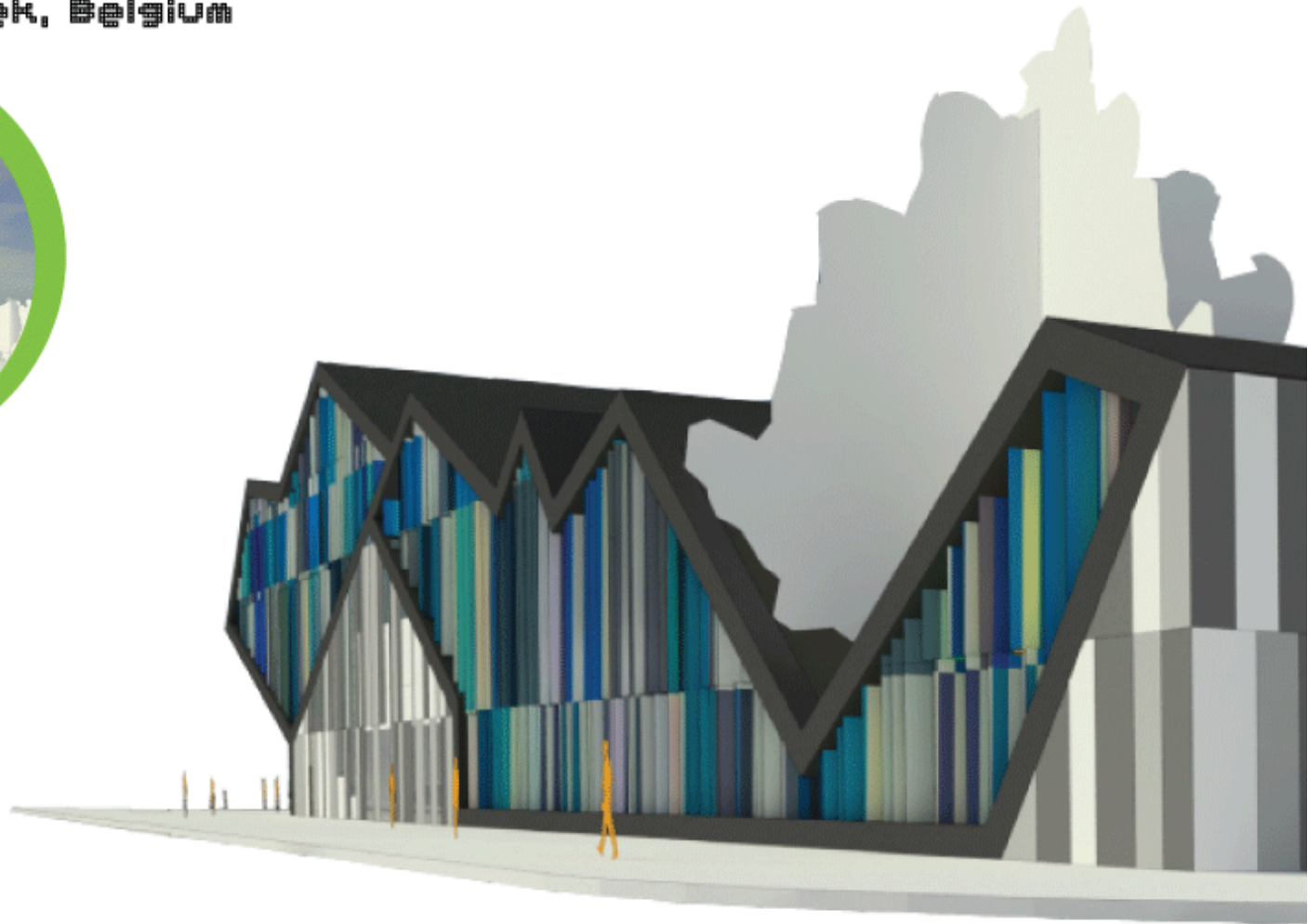
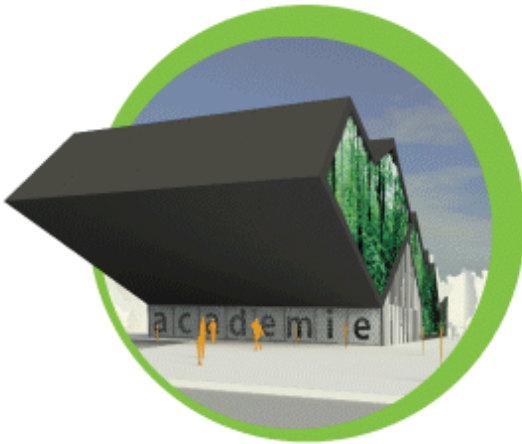






Academy for Music Word and Dance

Dilbeek, Belgium



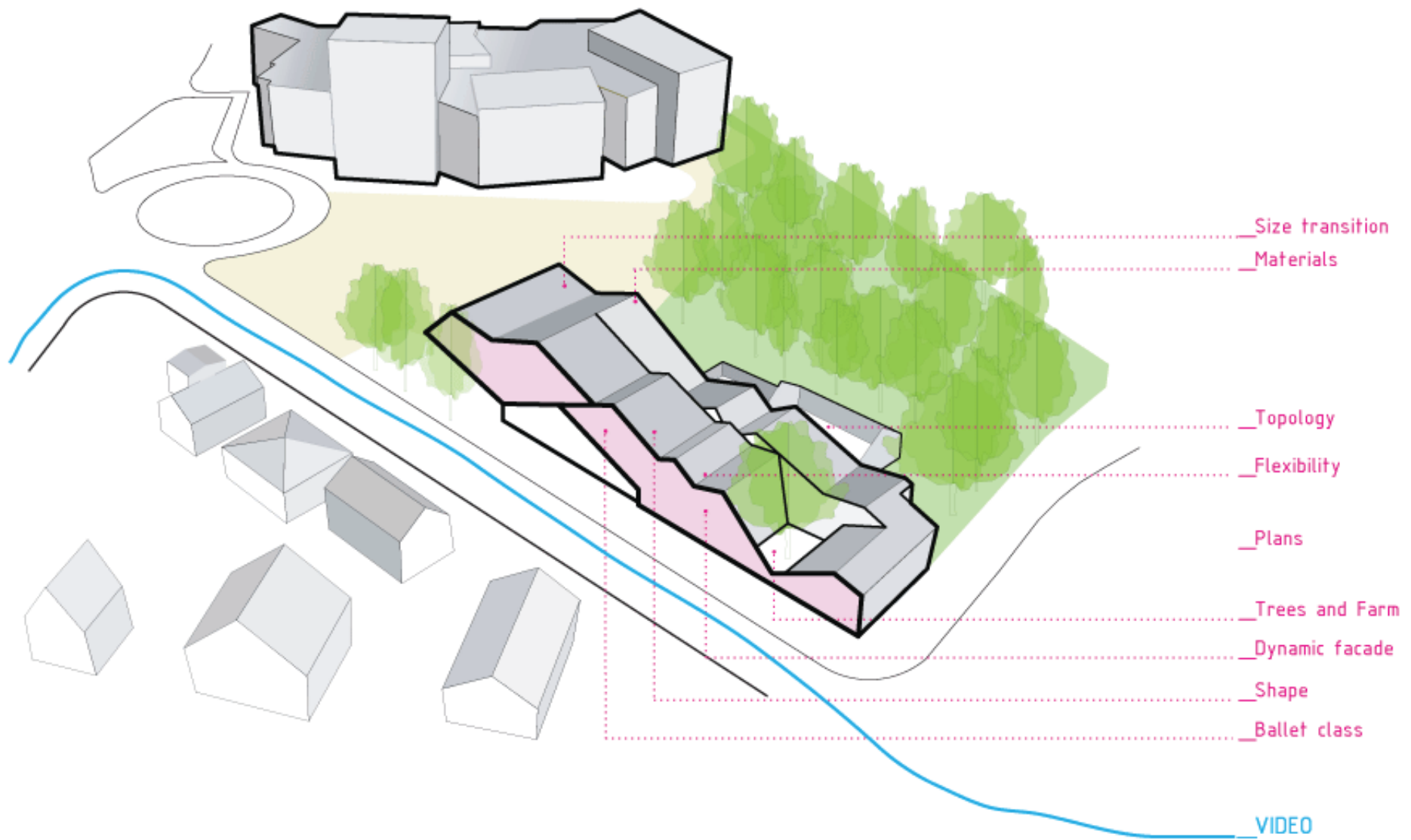
carlos arroyo/academie MWD/dilbeek /belgio



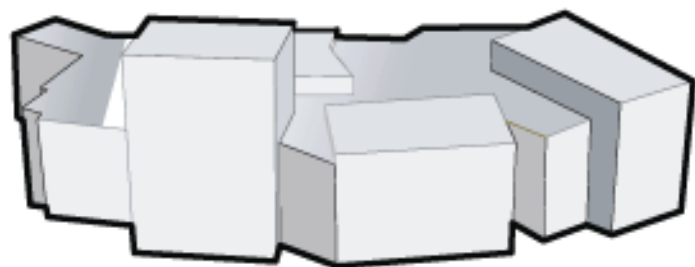
Farm with tree

Parking

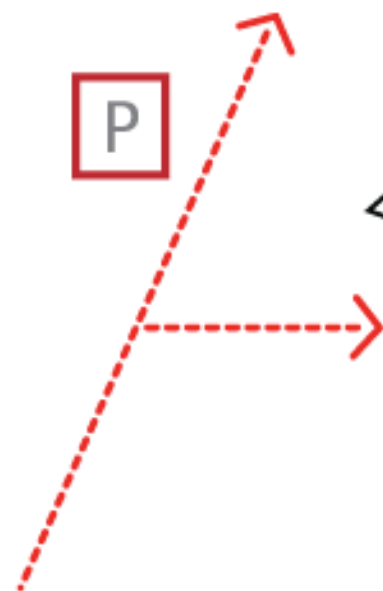




WESTRAND



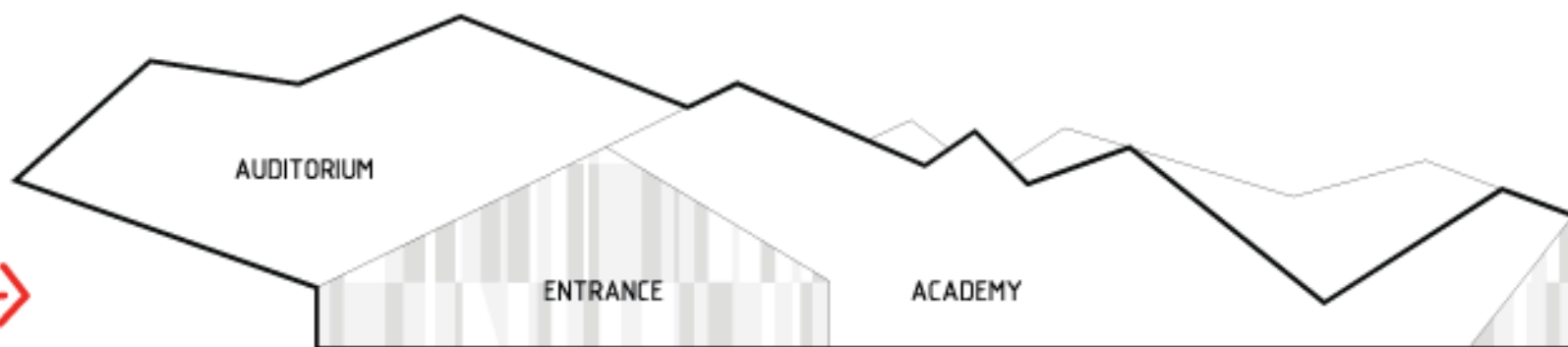
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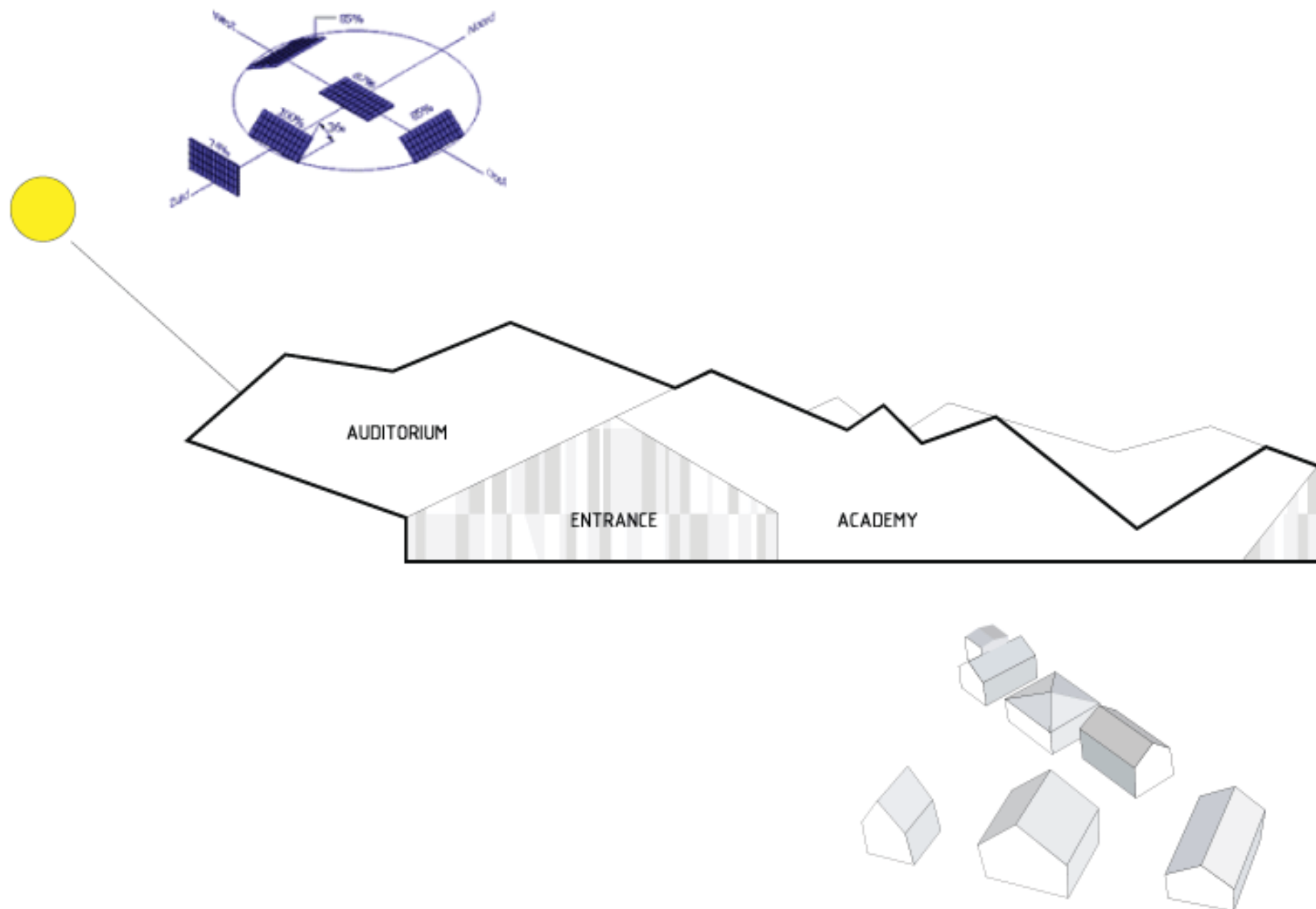


AUDITORIUM

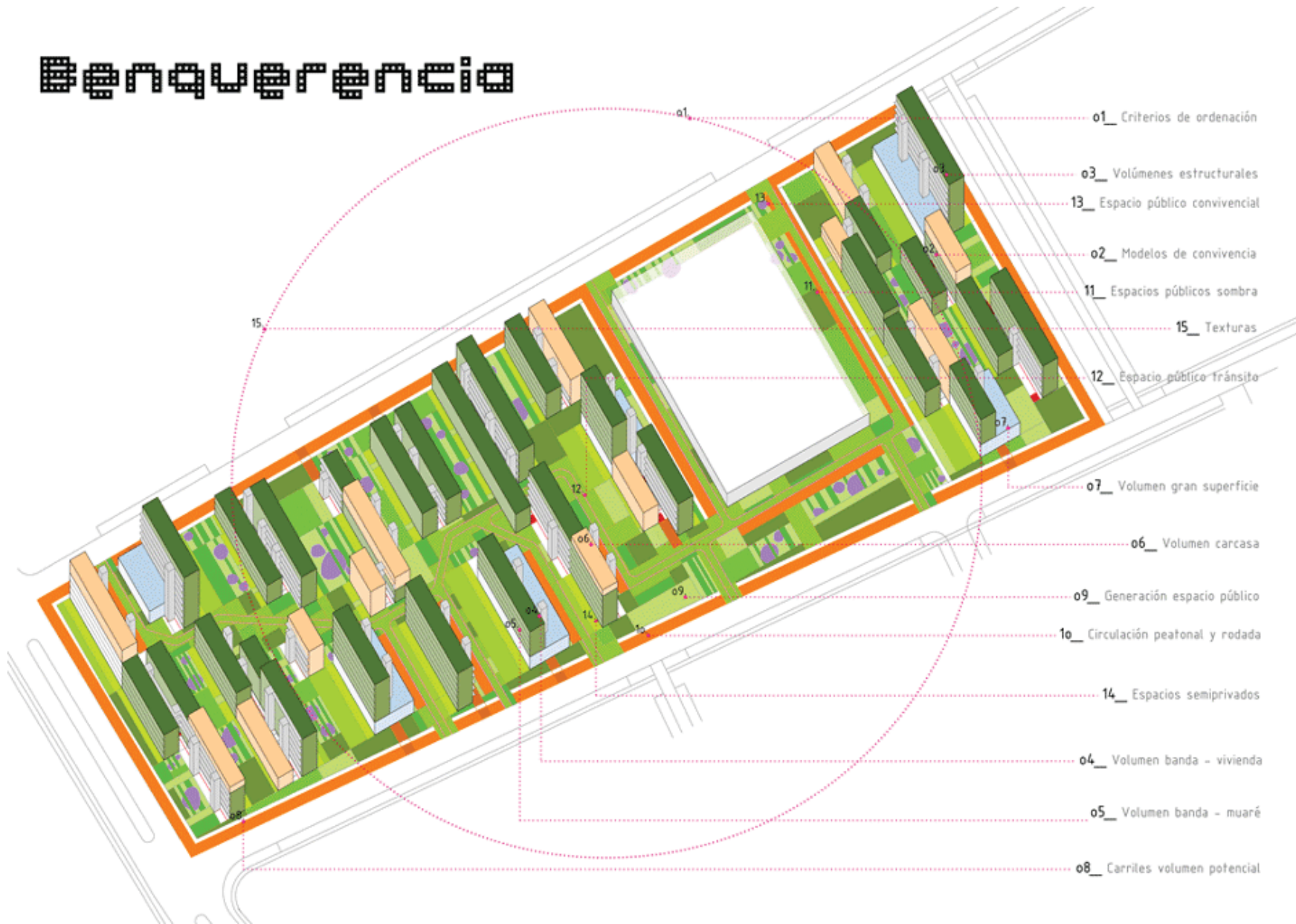
ENTRANCE

ACADEMY

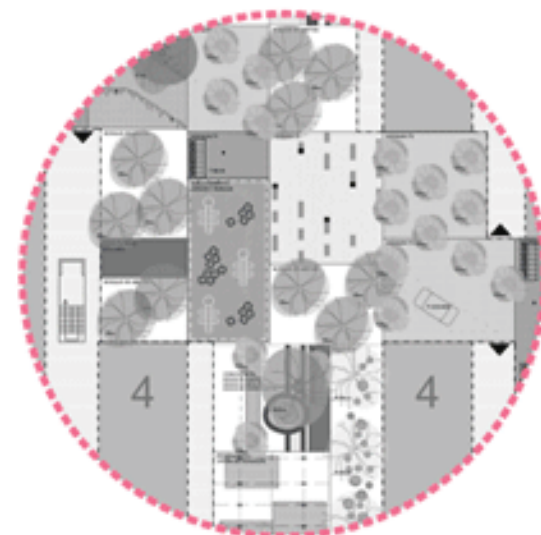
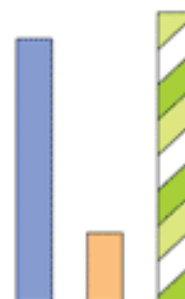
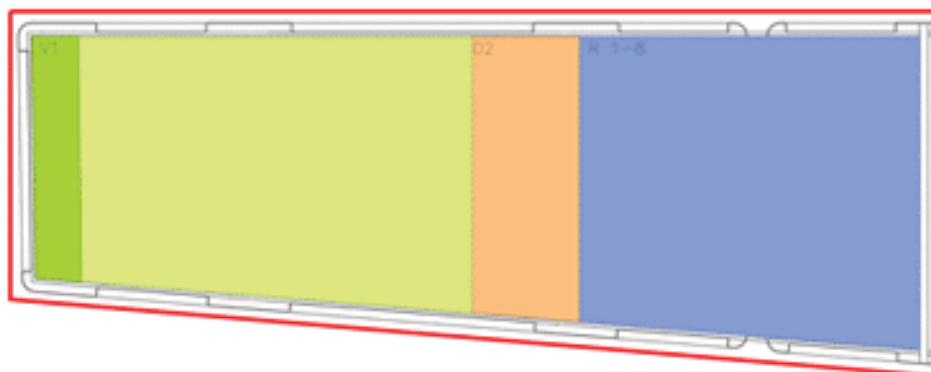
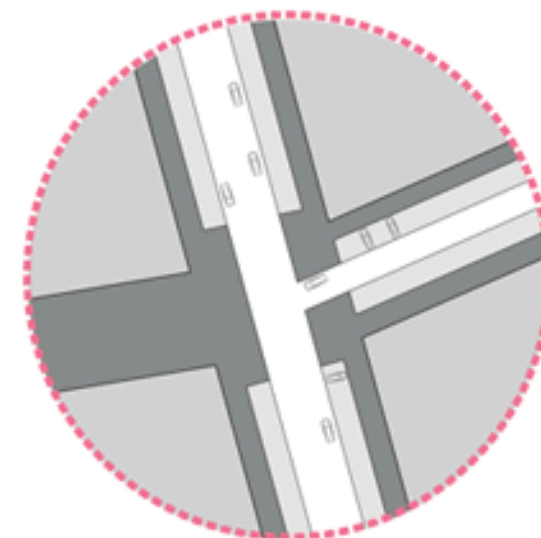
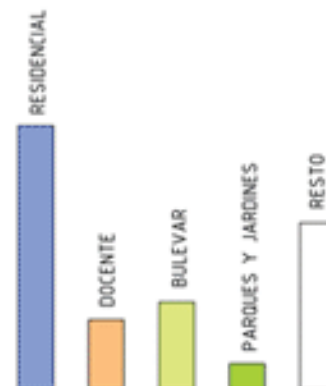
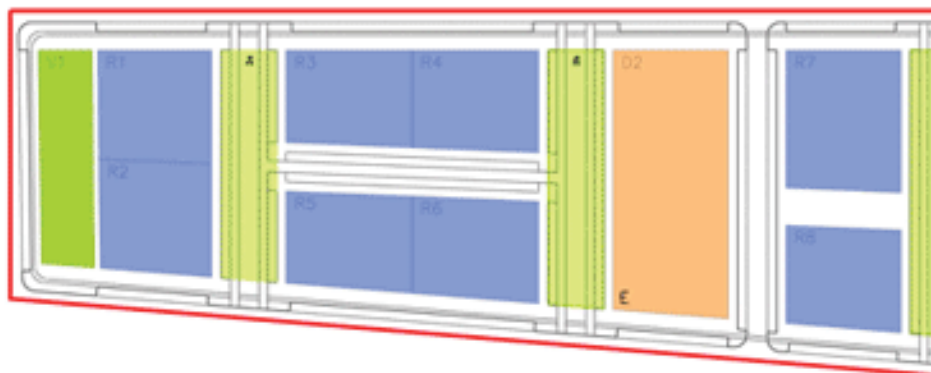




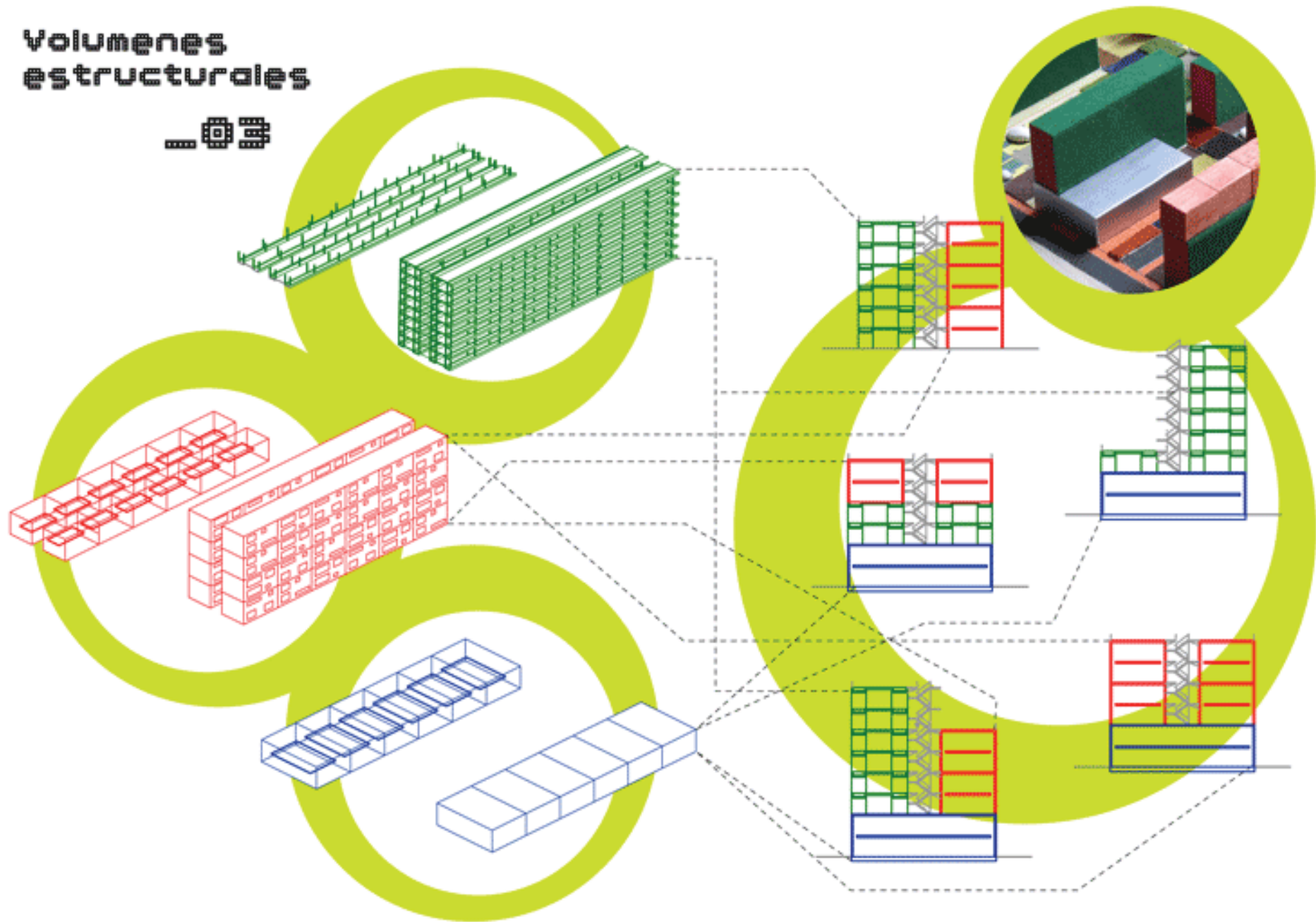
Benquerencia



Criterios de ordenacion

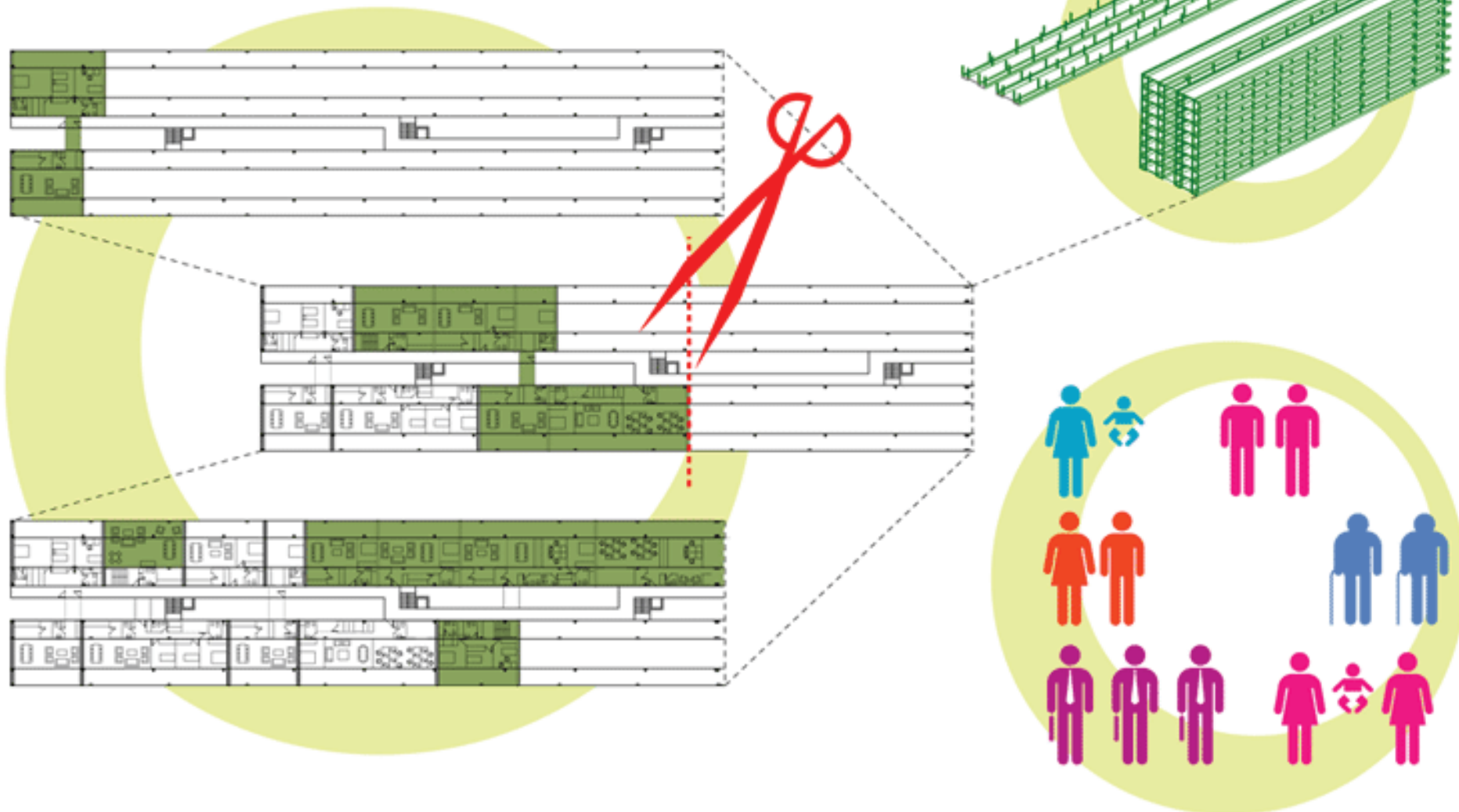


Volumenes estructurales

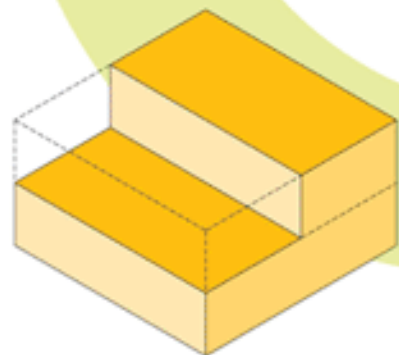
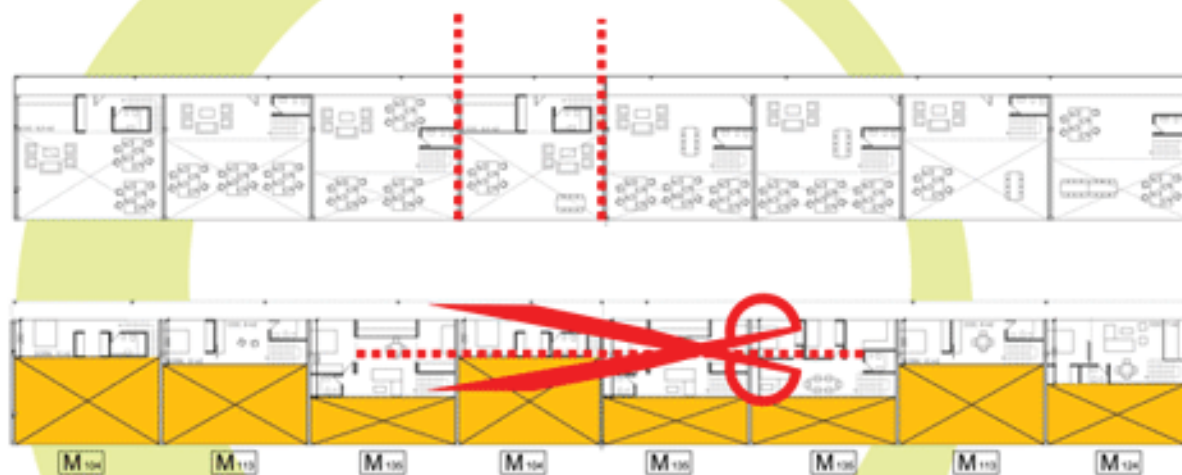


Volumen banda - vivienda al corte

05

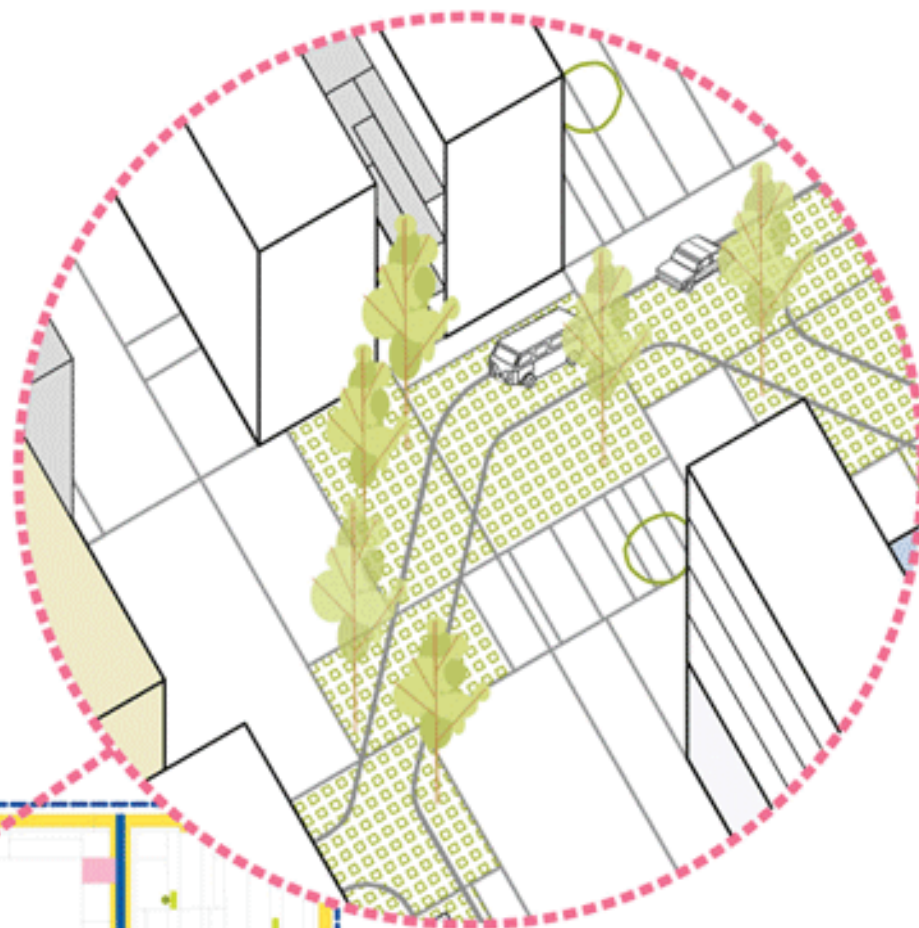


Volumen
carcasa

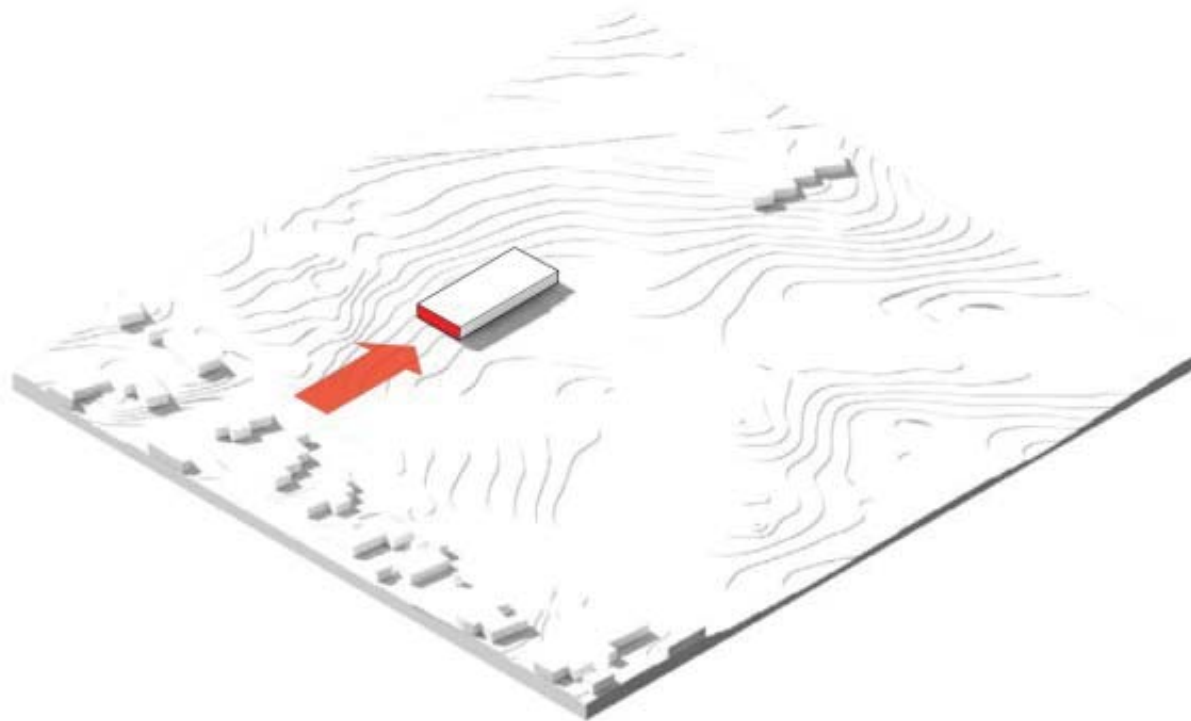


Trafico rodado y peatonal

11



NO FACADE TO NEIGHBOURHOOD



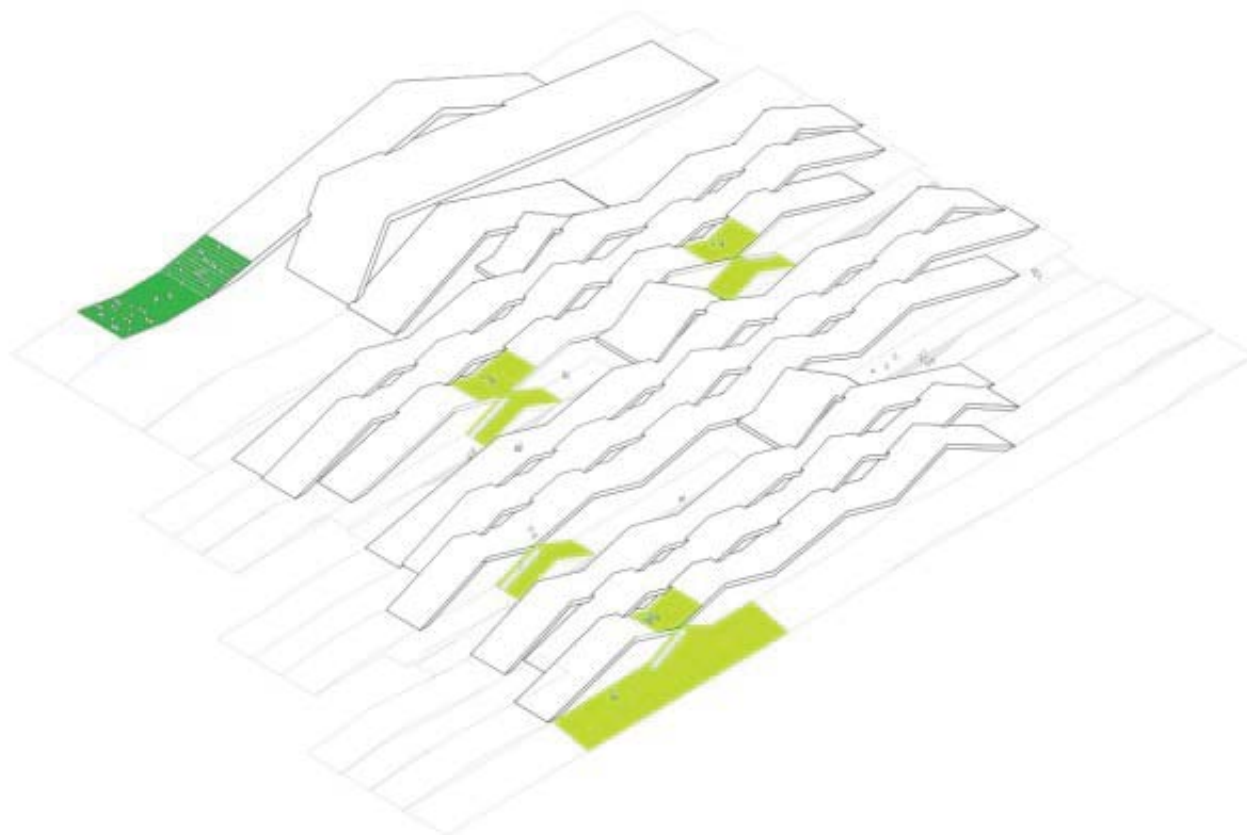
LANDSCAPE ROOF



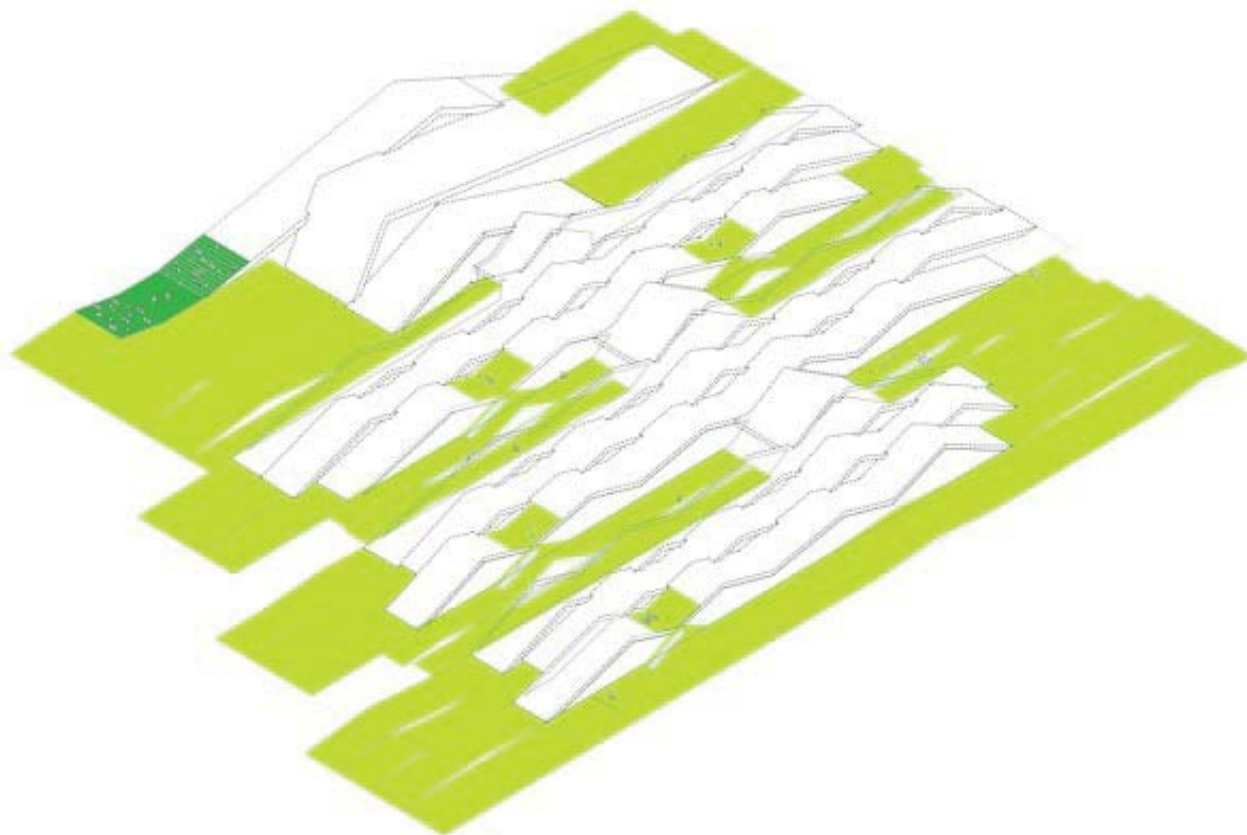
VIEW TO LANDSCAPE



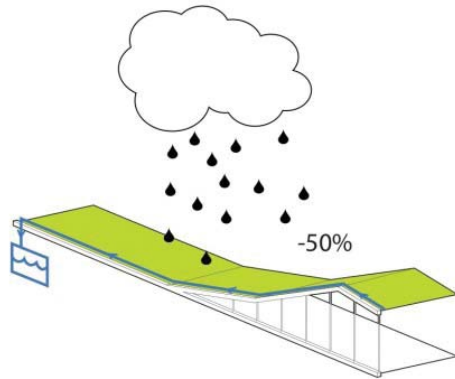
ROOF TERRACES



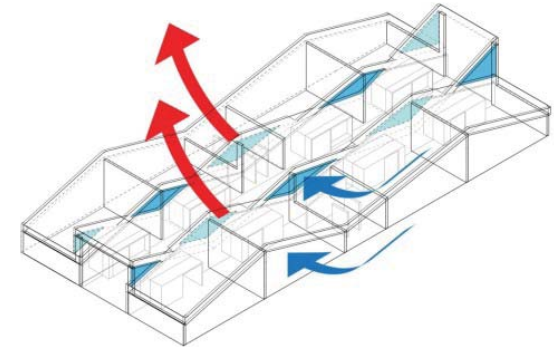
COURTYARDS



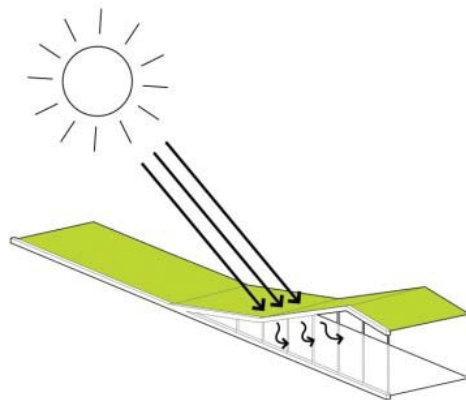
WATER RUNOFF REDUCTION & STORAGE



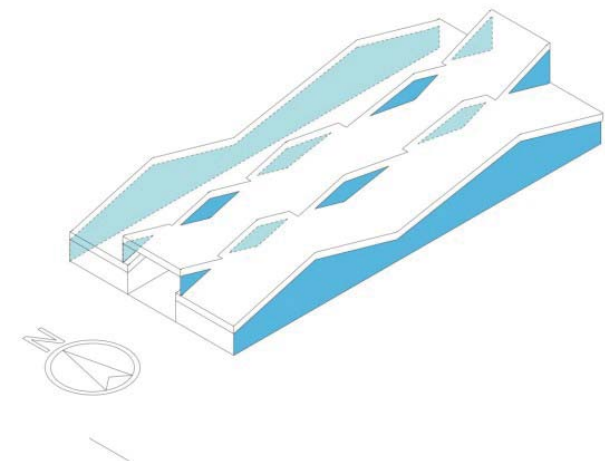
VENTILATION

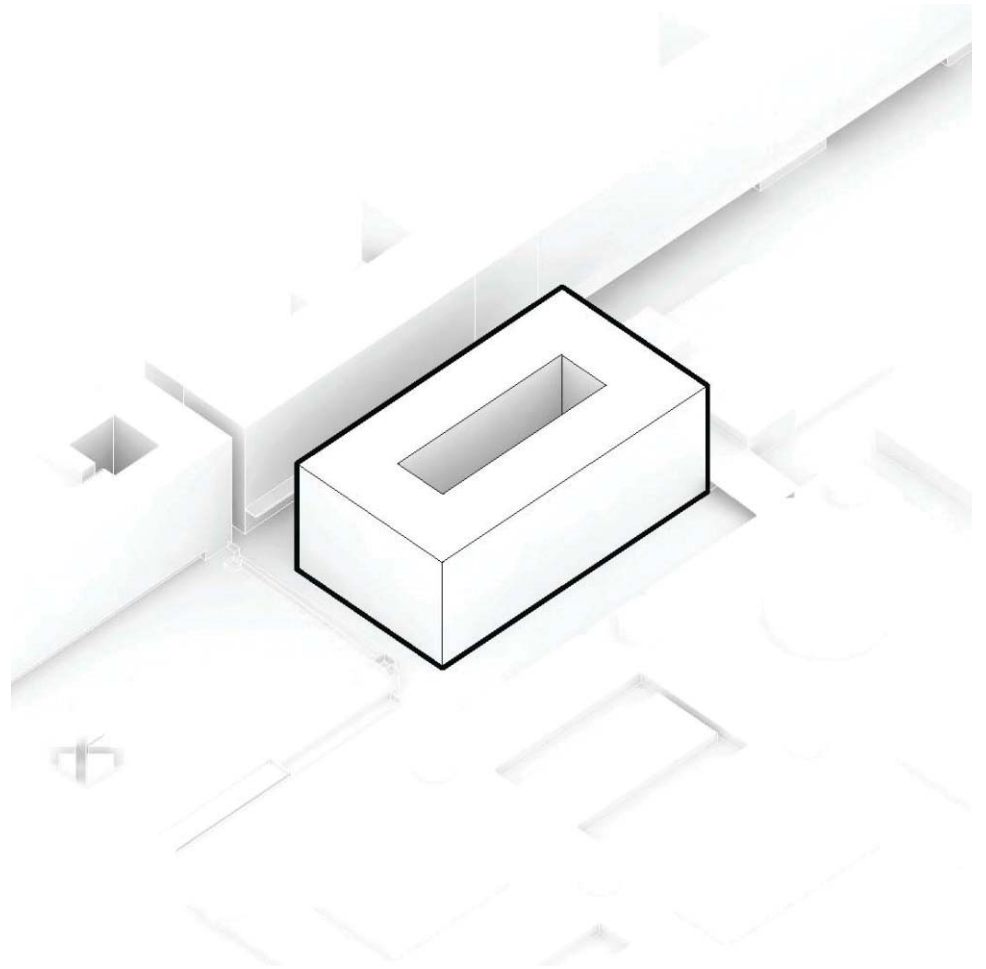
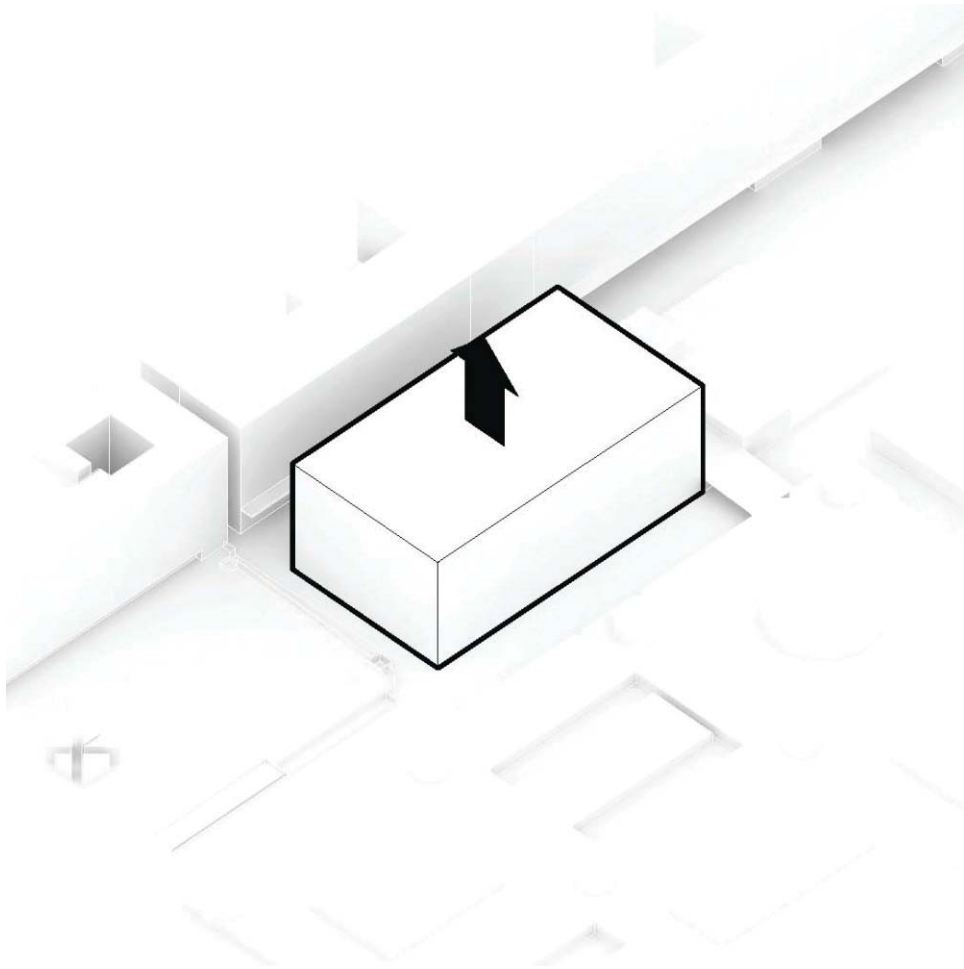


THERMAL MASS

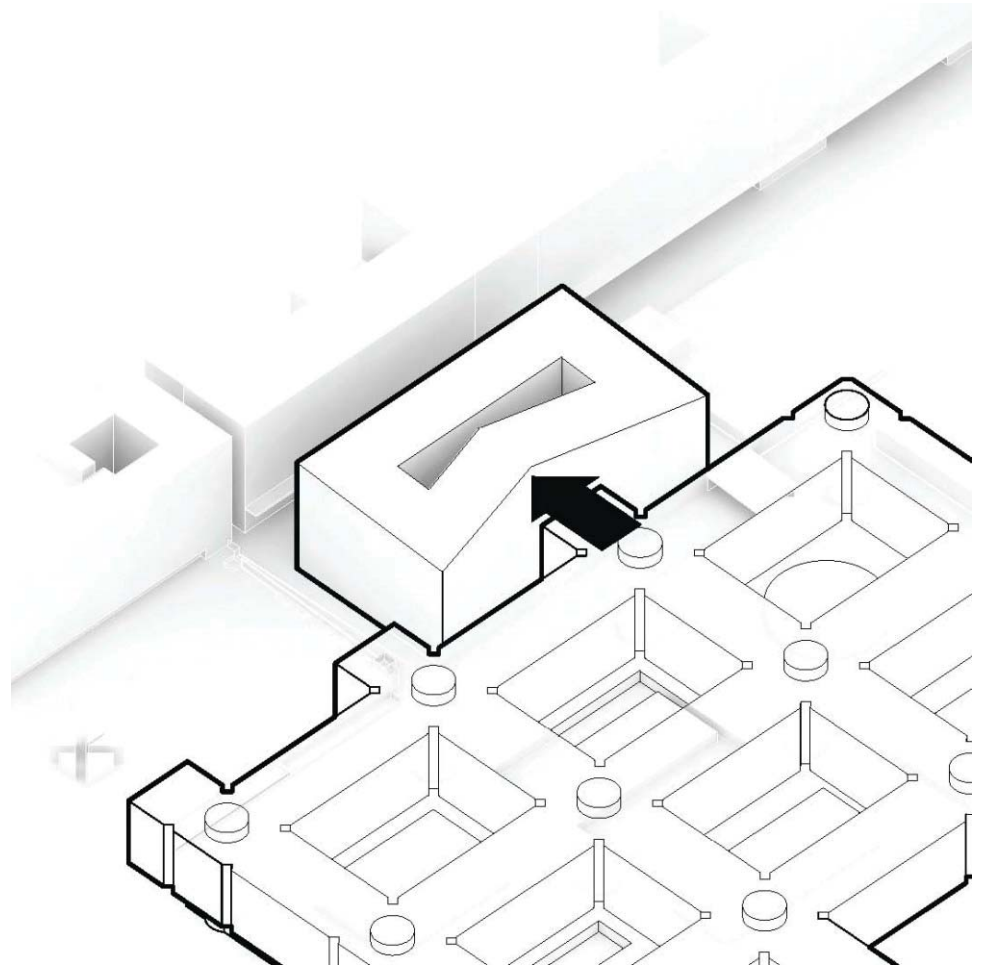
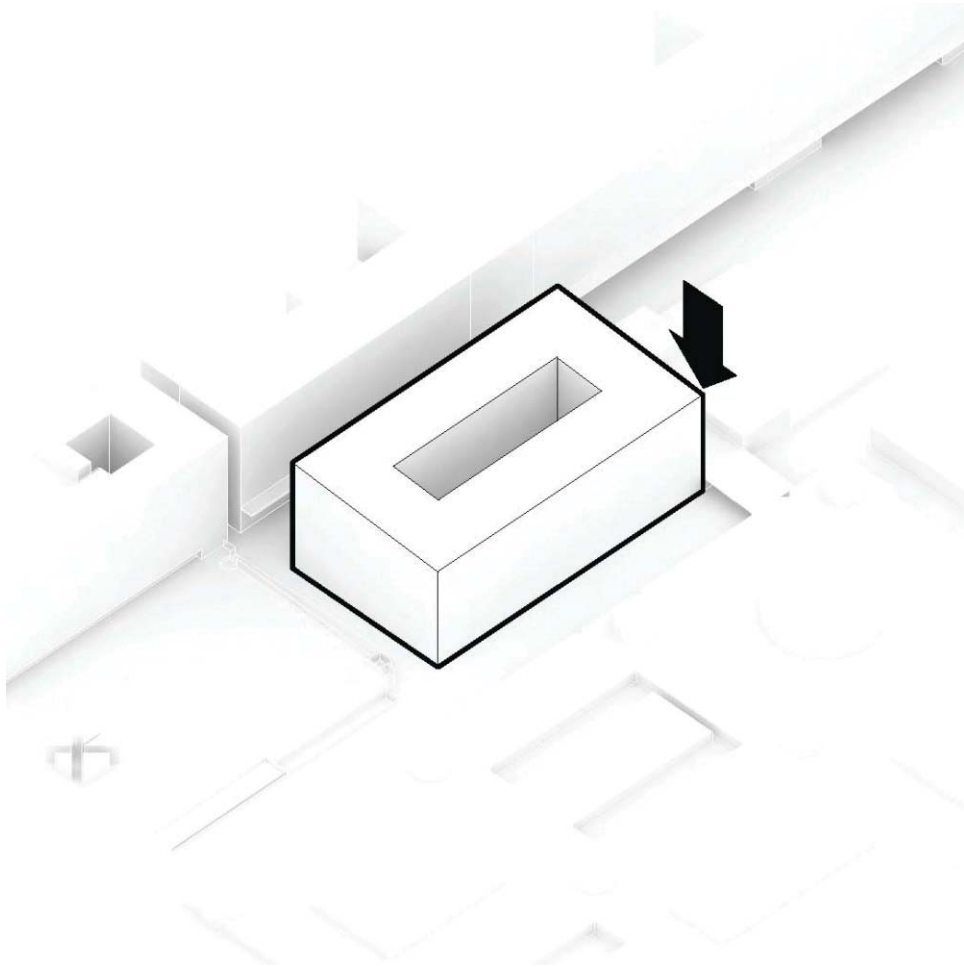


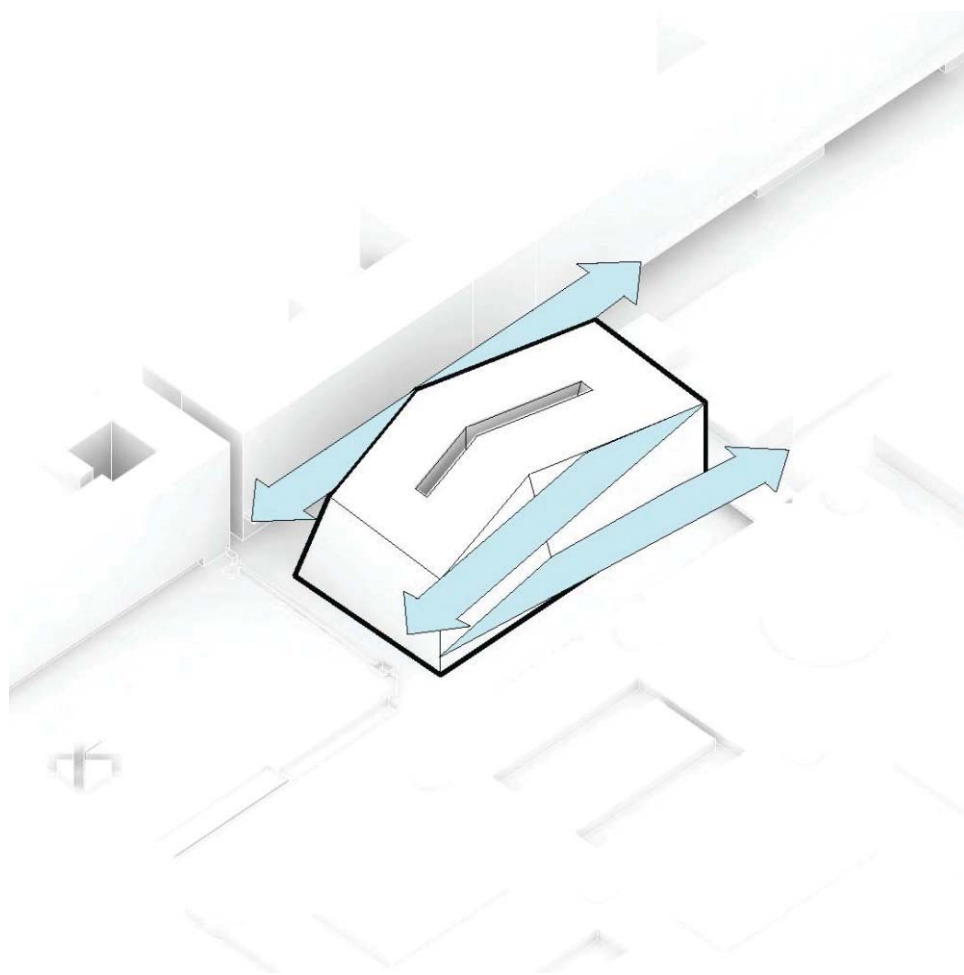
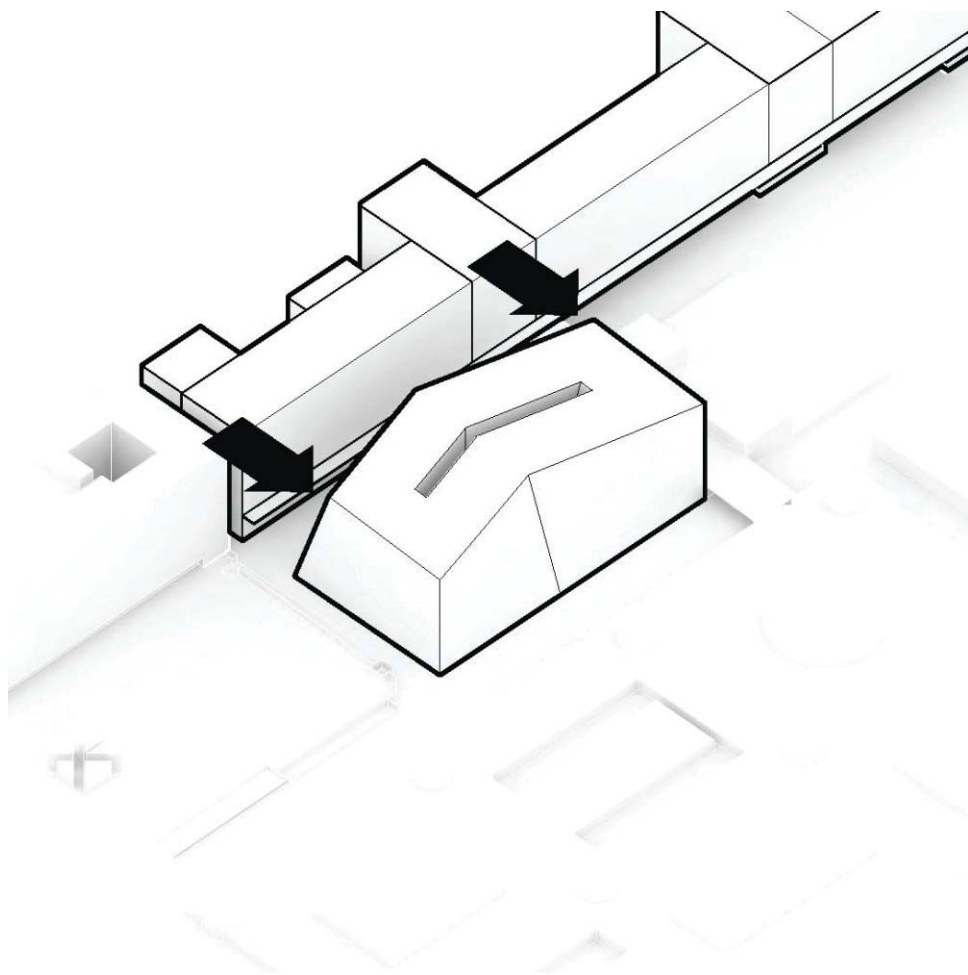
DAY LIGHT

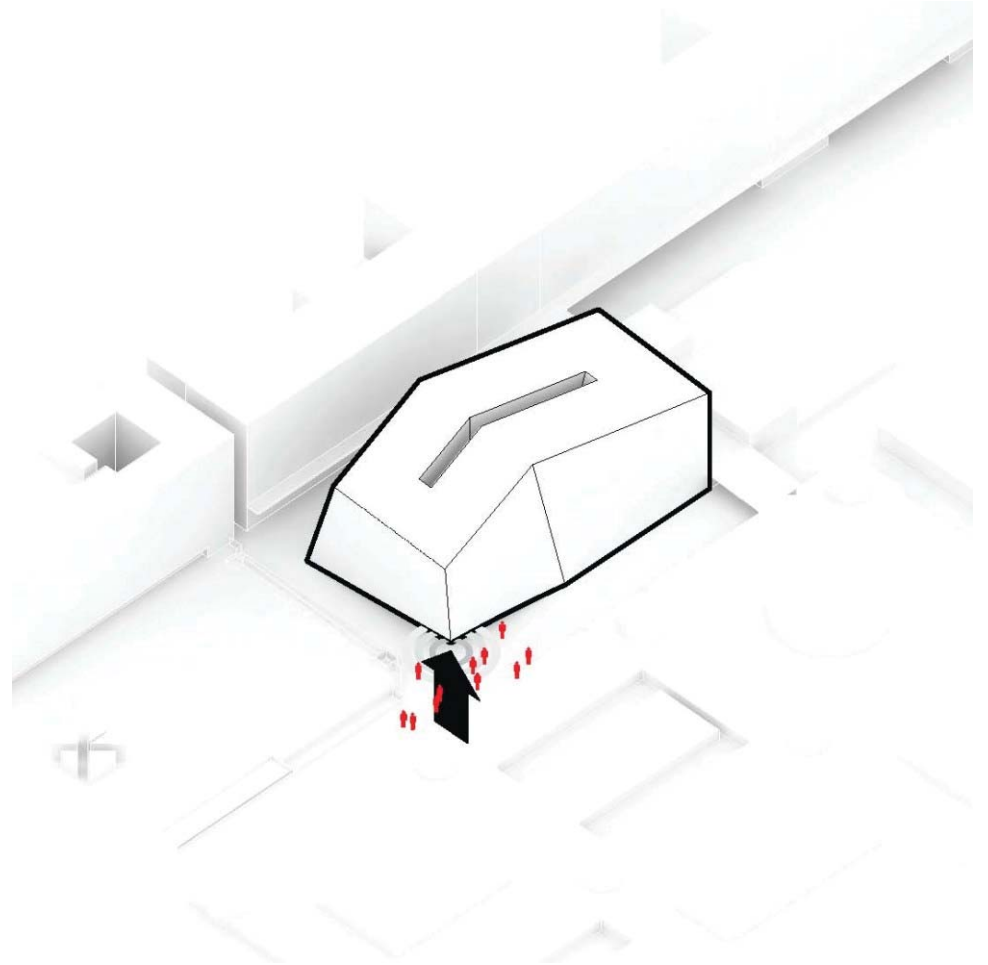
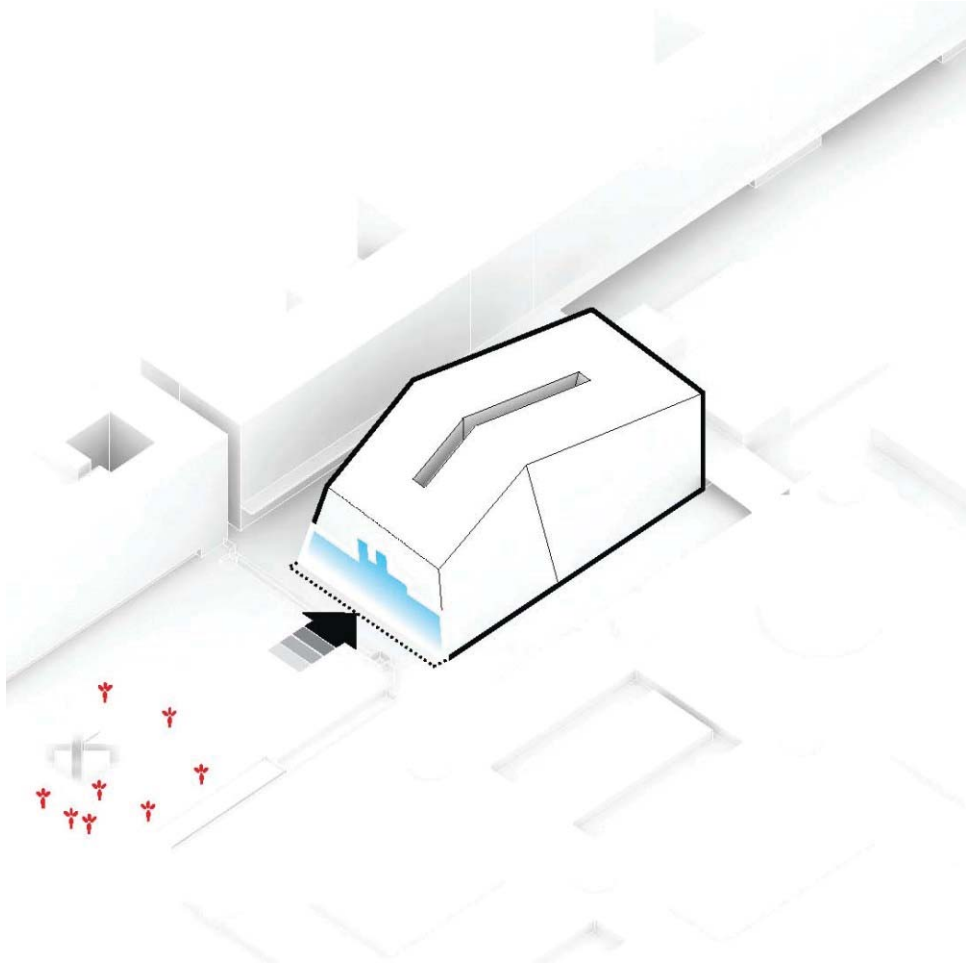


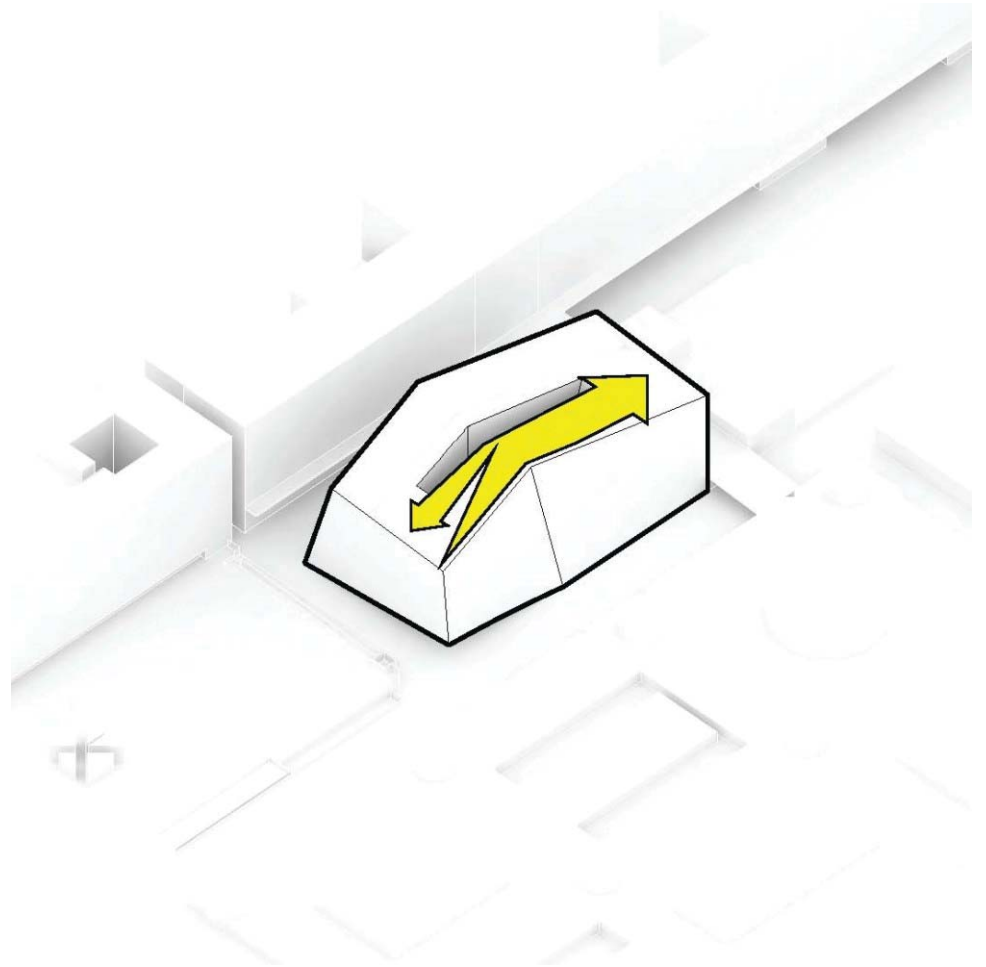
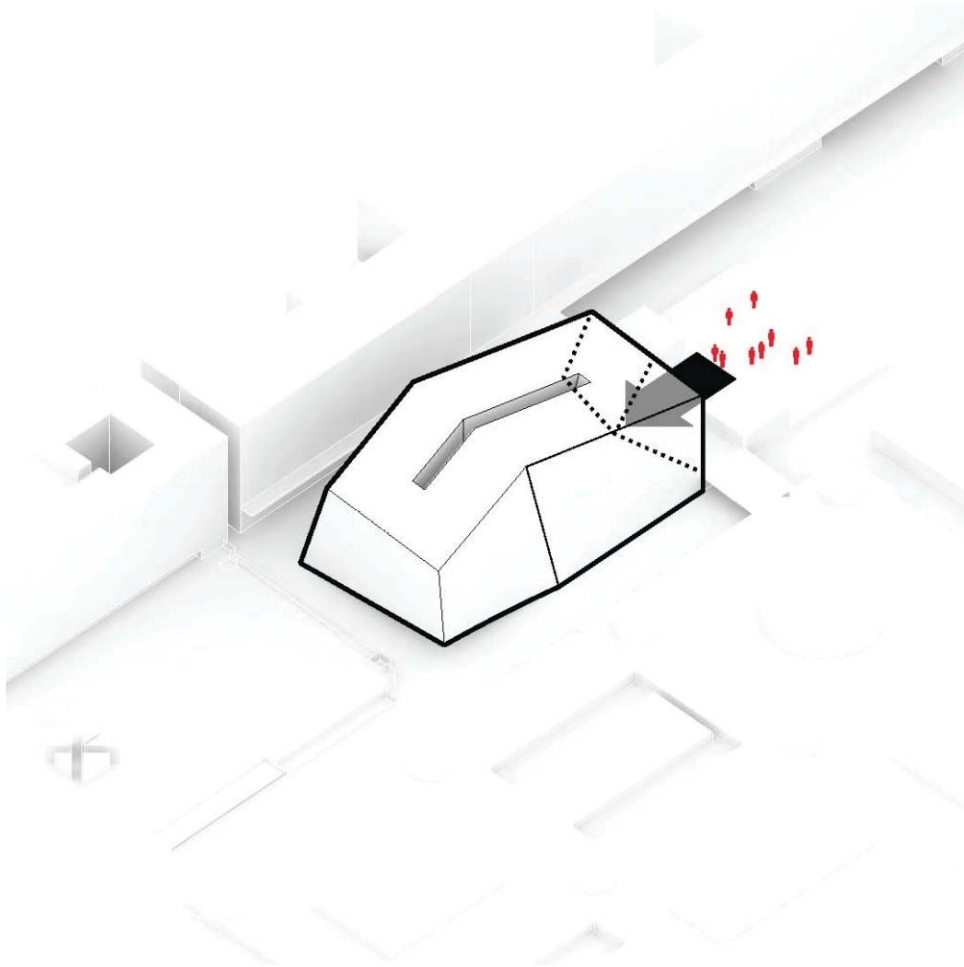


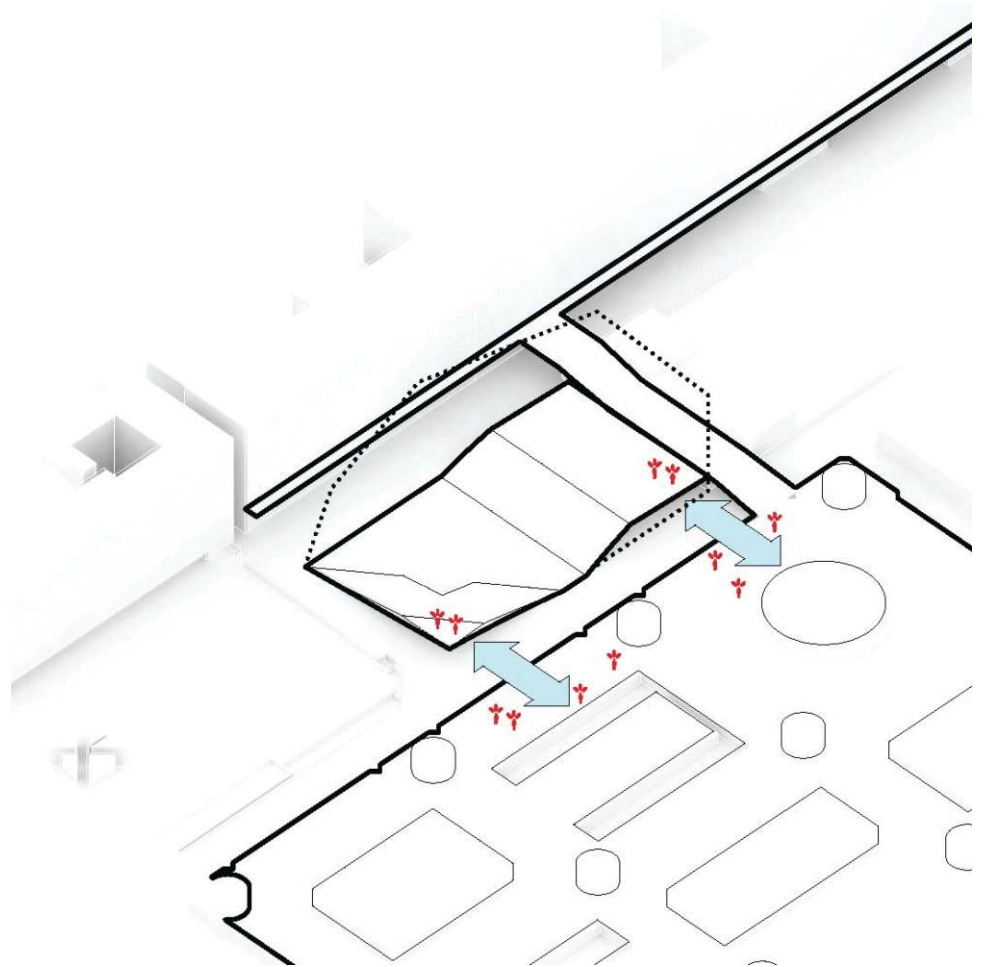
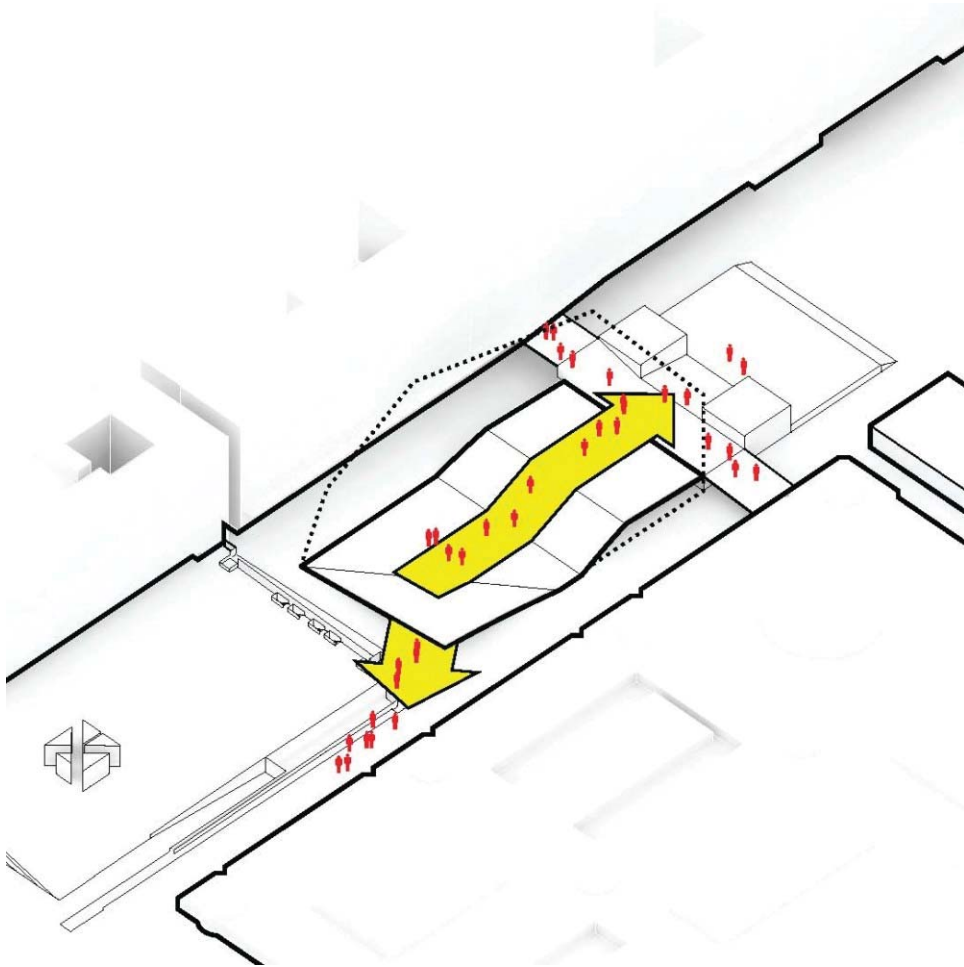
big + off/research centre of the university of jussieu/parigi/francia/2011

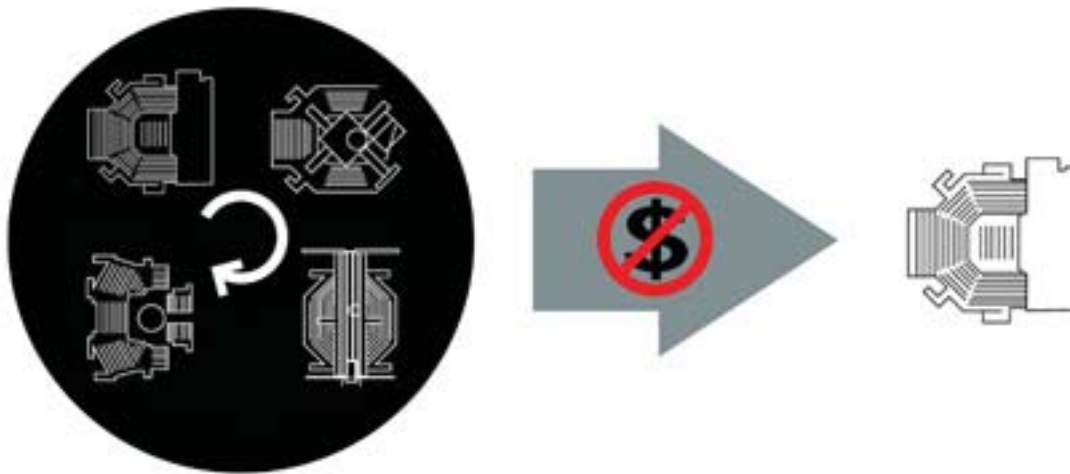






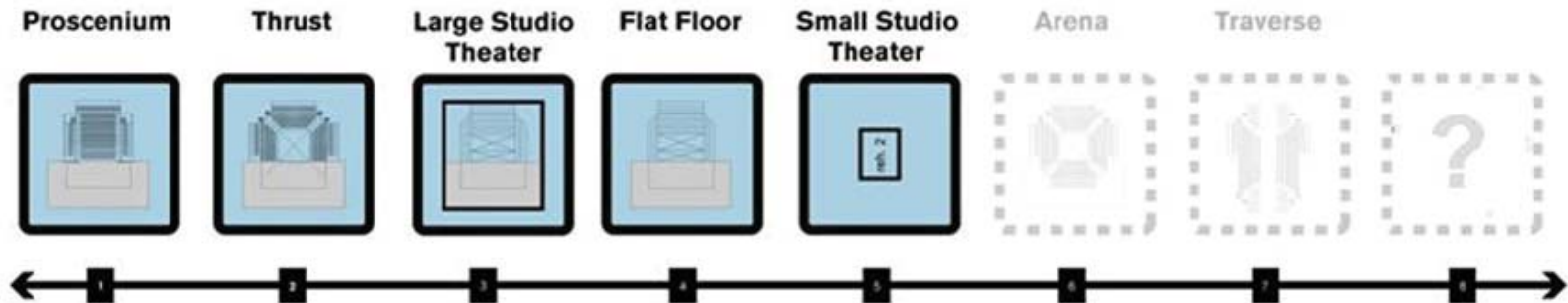




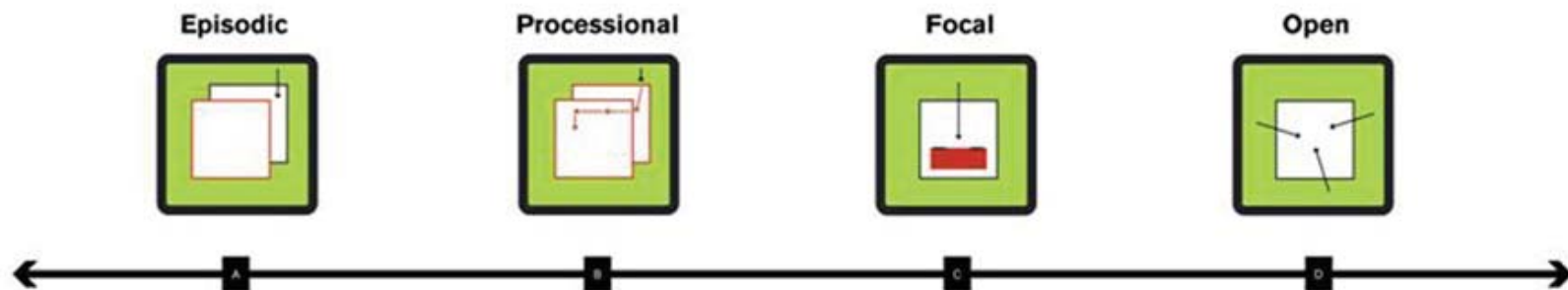


oma/bryghusgrunden mixed use/copenaghen/2008

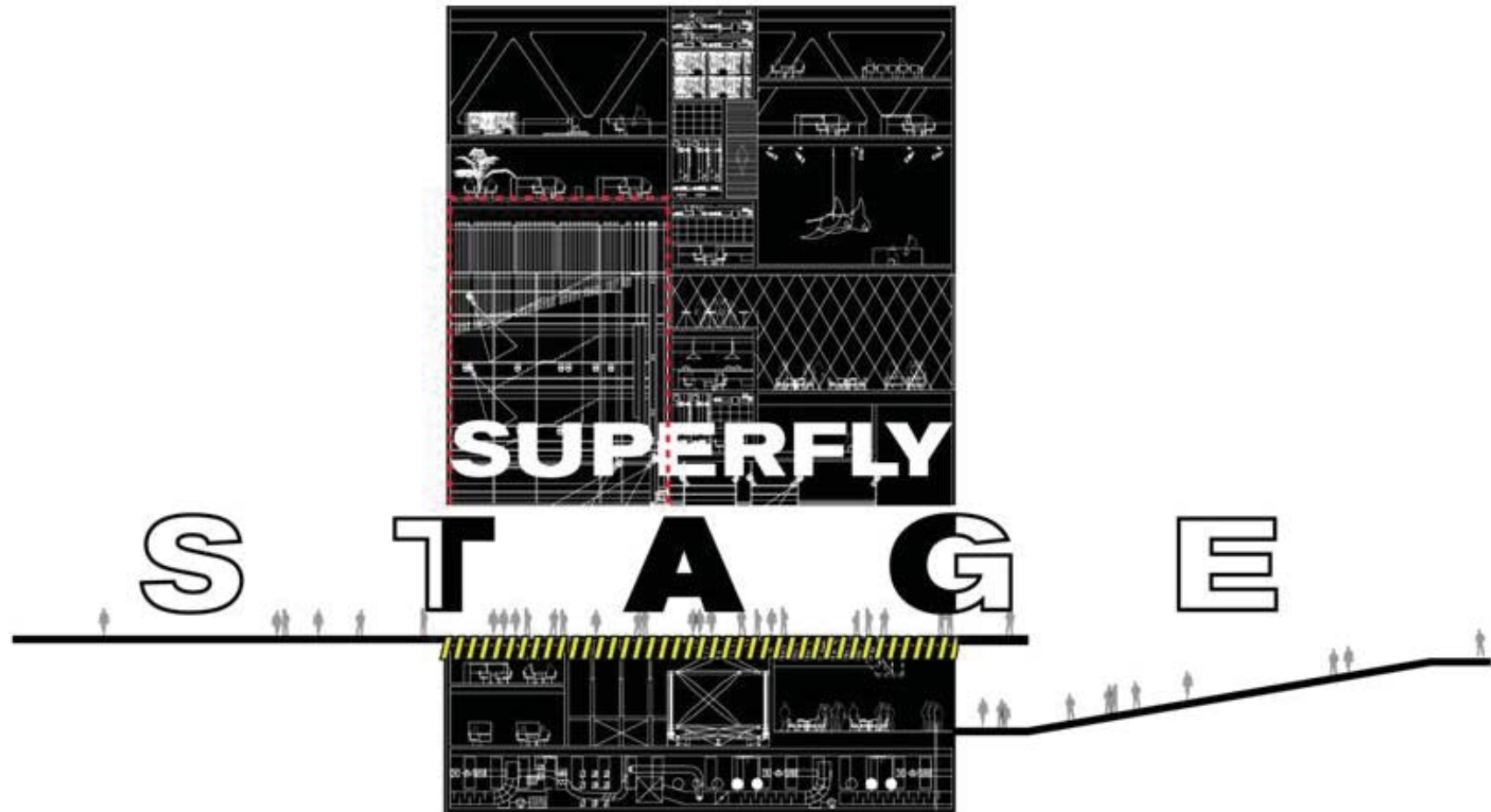
multi-form



multi-procession



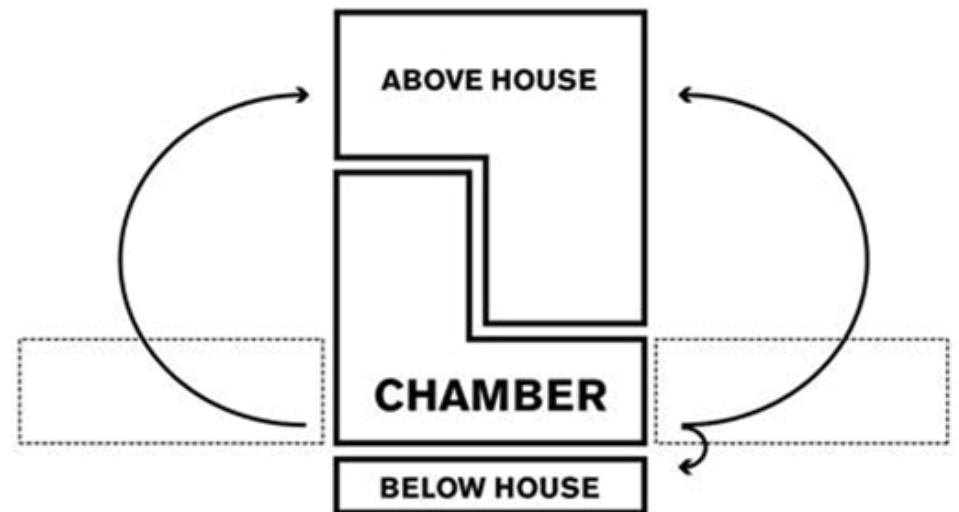
liberation

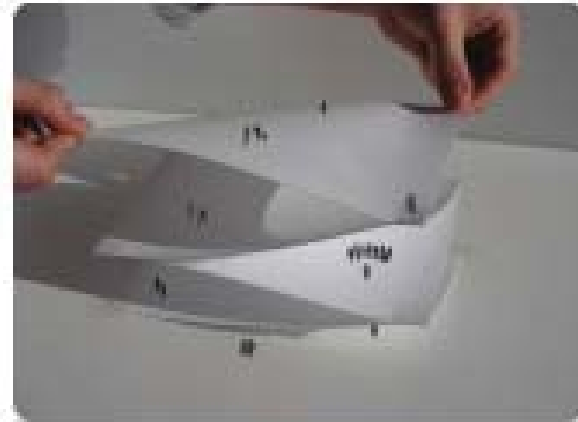
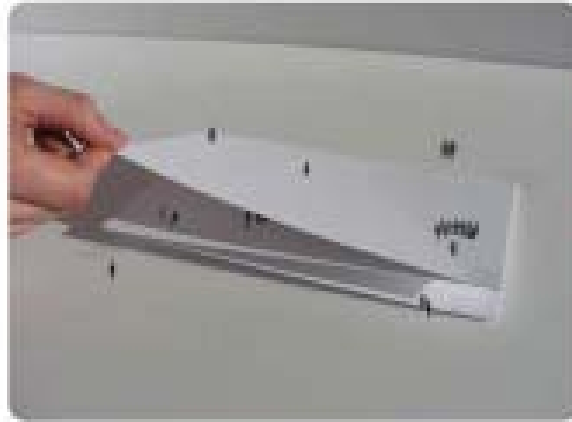
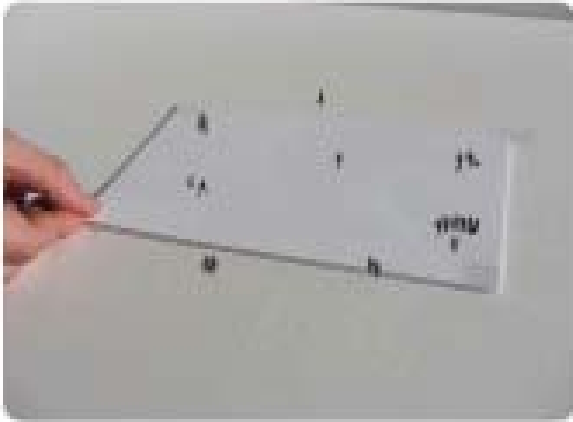


typically



what if?





FORMAL INVESTIGATION

trahan architects/baton rouge downtown library/los angeles/USA



subtract center/insert slabs and core



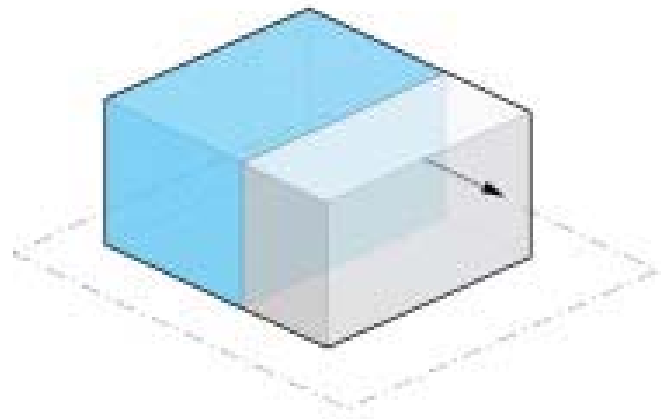
FORMAL RESOLUTION



stacks



circulation/reading

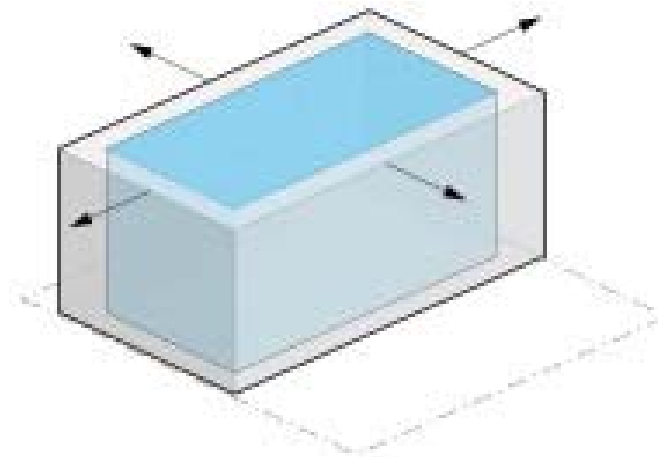


The existing building is introverted with stacks adjacent to the primary urban edge and with reading spaces & circulation located on the inside of the block.

EXISTING (26,500 g.s.f.)

x 2.03

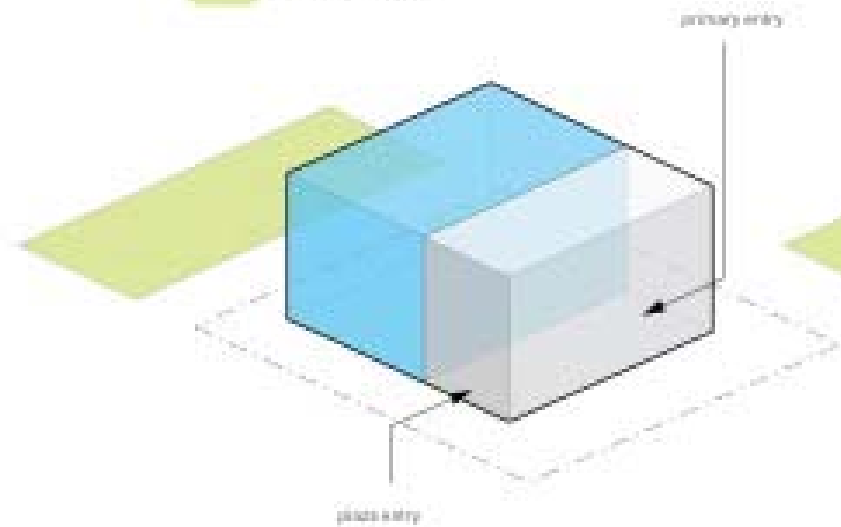
200%+ growth in program



We propose to reverse this relationship by rearranging the program by wrapping the building with reading spaces & circulation in order to activate the perimeter.

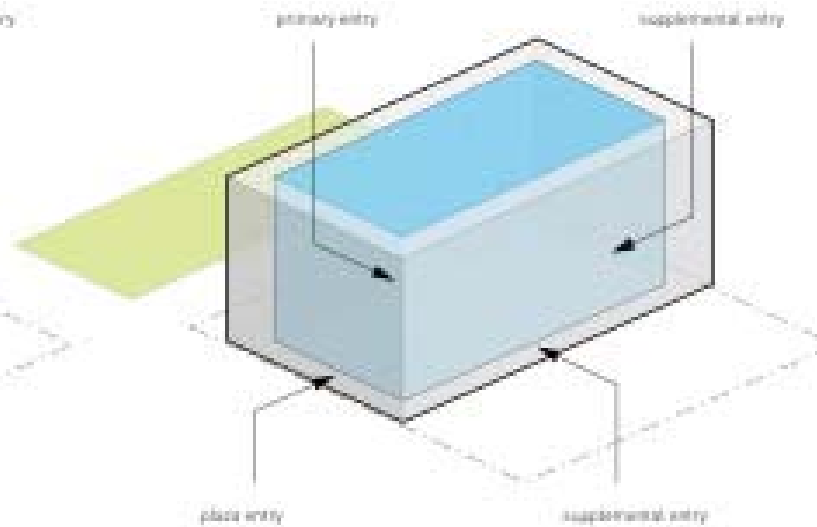
PROPOSED (54,000 g.s.f.)

ACTIVATE PERIMETER



The existing building does not engage North Boulevard.

EXISTING



By locating entry, reading spaces and circulation along North Boulevard, the library can engage Boris Ruge's primary green boulevard.

PROPOSED

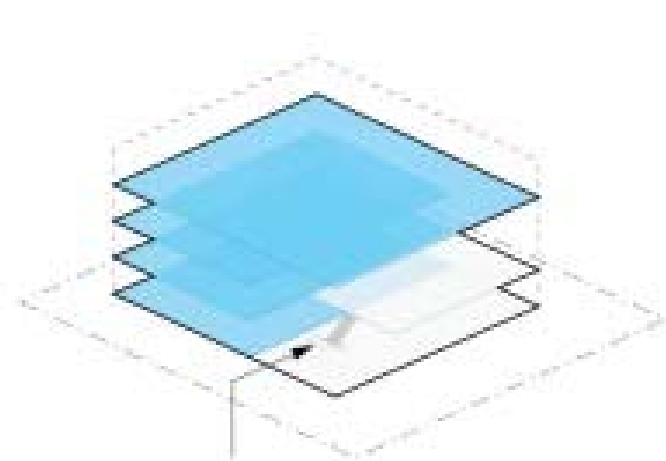
REINFORCE NORTH BLVD.



stacks



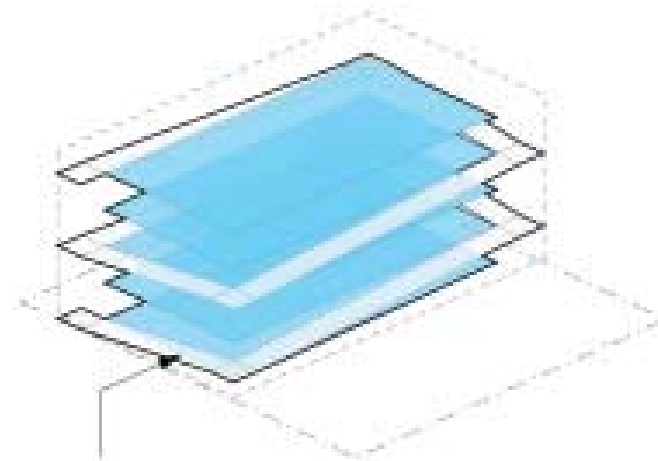
circulation/reading



existing monumental stair (connects 1st + 2nd floors)

The existing library consists of largely independent floor plates that are isolated from one another.

EXISTING

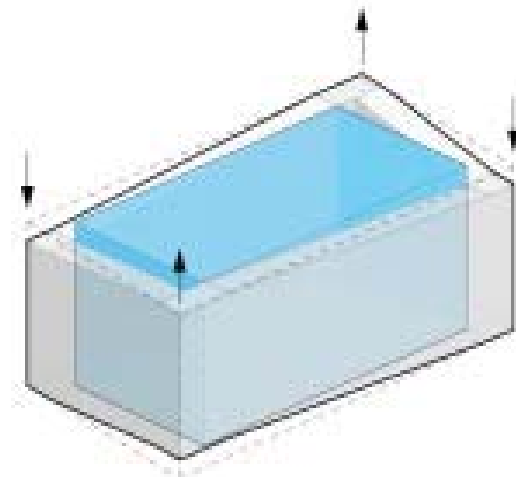
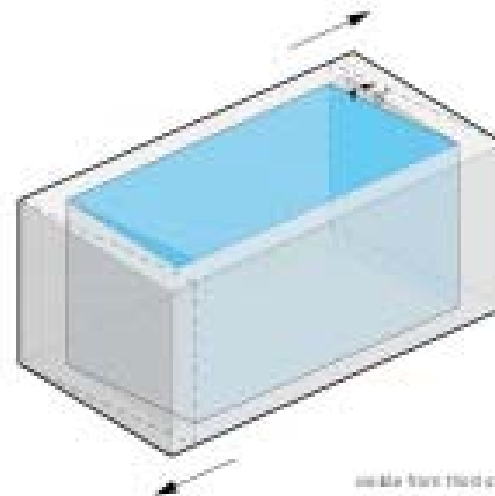
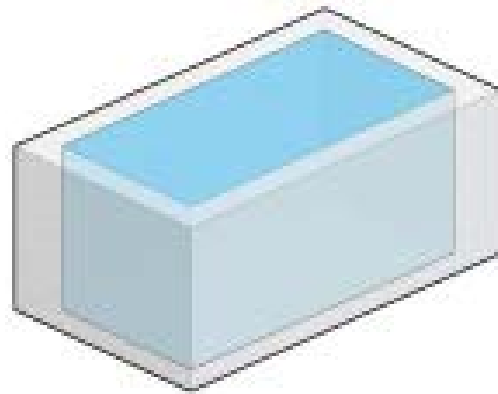
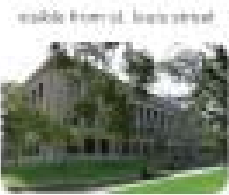


spiraling foyer (connects all floors)

This is an urban library (vertical library) so by wrapping the exterior with circulation, we can establish a vertical connection that unifies the program.

PROPOSED

ESTABLISH VERTICAL
CONNECTION

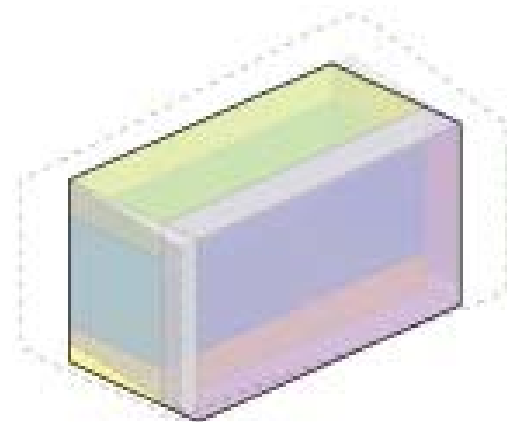


BLOCK

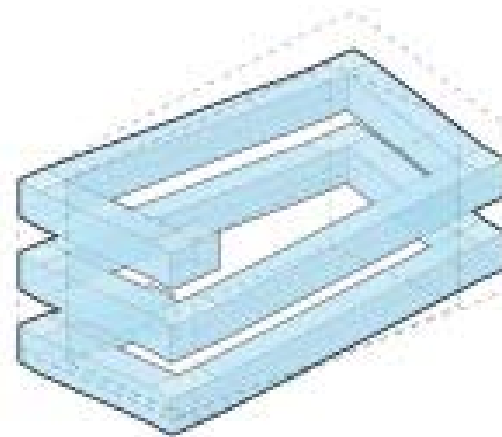
PULL
[establish higher visibility in context]

PUSH
[establish visual connections with context]

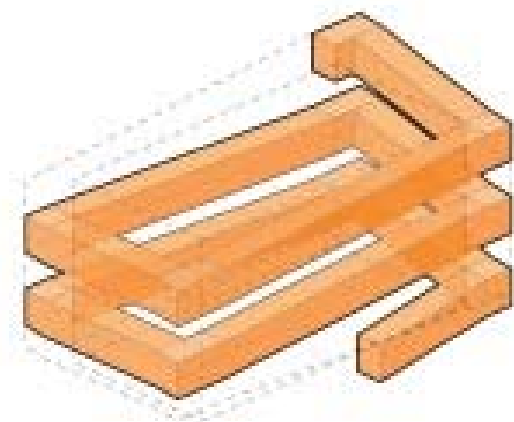
MISSING



PROGRAM



FOYER 01
[circulation/gallery/lounge]



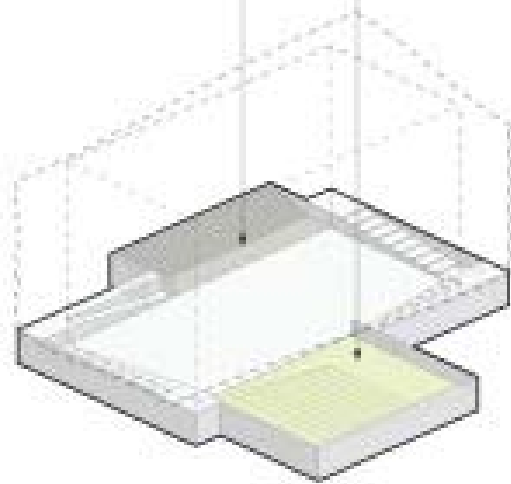
FOYER 02
[circulation/reading area/workstations]

MASSING

entry/outdoor seating room contiguous with tower level

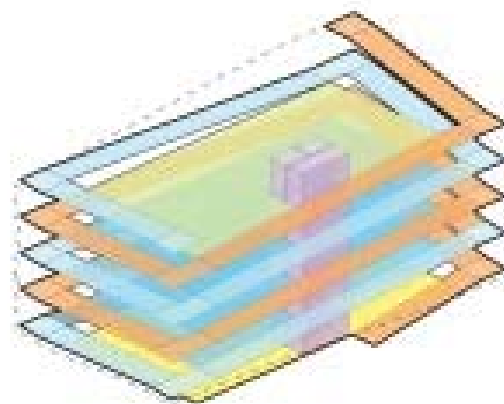


urban park to supplement guest plaza

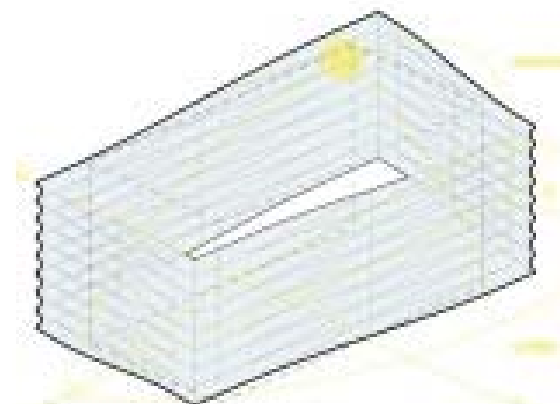


BASE

[activate ground plane with exterior spaces of varying scales]



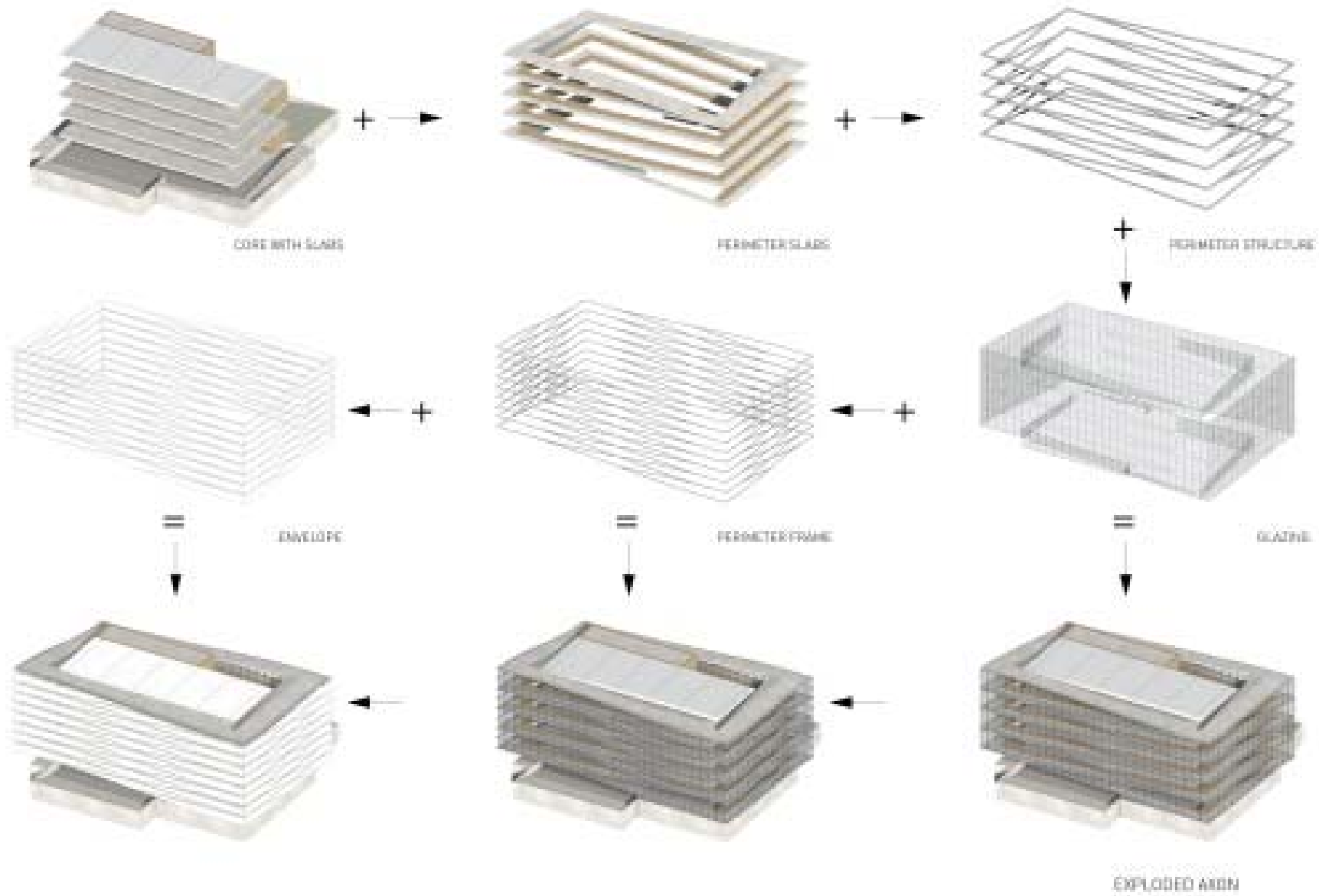
LEVELS + FOYER (s)

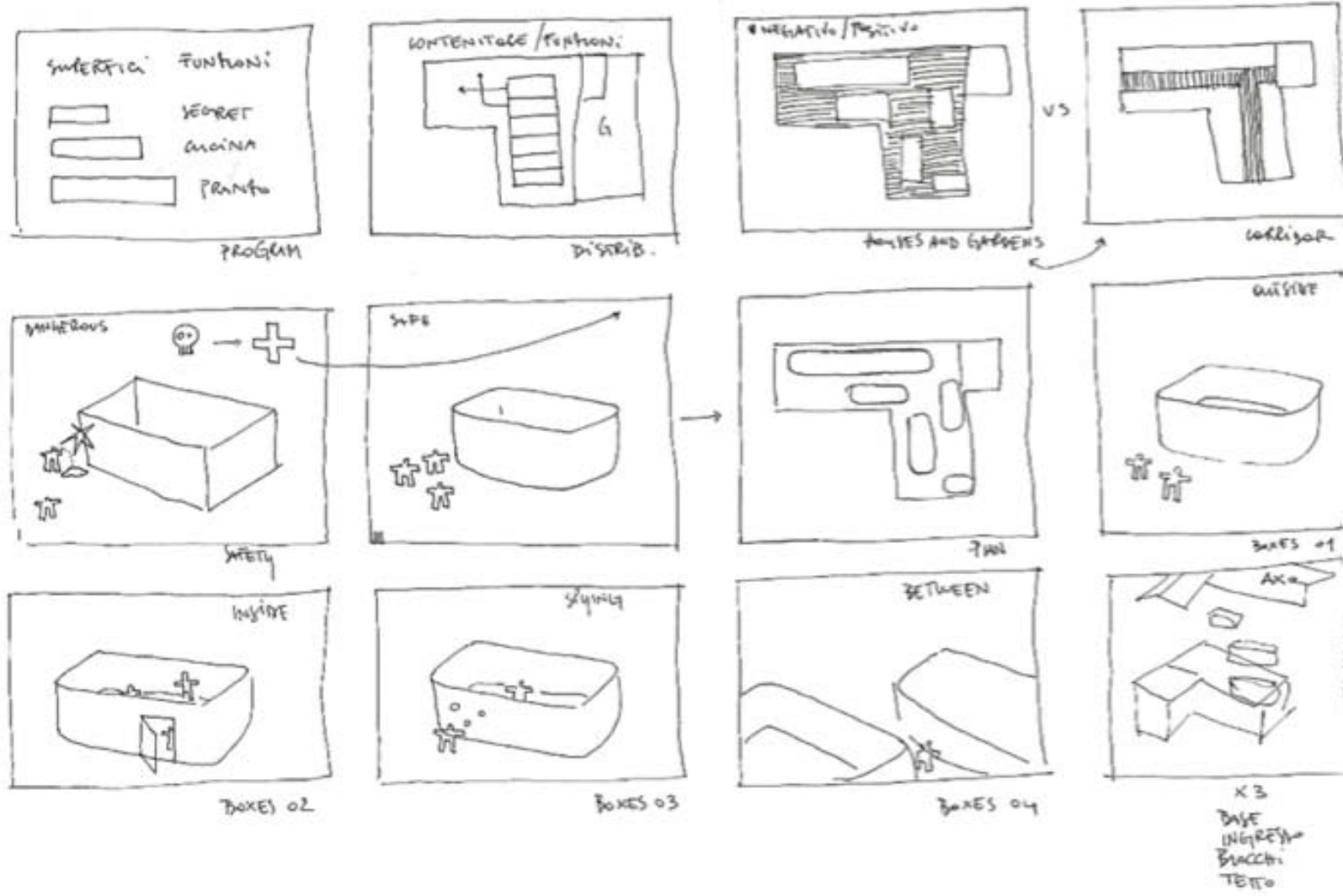


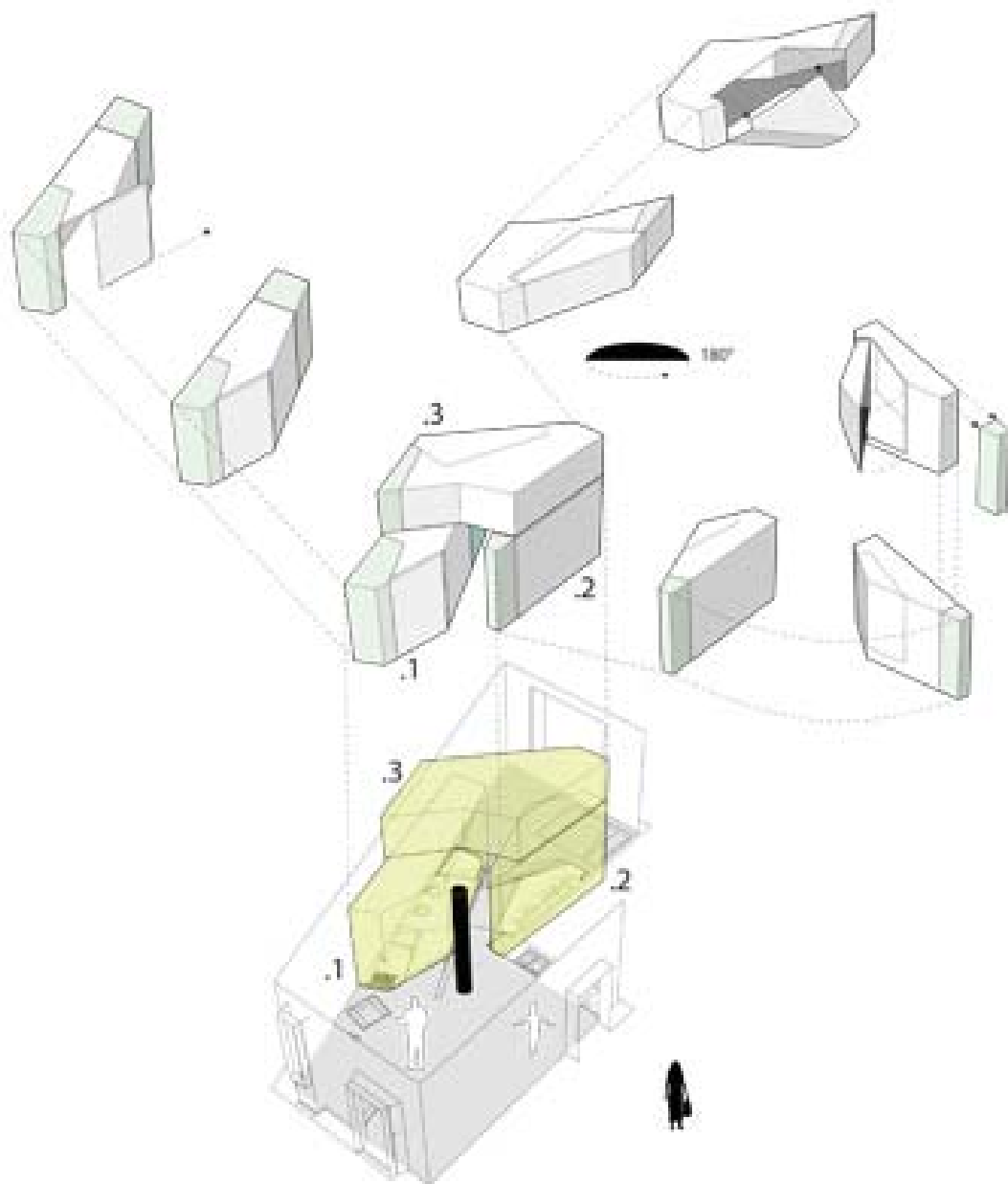
ENVELOPE

[establish scale/respond to solar orientation]

MASSING

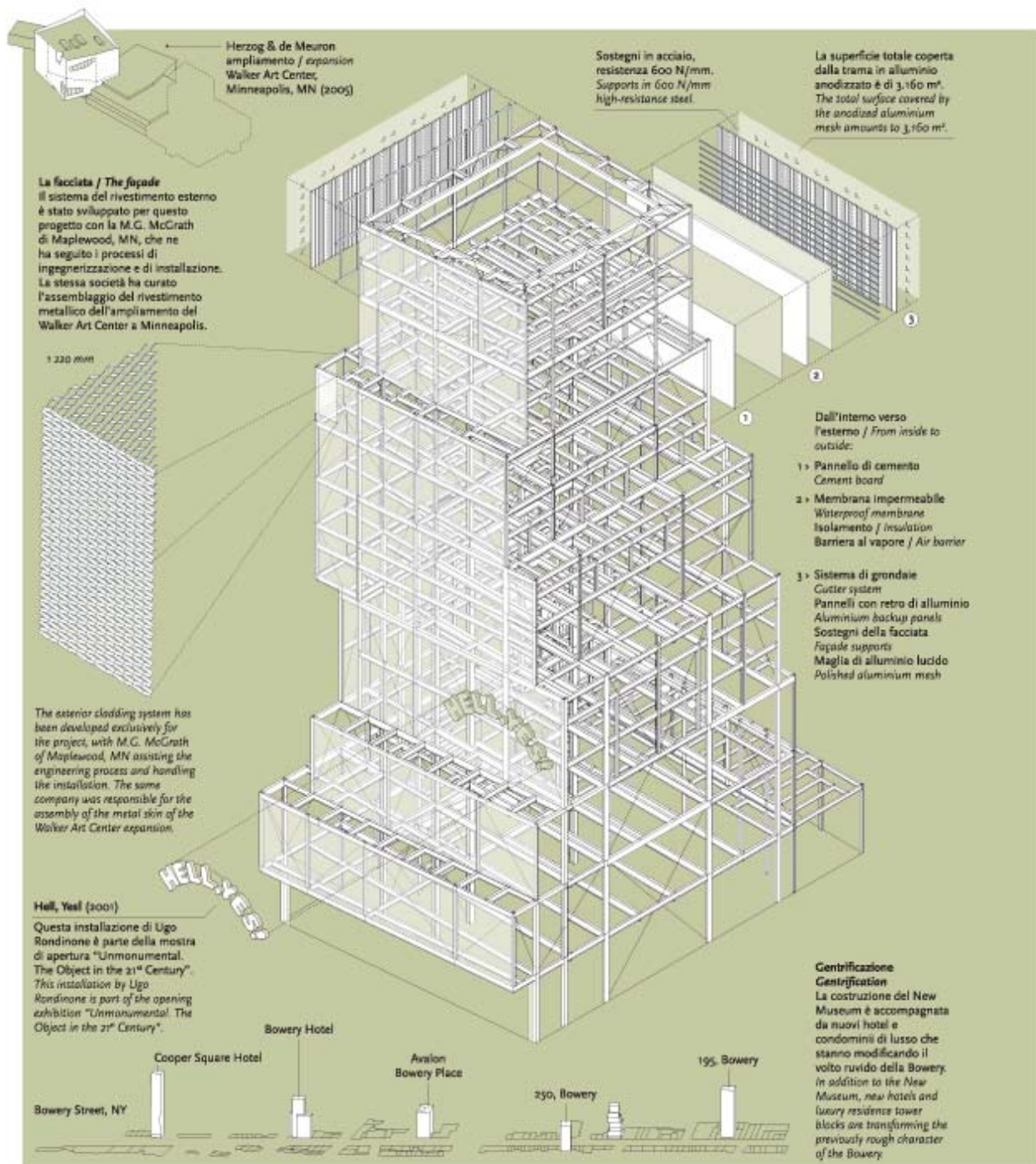






francesco librizzi/casa mainella/milano/2005





Il museo ha lasciato la sua vecchia sede nell'esclusivo quartiere di SoHo per spostarsi di qualche isolato in un lotto al 235 della Bowery.

The museum moved out of its former premises in the fashionable SoHo district to a site a few blocks away at 235 Bowery.

www.newmuseum.org

Arretramento / Setback

La controversia per "l'ombra di 7 acri", innescata dall'EQUITABLE Building – la torre per uffici di 36 piani progettata da Ernst R. Graham, ha spinto nel 1916 ad adottare il Regolamento Edilizio che normasse l'altezza degli edifici, regolandone l'arretramento per permettere alla luce del sole di raggiungere il livello stradale.

The controversy about the 7 acre shadow caused by the Equitable Building, a 36-story office building designed by Ernest R. Graham, contributed to the adoption of the 1916 Zoning Resolution which limited the height and required setbacks for new buildings to allow the penetration of sunlight to street level.

Regolamento Edilizio Zoning regulations

L'edificio può raggiungere l'altezza di 26 metri sulla linea del fronte. A questa altezza deve arretrare in orizzontale di 4,6 metri, e quindi può nuovamente alzarsi fino a intersecare lo 'sky exposure plane', che in questo caso è un piano inclinato con un rapporto di 5,6:1,0 tra la verticale e l'orizzontale.

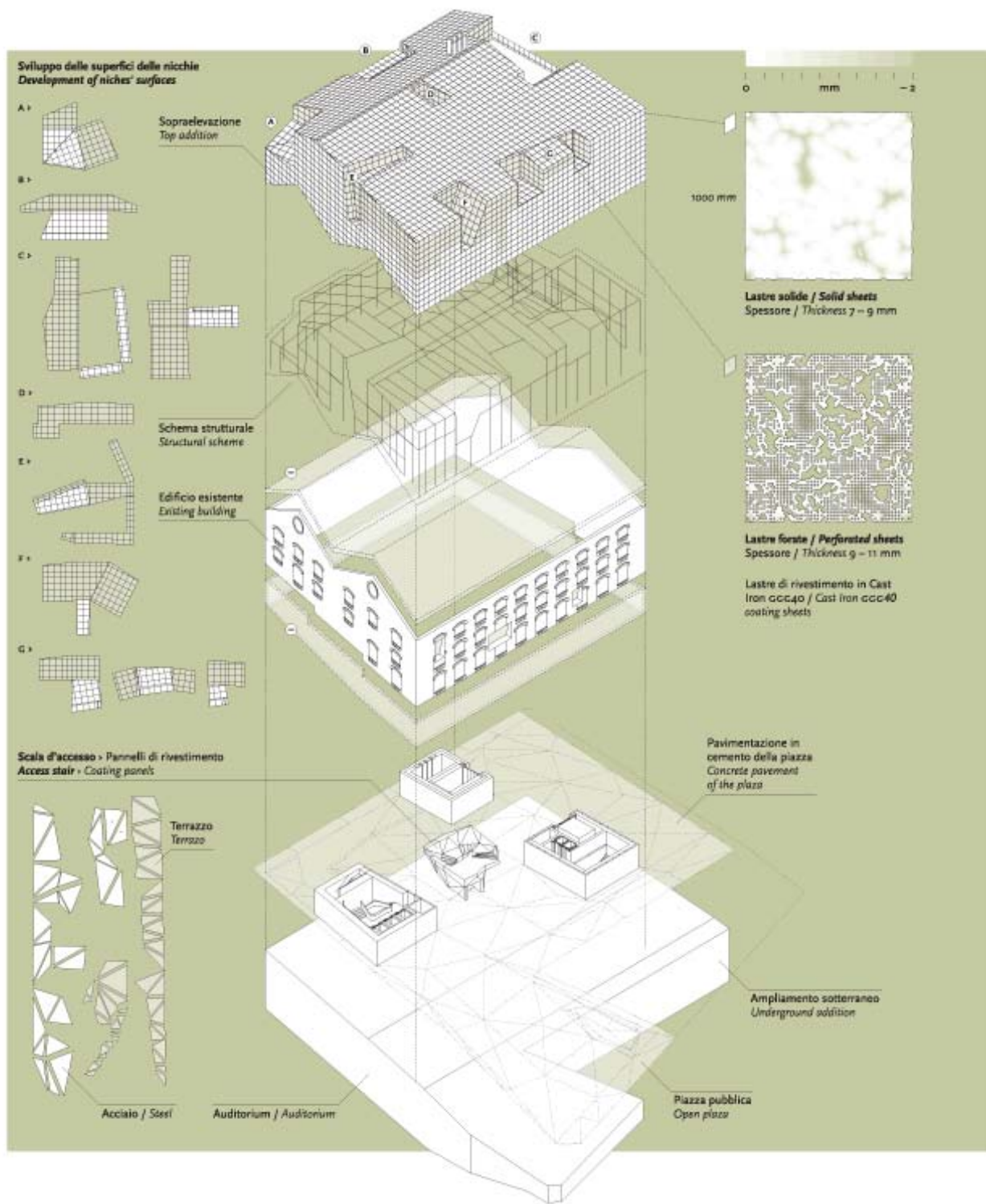
A building may rise to a height of 26 m or at the front lot line, before setting back horizontally a required distance of 4.6 m. Above that the building may rise straight up until it intersects with the sky exposure plane, which in this case is an inclined plane with a ratio of 5.6 vertical to 1.0 horizontal. Above that point the building may set back again.

- 0 > Lobby
- 1 > Galleria / Gallery
- 2 > Didattica / Education
- 3 > Uffici / Offices
- 4 > Stanze multifunzionali / Multipurpose room
- 5 > Impianti / Mechanical
- 6 > Volume tecnico / Mechanical roof

progetto / project: New Museum
tipologia / typology: Museo d'arte contemporanea
Museum of contemporary arts
anno / year: 2007

sito / location: Bowery, New York
progettista / architect: Kazuyo Sejima e / and Ryue Nishizawa / SANAA
superficie totale / surface area: 5.388,32 m²
costo / cost: US \$ 50.000.000







Il Giardino Botanico Reale di Madrid è stato creato nel 1755 da Ferdinando VI (1713 – 1759). The Royal Botanical Garden of Madrid was created in 1755 by Ferdinand the VI (1713 – 1759).

★ Una rete di tubi comandata da valvole a solenoide apporta la soluzione nutritiva necessaria alla crescita delle piante. Due strati in feltro di poliammide, impregnati per capillarità, lasciano scendere il liquido lungo la parete, da cui le radici dei vegetali prelevano i sali di cui hanno bisogno.

La parete vegetale verticale, realizzata con la consulenza di Patrick Blanc, è composta da 15.000 piante di 250 specie diverse. Posta come fondale della piazza pubblica, essa crea una stretta relazione con il Giardino Botanico e il Parque del Retiro. The vertical vegetal wall, realized with the consultancy of Patrick Blanc, is composed of 15,000 plants of 250 different species. Located as a background of the public square, it creates a close relationship with the Botanical Garden and the Parque del Retiro.

A web of pipes controlled by solenoid valves provides the plants with the nutritional solution needed for growth. Two layers of polyamide felt, impregnated by capillarity, let the liquid drip along the wall, from where the roots acquire the necessary minerals.

Paseo del Prado

Il CaixaForum, situato al limite del denso tessuto urbano del centro storico, determina una nuova topografia formata dall'insieme degli spazi – aperti e coperti – che lo circondano. Tramite le piazze, l'auditorium, gli spazi espositivi, esso diviene parte integrante del recupero dell'importante asse culturale del Prado-Recoletos. The CaixaForum, sited at the edge of the dense fabric of the old city, determines a novel topography, formed by the sum of the open and covered spaces which surround it, which are included in the renovation of the cultural axis Prado-Recoletos.

Museo Nacional Reina Sofía



Museo Nacional del Prado



Museo Thyssen-Bornemisza



Palacio de Buenavista

Banco de España



progetto / project: CaixaForum
tipologia / typology: Centro culturale / Cultural center
anno / year: 2001 – 2008
sito / location: Madrid, Spagna / Spain

progettista / architect: Herzog & de Meuron
superficie totale / surface area: 11.000 m²

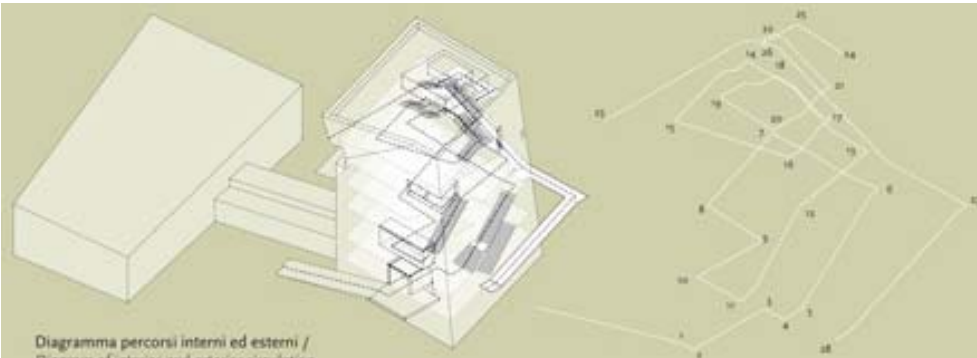


0 5 10 20 m

Ossatura metallica
Metal structure

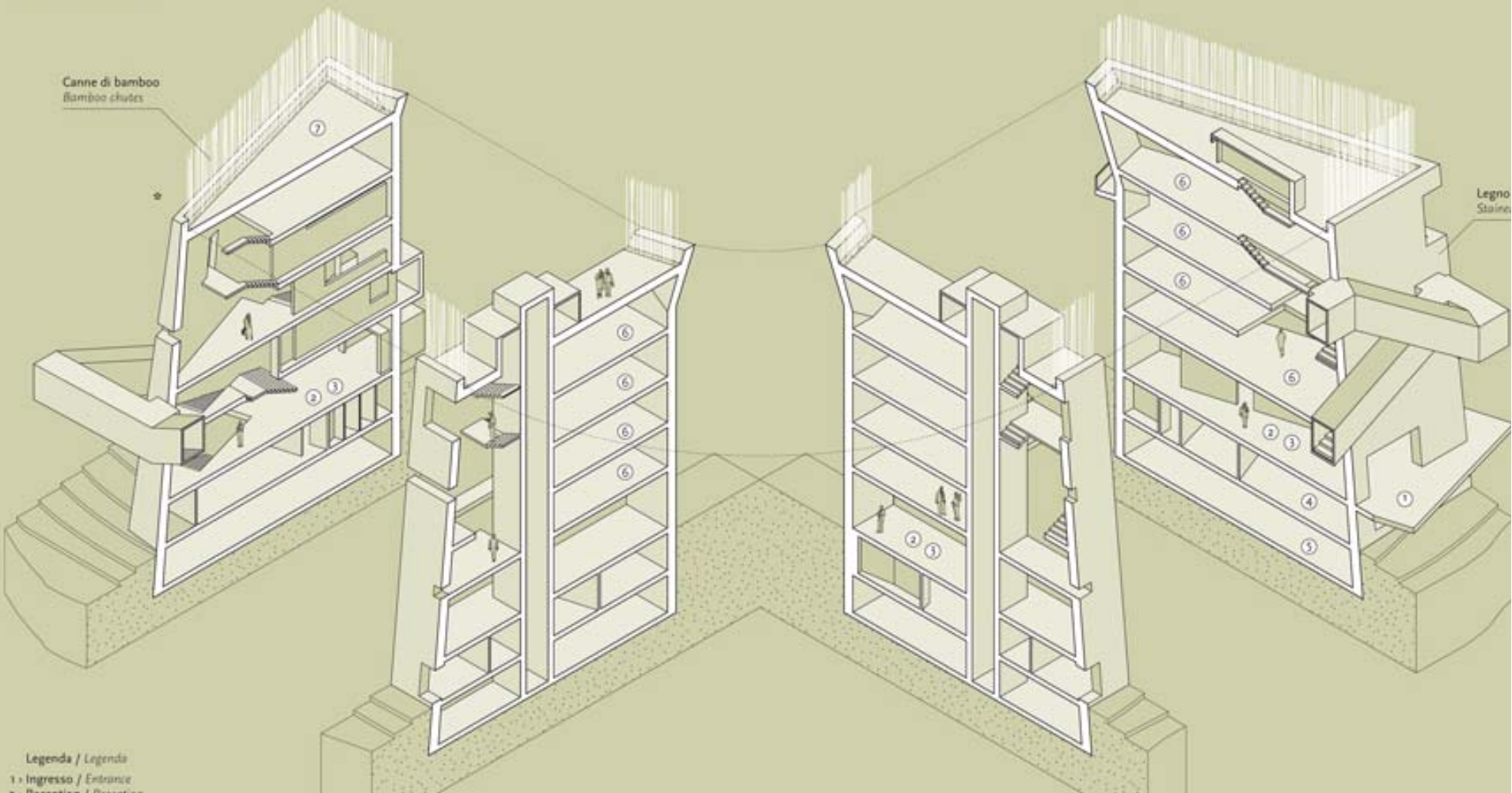
Strato in pvc espanso,
spessore 10 mm
Layer in expanded pvc,
thickness 10 mm

Una vasca alla base della parete
raccolge l'acqua in eccesso e la
re-inietta nell'impianto.
A tank located at the base of the
wall collects the excess water and
re-injects it in the equipment.



Canne di bamboo
Bamboo chutes

Legno
Stairs



Legenda / Legenda
1 - Ingresso / Entrance
2 - Barattino / Barattino

Pancho Villa (1878-1923)

Durante la Rivoluzione messicana (1910-1917), Chihuahua divenne la base operativa della División del Norte, l'esercito condotto dal generale Francisco "Pancho" Villa. Villa e i suoi alleati usarono faticosamente contro i nemici propaganda e plotoni d'esecuzione, e confiscarono terre per distribuirle tra i contadini e i soldati.

"Pancho" Villa saccheggiò e requisì treni, e – alla maniera di altri generali rivoluzionari – stampò carta moneta inconvertibile per realizzare i suoi scopi.

Egli è apparso, impersonando se stesso, in molti film negli anni '10 e, in seguito, più di 30 attori lo hanno interpretato.

During the Mexican Revolution (1910-1917), Chihuahua became the operations base for the División del Norte, the army led by general Francisco "Pancho" Villa. Villa and his supporters employed tactics such as propaganda and firing squads against his enemies, and seized land for distribution to peasants and soldiers. He robbed and commandeered trains, and – like the other Revolutionary generals – printed fiat money to pay for his cause. Villa appeared as himself in several films in 1910's, and, since that period, more than 30 actors have portrayed him.

La casa fa parte del complesso del golf club "San Francisco Country", nella regione desertica di Chihuahua, Messico.

The house is part of "San Francisco Country" golf club complex, in the desert-like region of Chihuahua, Mexico.



Dettaglio costruttivo **Construction detail**

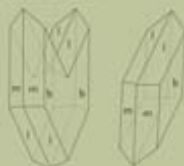
- A
- Magrone / Lean concrete
- Calcestruzzo / Concrete
- Barriera al vapore / Vapour barrier
- Isolante / Insulating
- Barriera al vapore / Vapour barrier
- PVC folio / PVC foil
- Pavimentazione / Finish
- B
- Terra / Earth
- Mattone / Brick wall
- Strato drenante / Drain stones
- Isolante / Insulating
- Barriera al vapore / Vapour barrier
- Calcestruzzo / Concrete wall
- Intonaco / Plaster



Diagramma delle sezioni trasversali
Transversal sections' diagram

Copertura / Roof

Secondo le normative urbanistiche della città, l'80% della copertura di un edificio deve essere inclinata. Gli architetti hanno deciso di utilizzare il 100% di copertura a falde, progettando un tetto continuo – che può essere nascosto dalla neve in inverno – secondo un'unica topografia. City plan's rules were asking for 80% of tilted roofs: the architects decided to tilt 100% of it. They designed just a single roof as a continuous topography that can be camouflaged with snow in winter.



Grotta dei Cristalli di Naica Naica Crystal cave

Nel 2002, nella Miniera di Naica (Chihuahua, Messico), è stata scoperta una grotta di circa 40 metri di diametro con formazioni cristalline di selenite di oltre 10 metri di lunghezza e quasi 2 metri di diametro. La temperatura della grotta si aggira attorno ai 48°C, con un'umidità del 100%. In 2002, in the Naica Mine near Chihuahua in Mexico, a cave with a diameter of around 40 metres containing selenite crystals over 10 metres long and almost 2 metres in diameter, was discovered. The temperature inside is around 48°C, with 100% humidity.

Paquime

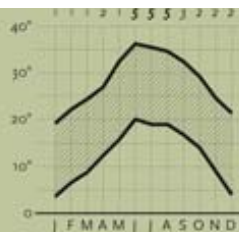
Chihuahua

Paquime (Chihuahua, MX)

Questo importante sito archeologico risale al XII secolo, e conta circa 20 abitazioni completamente scavate nel terreno. This important archaeological site dates from the 12th century and comprises some 20 subterranean dwellings.

Patii / Patios

I patii favoriscono l'illuminazione indiretta e la ventilazione della casa, senza coprire la visuale sul paesaggio. Patios bring indirect light and ventilation into the house, without blocking the views to the landscape.



Pavimento in pietra naturale
Natural stone flooring

Pavimento in legno
Wooden floor

La casa è parzialmente interrata nel pendio della montagna per sfruttare la massa termica del suolo. The house is partially buried into the mountain slope, in order to take advantage of the soil's thermal mass.

progetto / project: Chihuahua House
tipologia / typology: casa unifamiliare / house
anno / year: 2008
sito / location: Chihuahua, Mexico / Mexico

superficie / extension: 450 mq / 450 sqm
progettista / architects: Abel Perles,
Carlos Bedoya, Victor Jaime, Wonne Icks (Productora)

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