

Schools Scaled

PRECEDENT RESEARCH

Paspels School

CONTEXT

Switzerland, 2001

ARCHITECT

Valerio Olgiati

BUILDING TYPE

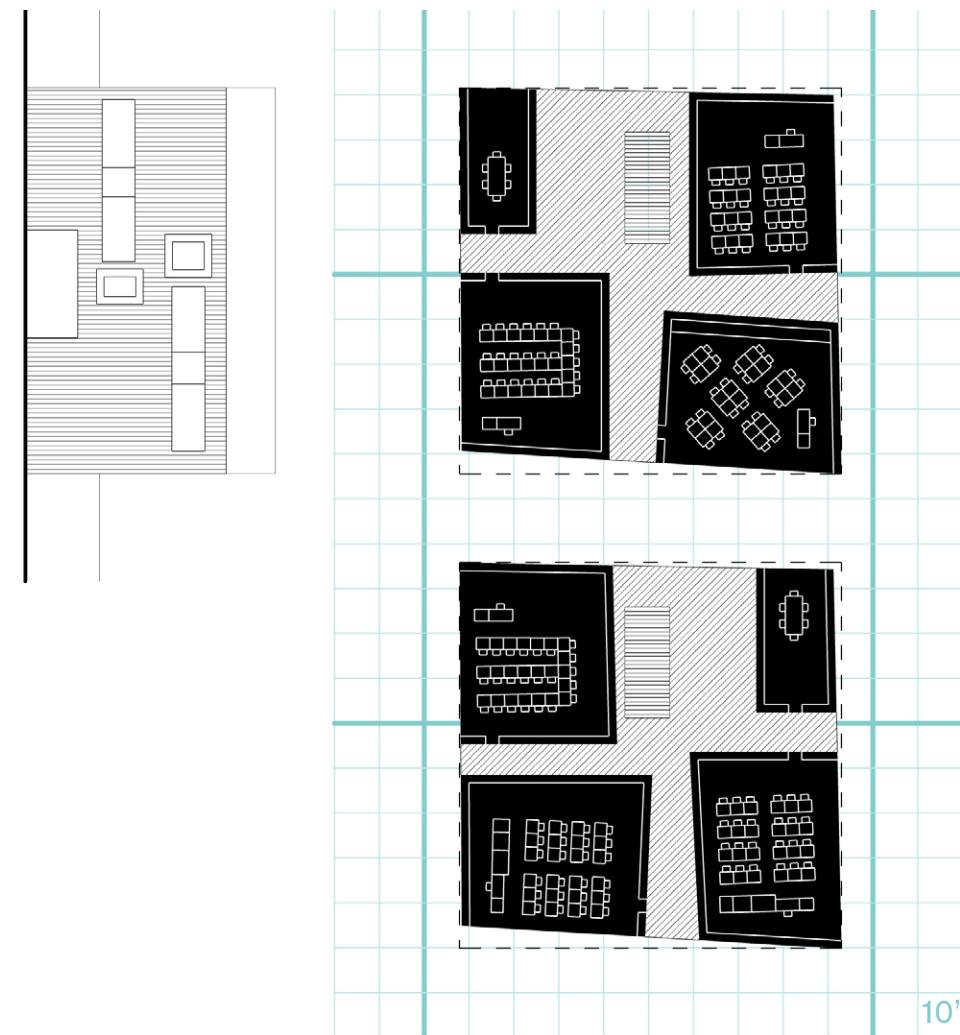
Box

FORM-GIVING ELEMENTS

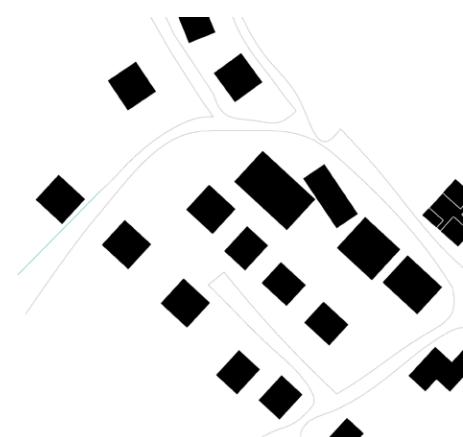
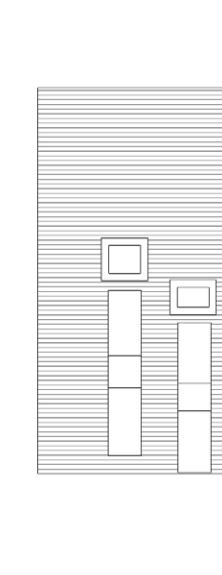
Corridor
Classroom
Elevation
Opening

SYSTEM OF CONSTRUCTION

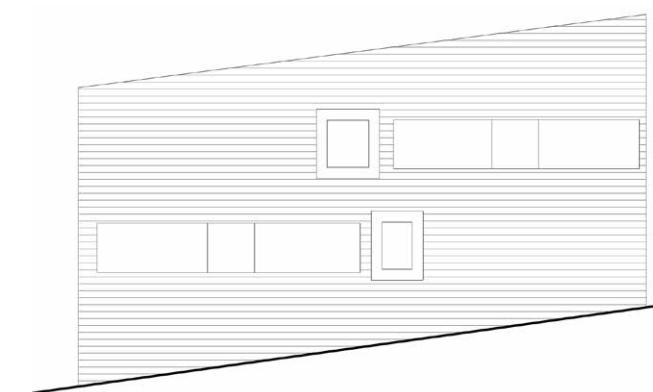
Cast in place concrete



PROGRAM SCALE



URBAN SCALE



DETAIL SCALE

FUNCTIONAL QUESTIONS
How to give the hallway autonomy and make the corridor experiential?

DISCIPLINARY QUESTIONS
How to use small scale distortions to create surreal difference in quality and view?

EXPERIENTIAL QUESTIONS
How to create the sense that something is slightly off?

TECTONIC QUESTIONS
How to distinguish corridor from classroom windows in elevation?

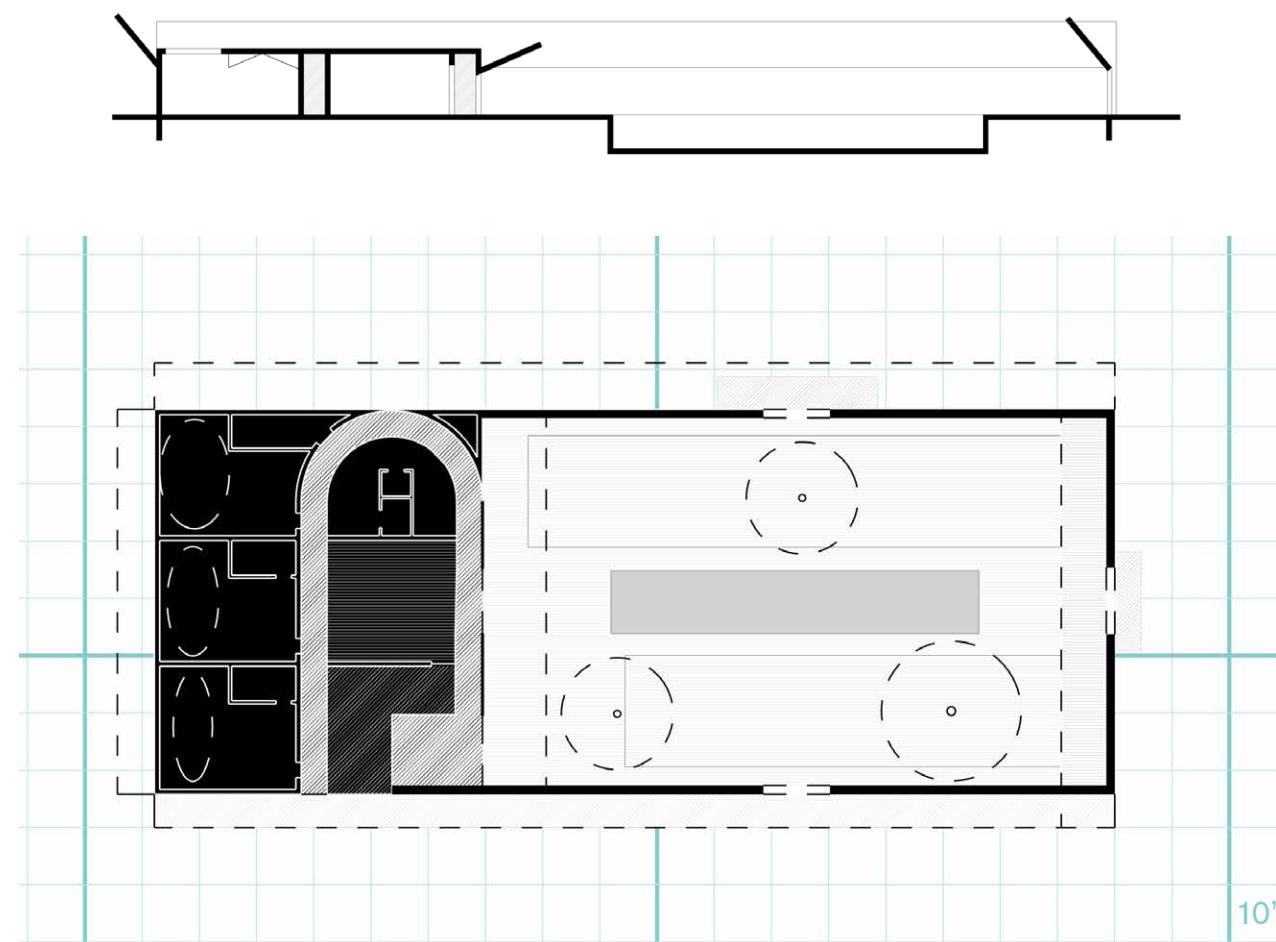
Villa Alem

CONTEXT

Portugal, 2014

ARCHITECT

Valerio Olgati



PROGRAM SCALE

BUILDING TYPE

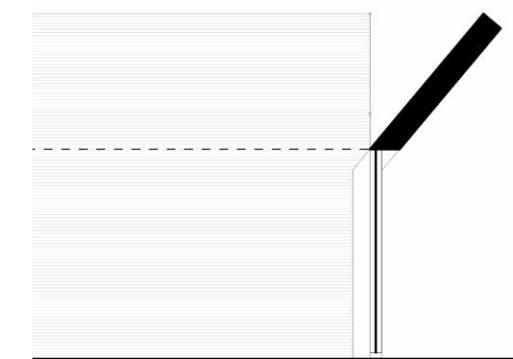
Bar (Courtyard + Box)

SYSTEM OF CONSTRUCTION

Cast in place concrete



URBAN SCALE



DETAIL SCALE

FORM-GIVING ELEMENTS

Corridor

Courtyard

Wall (Picture Openings)

Skylight

DISCIPLINARY QUESTIONS

How to make separate worlds spin off of a corridor?

EXPERIENTIAL QUESTIONS

How to amplify the contrast between enclosed and open?

TECTONIC QUESTIONS

How to fold a concrete wall? How to signify an empty box?

SITE QUESTIONS

How to hold and intensify an existing condition of the site?

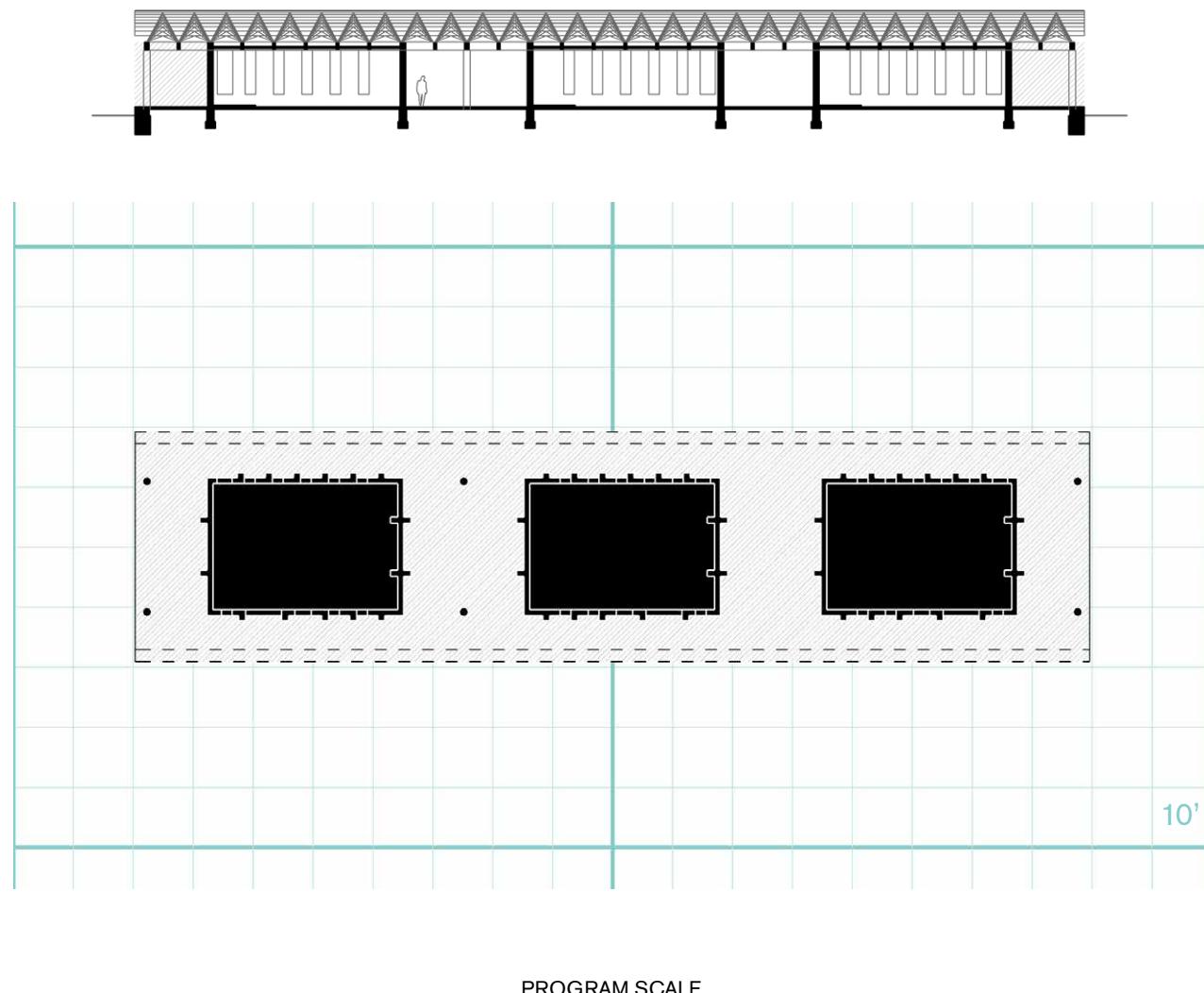
Primary School in Gando

CONTEXT

Burkina Faso, 2001

ARCHITECT

Francis Kere

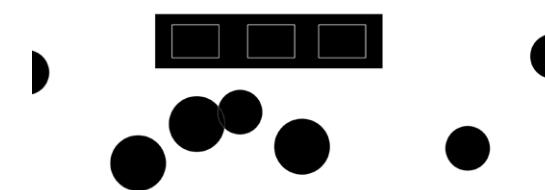


BUILDING TYPE

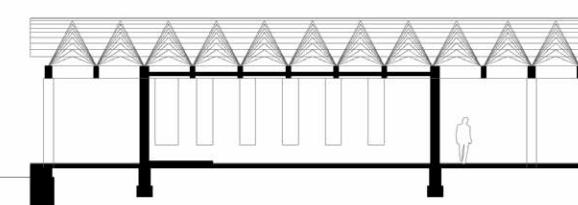
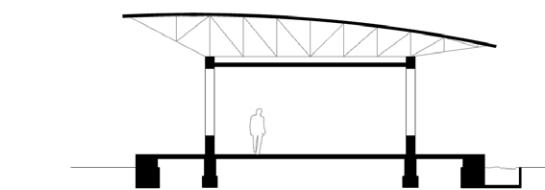
Bar

SYSTEM OF CONSTRUCTION

Compressed Earth Block
Roof (Rebar Truss, Mtl Deck)



URBAN SCALE



DETAIL SCALE

FORM-GIVING ELEMENTS

Classrooms
Roof
Breezeway
Concrete Pad
Buttressed Wall

DISCIPLINARY QUESTIONS

How to build a school from local material, labor, and knowledge?

EXPERIENTIAL QUESTIONS

How to make residents believe in the strength and dignity of local construction methods?

FUNCTIONAL QUESTIONS

How to naturally cool the building?

TECTONIC QUESTIONS

How to make every material play a formative role in the identity of the project?

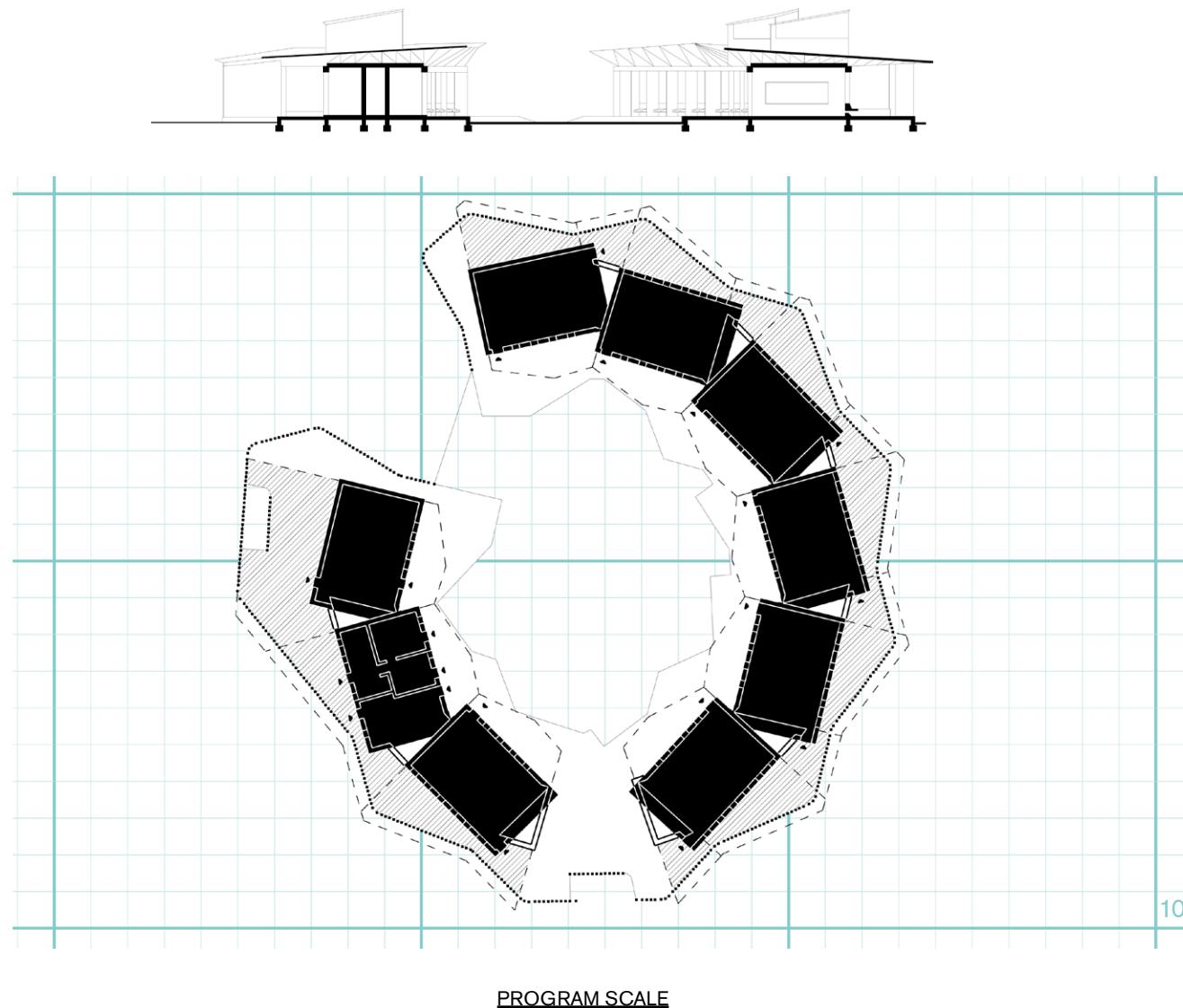
Lycee Schourge

CONTEXT

Burkina Faso, 2016

ARCHITECT

Francis Kere



BUILDING TYPE

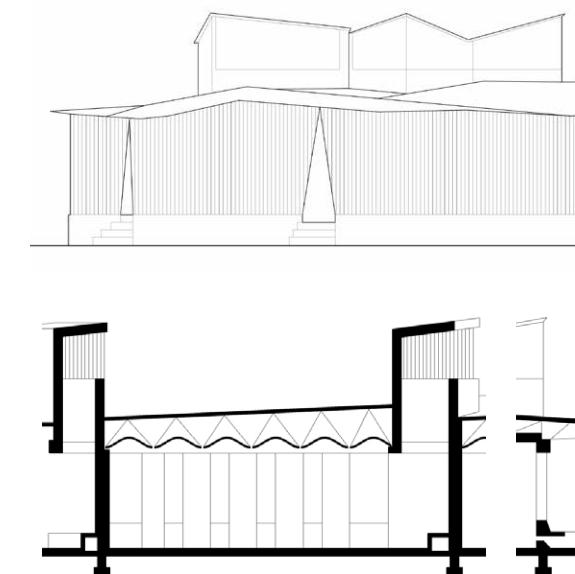
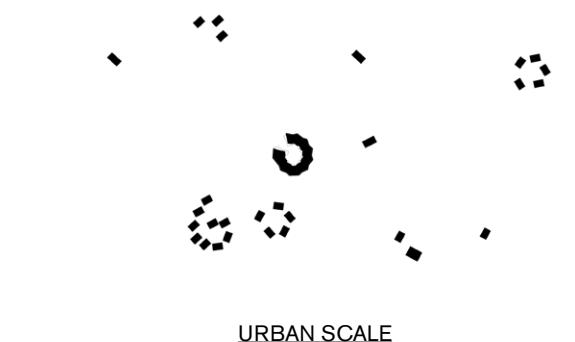
Courtyard

SYSTEM OF CONSTRUCTION

Compressed Earth Block / Reeds
Metal Deck Roof (Rebar Trusses)

FORM-GIVING ELEMENTS

Classrooms
Ventilation Towers
Breezeway
Roof & Supporting Truss
Dropped Ceiling



DISCIPLINARY QUESTIONS

How to create a low-tech architecture that has enough identity to inspire pride and reverse a value system that sees foreign technologies as superior?

FUNCTIONAL QUESTIONS

How to provide shaded spaces for large and small groups?

TECTONIC QUESTIONS

How to make an entrance out of reeds? How to use the ceiling for natural ventilation?

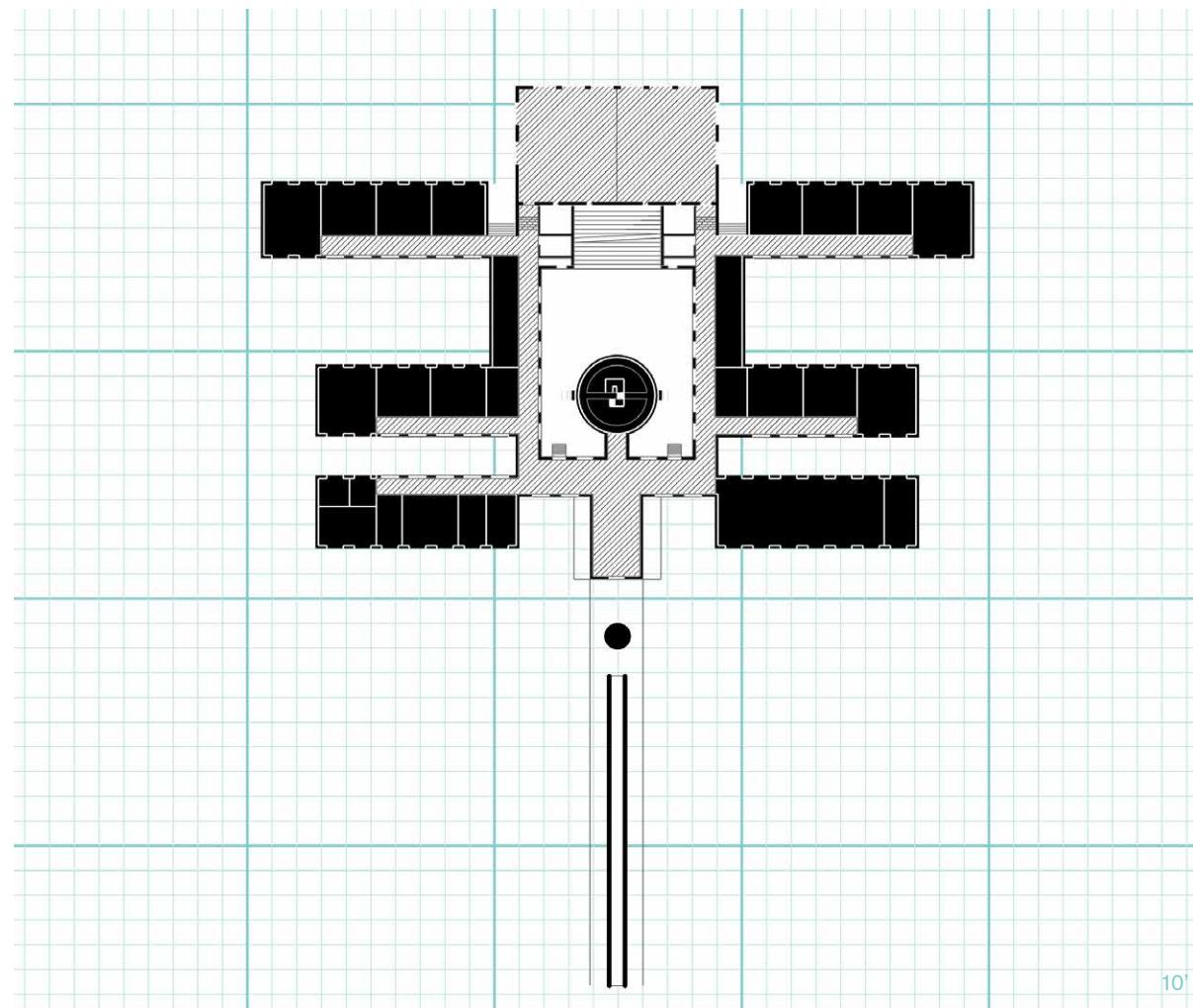
Fagnano Olona

CONTEXT

Olona, Italy, 1972

ARCHITECT

Aldo Rossi

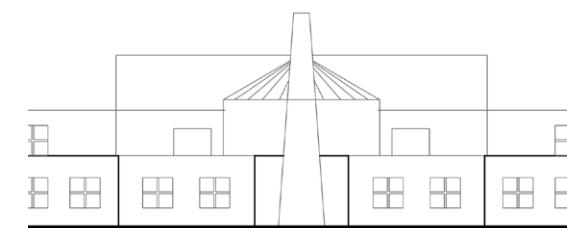
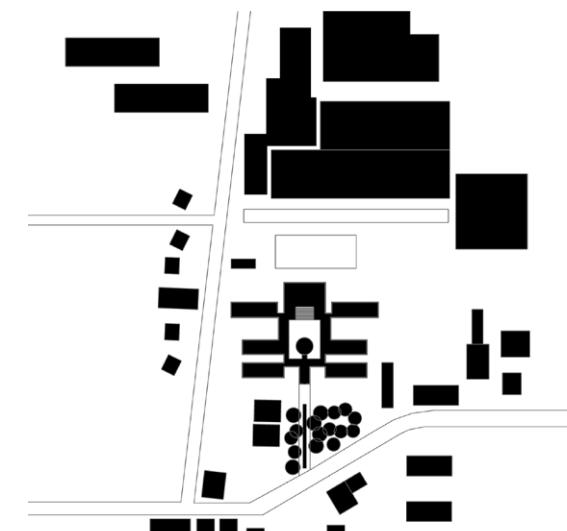


BUILDING TYPE

Courtyard + Bar Hybrid

SYSTEM OF CONSTRUCTION

Concrete Timber



FORM-GIVING ELEMENTS

Ampitheater Steps
Breezeway/Passage
Chimney
Courtyard

DISCIPLINARY QUESTIONS

How to organize a sequence of experiences into a totality? How to organize a building using elements of the city (a street, a bridge, a wall)?

EXPERIENTIAL QUESTIONS

How to create the strange and eerie through rationally ordered parts?

SITE QUESTIONS

How to merge the scale of the houses in the town and the scale of the factory buildings at the back?

PROGRAM/FUNCTIONAL QUESTIONS

How to create connections across the classrooms? How to give the corridor light?

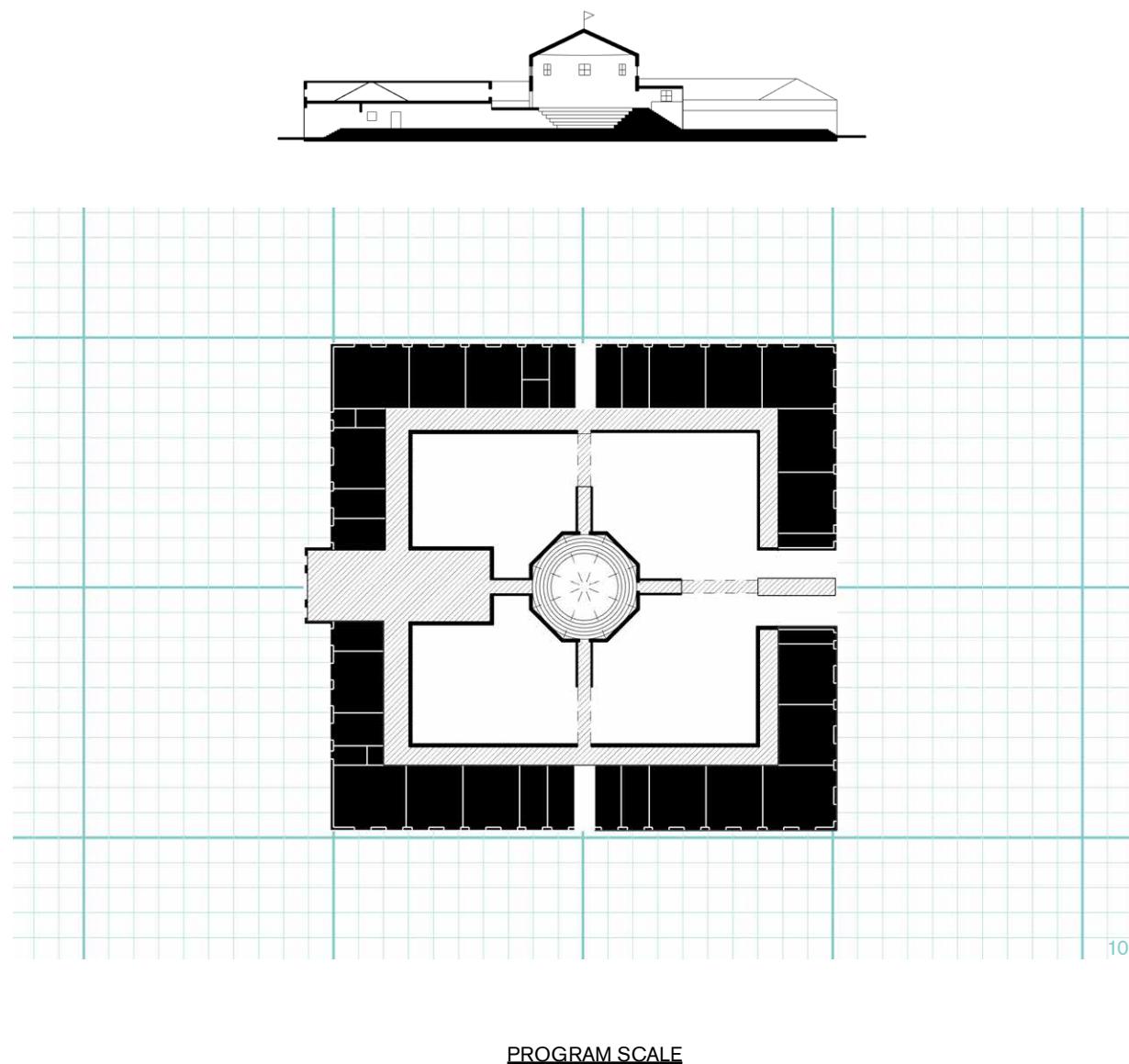
Broni

CONTEXT

Italy, 1979

ARCHITECT

Aldo Rossi

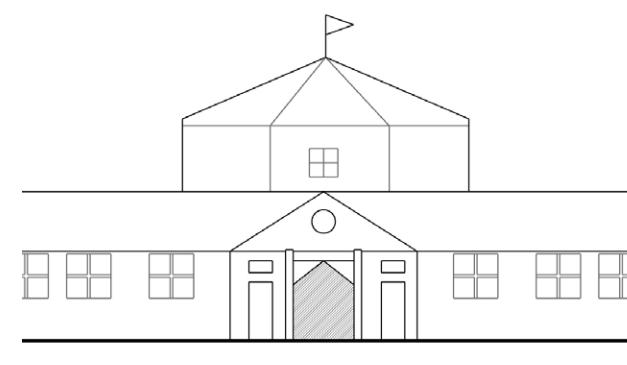
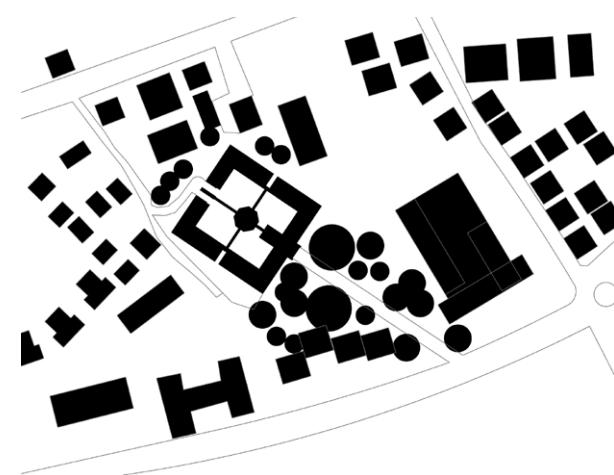


BUILDING TYPE

Courtyard

SYSTEM OF CONSTRUCTION

Concrete & Timber



DETAIL SCALE

FORM-GIVING ELEMENTS

Courtyard

Library (Symbolic Space)

Breezeway (Passage)

Window

DISCIPLINARY QUESTIONS

How to organize a sequence of discrete urban experiences into single form at the scale of a building?

SITE QUESTIONS

How to make the building feel separate from the city and also important to it?

PROGRAM QUESTIONS

How to further condense the quality of the courtyard plan at Fagnano?

TECTONIC QUESTIONS

How to group and cluster windows?

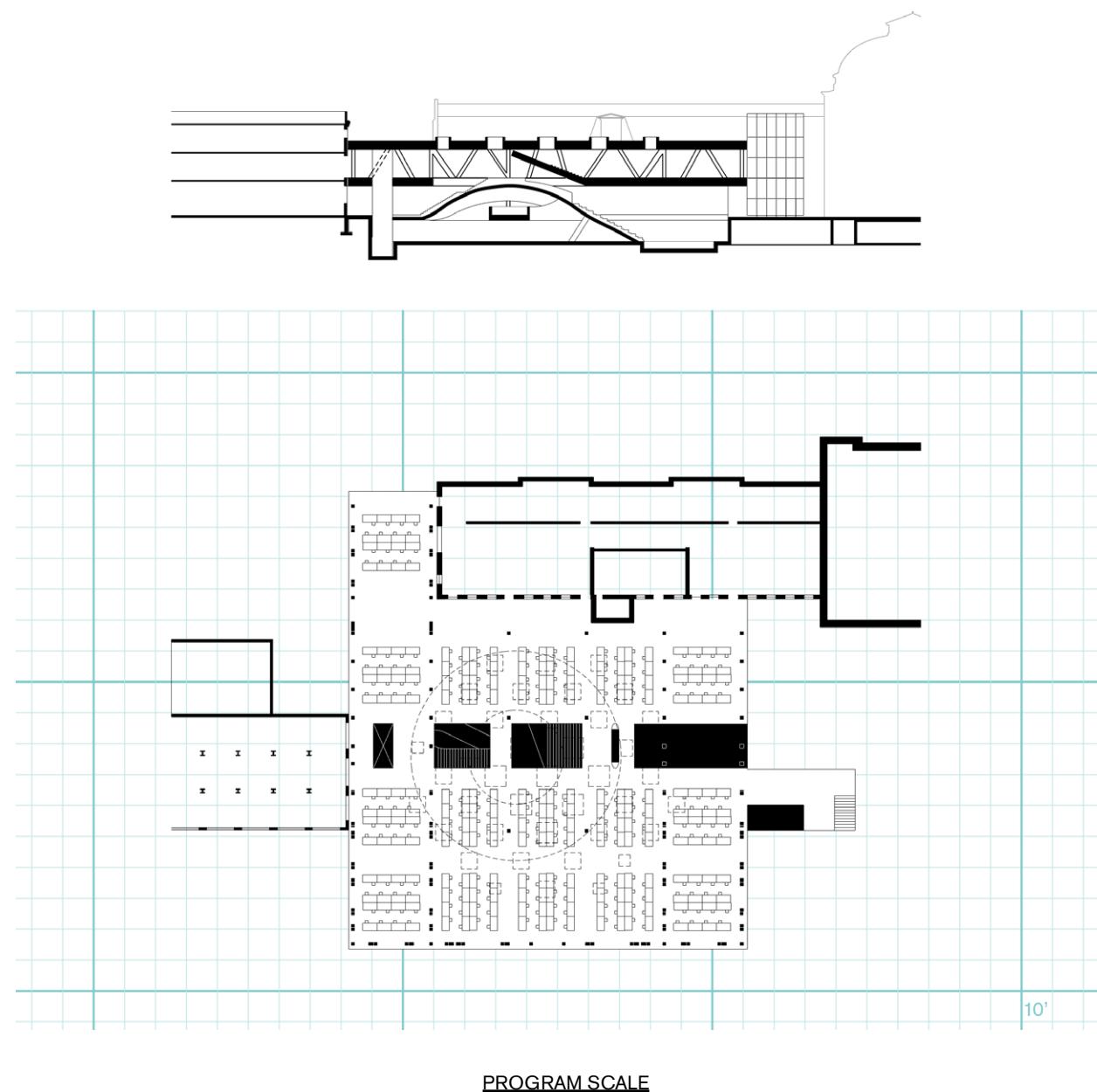
Milstein Hall

CONTEXT

New York, United States, 2011

ARCHITECT

Office of Metropolitan Architecture



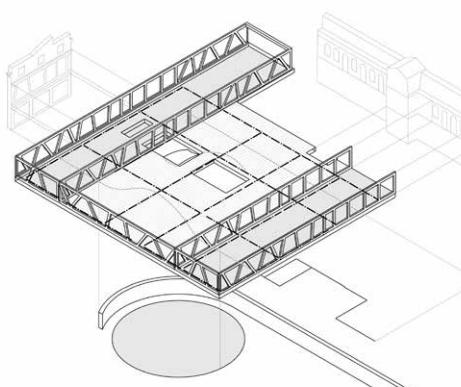
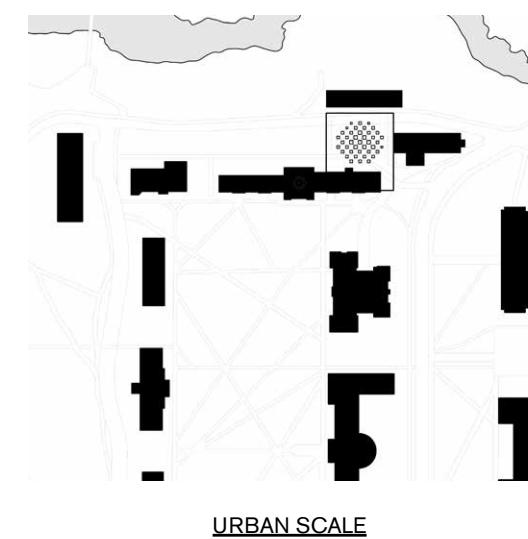
BUILDING TYPE

Box + Ground Hybrid

SYSTEM OF CONSTRUCTION

Steel Trusses

Reinforced Concrete Shell



FORM-GIVING ELEMENTS

Virindeel Trusses

Ground Plane

DISCIPLINARY QUESTIONS

How to create localized fields of space with the minimum amount of architecture? How to get structure to make space and identity?

SITE QUESTIONS

How to preserve site circulation?
How to sit on a historic quad?

PROGRAM/FUNCTIONAL QUESTIONS

How to make a studio space with only structure? How to float the box?

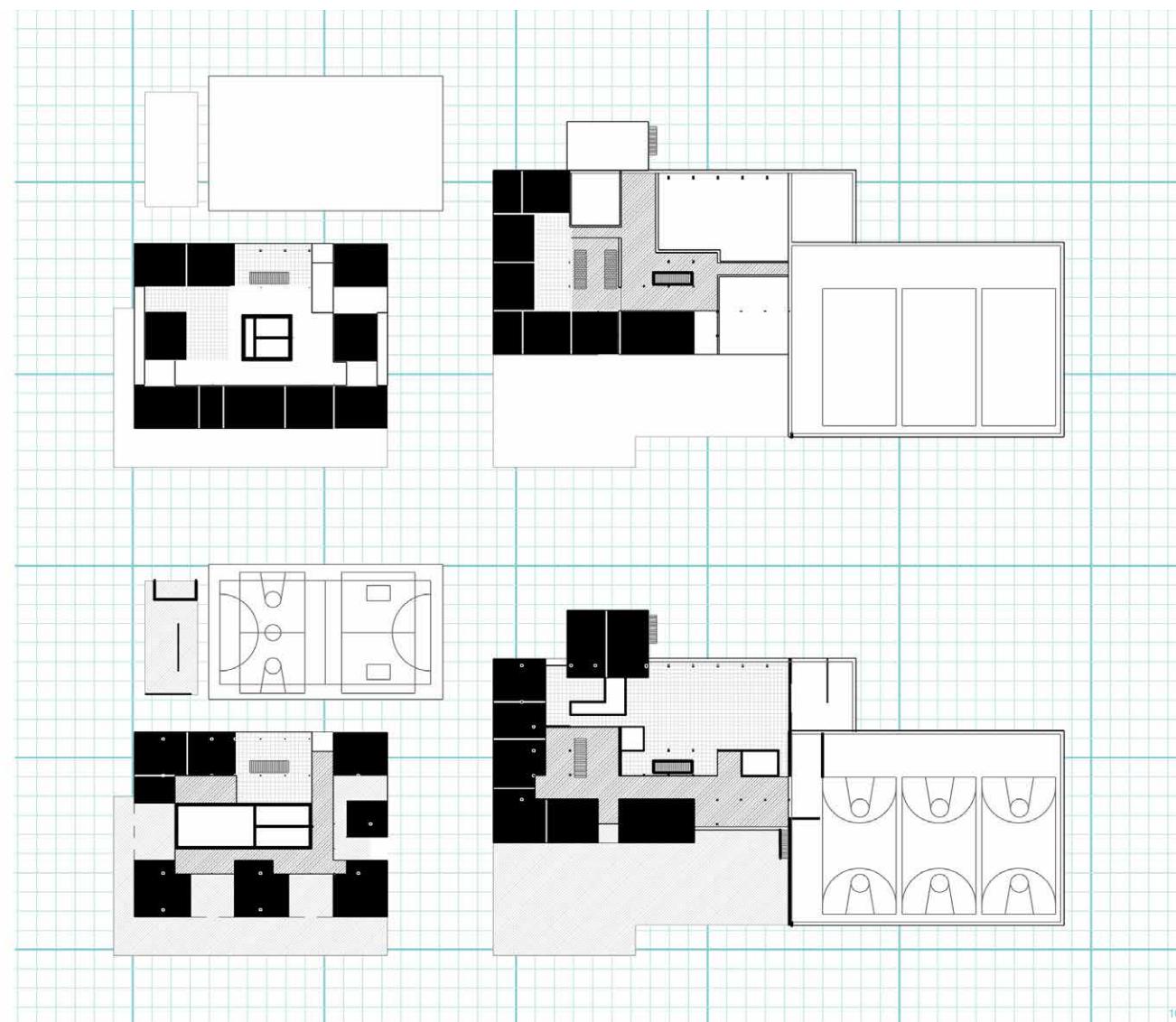
Schule im Birch

CONTEXT

Zurich, Switzerland, 2004

ARCHITECT

Peter Markli



PROGRAM SCALE

BUILDING TYPE

Box (Multi)

SYSTEM OF CONSTRUCTION

Precast Column and Slab

FORM-GIVING ELEMENTS

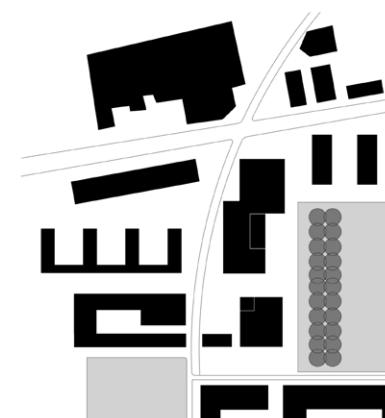
Site Slabs

Classroom Clusters

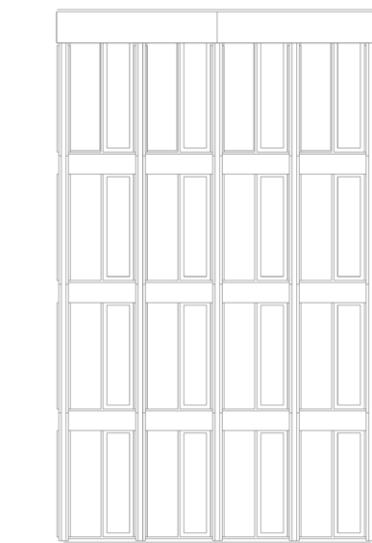
Plazas + Fields

SITE QUESTIONS

How to connect up the urban fabric to the park? How to make different entrances to different buildings
How to then make two volumes read as one?



URBAN SCALE



DETAIL SCALE

PROGRAM QUESTIONS

How to create groups of classrooms, small schools within a larger school?

TECTONIC QUESTIONS

How to make a classical precast facade to allow for a variety of infill conditions? How to keep the exterior facade homogenous while adjusting the structure on the interior?

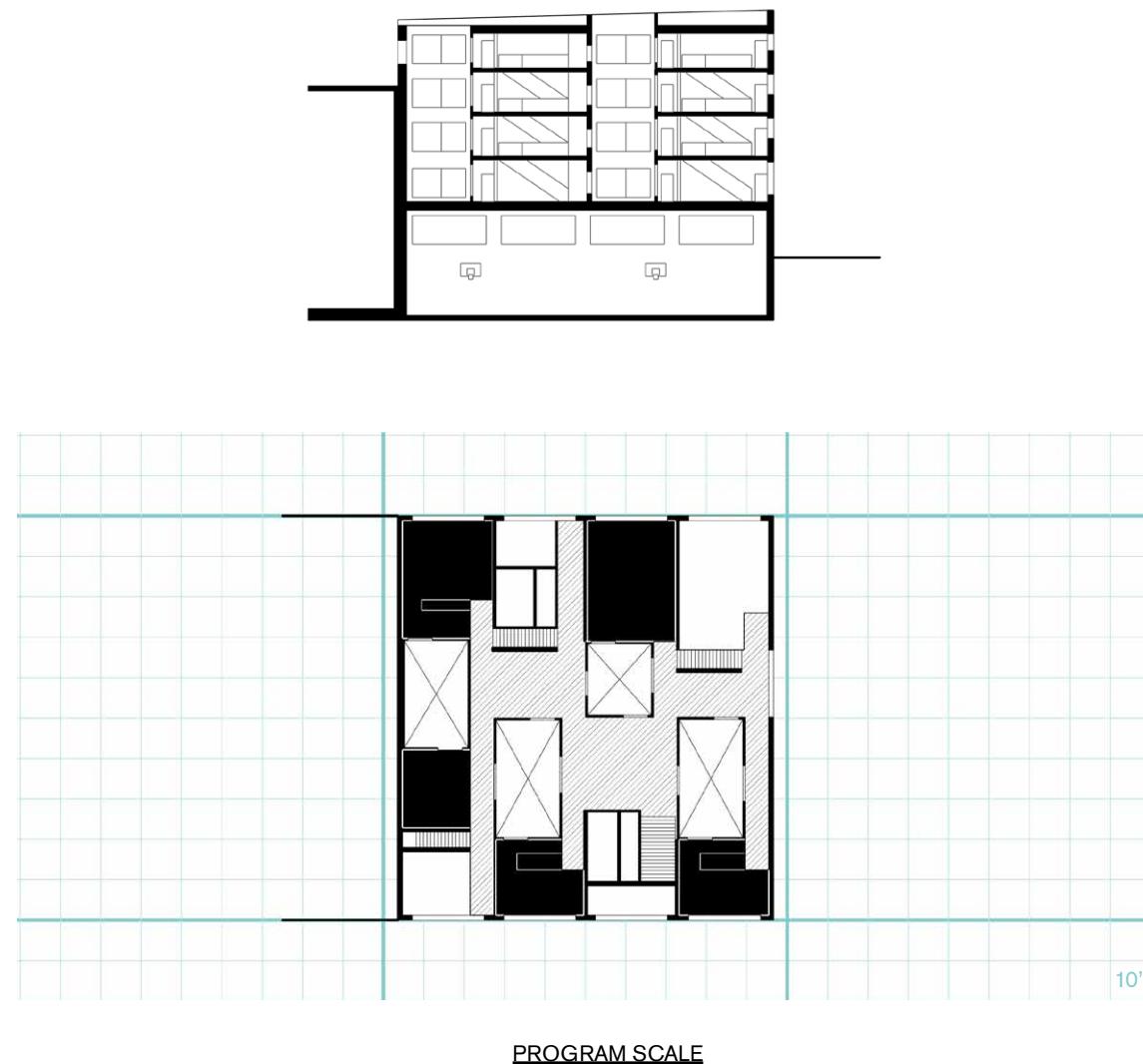
Volta School

CONTEXT

Basel, Switzerland, 1997

ARCHITECT

Miller & Maranta



BUILDING TYPE

Box

SYSTEM OF CONSTRUCTION

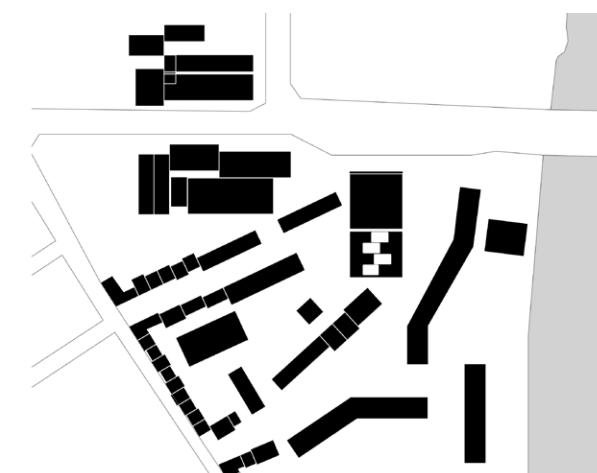
Rigid Slab + Shear Wall Diaphragm

FORM-GIVING ELEMENTS

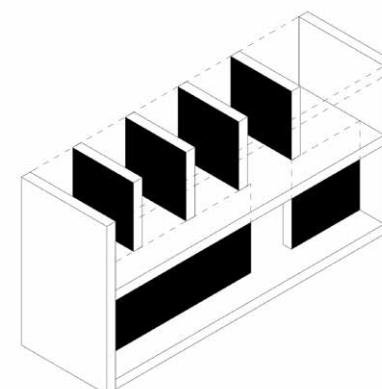
Corridor

Atria

Classrooms



URBAN SCALE



DETAIL SCALE

EXPERIENTIAL QUESTIONS

How to recreate and intensity the surrounding urban condition in the space of the building?

SITE QUESTIONS

How to take the urban and residential schizophrenia of the site and intensify it in the experience of the new building? How to use the existing excavated zone?

PROGRAM QUESTIONS

How to create lobbies for each classroom? How to create connections across the classrooms and out into the city?

TECTONIC QUESTIONS

How to use the shear wall to make a span? (Transfer bending and plate forces) A. Deplazes, *Constructing Architecture*, p. 376-377

Maison Latapie

CONTEXT

France, 1993

ARCHITECT

Lacaton and Vassal

BUILDING TYPE

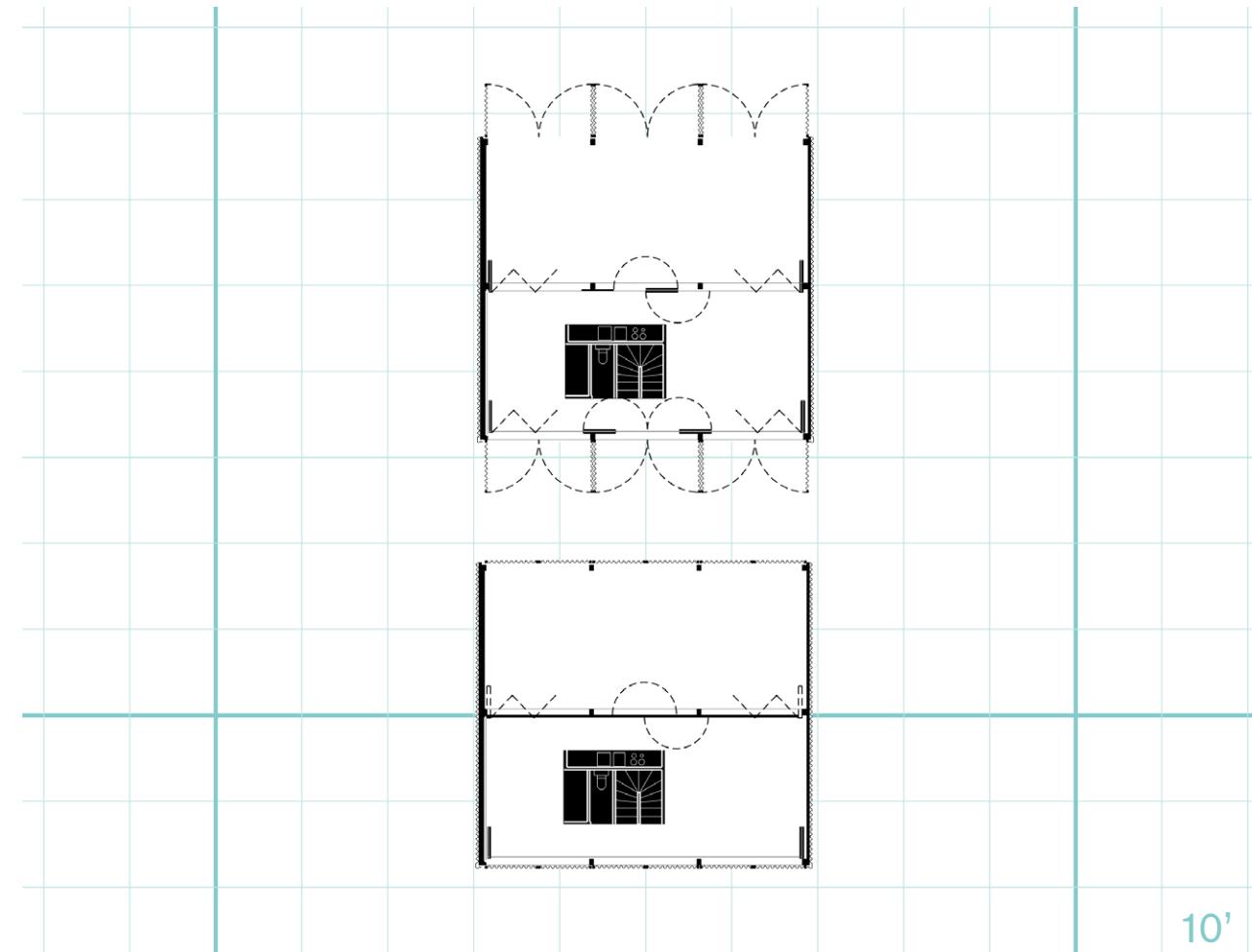
Box (Residential)

SYSTEM OF CONSTRUCTION

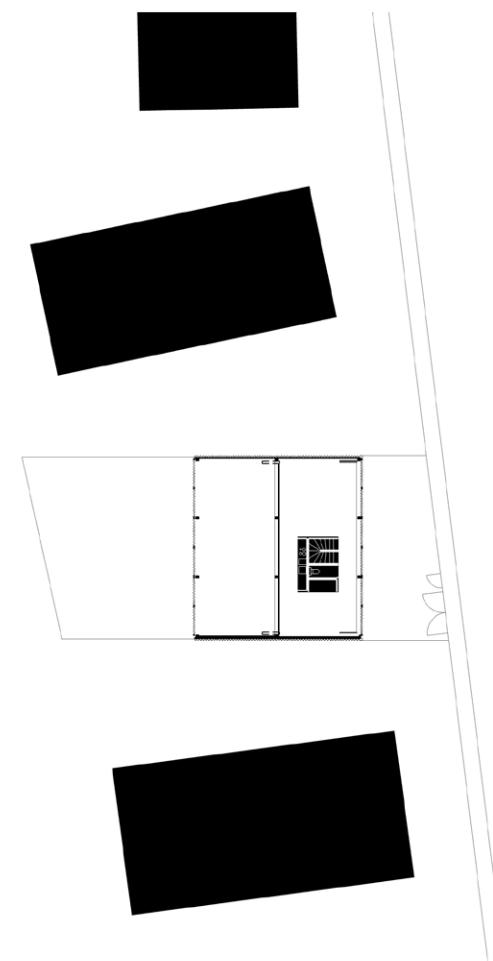
Steel Frame / Polycarb Cladding

FORM-GIVING ELEMENTS

Systems “Core”
Operable Doors
Void Space



PROGRAM SCALE



URBAN SCALE

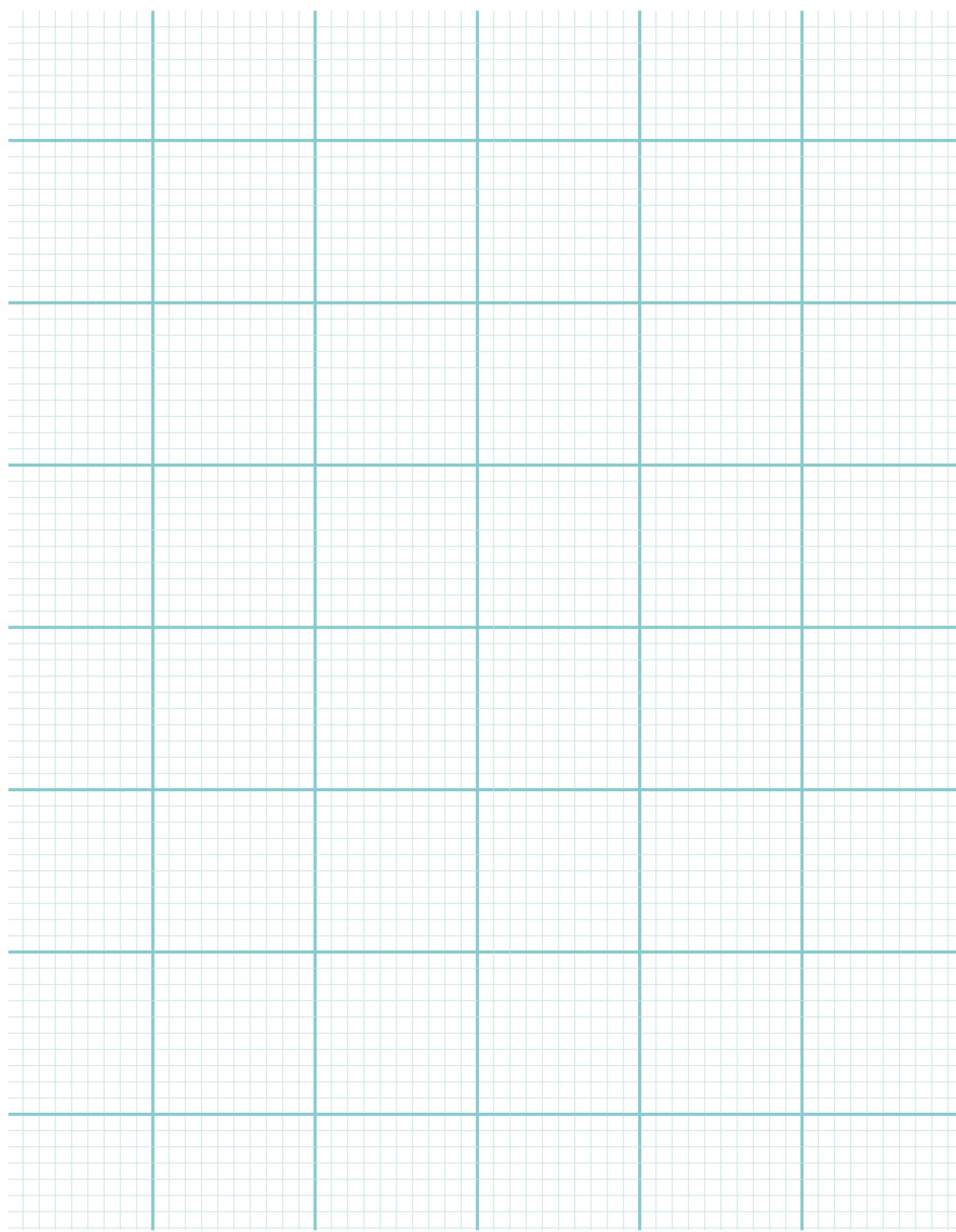
DISCIPLINARY QUESTIONS
How to condition only some parts of a building? How to make space that can flex with changing climactic conditions?

TECTONIC QUESTIONS
How to adapt greenhouse construction to a house?

SITE QUESTIONS
How to create a street side and a garden side?

PROGRAM/BRIEF QUESTIONS
How to create bright spaces that can be used in winter?

EXPERIENTIAL QUESTIONS
How to create a building with an open and a closed state in its nature?



Leutschenbach School

CONTEXT

Zurich, Switzerland, 2009

ARCHITECT

Christian Kerez

BUILDING TYPE

Box

SYSTEM OF CONSTRUCTION

Steel Girders

Concrete Slabs

FORM-GIVING ELEMENTS

Trussed Griders

Corridor

Egress

Ceiling System/Soffit



URBAN SCALE

PROGRAM SCALE

DETAIL SCALE

DISCIPLINARY QUESTIONS

How can structure create both expression/identity and spatial freedom?

EXPERIENTIAL QUESTIONS

How to connect this condensed footprint perceptually to the surrounding park?

PROGRAM/FUNCTIONAL QUESTIONS

How to free the corridor from the demands of egress to make it a space? How to weave the primary and upper school?

TECTONIC QUESTIONS

How to land the building on tiny feet? How to keep the space as open as possible but achieve layering and privacy?

Vella School Complex

CONTEXT

Vella, Switzerland, 1997

ARCHITECT

Bearth & Deplazes

BUILDING TYPE

Multi-Bar

FORM-GIVING ELEMENTS

Passive Solar

Precast Ceiling Ribs

SYSTEM OF CONSTRUCTION

Cast in Place Concrete

Precast Concrete

DISCIPLINARY QUESTIONS

How to provide an architectural (not technological) proposal for a sustainable building?



URBAN SCALE

SITE QUESTIONS

How to make the building “sustainable” without simply attaching solar panels to its roof?

PROGRAM/FUNCTIONAL QUESTIONS

How to create areas of usable and useful thermal mass in classrooms?

PROGRAM SCALE

DETAIL SCALE

TECTONIC QUESTIONS

How to detail the windows and shades for radiation without glare?

Huntaston School

CONTEXT

England, 1940s

ARCHITECT

Alison and Peter Smithson

SYSTEM OF CONSTRUCTION

HSS Steel / Brick Infill Panels

FORM-GIVING ELEMENTS

Structural System

Courtyard

Interior “Courtyard”

Watertower

BUILDING TYPE

Courtyard Aggregate

DISCIPLINARY QUESTIONS

How to use industrial components to produce something that is neither as fussy as Mies nor as generic as British prefab?



URBAN SCALE

EXPERIENTIAL QUESTIONS

How to apply the logic of the Bailey bridges?

PROGRAM QUESTIONS

How to make classrooms with no corridors? How to connect with an efficient system of circulation?

PROGRAM SCALE

DETAIL SCALE

TECTONIC QUESTIONS

How to “make a composition of existing elements rather than designing them?”

UCCS Woodlawn

CONTEXT

Chicago, United States, 2018

ARCHITECT

Davies Toews

BUILDING TYPE

Bar

FORM-GIVING ELEMENTS

Parapet

Brick Facade

Entry/Corridor

College Center

Bridge

SYSTEM OF CONSTRUCTION

Brick-faced Concrete

DISCIPLINARY QUESTIONS

How to strike a balance between architectural expression and the



URBAN SCALE

EXPERIENTIAL QUESTIONS

How to create an inspiring experience aimed at reaching college in a tough neighborhood?

SITE QUESTIONS

How to make the building have identity from afar in the neighborhood, even at night?

PROGRAM/FUNCTIONAL QUESTIONS

How to create a bridge? How to feature the college center?

PROGRAM SCALE

DETAIL SCALE

TECTONIC QUESTIONS

How to break up a big building and obtain extra expression at no extra cost? How to break up the scale of a

Nantes School of Architecture

CONTEXT

Nantes, France, 2009

ARCHITECT

Lacaton and Vassal

BUILDING TYPE

Block/Promenade

SYSTEM OF CONSTRUCTION

Concrete Decks +
Steel Substructure

FORM-GIVING ELEMENTS

Concrete Slabs + Columns
Steel Substructure
Ramp



URBAN SCALE

DISCIPLINARY QUESTIONS

How to make a spatial system for a school that gives it the flexibility to change while also giving it enough specificity and definition?

PROGRAM SCALE

DETAIL SCALE

PROGRAM/BRIEF QUESTIONS

How to define several general scales and qualities of spaces and then how to join them?

Laban Center for Dance

CONTEXT

London, England, 2013

ARCHITECT

Herzog & de Meuron

FORM-GIVING ELEMENTS

Corridor/Ramp
Studio
Facade
Handrail

BUILDING TYPE

Box

DISCIPLINARY QUESTIONS

How to dematerialize a building?
How to create architecture that is
picturesque?

URBAN SCALE

EXPERIENTIAL QUESTIONS

How to make architecture feel like
one of the dancers?

PROGRAM QUESTIONS

How to display the dance studios
to those passing by without the
vulgarity of a sheet of glass?

PROGRAM SCALE

DETAIL SCALE

TECTONIC QUESTIONS

How to make a building float?
How to flatten the facade?

Gund Hall

CONTEXT

United States, Boston, 1971

ARCHITECT

John Andrews

BUILDING TYPE

Terraced Block/Ziggurat

FORM-GIVING ELEMENTS

Concrete Columns
Stairs
Terraces
Studio “Trays”

SYSTEM OF CONSTRUCTION

Concrete

DISCIPLINARY QUESTIONS

How to make the space of the studio the expression of the school?
How to make a school without walls?

EXPERIENTIAL QUESTIONS

-

URBAN SCALE

SITE QUESTIONS

-

PROGRAM/BRIEF QUESTIONS

How to provide enough enclosure when sitting down at a desk but enough connectivity from above?
How to network the trays?

PROGRAM SCALE

DETAIL SCALE

TECTONIC QUESTIONS

-