

ARCHITECTURE PORTFOLIO

4TH, 3RD, 2ND, & 1ST YEAR DESIGN STUDIOS

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KENT STATE UNIVERSITY
COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN
UNDERGRADUATE PROGRAM

PORTFOLIO
4TH, 3RD, 2ND, & 1ST YEAR DESIGN STUDIOS

TIFFANY KENST

4TH YEAR DESIGN STUDIO

OBERLIN HOTEL & HOSTEL + GARDEN RESTAURANT

INDIVIDUAL PROJECT

METHODS & MATERIALS II: CONSTRUCTION DRAWINGS

INDIVIDUAL PROJECT

3RD YEAR DESIGN STUDIO

ROW HOUSE RENOVATION

INDIVIDUAL PROJECT

PIAZZA BRUNELLESCHI LIBRARY ADDITION

INDIVIDUAL PROJECT + TEAM SITE MODEL

MILAN & VENICE SKETCHES

2ND YEAR DESIGN STUDIO

HOUSING UNIT + CAFE

INDIVIDUAL PROJECT

SINGLE ROOM OCCUPANCY + MARKET

INDIVIDUAL PROJECT

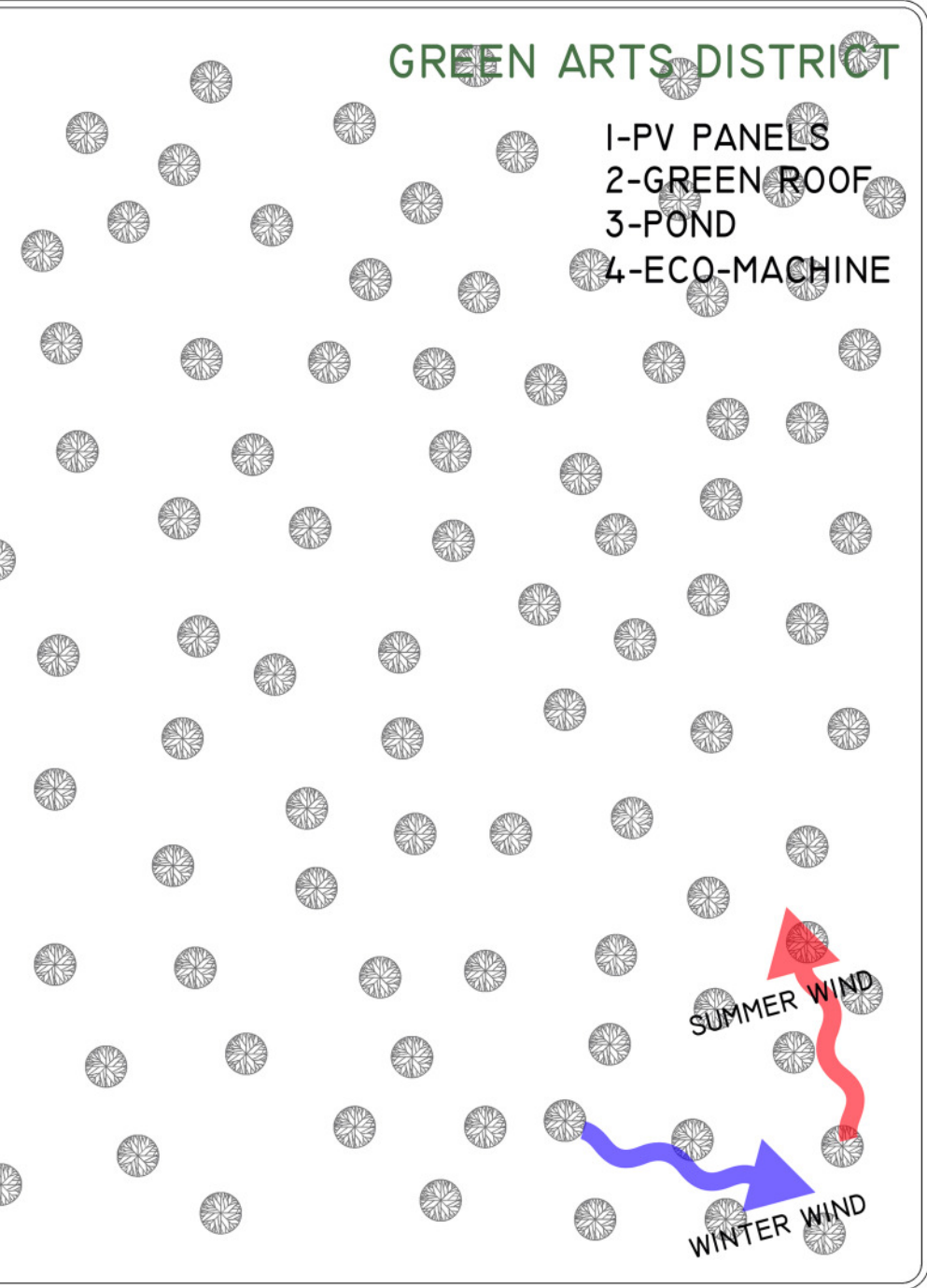
1ST YEAR DESIGN STUDIO

PERSPECTIVE DRAWING

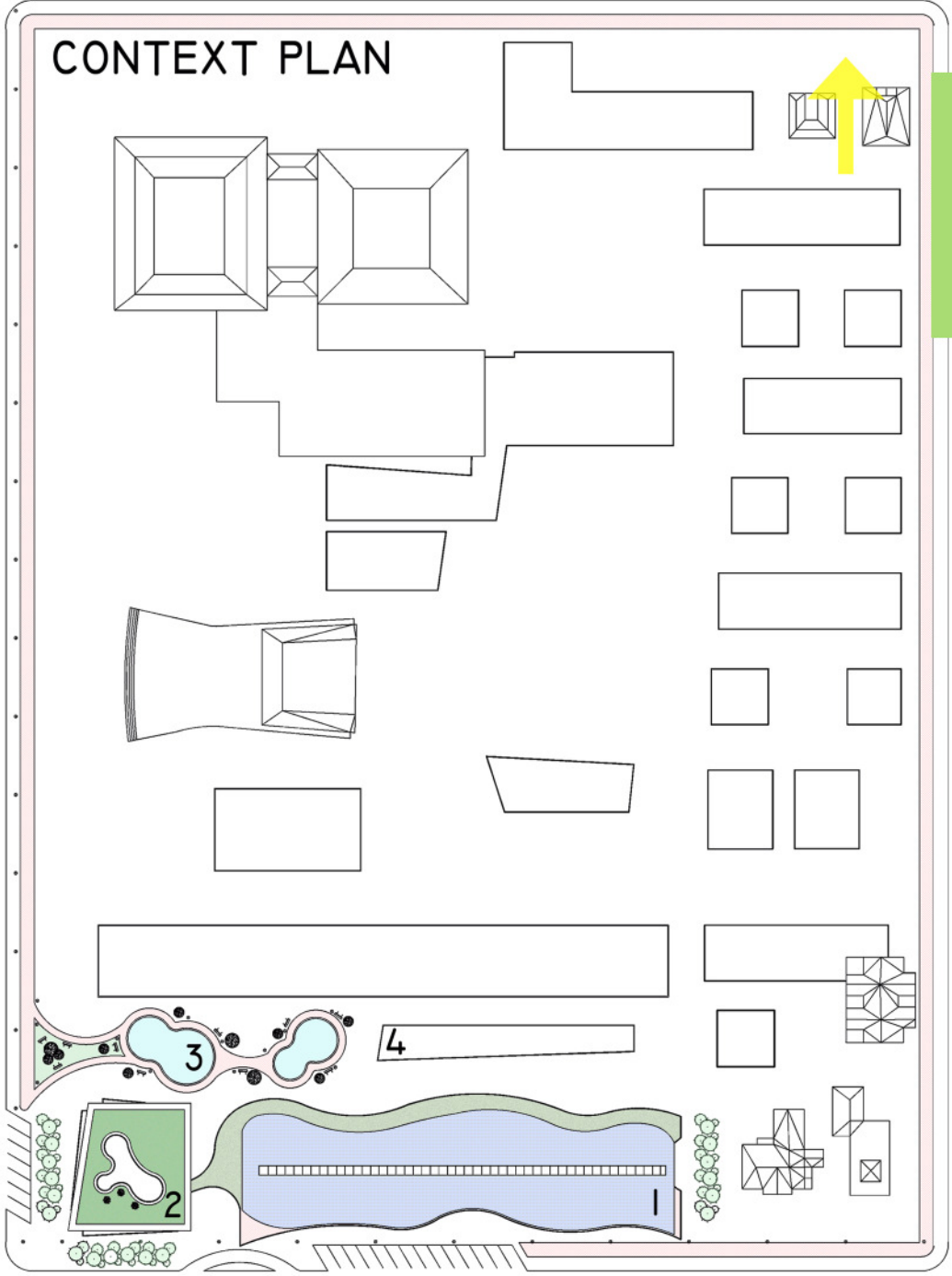
INDIVIDUAL PROJECT

GREEN ARTS DISTRICT

- 1-PV PANELS
- 2-GREEN ROOF
- 3-POND
- 4-ECO-MACHINE

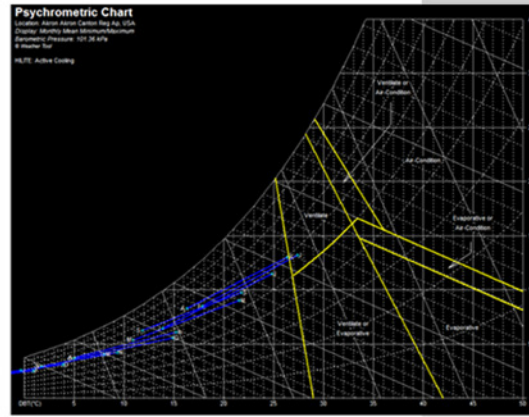
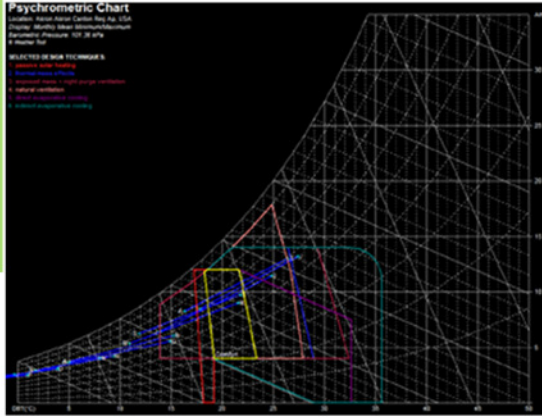


CONTEXT PLAN

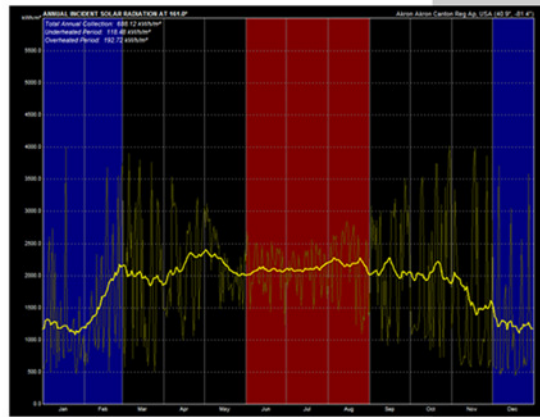
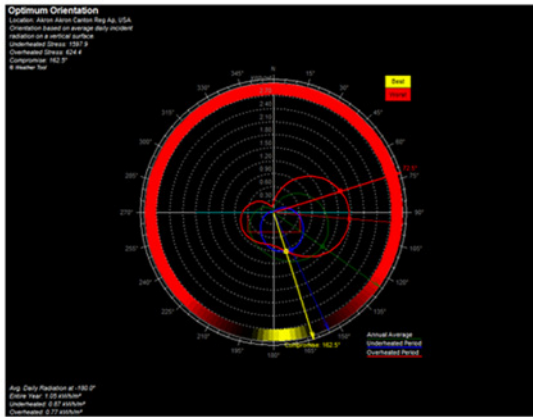


SCALE: 1/32" = 1'-0"

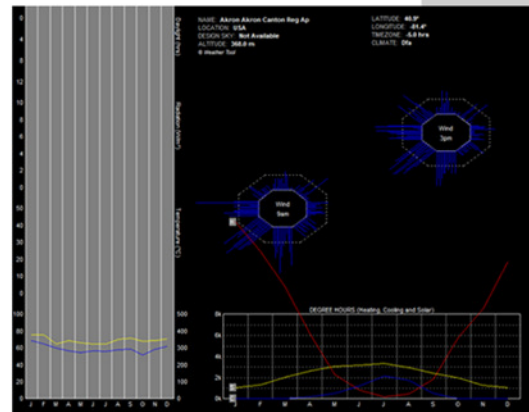
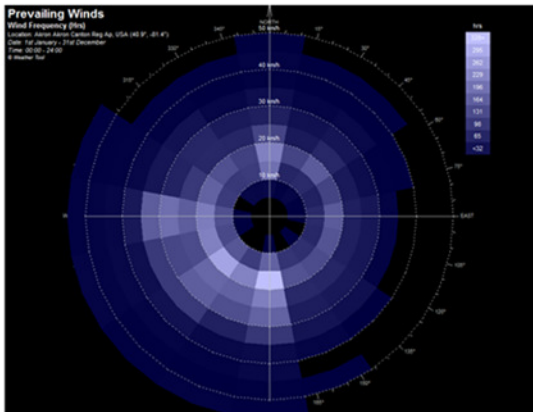
PSYCHROMETRIC CHART



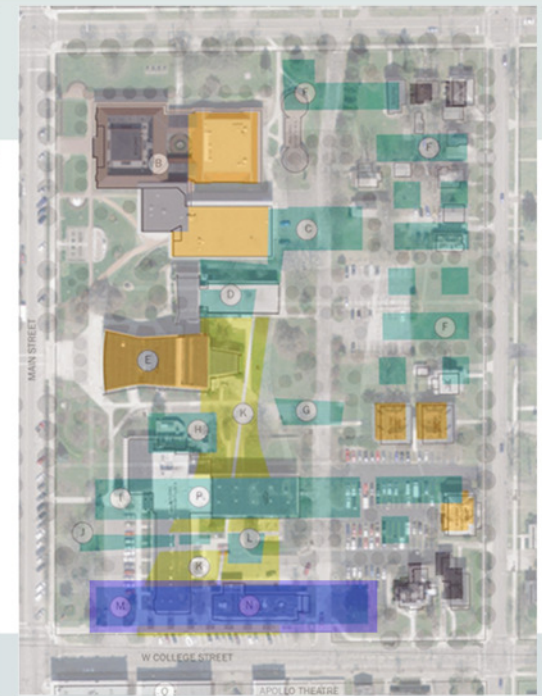
OPTIMUM ORIENTATION + SOLAR RADIATION



PREVAILING WINDS



- A Tappan Square
- B Allen Memorial Art Museum
- C Venturi Art Building Renovation and Expansion
- D Workshop
- E Hall Auditorium
- F Student Housing
- G The Center
- H Green Theater
- I Curricular Arts Building
- J Eco-machine
- K Forum
- L Lecture Hall
- M Restaurant
- N Oberlin Inn
- O Downtown
- P Black Box



- New Construction
- Renovation
- Existing

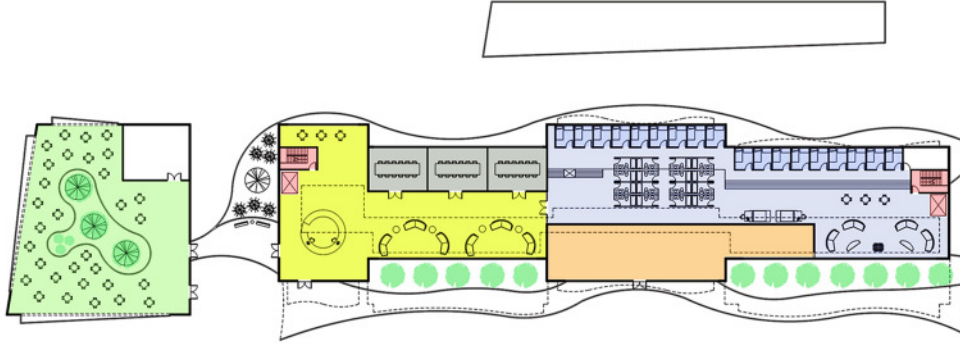
MASTER PLAN



SITE PHOTOS

4TH YEAR DESIGN STUDIO OBERLIN HOTEL & HOSTEL + GARDEN RESTAURANT

LEVEL 1



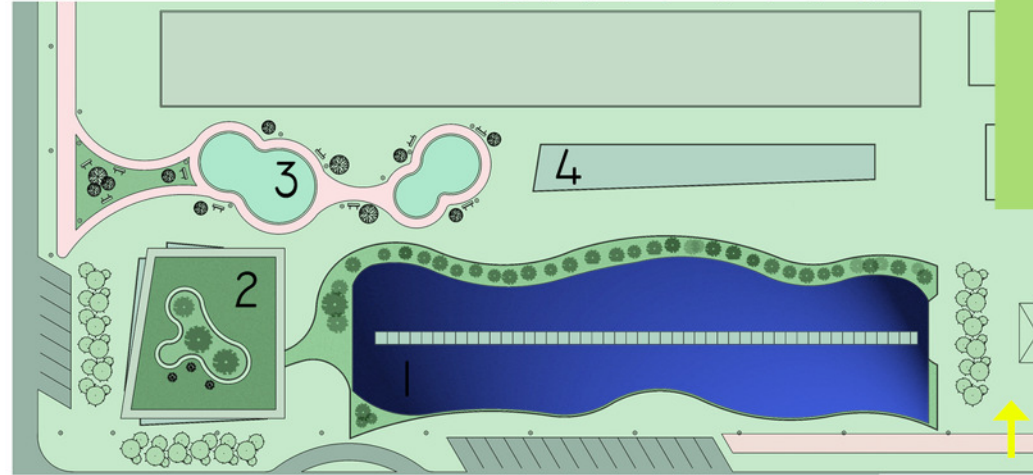
- BLUE HOSTEL SPACE
- PINK STAIRS + ELEVATOR
- ORANGE RETAIL SPACE
- YELLOW ENTRY + LOUNGE
- GREY CONFERENCE
- GREEN RESTAURANT

HOTEL/HOSTEL AREA: 22,000 SQ. FT.
ANNUAL ENERGY CONSUMED: 76 KWH +/-

RESTAURANT AREA: 4,500 SQ. FT.
ANNUAL ENERGY CONSUMED: 69 KWH +/-

SITE PLAN

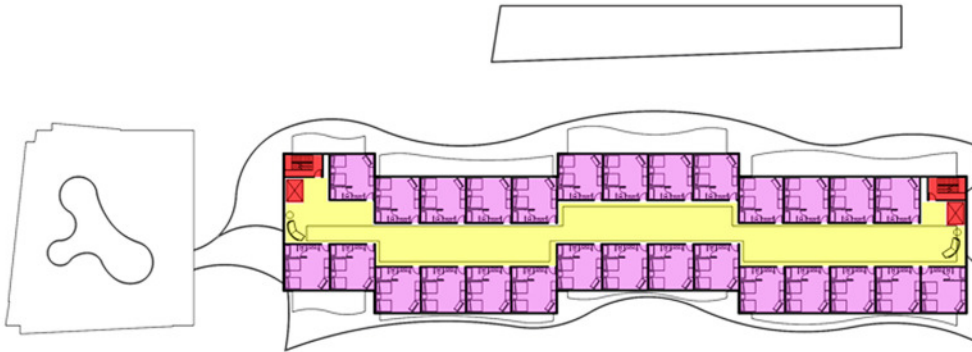
SCALE: 1/16"=1'-0"



- 1 PV PANELS
- 2 GREEN ROOF
- 3 POND/STORM WATER COLLECTION
- 4 ECO-MACHINE

ROOF AREA: 18,000 SQ.FT.
ENERGY GAINED BY PV PANELS:
13 WH/SQ. FT./YEAR: 234,000 WH/YEAR

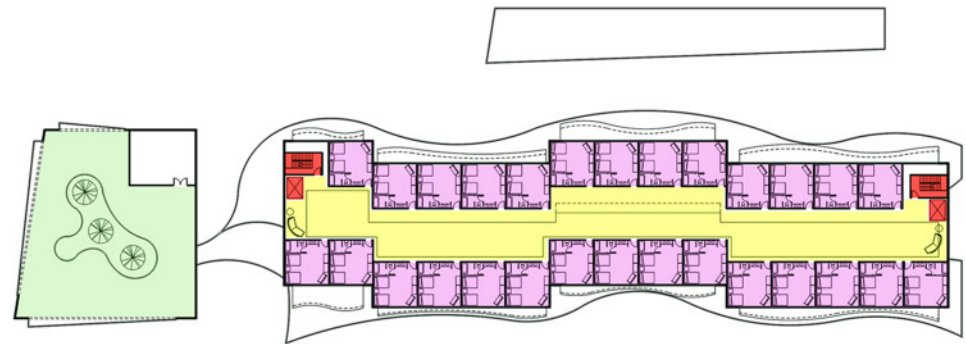
LEVEL 3



- PURPLE HOTEL SUITES
- PINK STAIRS + ELEVATOR
- YELLOW CORRIDOR + LOUNGE

HOTEL/HOSTEL AREA: 18,000 SQ. FT.
ENERGY CONSUMED: 62 KWH +/-

LEVEL 2



- PURPLE HOTEL SUITES
- PINK STAIRS + ELEVATOR
- YELLOW CORRIDOR + LOUNGE
- GREEN GREEN ROOF

HOTEL/HOSTEL AREA: 20,000 SQ. FT.
ENERGY CONSUMED: 69 KWH +/-



DESIGN STRATEGIES: SUN, WIND, AIR QUALITY, & WATER

HOTEL/HOSTEL -

THE 2ND AND 3RD COORIDOR FLOORS CONSIST OF AN OPEN STEEL BEAM STRUCTURE AND THICK TRANSLUCENT GLASS FLOORING. THE ROOF (ABOVE THE CORRIDOR) CONTAINS A SKYLIGHT WHICH CHANNELS SUNLIGHT INTO THE BUILDING, THROUGH THE TRANSLUCENT FLOORING, AND DOWN TO THE FIRST LEVEL.

THE HOTEL/HOSTEL IS "WRAPPED" BY A CONTINUOUS, CURVED CURTAIN WALL WHICH IS SUPPORTED BY STRUCTURAL MULLIONS. THE GLASS FACADE IS CURVED IN ORDER TO DEFLECT STRONG WIND PRESSURES.

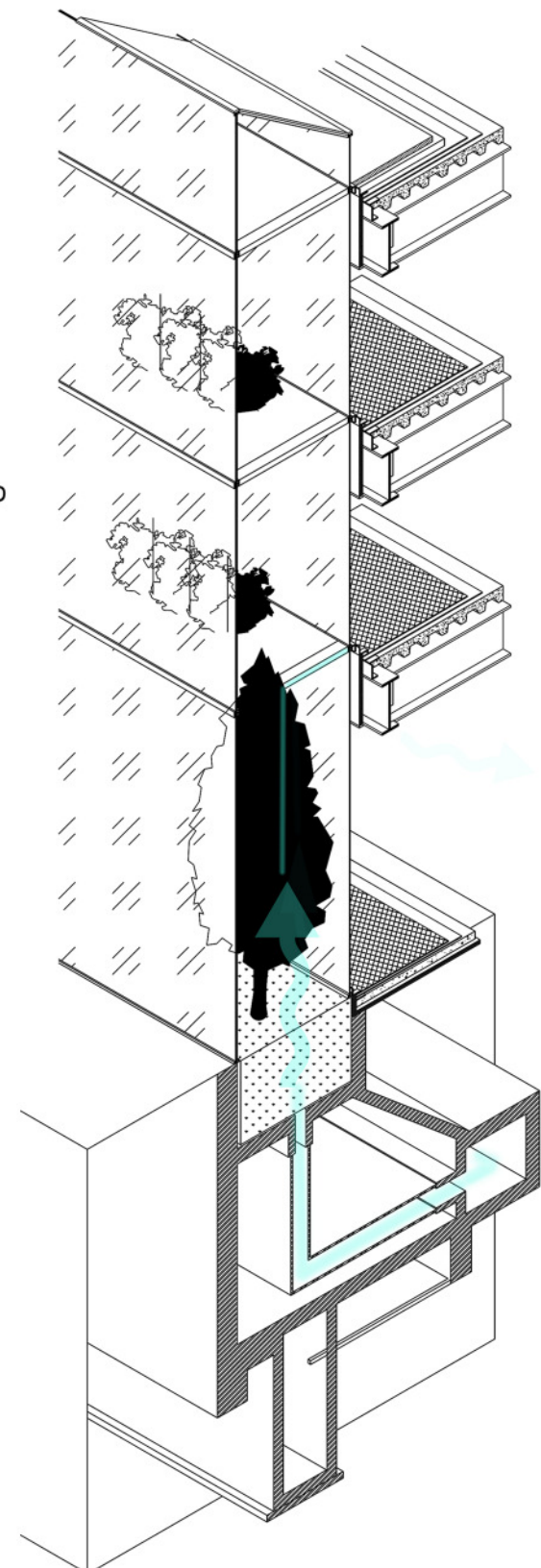
THE SPACE BETWEEN THE BUILDING AND THE CURTAIN WALL HOUSES PLANTS WHICH ARE SELECTED BASED ON THEIR AIR-FILTRATION QUALITIES.

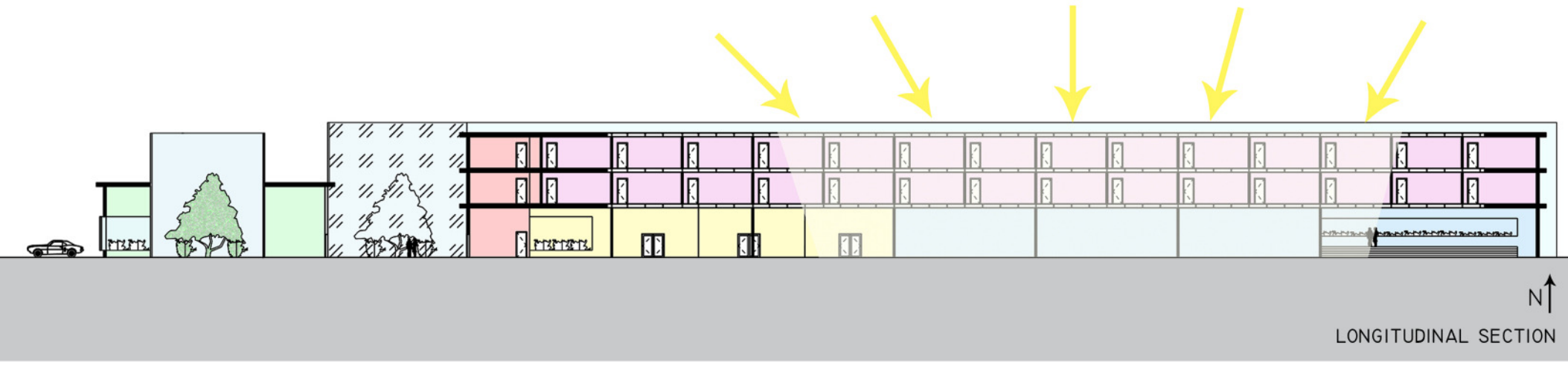
THE PROCESS OF THE PLANT-AIR FILTRATION STRATEGY BEGINS BY CHANNELING OUTSIDE AIR THROUGH 30' LONG COILS LOCATED BELOW FROST LEVEL. THE AIR IS EITHER GEOTHERMALLY WARMED OR COOLED TO AN EXTENT BEFORE ENTERING THE SPACE WHICH HOUSES THE PLANTS. THE PLANTS NATURALLY FILTER THE AIR WHICH THEN FLOWS INTO VAV DUCTS AND IS FULLY FILTERED BEFORE ENTERING INTERIOR SPACES.

THE PLANTS ALSO PREVENT SOLAR HEAT GAIN DURING THE SUMMER AND CAN BE MOVED DURING THE WINTER TO ALLOW SOLAR HEAT GAIN.

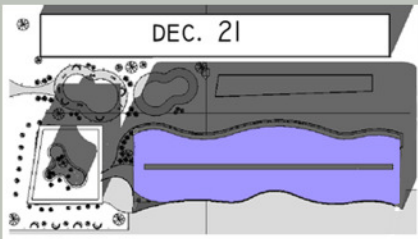
RESTAURANT -

KNOWN AS THE "GARDEN RESTAURANT", THE INTERIOR SPACE CONTAINS A GARDEN WHICH IS ENCLOSED BY GLASS IN ORDER TO PROTECT THE AIR-FILTERING PLANTS FROM GERMS. THE RESTAURANT ALSO CONTAINS A GREEN ROOF WHICH COLLECTS WATER FOR RE-USE.



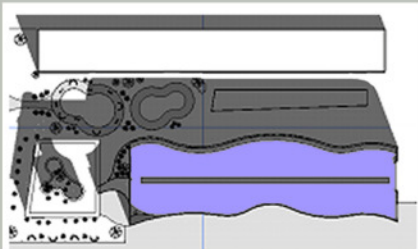


4TH YEAR DESIGN STUDIO
OBERLIN HOTEL & HOSTEL + GARDEN RESTAURANT



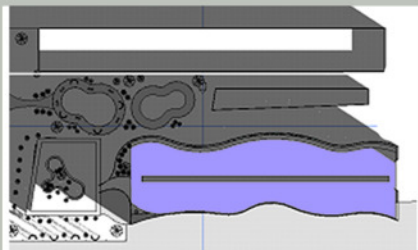
SUN PATH STUDIES

3 PM

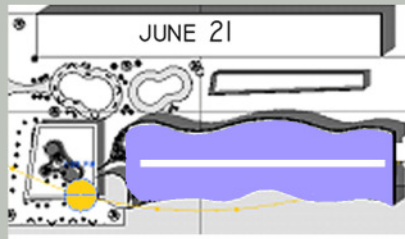


12 PM

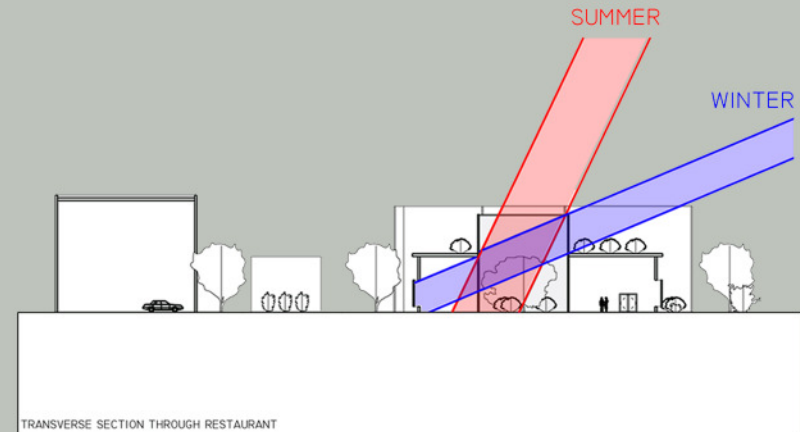
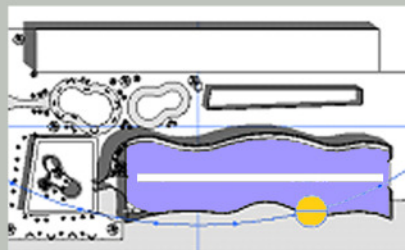
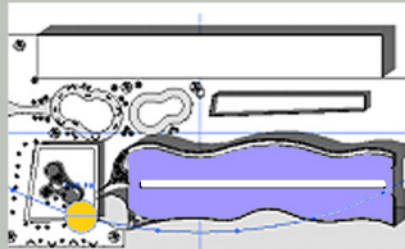
HOTEL ROOF IS NEVER SHADED...
PV PANELS WILL OBTAIN SUN FOR ENERGY ALL YEAR



9 AM

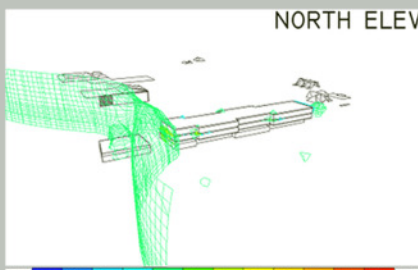


JUNE 21



RESTAURANT DAYLIGHT STUDY
SUNLIGHT IS CHANNLED THROUGH GLASS-ENCLOSED GARDEN

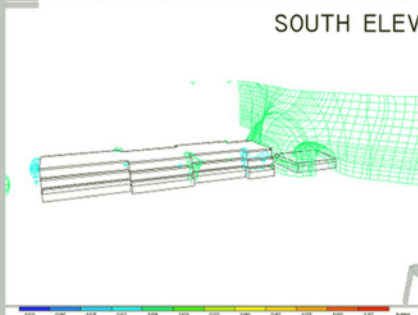
WIND PRESSURE STUDIES



NORTH ELEV.

WIND STUDIES

SUMMER WINDS
BLOW NORTH-
WEST

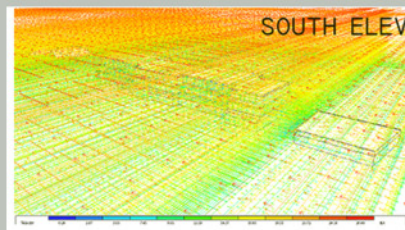


SOUTH ELEV.

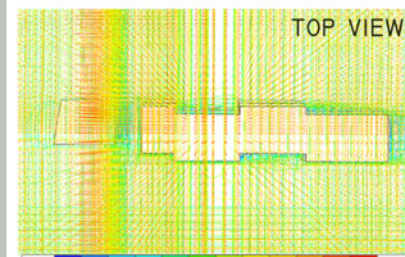
WINTER WINDS
BLOW SOUTH-
EAST

CURVE FACADE
IN ORDER TO
DEFLECT STRONG
WIND PRESSURES

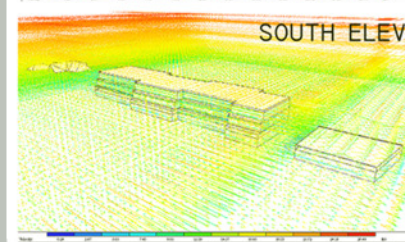
WIND VELOCITY STUDIES



SOUTH ELEV.



TOP VIEW



SOUTH ELEV.

SUN WIND LIGHT

4TH YEAR DESIGN STUDIO
OBERLIN HOTEL & HOSTEL +
GARDEN RESTAURANT

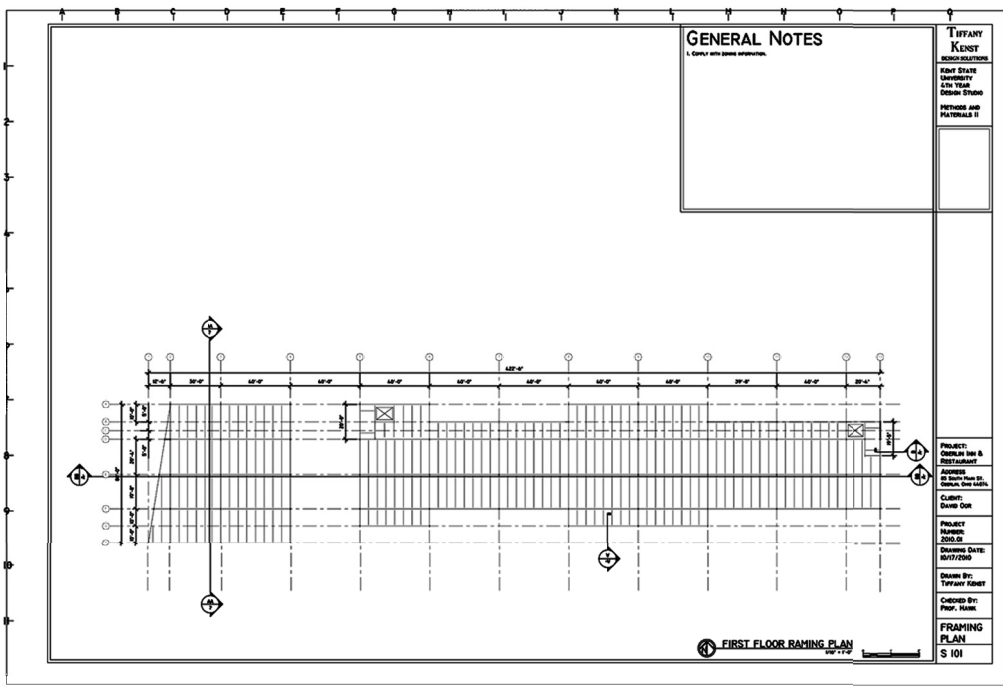
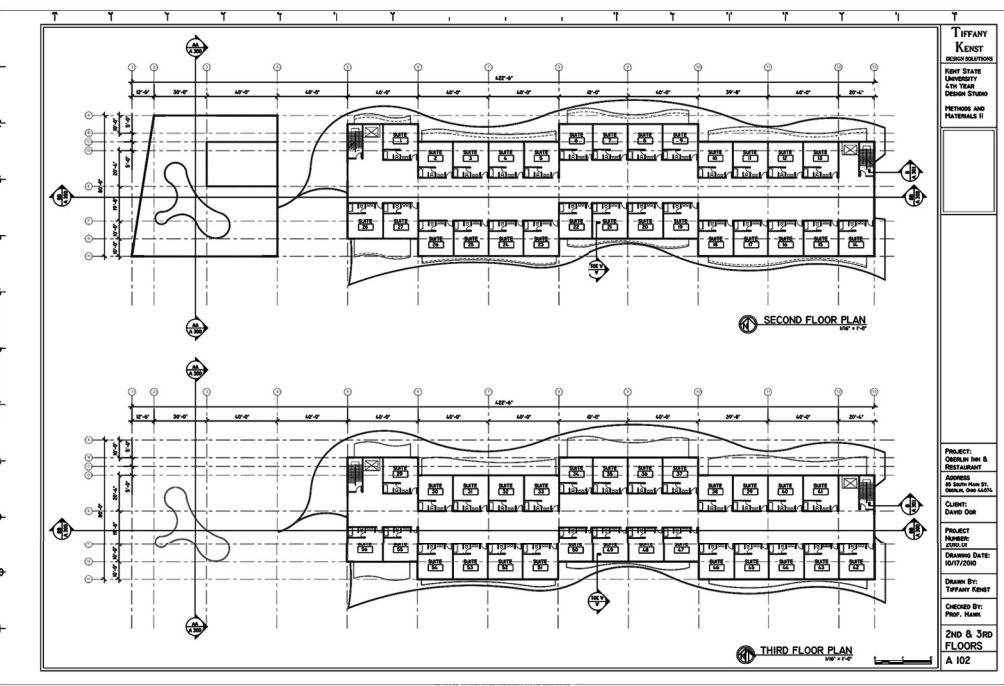
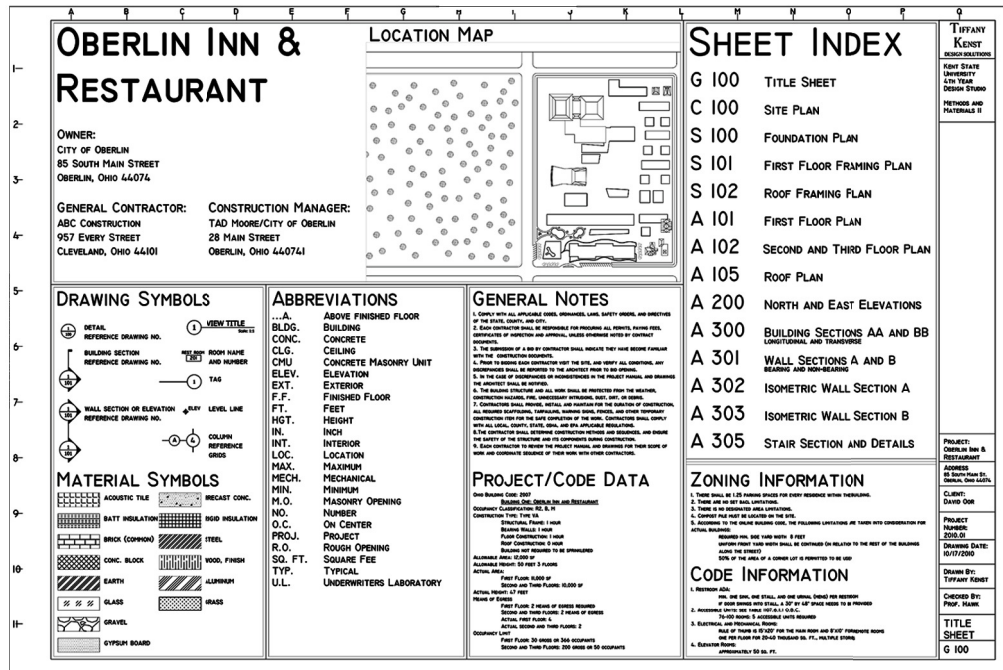
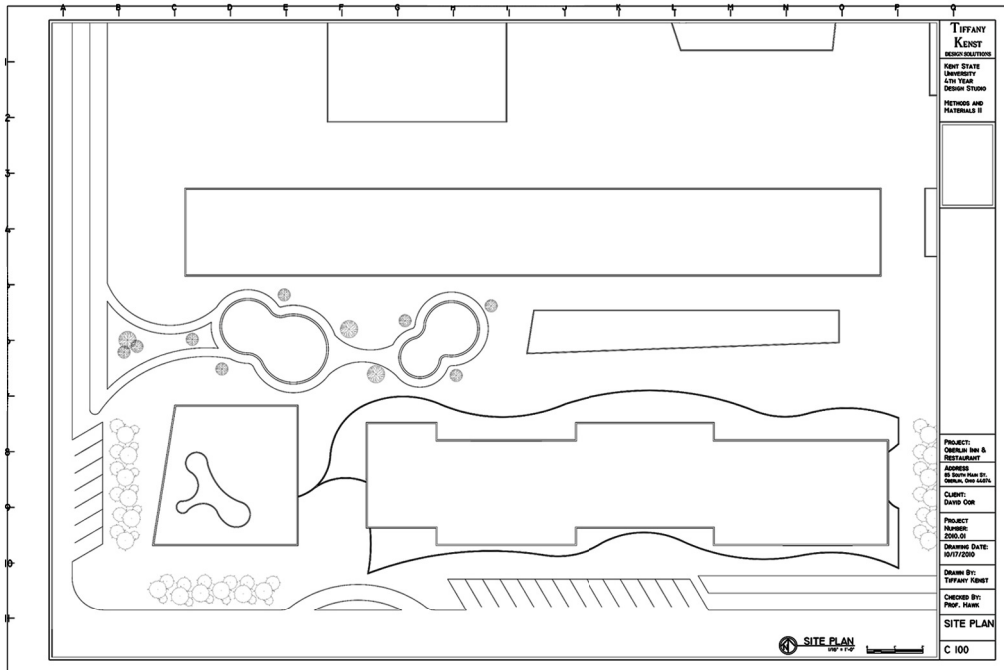
SECTION MODEL



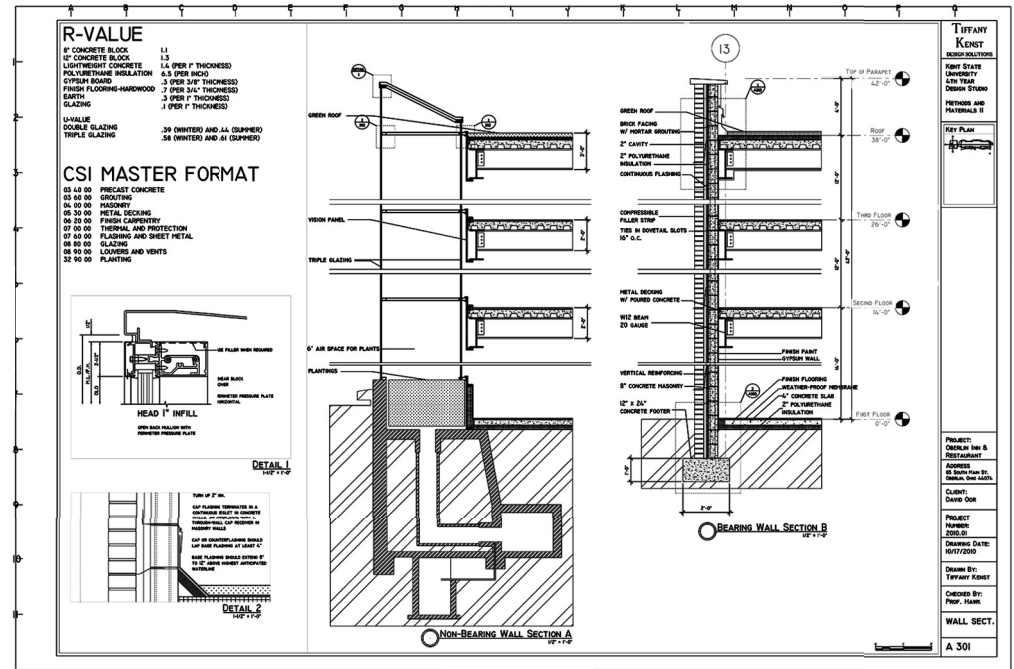
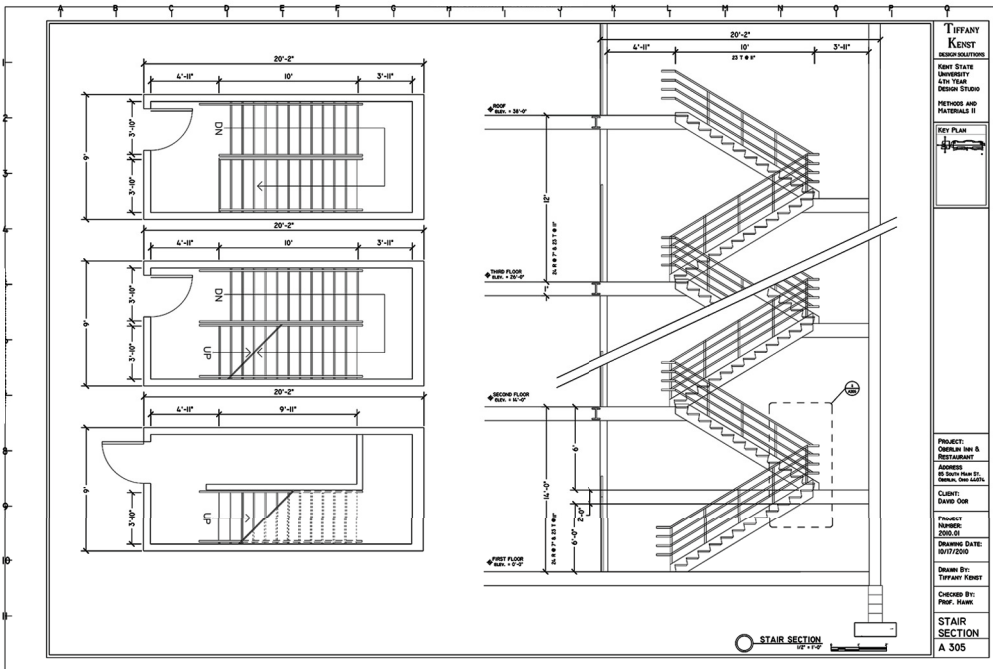
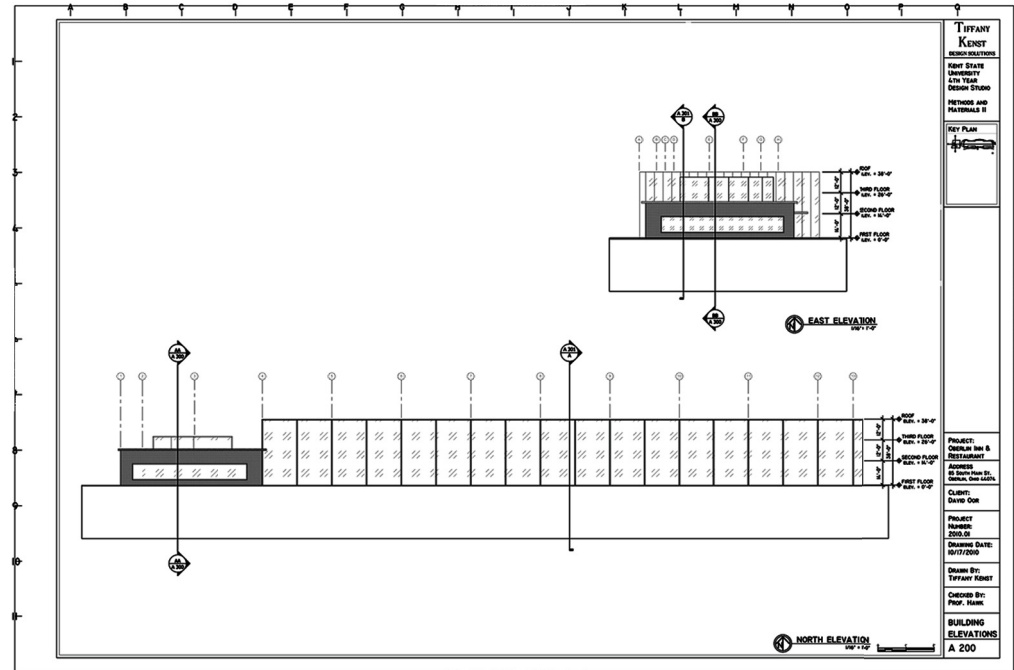
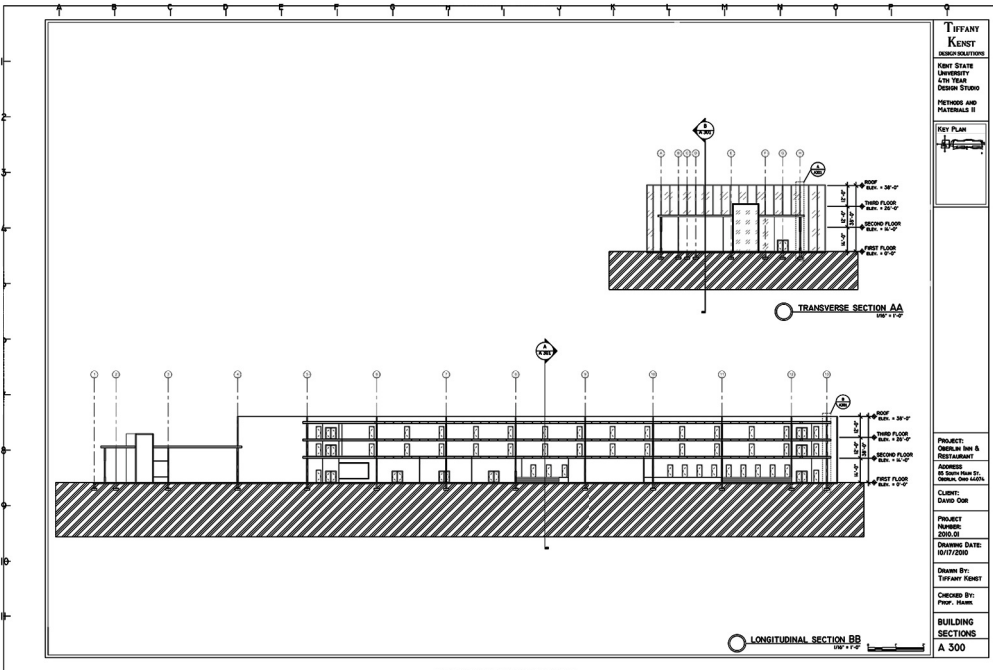
3D MODEL



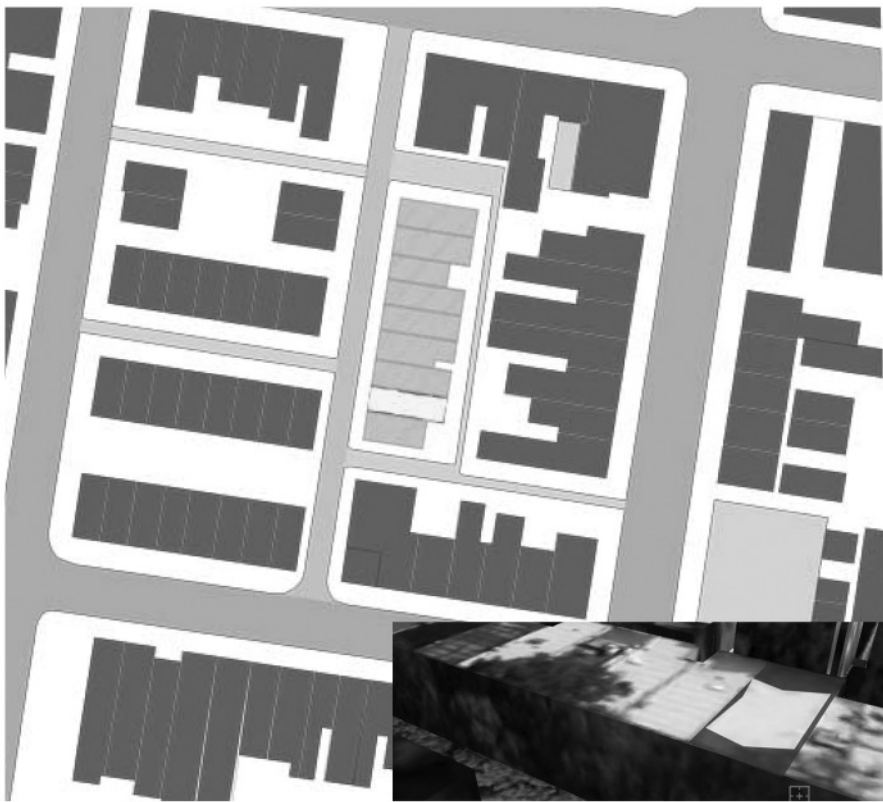
4TH YEAR DESIGN STUDIO
OBERLIN HOTEL & HOSTEL +
GARDEN RESTAURANT



4TH YEAR: METHODS & MATERIALS II
OBERLIN INN & RESTAURANT
CONSTRUCTION DRAWINGS

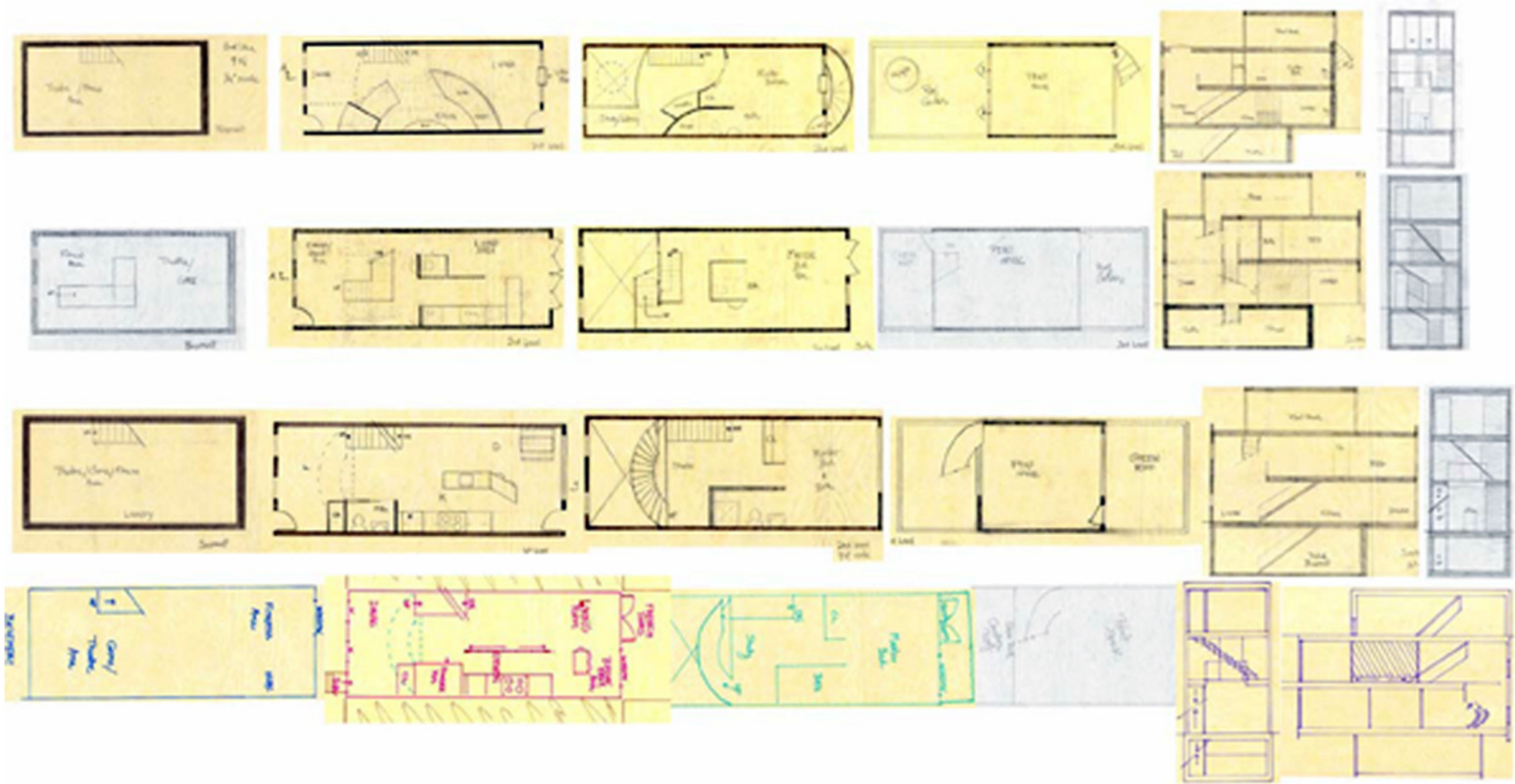


4TH YEAR: METHODS & MATERIALS II
 OBERLIN INN & RESTAURANT
 CONSTRUCTION DRAWINGS

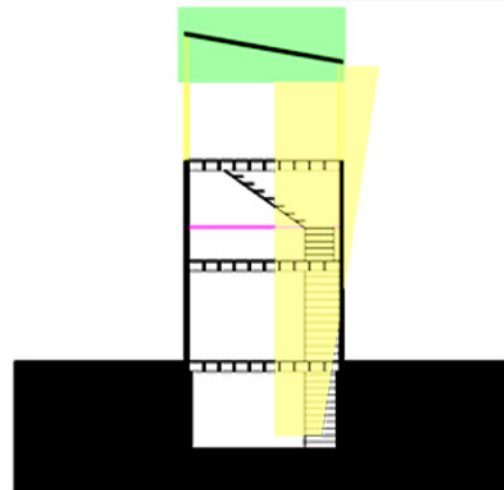
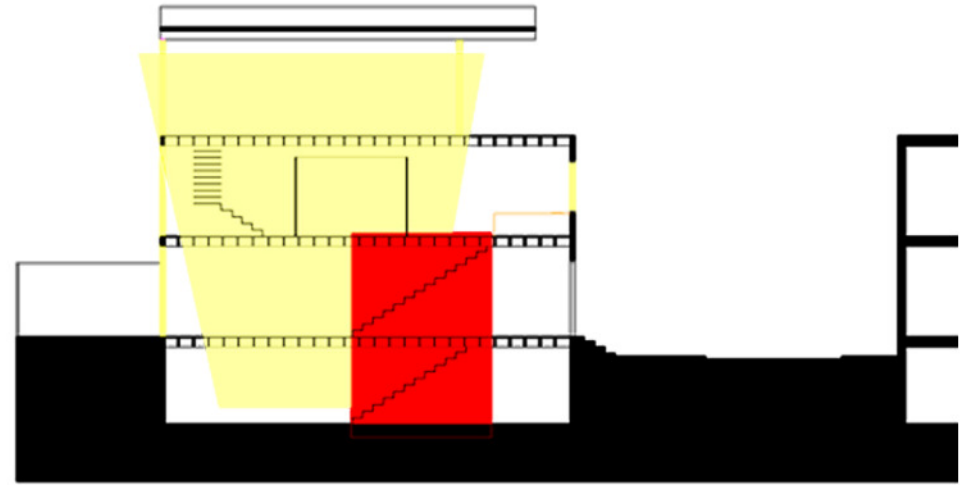
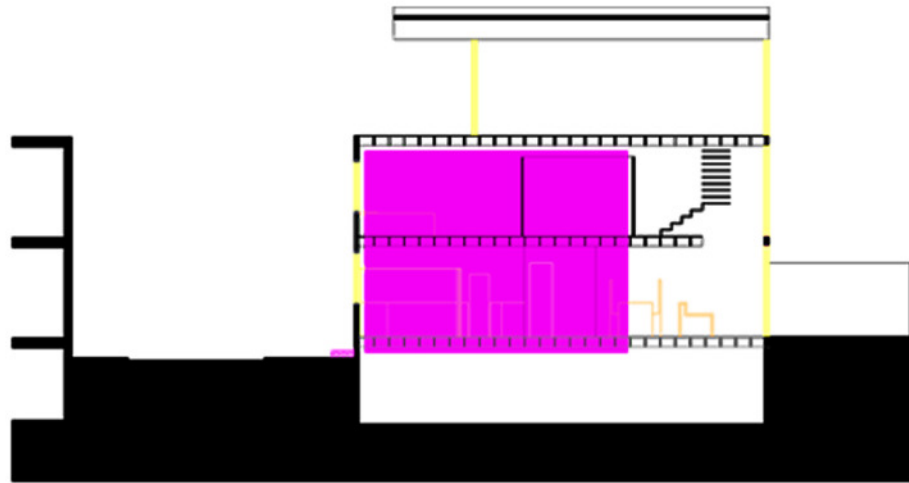
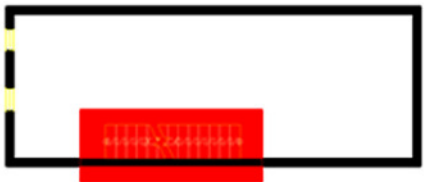
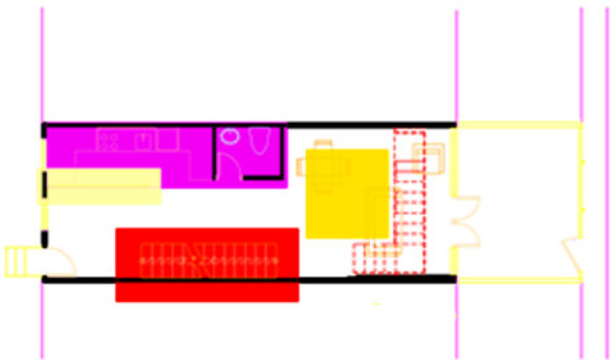
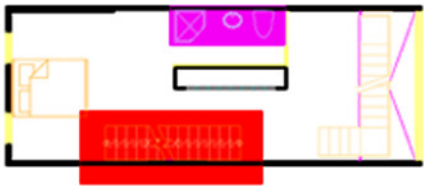


3RD YEAR DESIGN STUDIO
ROW HOUSE RENOVATION
PHILADELPHIA, PA
CONCEPT: THERMAL COMFORT

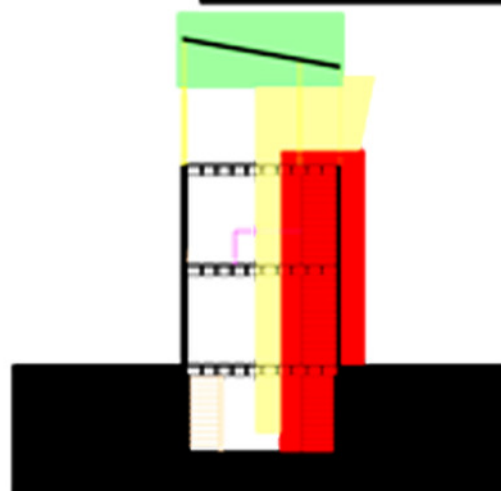
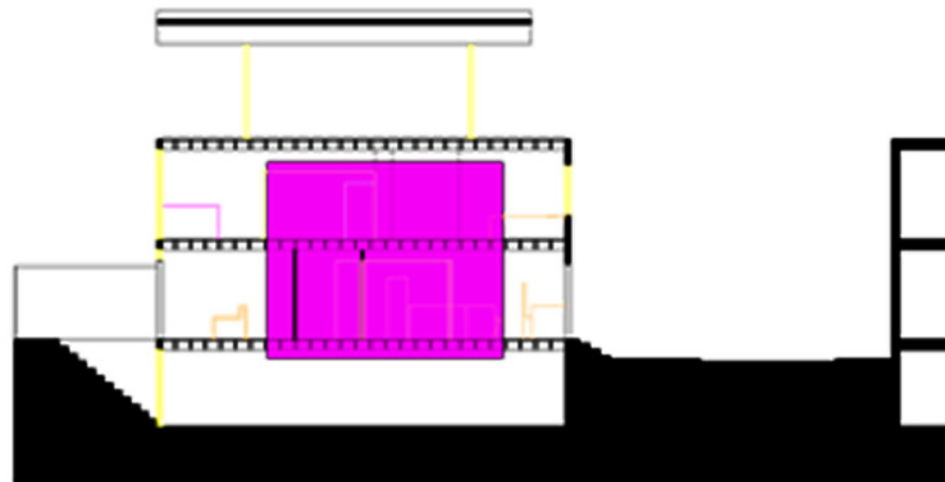
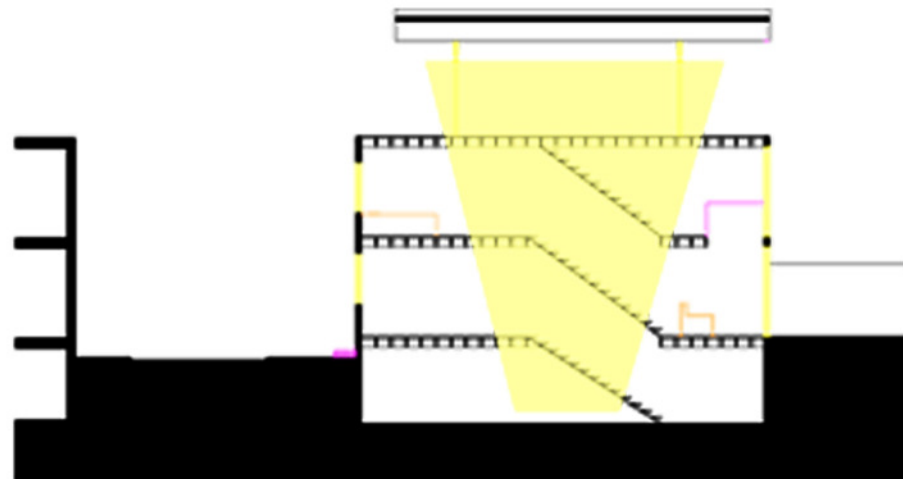
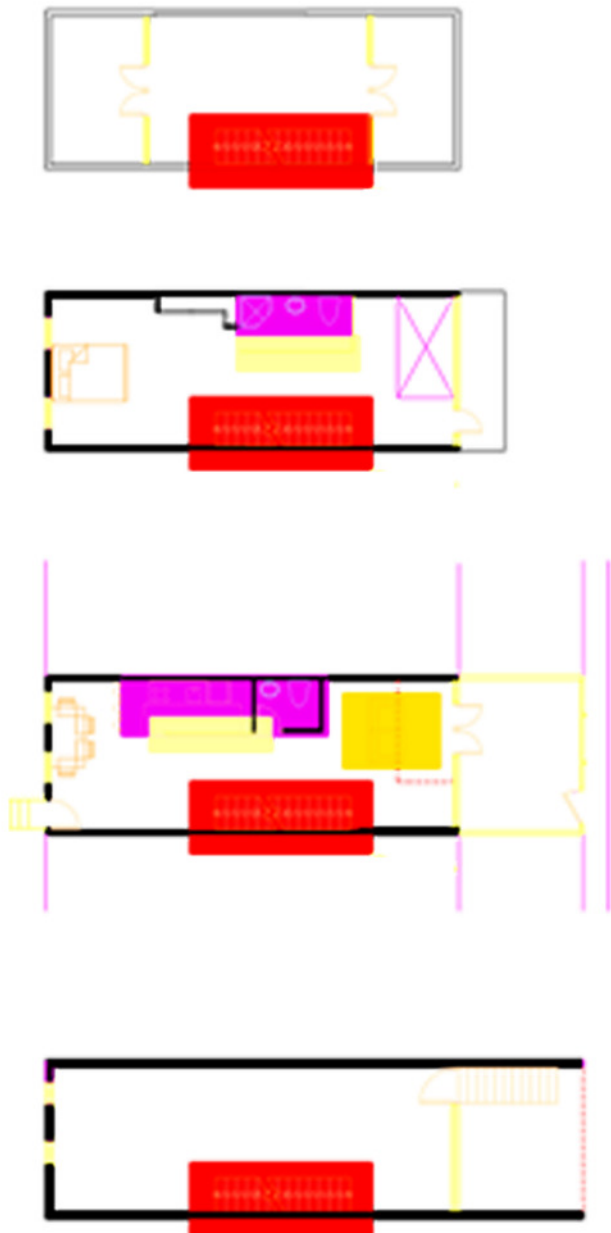
FRONT ELEVATION



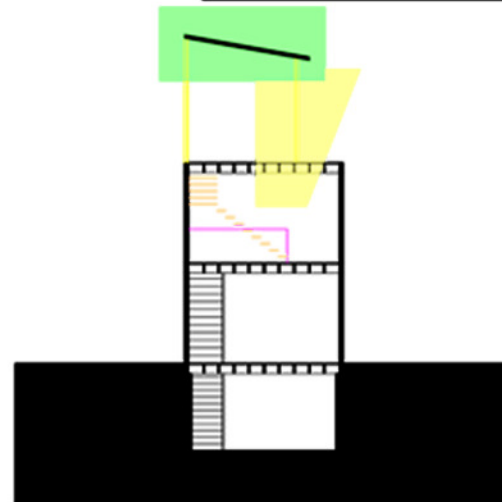
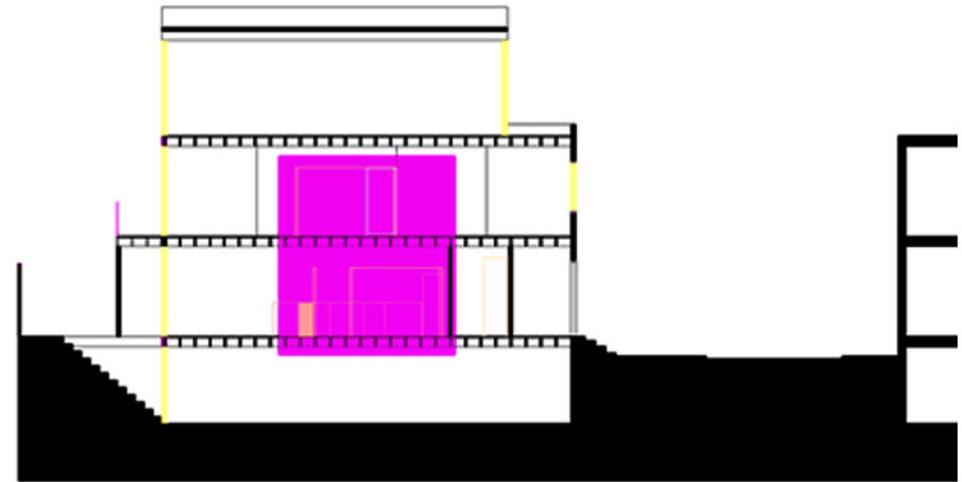
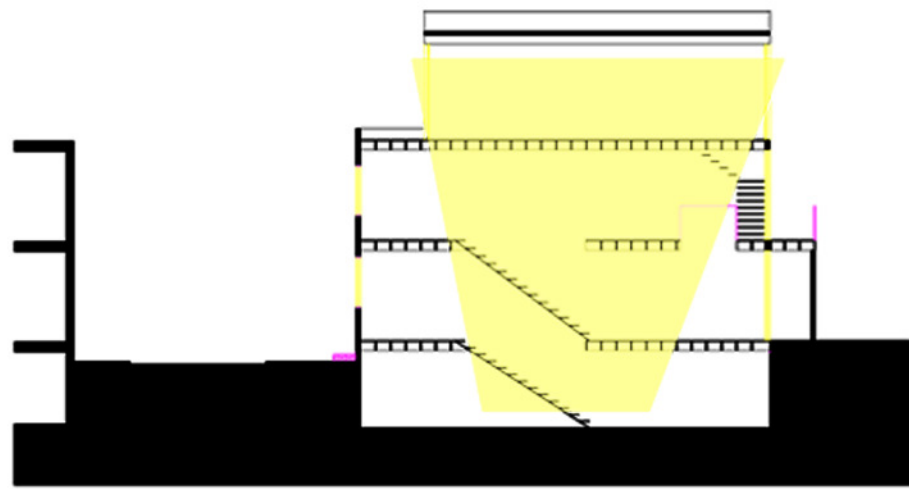
ROW HOUSE RENOVATION: PROCESS SKETCHES
FIRST FOUR SCHEMES



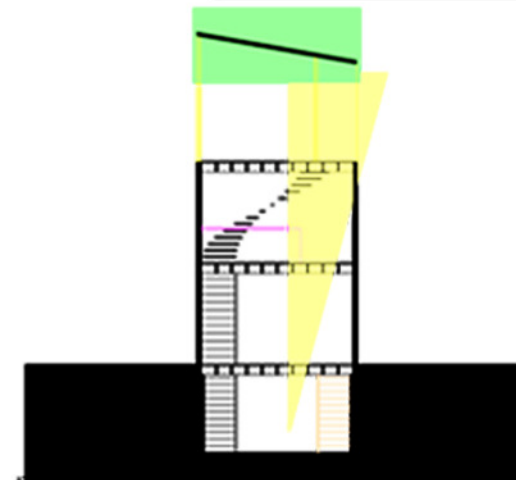
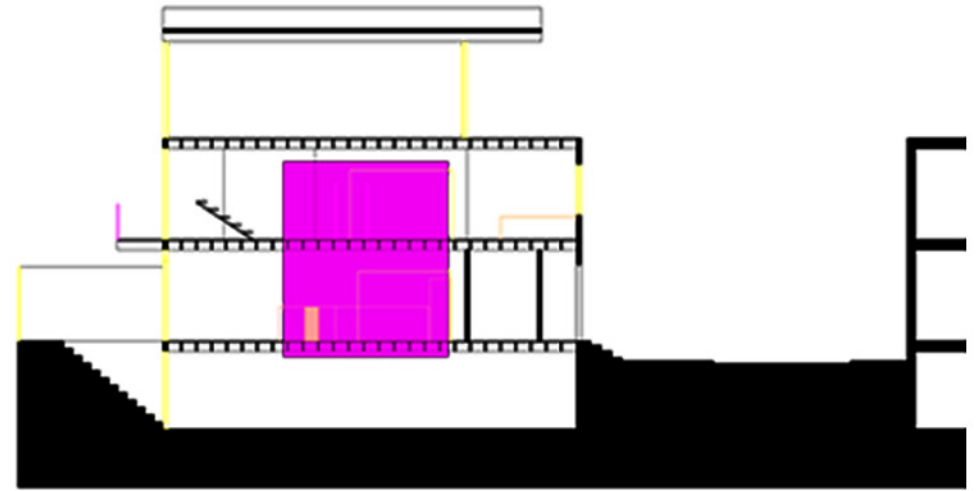
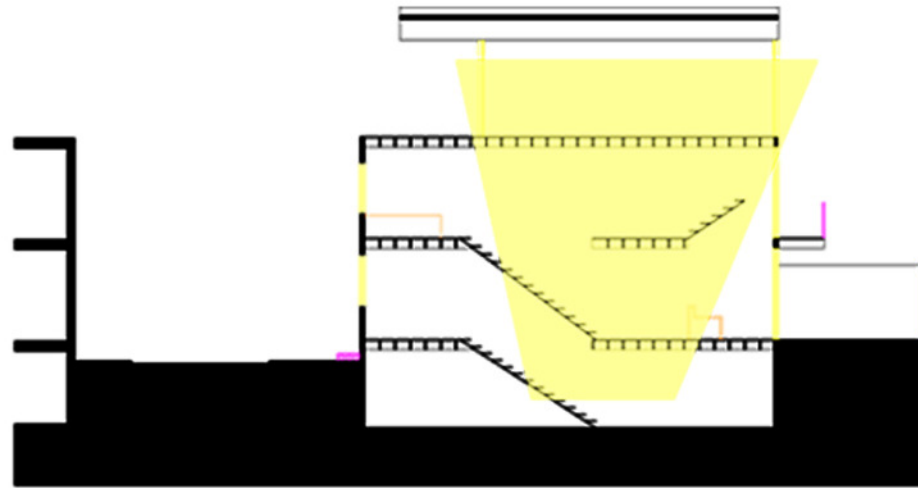
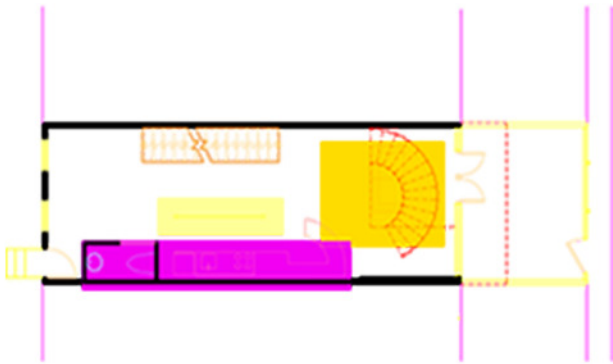
DESIGN PROCESS:
SCHEME ONE



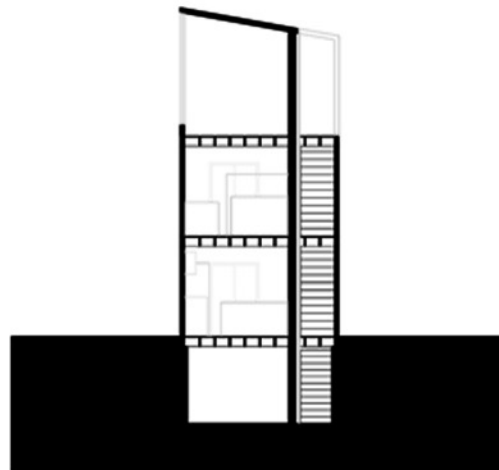
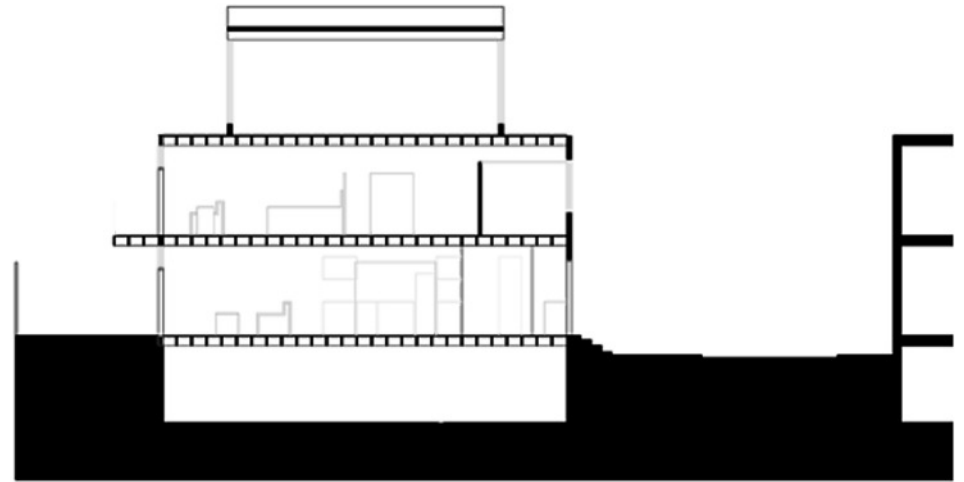
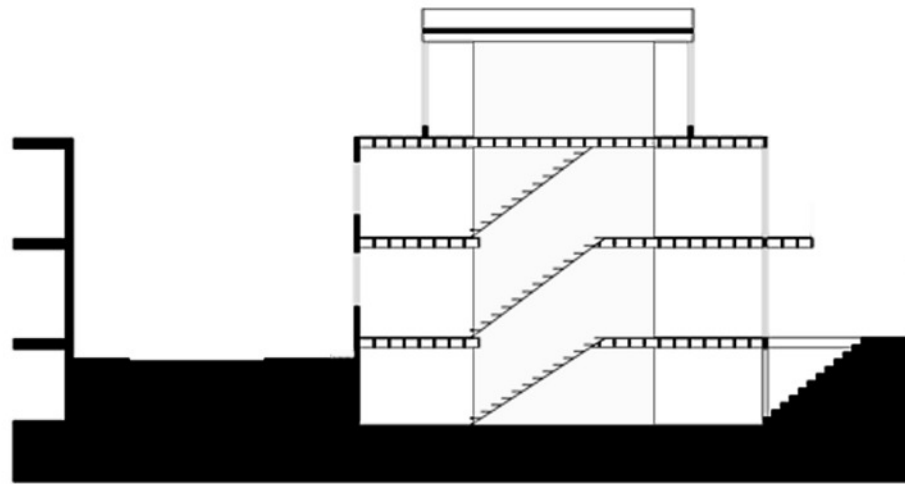
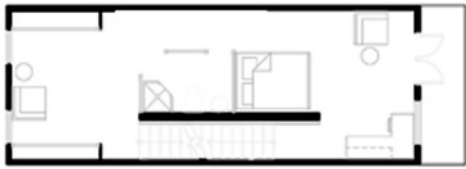
DESIGN PROCESS:
SCHEME TWO



DESIGN PROCESS:
SCHEME THREE



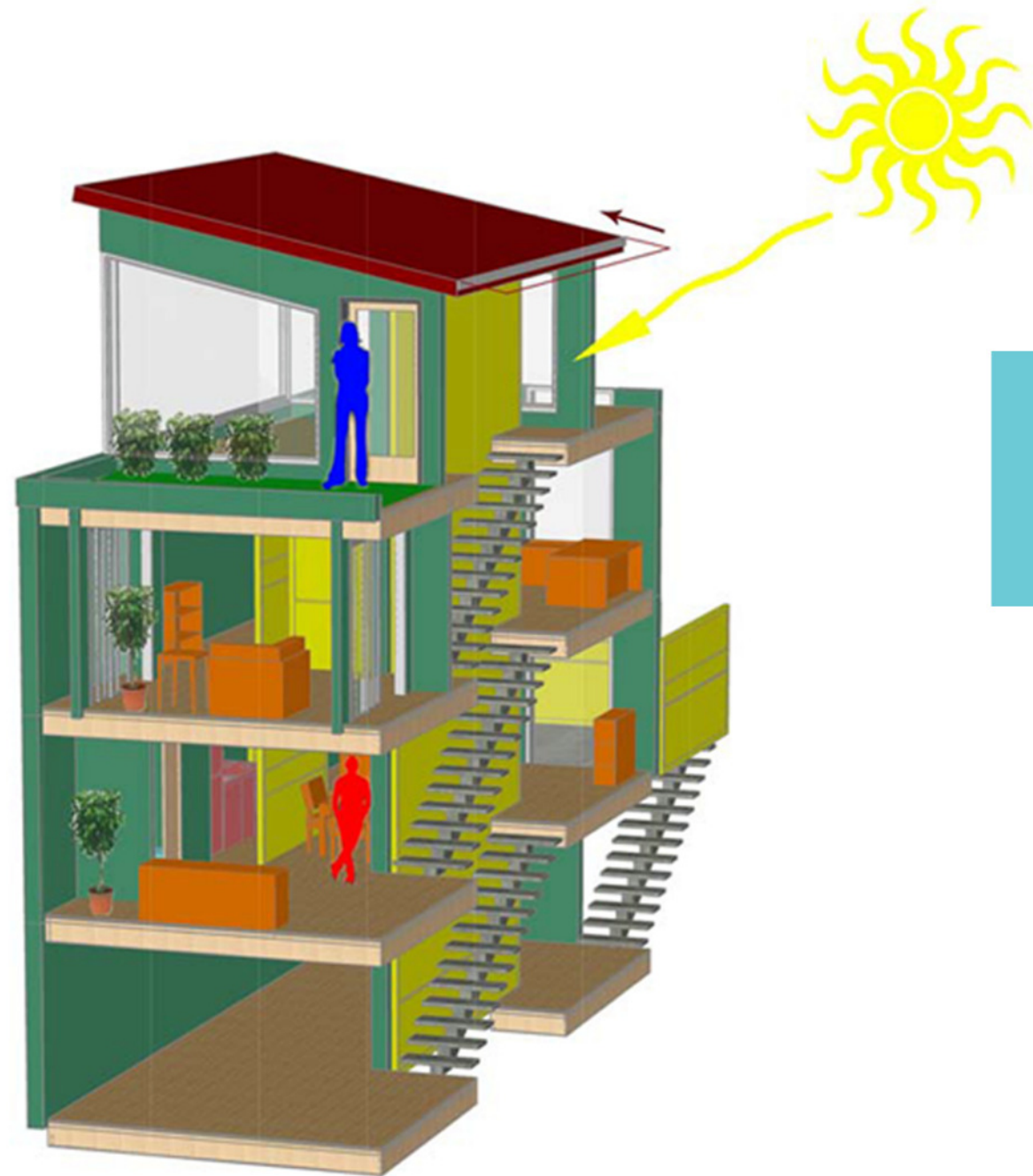
DESIGN PROCESS:
SCHEME FOUR



SCHEME FIVE:
CONCEPT: THERMAL COMFORT

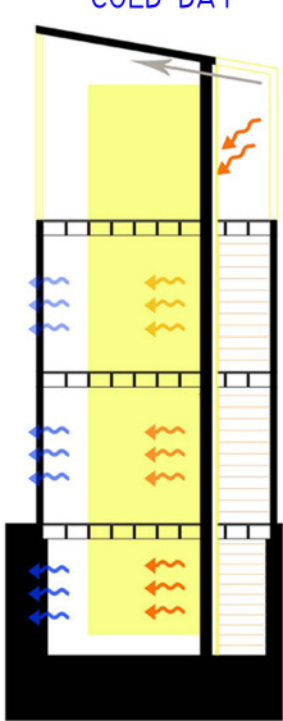
THERMAL COMFORT AREA
ON A COLDER DAY

WARM & COLD PERSONS



ROW HOUSE RENOVATION
3D INTERIOR PERSPECTIVE +
SECTION PERSPECTIVE

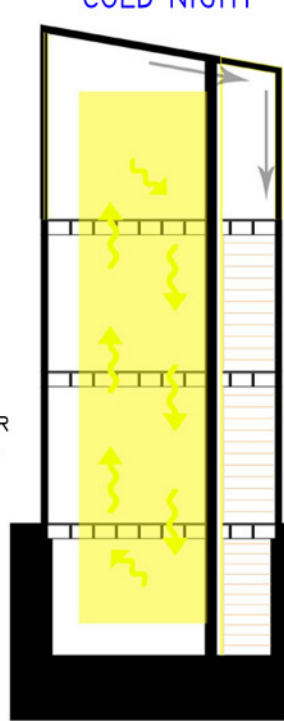
COLD DAY



TROMBE WALL:
A WALL WITH HIGH
THERMAL MASS USED
TO STORE SOLAR
ENERGY PASSIVELY
IN A SPACE

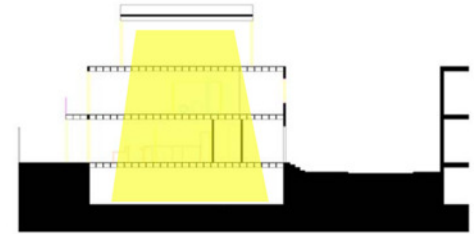
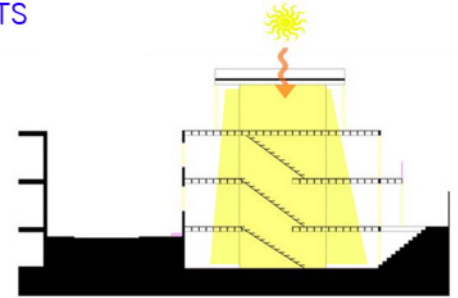
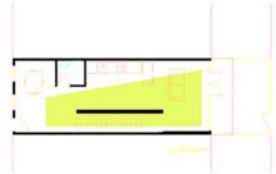
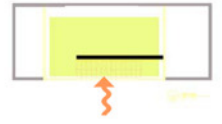
NATURALLY, WARM AIR
PUSHES COLD AIR
OUT OF A SPACE

COLD NIGHT

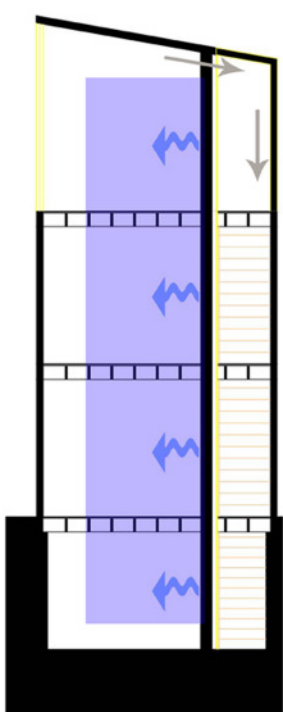


INSULATION BLOCKS
WARM AIR FROM
LEAVING

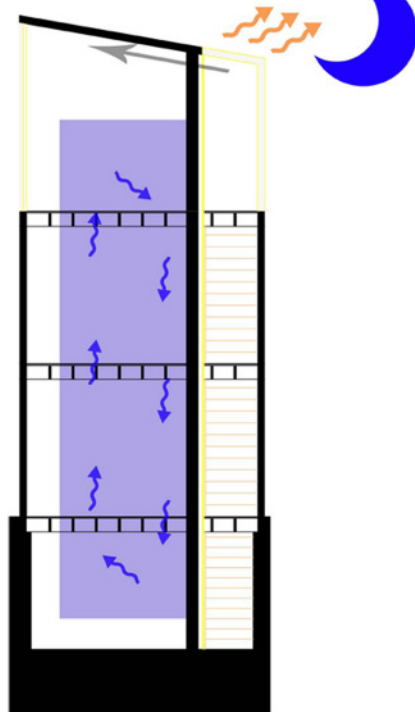
WARM SPACES ON COLD DAYS & NIGHTS



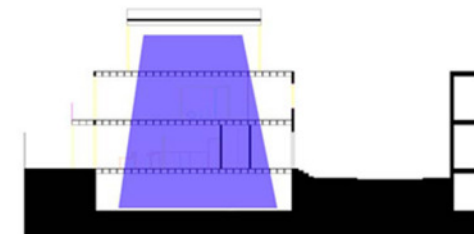
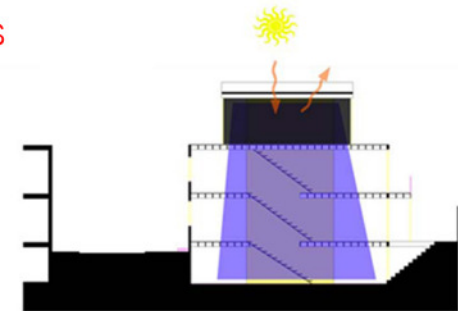
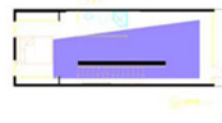
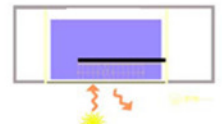
HOT DAY

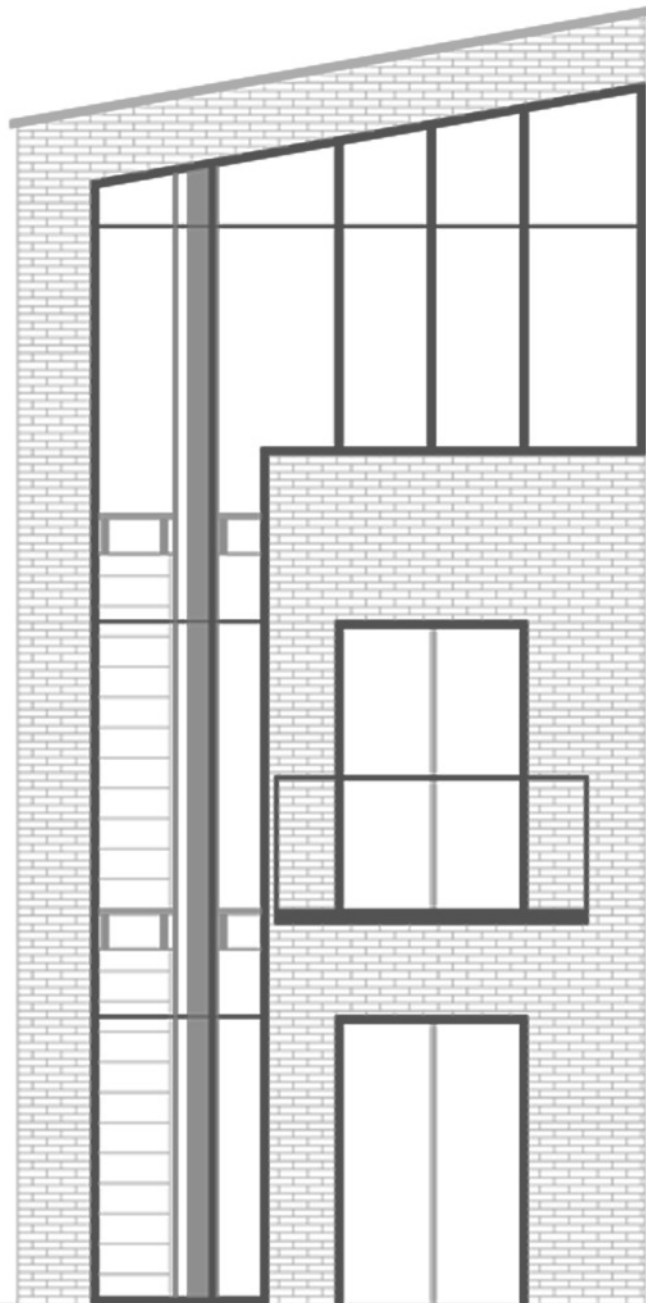


HOT NIGHT



COOL SPACES ON HOT DAYS & NIGHTS





BACK ELEVATION

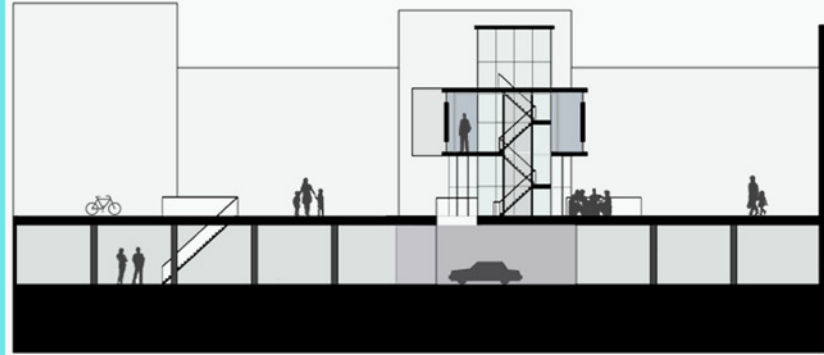
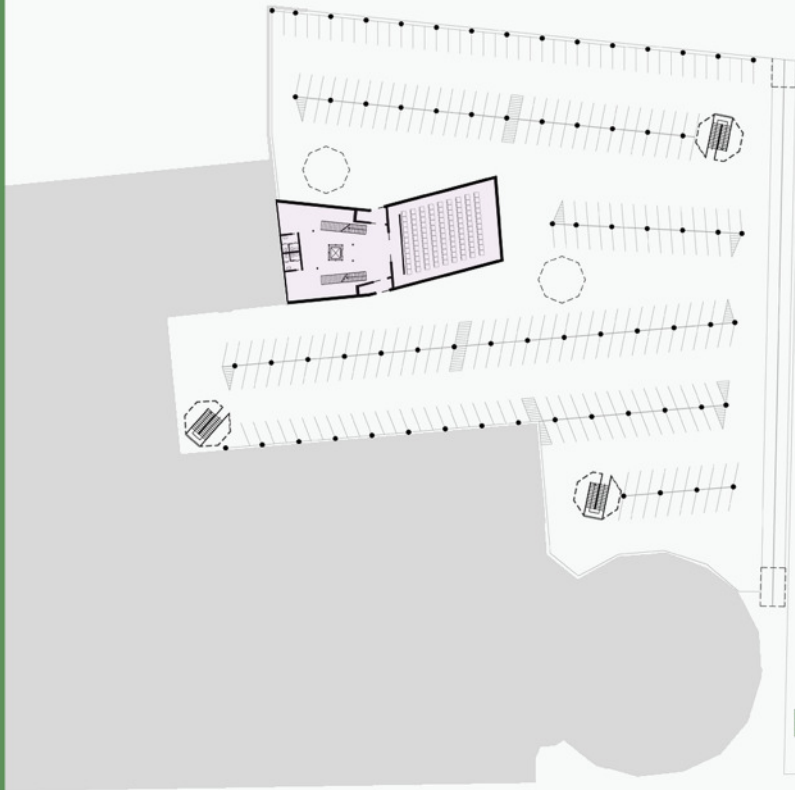
KENT STATE UNIVERSITY - FLORENCE PROGRAM
COLLEGE OF ARCHITECTURE & ENVIRONMENTAL DESIGN
UNDERGRADUATE PROGRAM - 3RD YEAR DESIGN STUDIO - SPRING 2009
PIAZZA BRUNELLESCHI LIBRARY ADDITION
TIFFANY KENST
PROF. PAOLA GIACONIA



N
SITE PLAN

SOCIOLOGY

A PROCES OF MODIFYING, ADAPTING, OR ALTERING INDIVIDUAL OR COLLECTIVE PATTERNS OF BEHAVIOR SO AS TO BRING THEM INTO CONFORMITY WITH OTHER SUCH PATTERNS, AS WITH THOSE PROVIDED BY THE CULTURAL ENVIRONMENT.

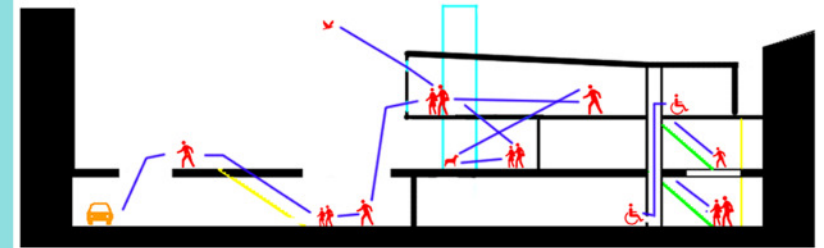


TRANSVERSE SECTION

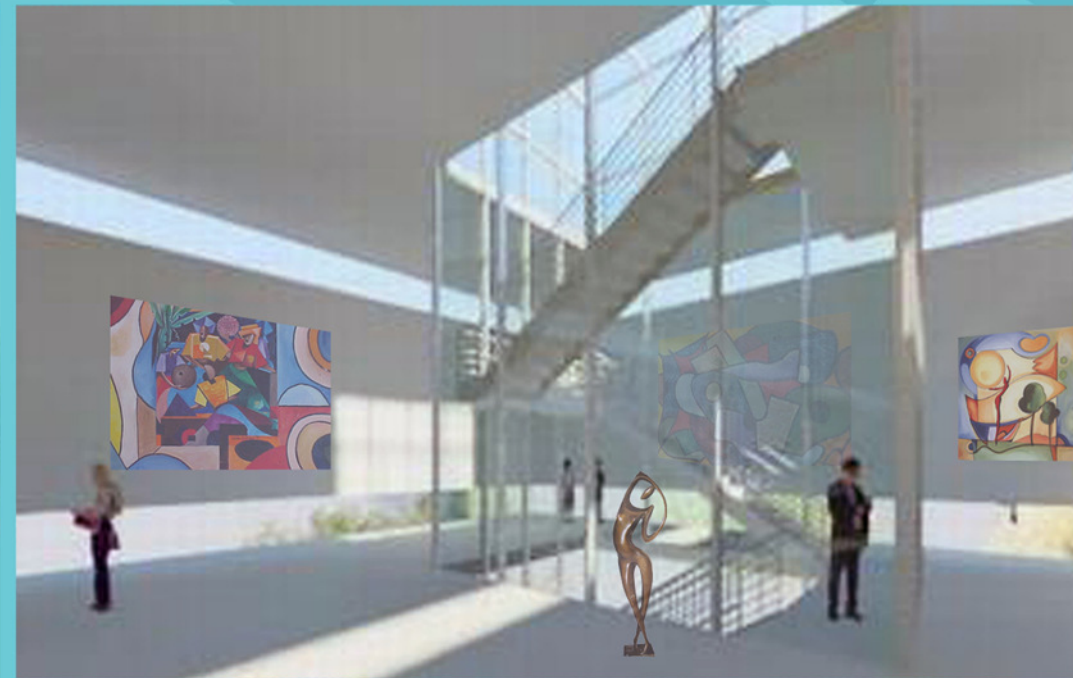
BELOW GROUND



SOCIOLOGY
DIAGRAMATIC
SECTION



LEVEL I



CONCEPT FOCUS:
SOCIAL INTERACTION

PROVIDE AN INVITING SPACE
WHERE INDIVIDUALS CAN
VISUALLY AND PHYSICALLY
INTERACT WITH ONE ANOTHER.



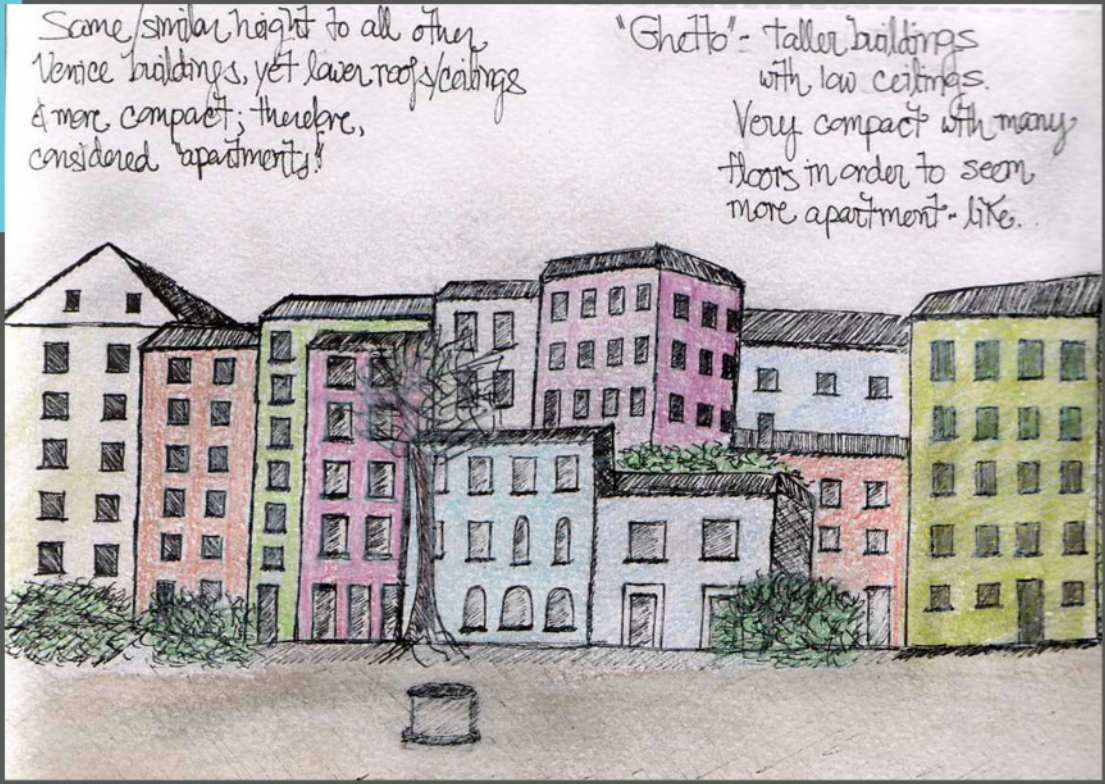
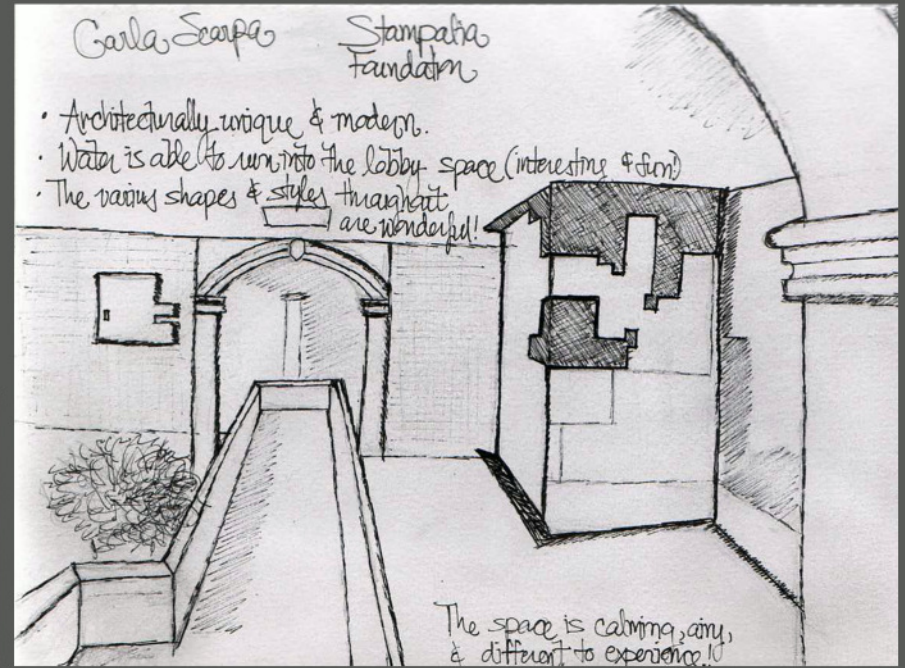
LONGITUDINAL SECTION

3RD YEAR DESIGN STUDIO
PIAZZA BRUNELLESCHI LIBRARY ADDITION
FLORENCE, ITALY
CONCEPT: SOCIOLOGY



INDIVIDUAL PROGRAM MODEL: LIBRARY ADDITION +
TEAM SITE MODEL: PIAZZA BRUNELLESCHI

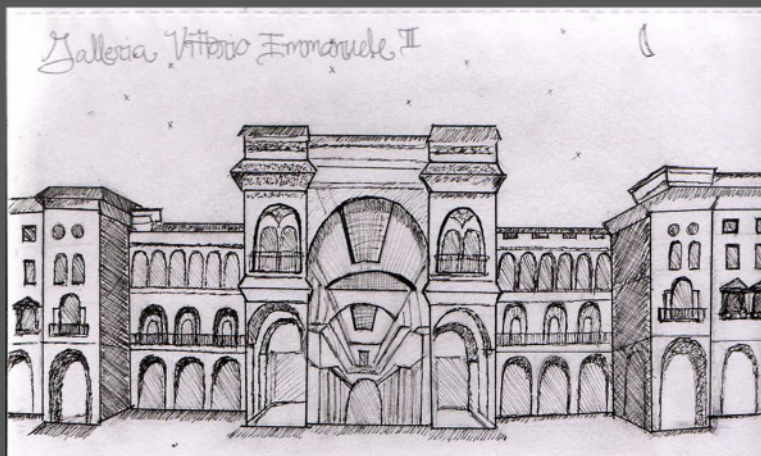
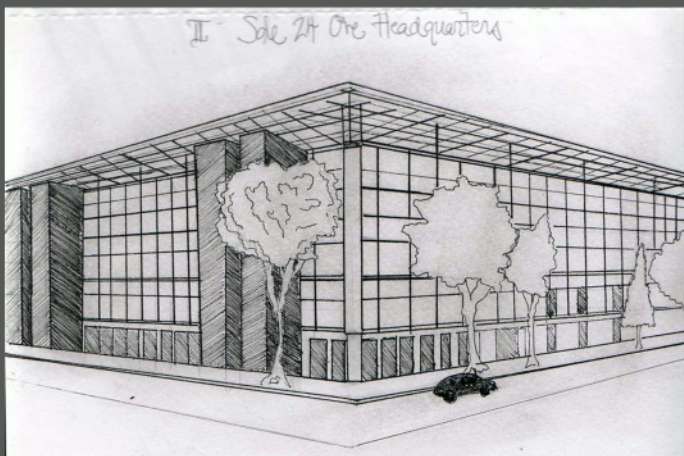
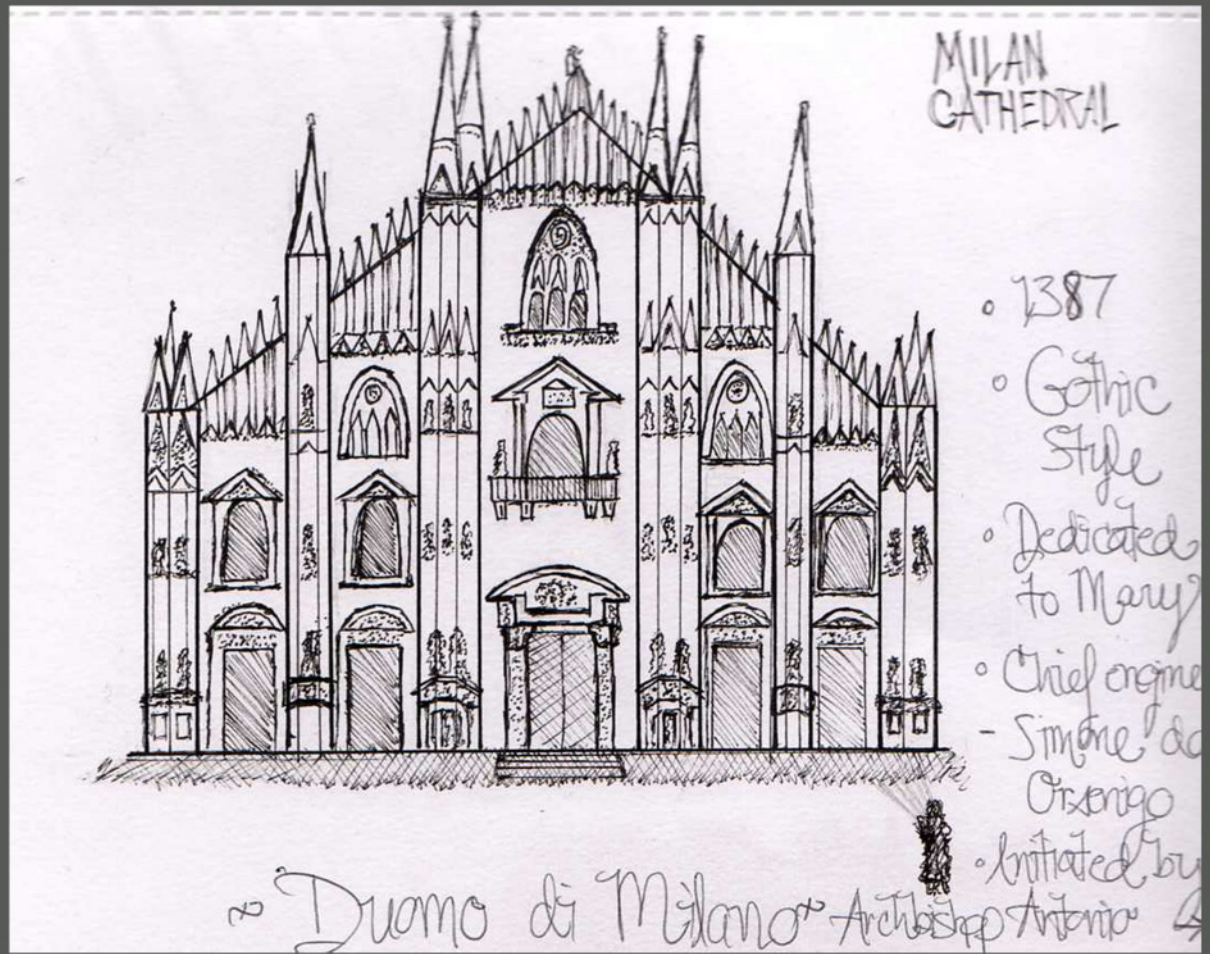
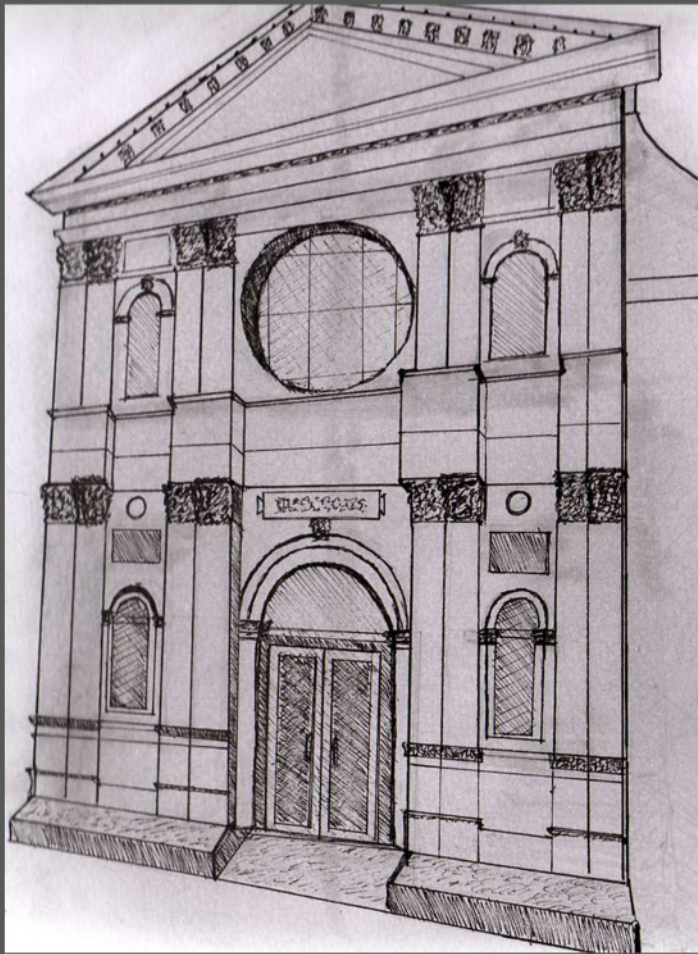
VENICE
 TOP LEFT: CARLA SCARPA - STAMPALIA FOUNDATION
 BOTTOM RIGHT: "GHETTO"



3RD YEAR STUDY ABROAD PROGRAM
 FLORENCE, ITALY
 SKETCHING AND DRAWING

ROME
 DIO PADRE MISERICORDIOSO
 CHIESA DEL "2000"

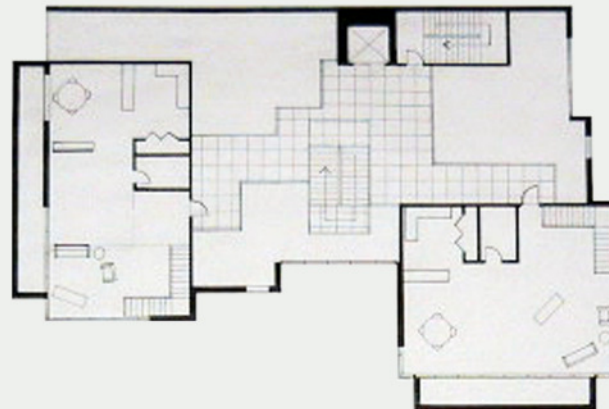




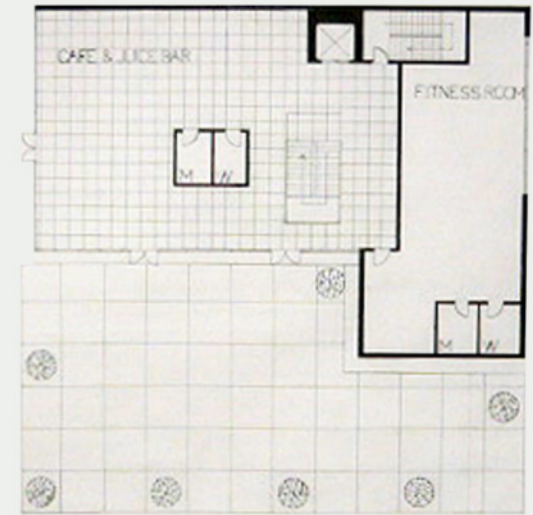
MILAN
 TOP LEFT: SANTA MARIA PRESSO SAN SATIRO
 TOP RIGHT: MILAN CATHEDRAL
 BOTTOM LEFT: SOLO 24 ORE HEADQUARTERS
 BOTTOM RIGHT: GALLERIA VITTORIO EMMANUELE II
 3RD YEAR STUDY ABROAD PROGRAM
 FLORENCE, ITALY
 SKETCHING AND DRAWING



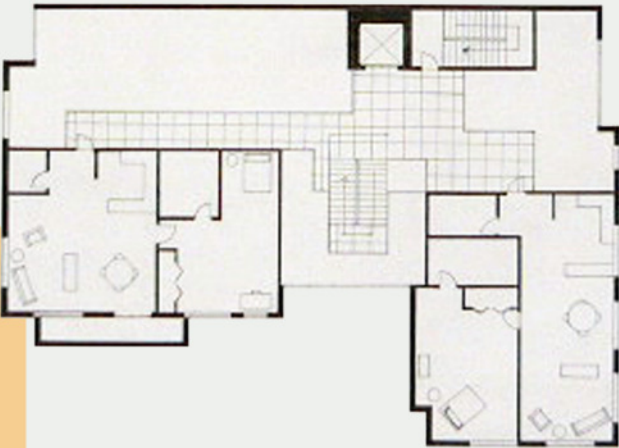
LEVEL FOUR



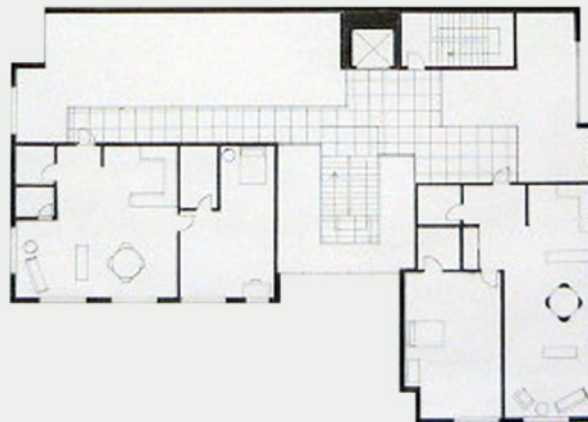
LEVEL THREE



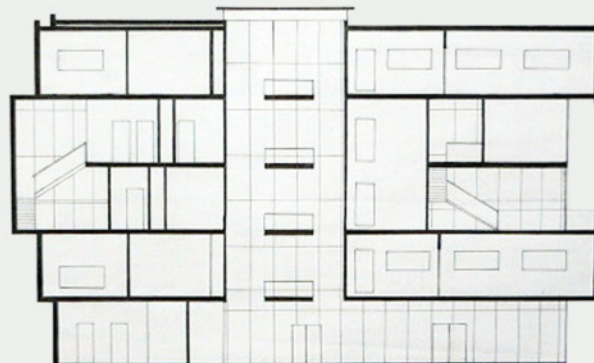
GROUND LEVEL



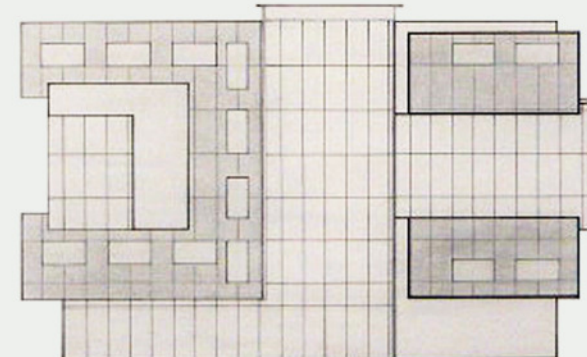
LEVEL FIVE



LEVEL TWO

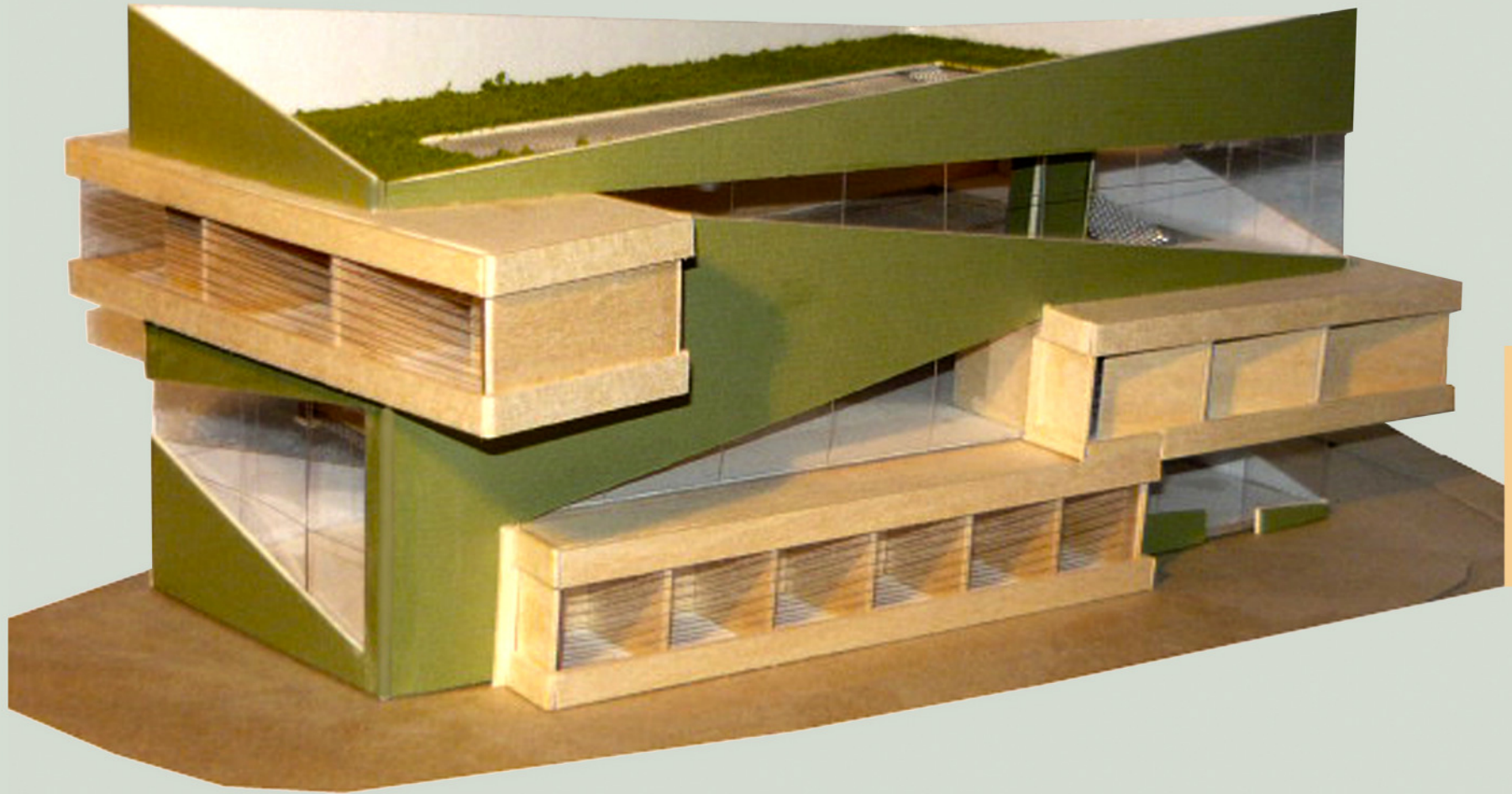


SECTION

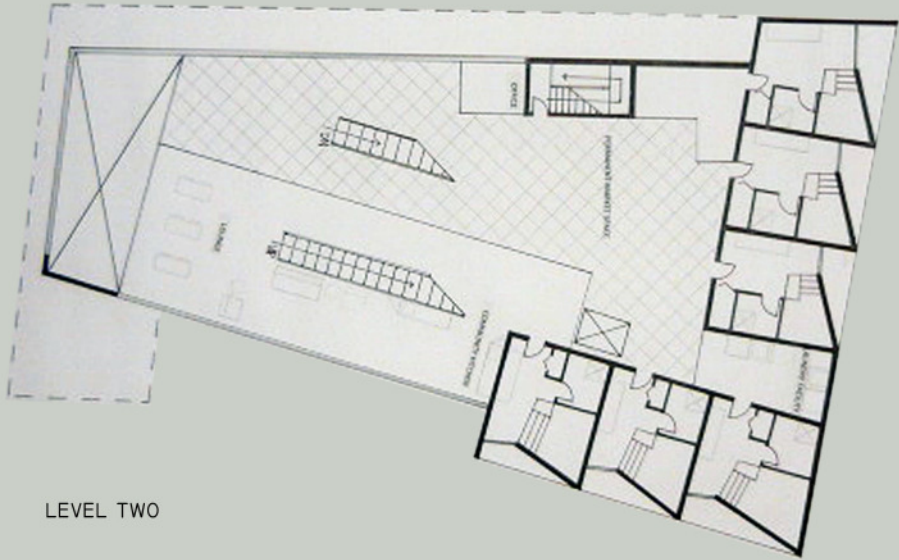


ELEVATION

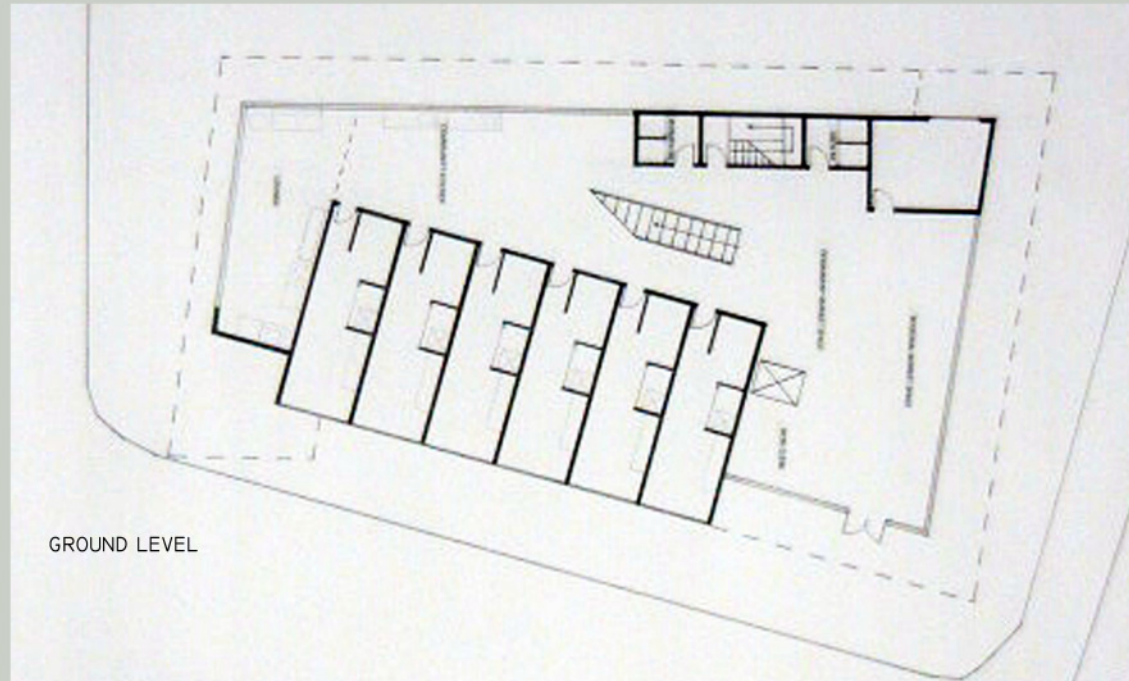
2ND YEAR DESIGN STUDIO HOUSING UNIT + CAFE



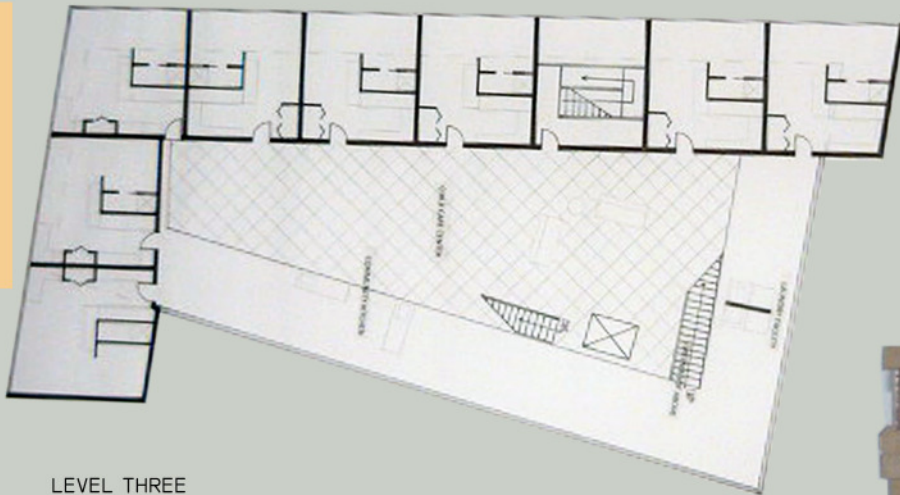
2ND YEAR DESIGN STUDIO
SINGLE ROOM OCCUPANCY
UNIT + MARKET



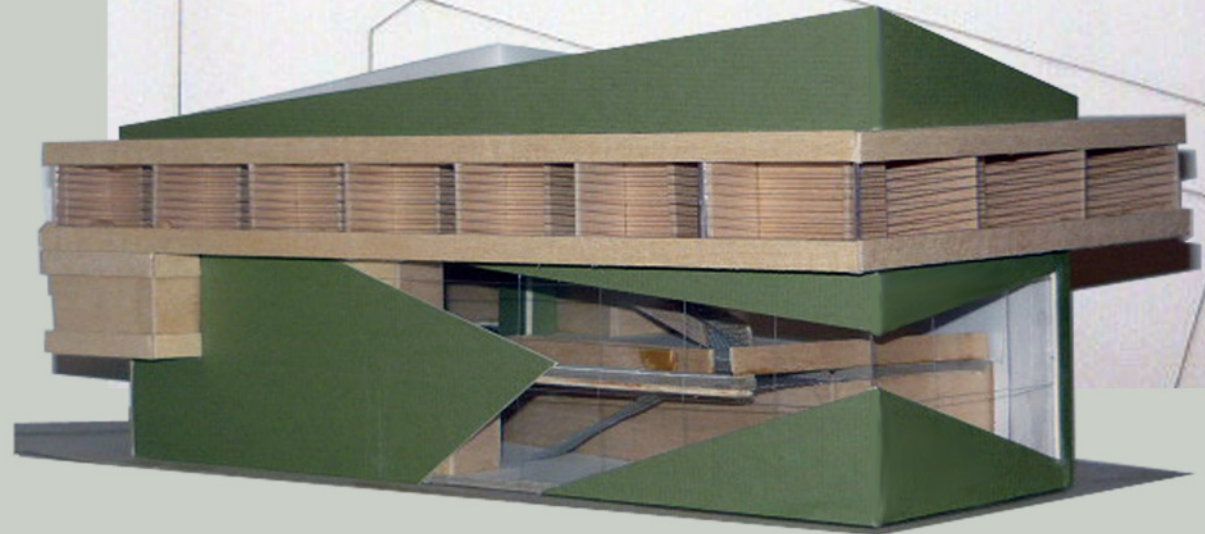
LEVEL TWO



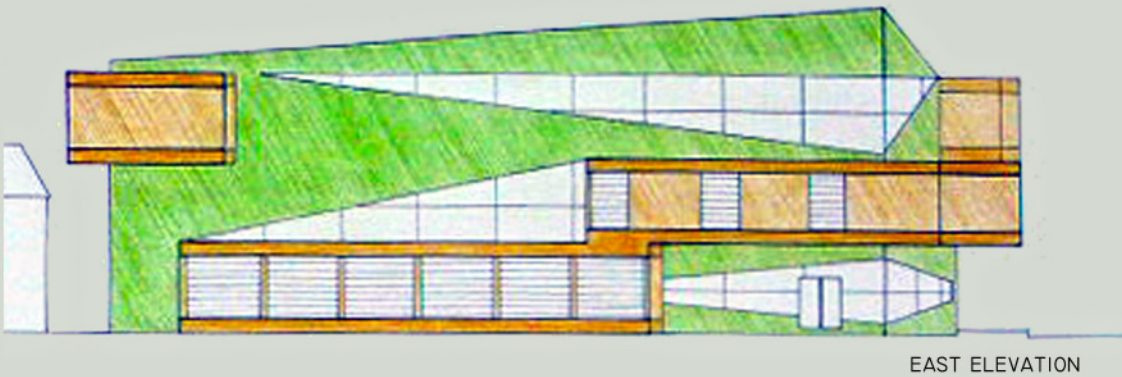
GROUND LEVEL



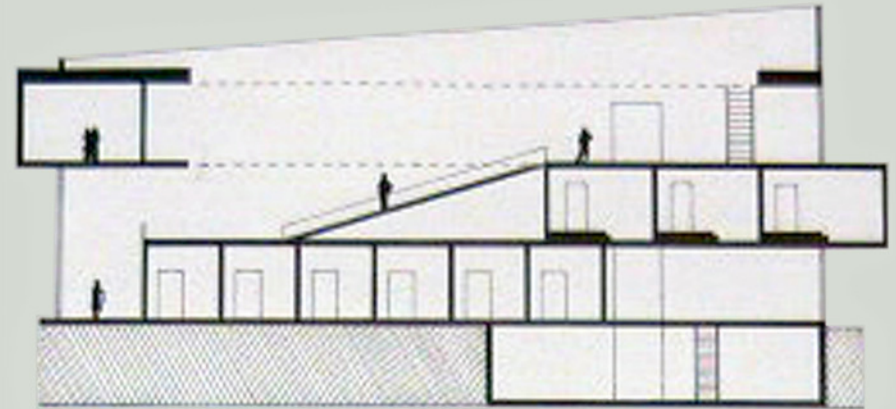
LEVEL THREE



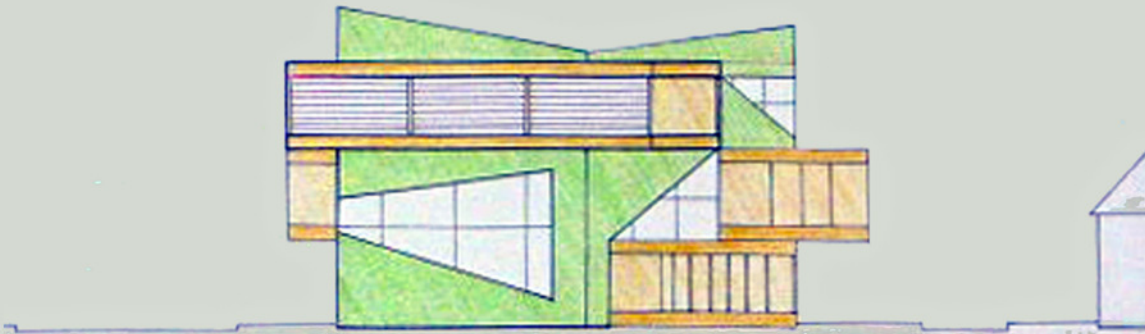
2ND YEAR DESIGN STUDIO
SINGLE ROOM OCCUPANCY
UNIT + MARKET



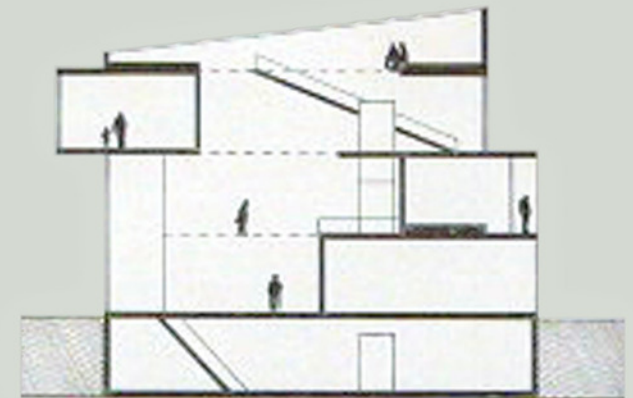
EAST ELEVATION



SECTION AA

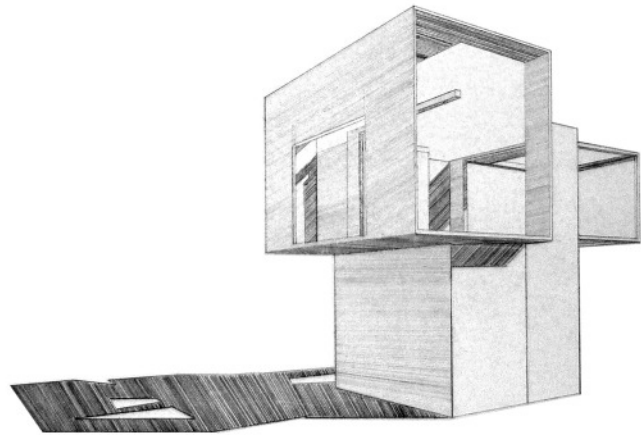
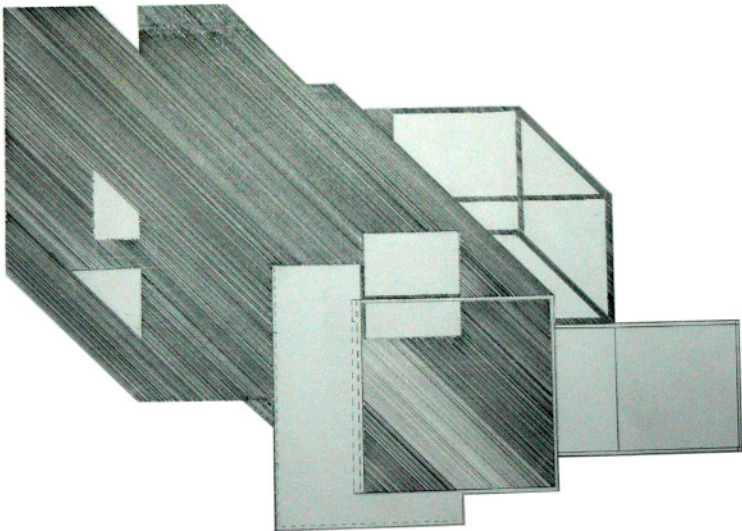
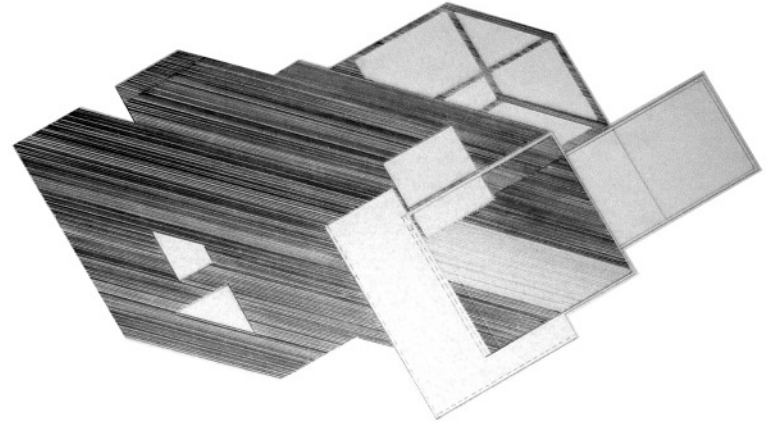
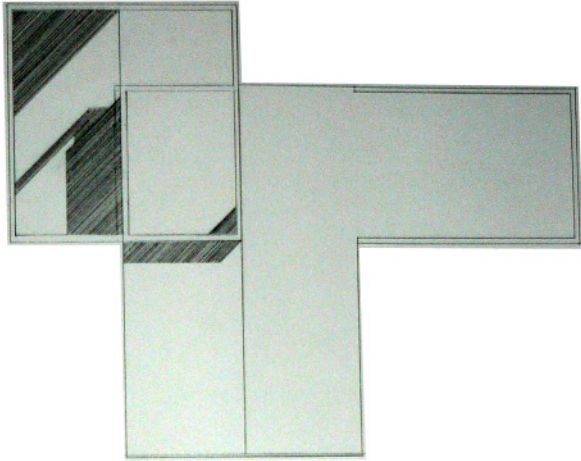


SOUTH ELEVATION



SECTION BB

2ND YEAR DESIGN STUDIO
SINGLE ROOM OCCUPANCY
UNIT + MARKET



1ST YEAR DESIGN STUDIO
PERSPECTIVE DRAWING +
SHADE & SHADOW