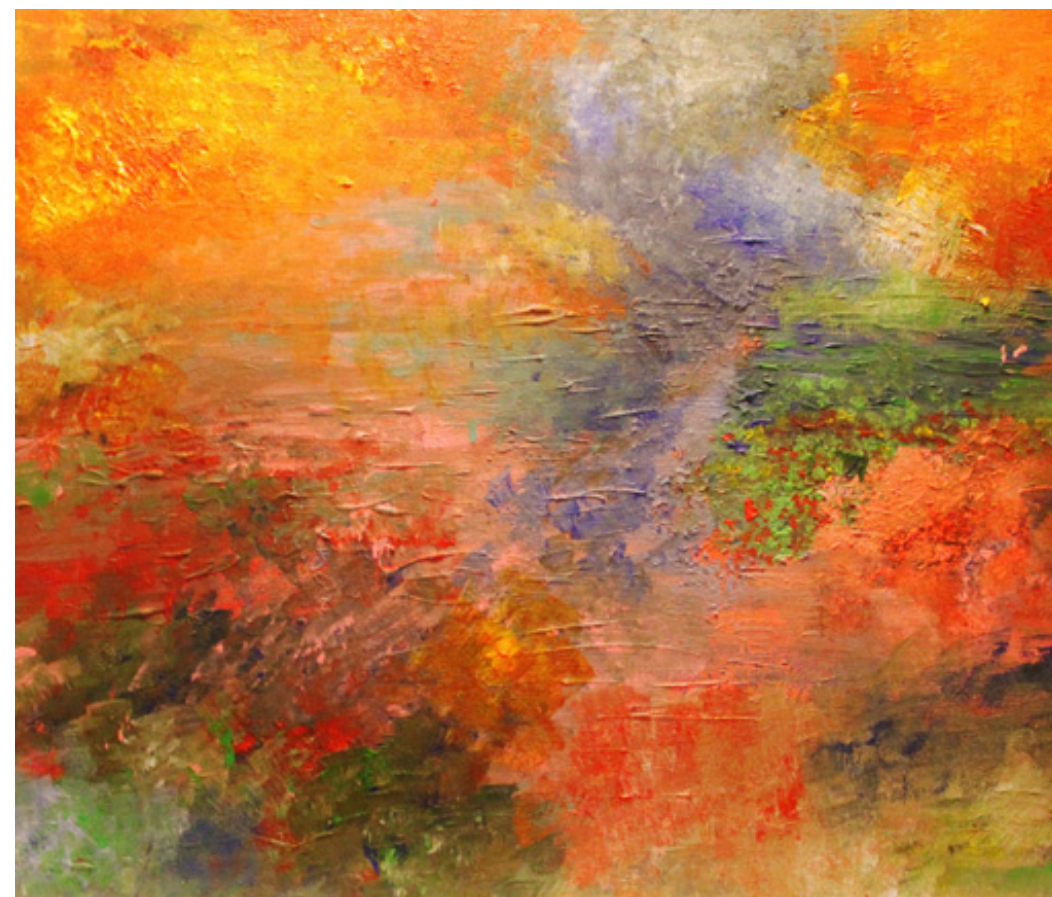


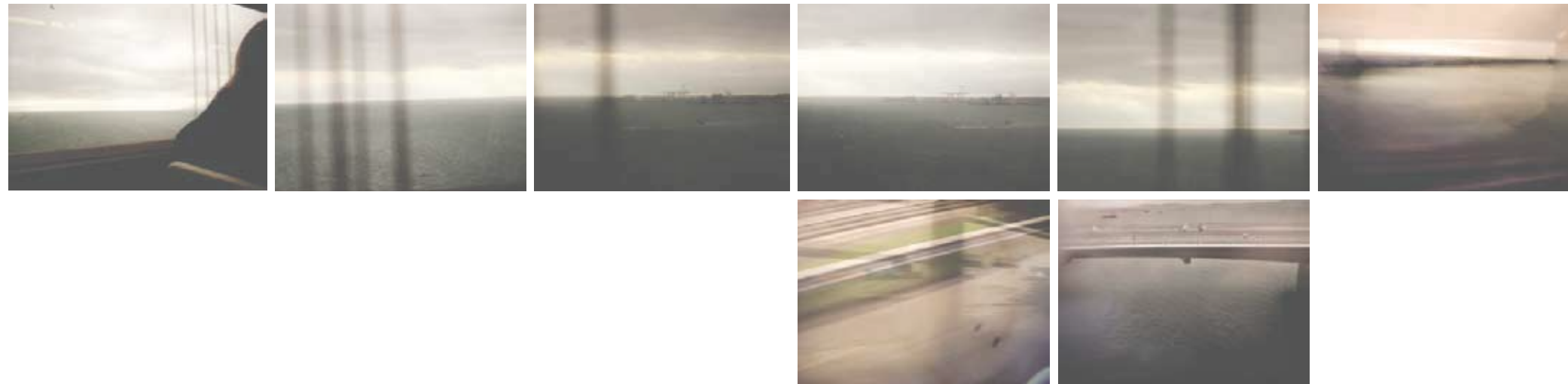
portfolio cesar murillo

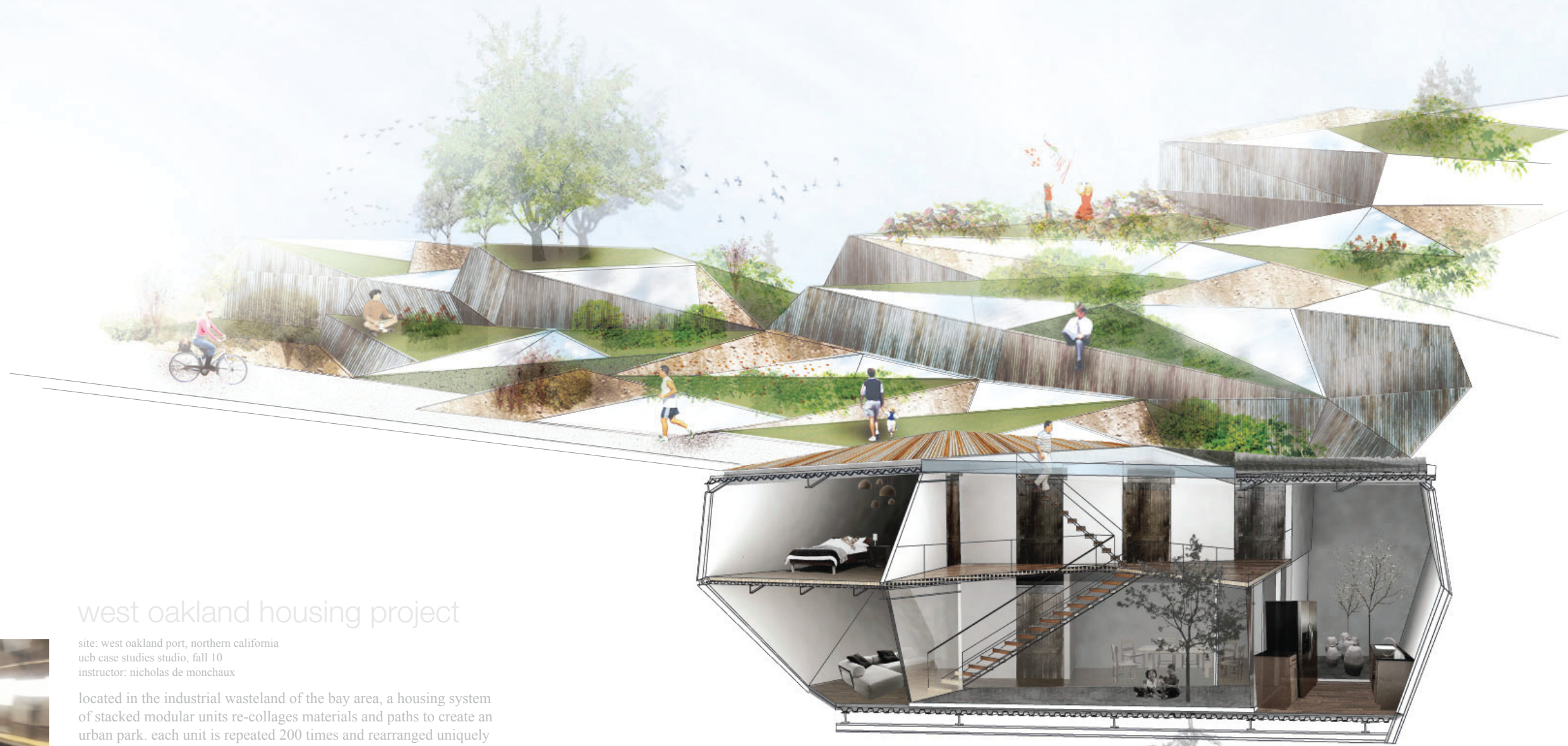


student work

undergraduate work from uc berkeley 2007-2011:

west oakland housing project
castle fort revitalization
material geometry
transitional display-engagement
film school community center
touchless carwash



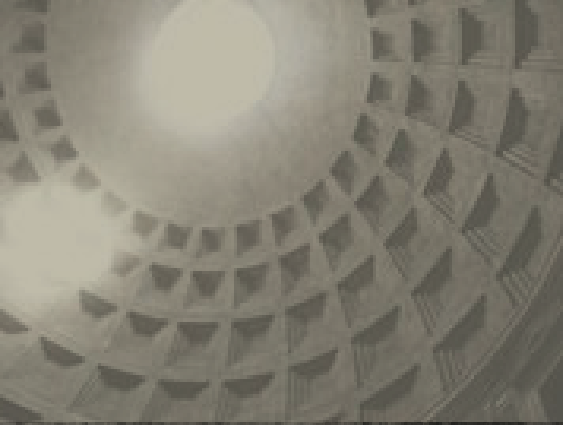


west oakland housing project

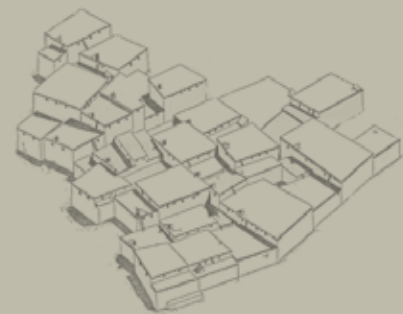
site: west oakland port, northern california
 ucbl case studies studio, fall 10
 instructor: nicholas de monchaux

located in the industrial wasteland of the bay area, a housing system of stacked modular units re-collages materials and paths to create an urban park. each unit is repeated 200 times and rearranged uniquely as a green-stitched-tapestry hovering over homes, retail spaces, public parking, and the *bart* line: bay area rapid transit. the process is an exploration of high density, a reflection of competing scales on site, and mimicry of 'everyday' rigidity.

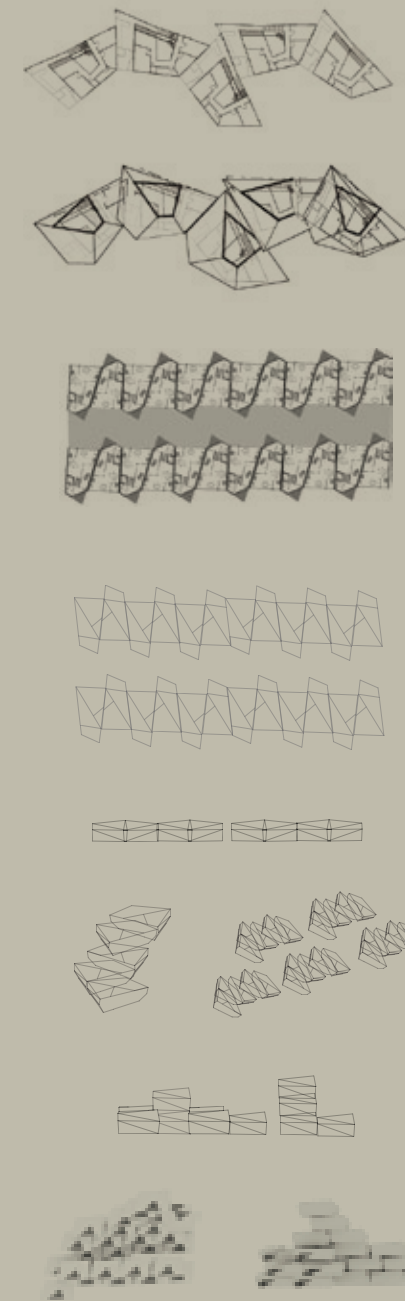
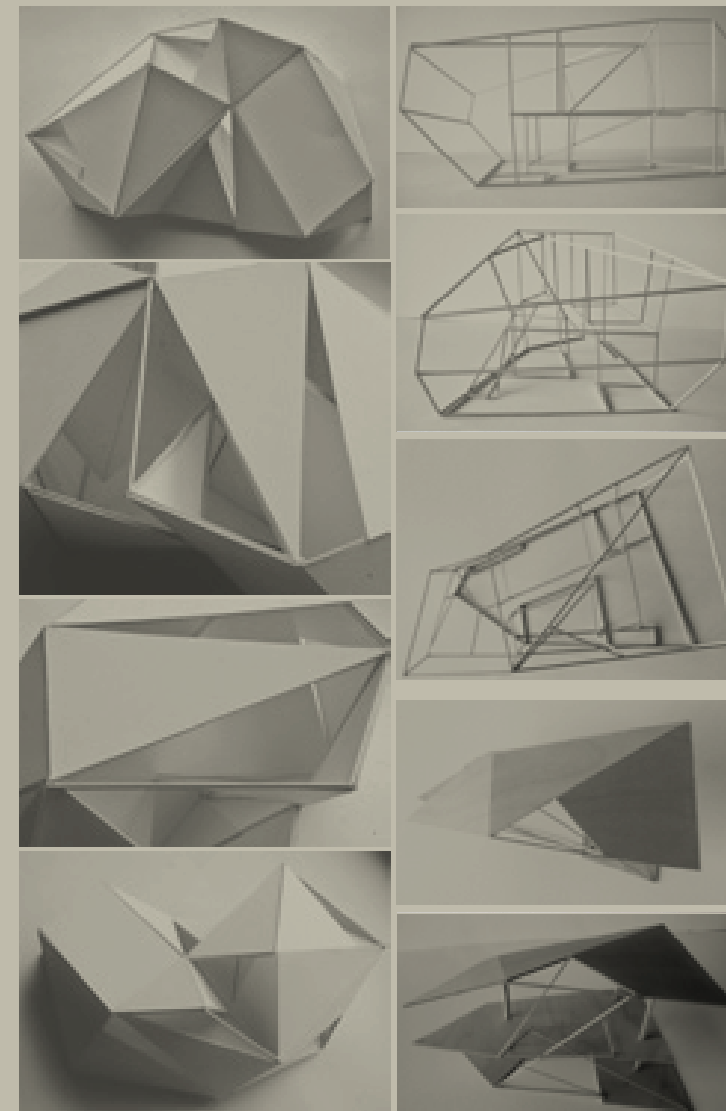
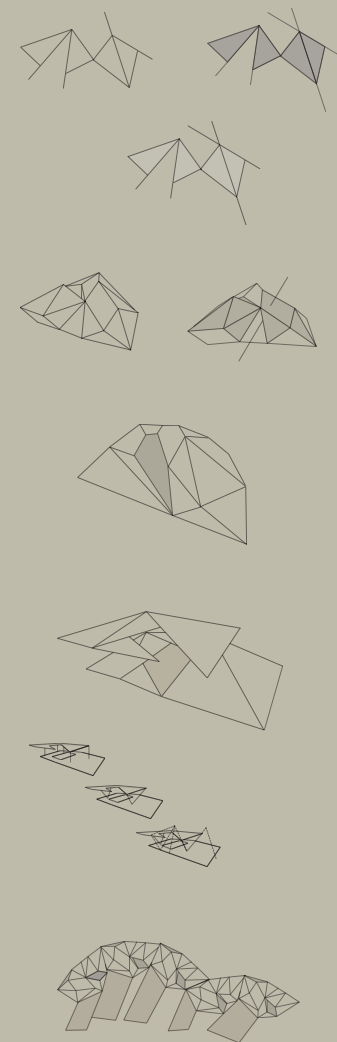




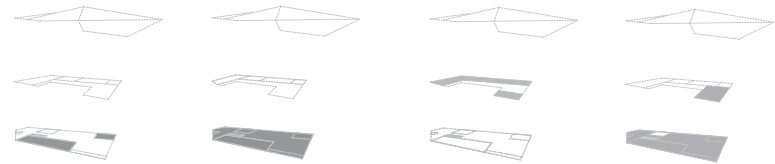
- historical precedents:
1. pantheon light (126 AD)
 2. typical courtyard house (mexico, 1850s)
 3. alhambra courtyard (1300s)
 4. catal huyuk, neolithic settlement (turkey, 6000 BCE)



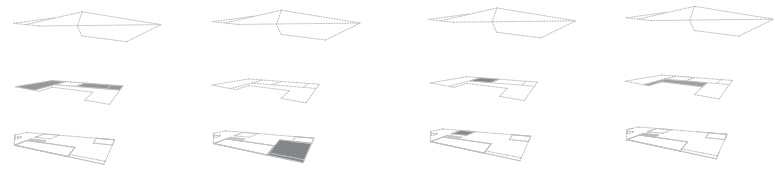
(right) form exploration:
triangulation of volumes and spaces
create a void as main source of light



horizontal + vertical explorations:
arrangement and stacking of units



courtyards public private versatile



sleep eat bath transitional

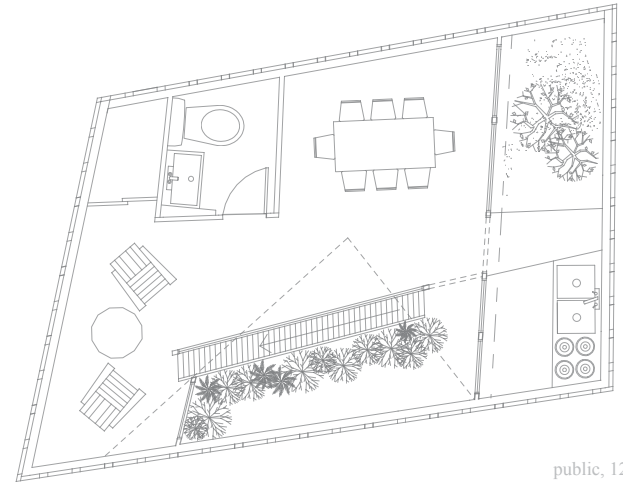
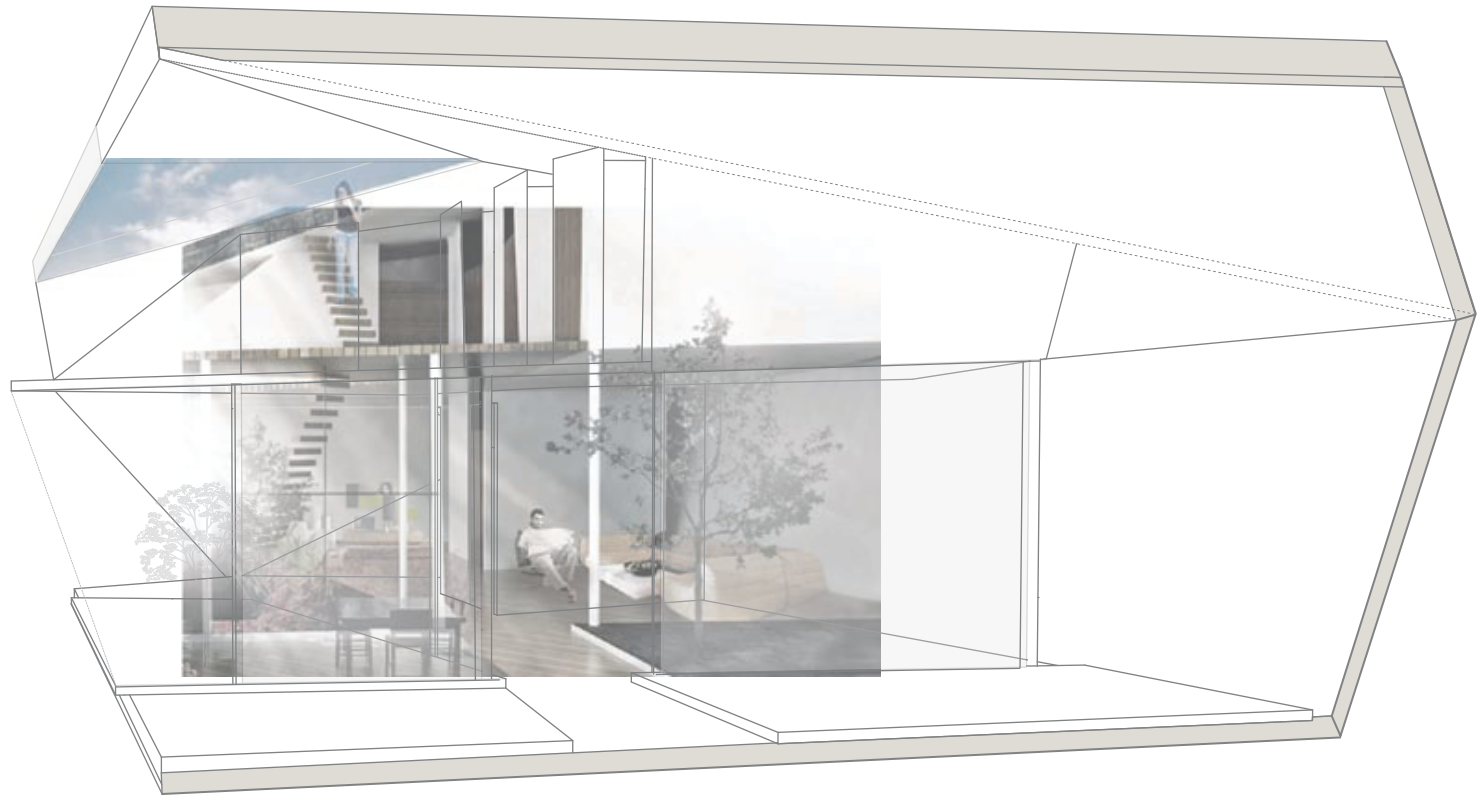
form simplification: unit plan and stacking for subsequent units is determined by placement of central skylight and opening for courtyard

walls that require plumbing are orthogonal, while bedrooms and open spaces have steep or angled roofs

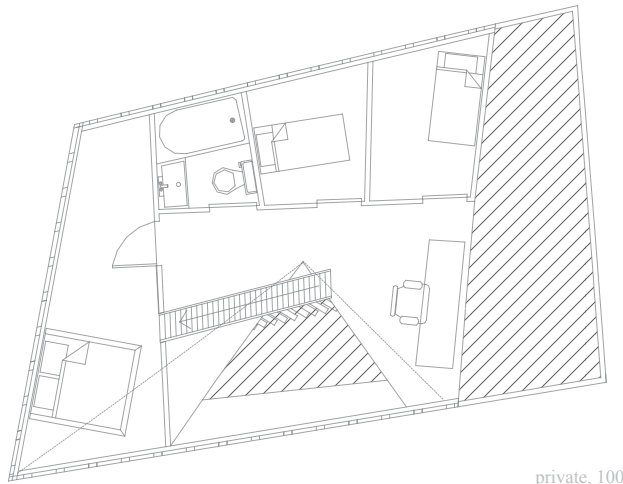


views: roof entryway, entrance connects levels and leads into courtyard

unit plan: 1" = 1/16"

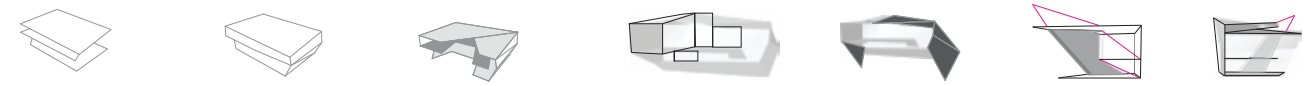


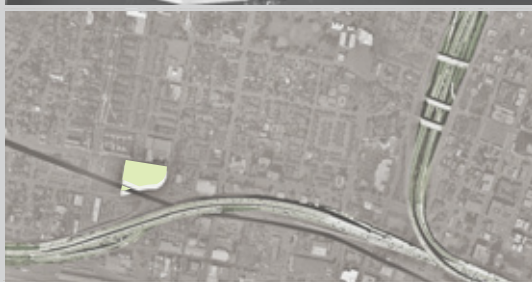
level 1
public, 1200 sq. ft.



level 2
private, 1000 sq. ft.

form simplification

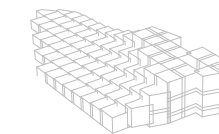
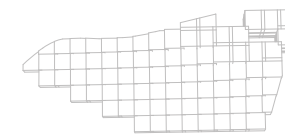




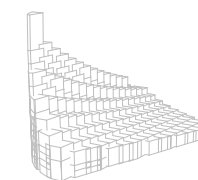
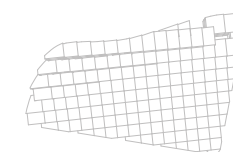
7th street and union, west oakland, ca.
south of san francisco, east of bart stop,
north of bay area shipping port

- top-bottom:
1. bay area
 2. industrial (bottom)
residential (top)
 3. highways & bartline highlight
separation of neighborhoods
 4. port directs movement & regional
trade; arrangement of shipping
containers creates parti for
organizing housing units.
 5. current site: parking lot

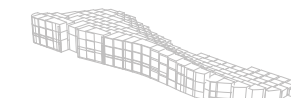
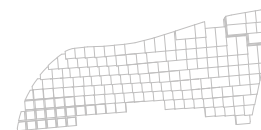
organization by heights on site



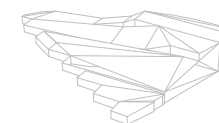
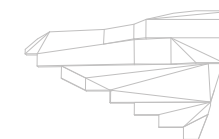
adjacent highway



SF skyline



bart line



interruption of grid

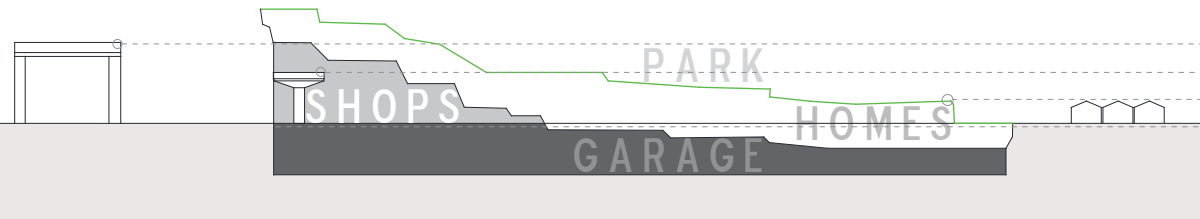
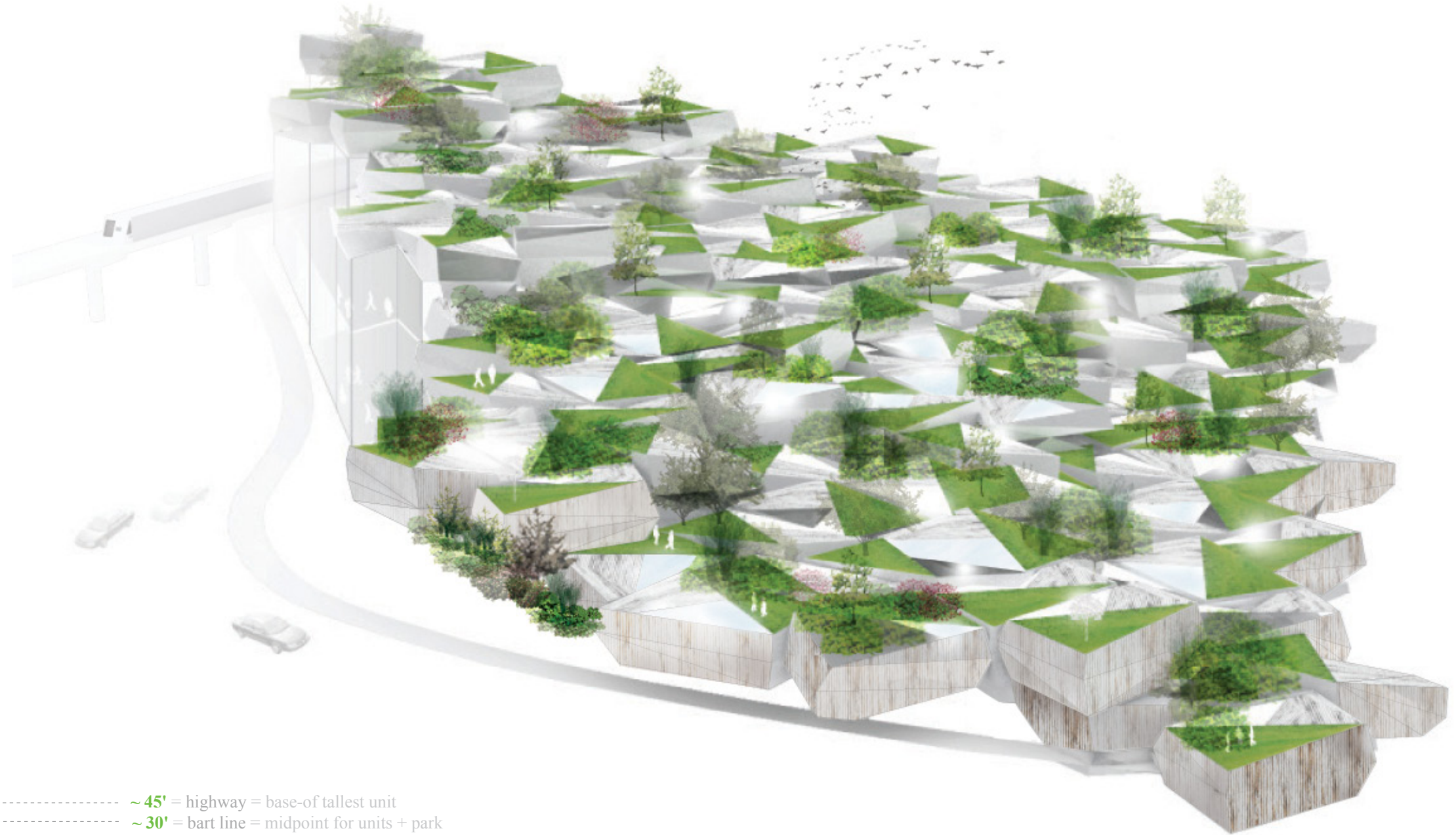
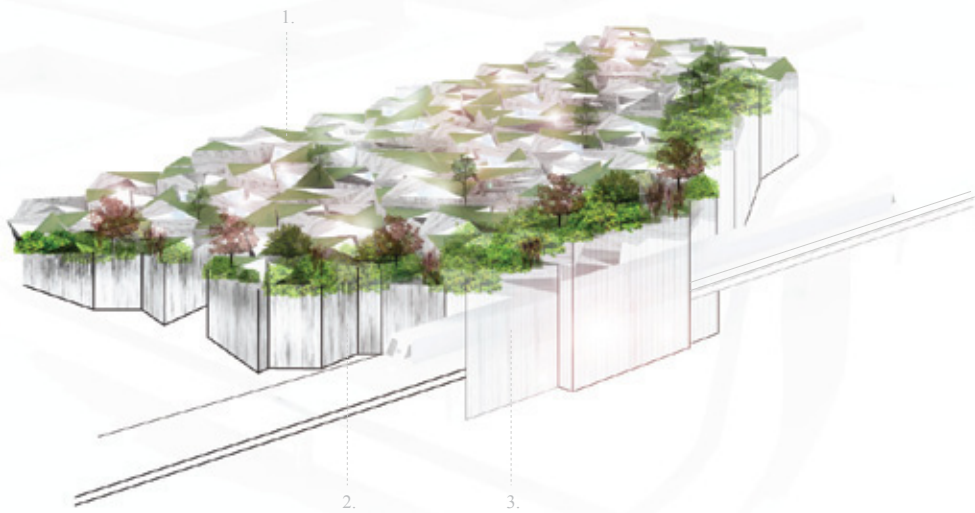


triangulation of grid



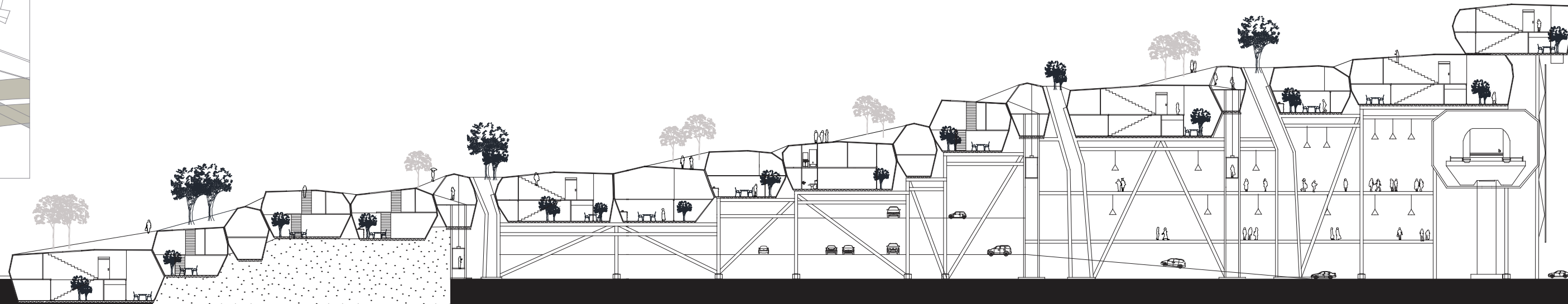
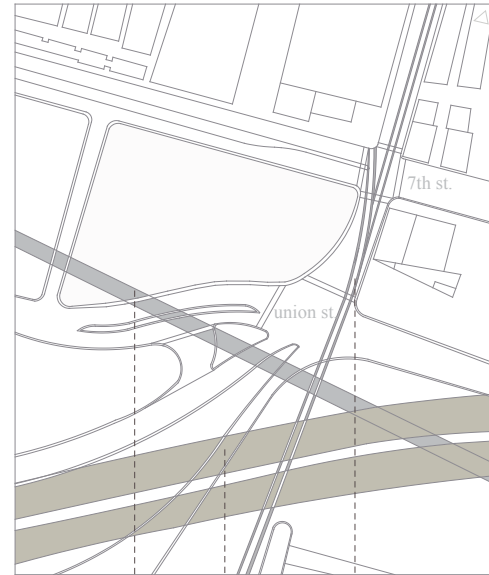
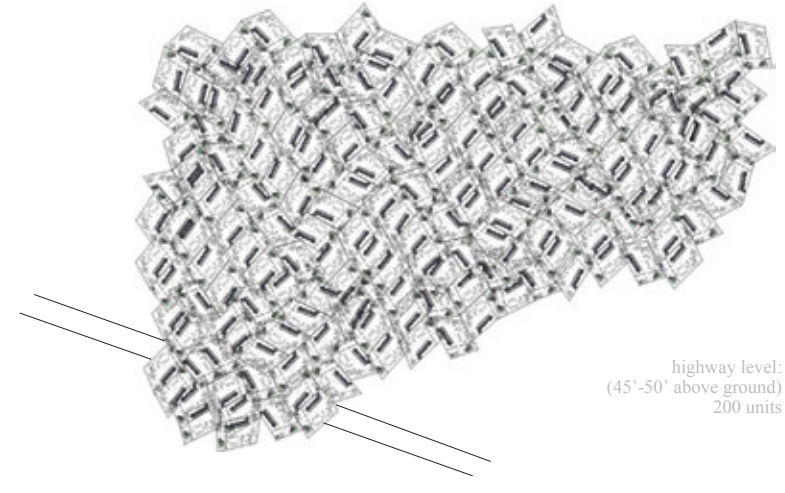
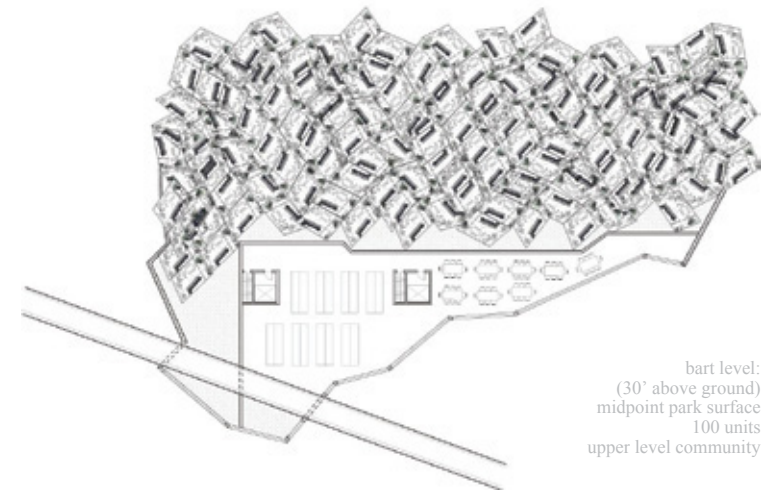
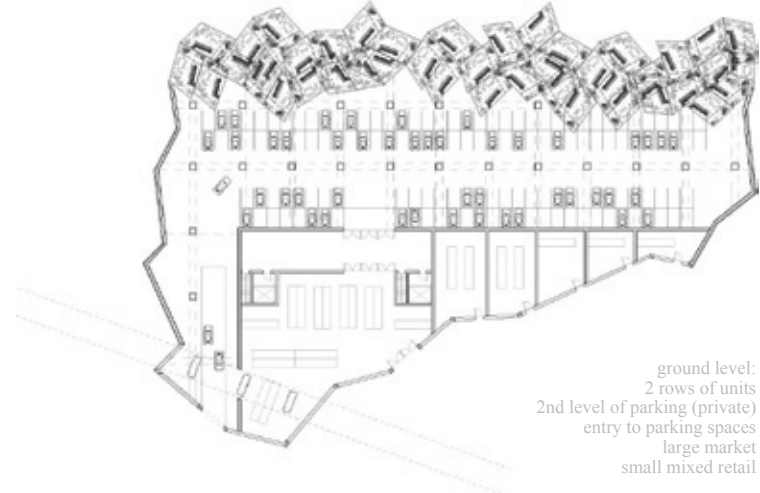
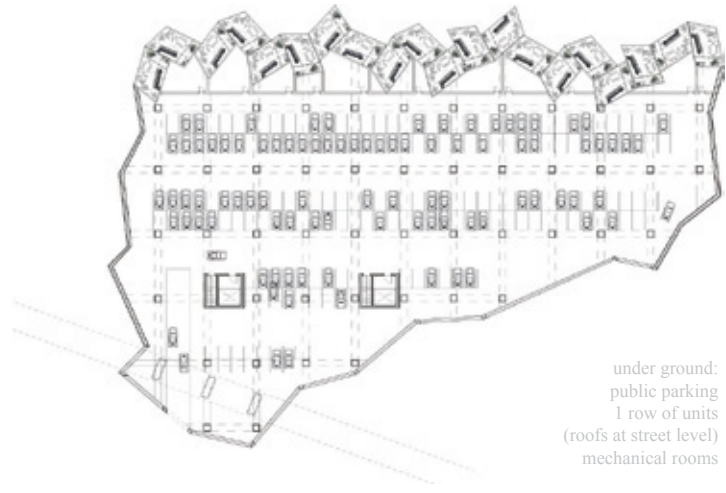
(below) materials

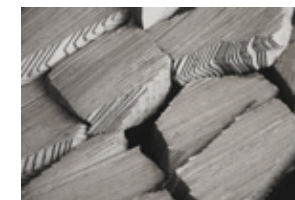
1. green surface creates public space for residential sector
2. recycled shipping container material adopts industrial haze
3. glass facade faces SF skyline, display of building's processes



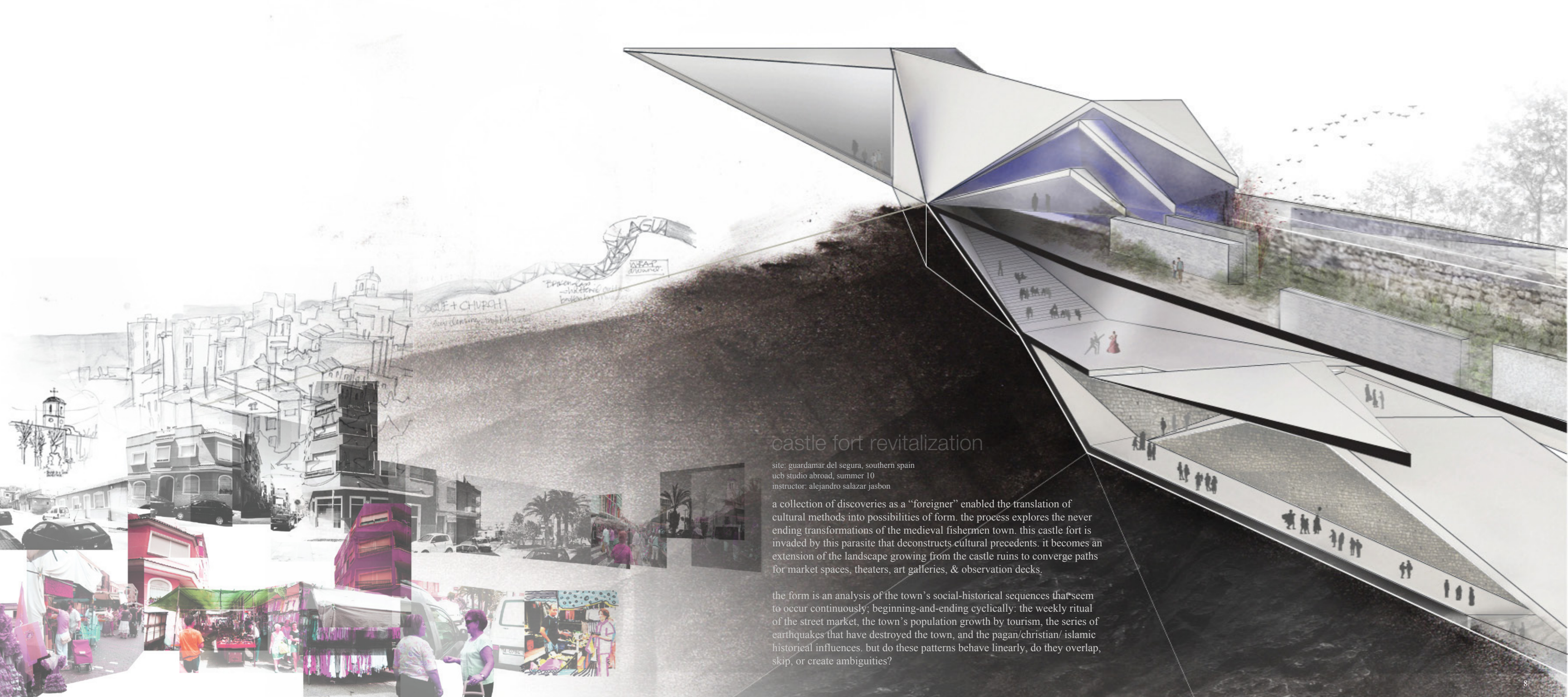
- ~ 45' = highway = base-of tallest unit
- ~ 30' = bart line = midpoint for units + park
- ~ 20' = each unit = other homes in neighborhood
- ~ 0' = ground = entry to shops + parking + units

local heights around site are proportional to the variois height levels in the project





left: street view facing highway & port
right: study models present a man-made
“landscape” of stacked-tiled units



castle fort revitalization

site: guardamar del segura, southern spain
ucb studio abroad, summer 10
instructor: alejandro salazar jasbon

a collection of discoveries as a “foreigner” enabled the translation of cultural methods into possibilities of form. the process explores the never ending transformations of the medieval fishermen town. this castle fort is invaded by this parasite that deconstructs cultural precedents. it becomes an extension of the landscape growing from the castle ruins to converge paths for market spaces, theaters, art galleries, & observation decks.

the form is an analysis of the town’s social-historical sequences that seem to occur continuously; beginning-and-ending cyclically: the weekly ritual of the street market, the town’s population growth by tourism, the series of earthquakes that have destroyed the town, and the pagan/christian/ islamic historical influences. but do these patterns behave linearly, do they overlap, skip, or create ambiguities?

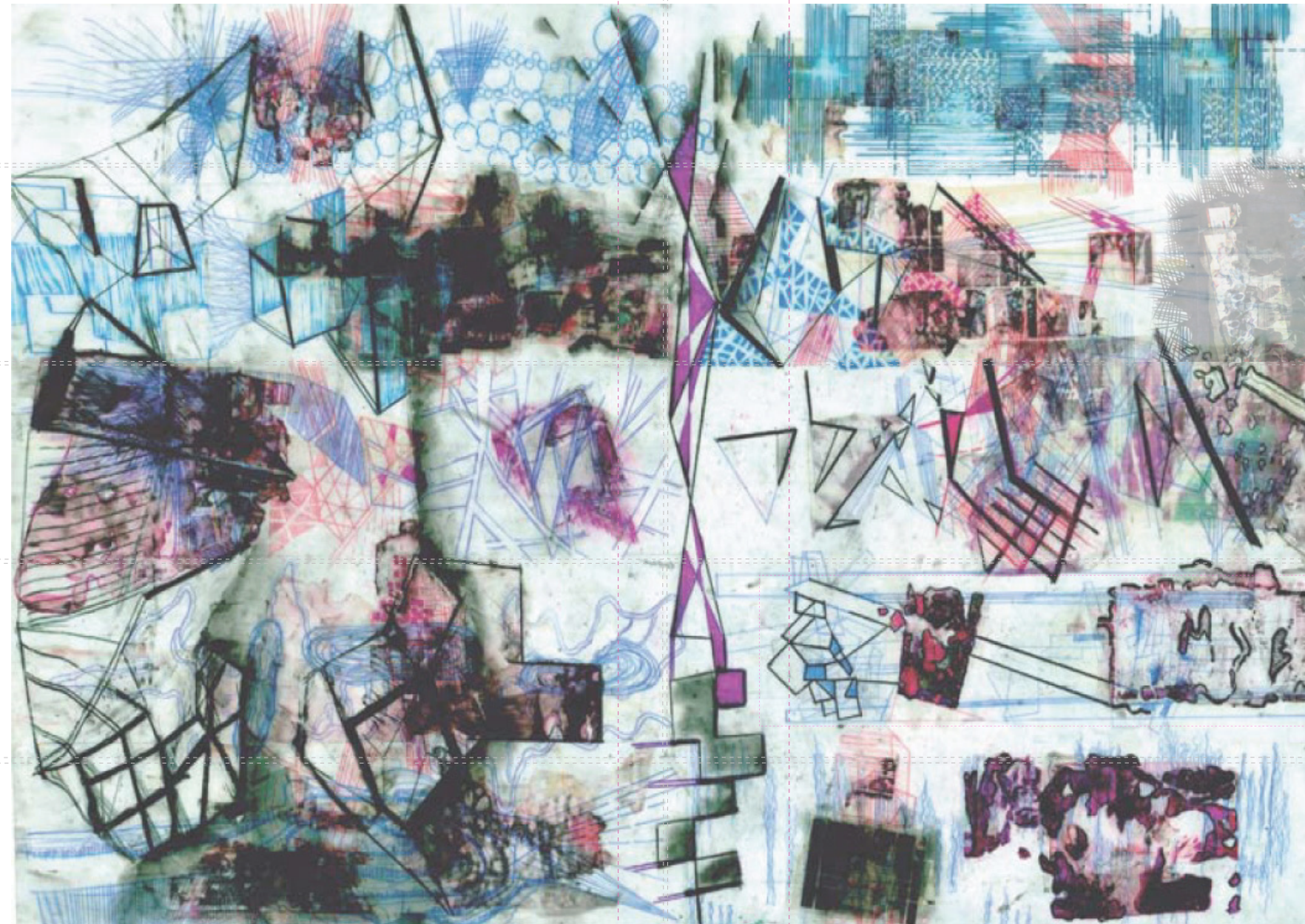
spectacle

sun/moon

street
enclave

wave

invasion



diagrams: archival of discoveries creates a language that discerns new perspectives as a foreigner.

conceptual
plan

ritual

retreat

tide

parti

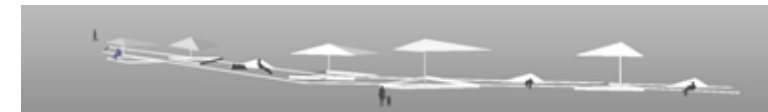
trauma

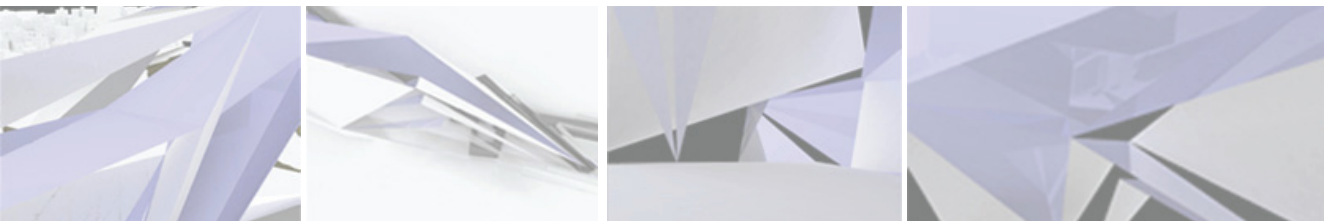
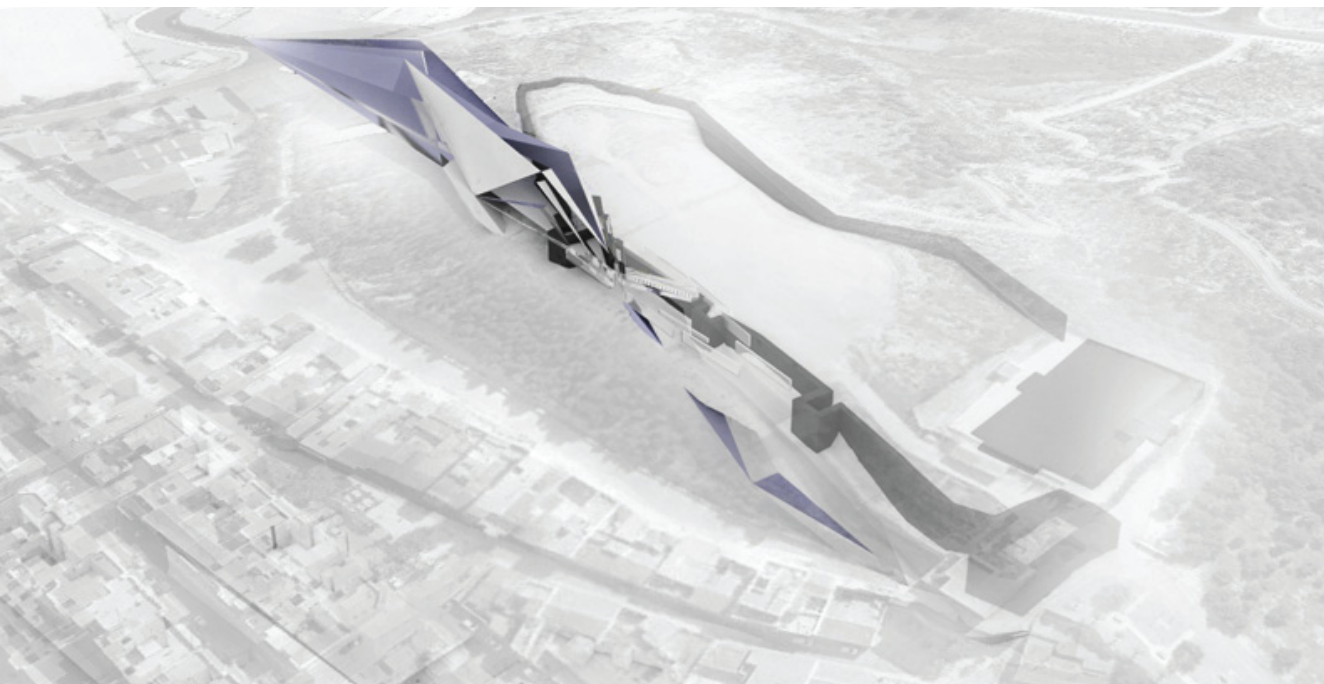
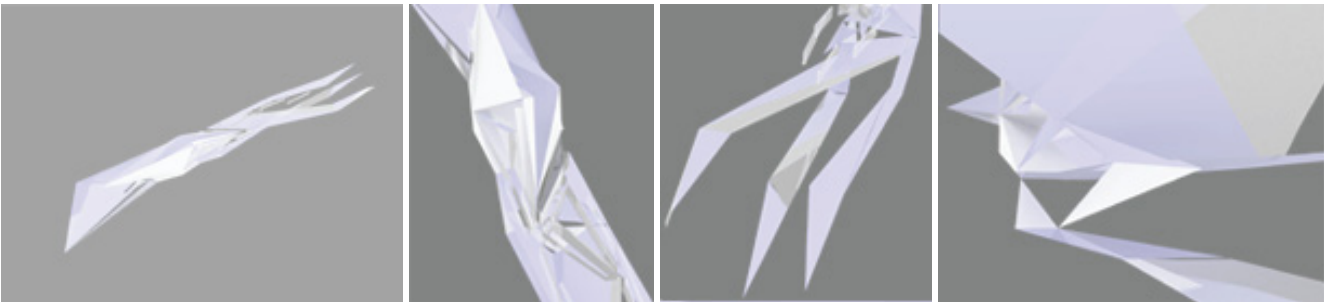
accretion

preliminary study: the significance of the weekly ritual of the street market inspires this permanent installation for markets and exhibits. the pods create open shading devices or seating spaces when closed. the number of units relates to the needs during seasonal population booms by tourism throughout the year.



models represent town's boundary-shifts of historical invasions





right: simplification of form based on preliminary study of market-place modules



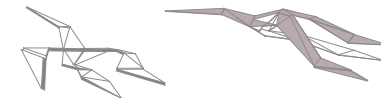
spatial cadences



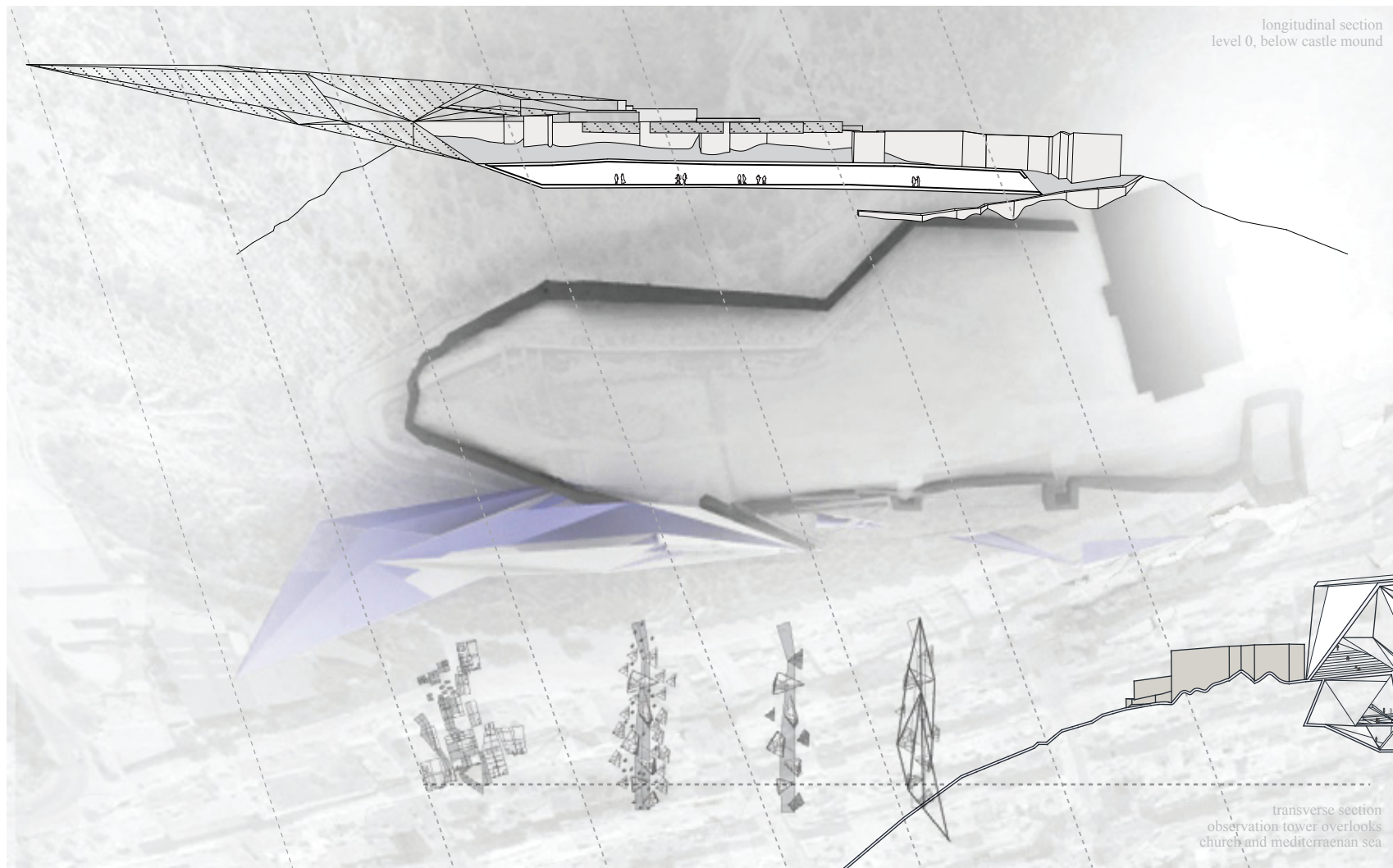
transparencies



ruins-landscape



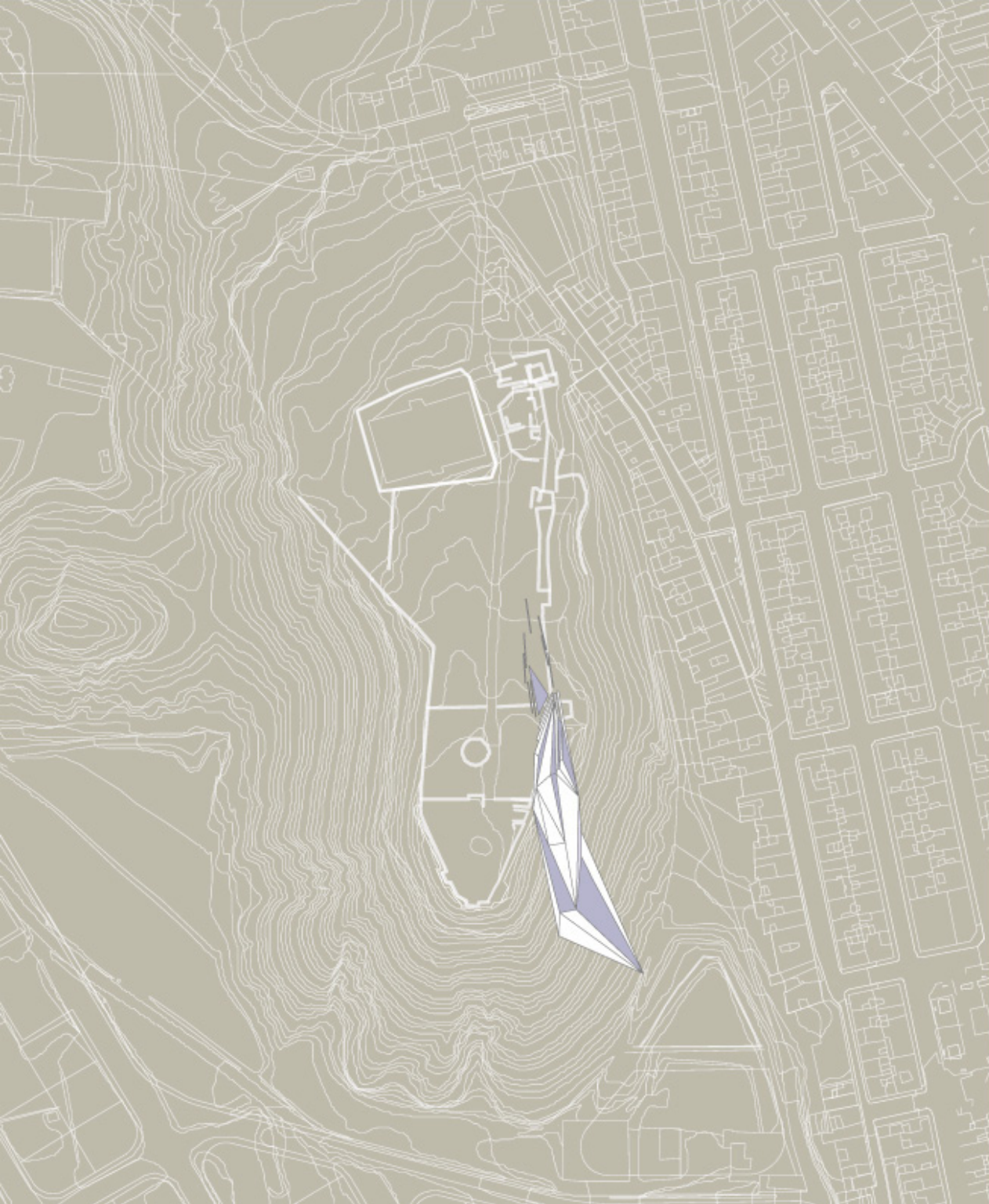
separation of paths



longitudinal section level 0, below castle mound

top: conditions between form and existing mound. the building highlights the history of the site by preserving its historical integrity and allowing the ruins and landscape to create the new fluid paths.

transverse section observation tower overlooks church and mediterranean sea

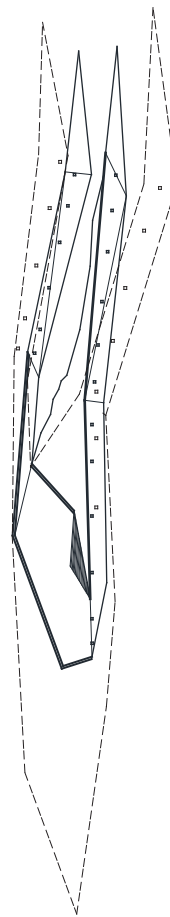


left: site plan, views towards
mediterranean sea and town

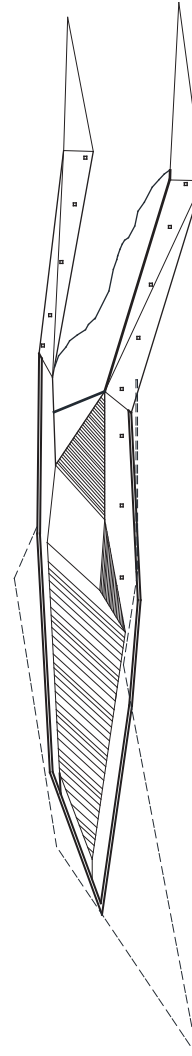
right:
level 0: below mound
long aisles used for
market-space, leading to
temporary art galleries

level 1: mound
theater and performance
spaces, observation decks

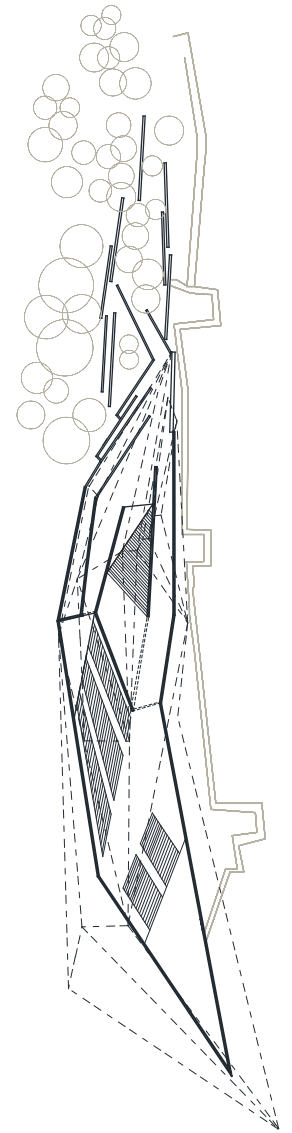
level 2: upper
open interaction with
landscape-ruins, galleries,
and larger theater and
performance spaces



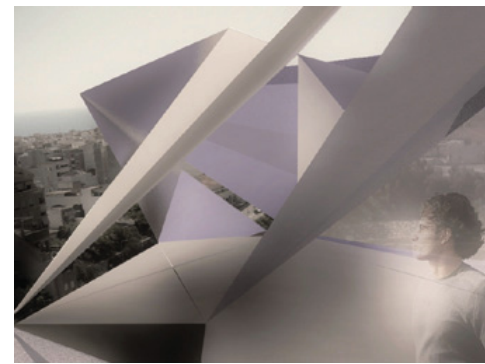
level 0



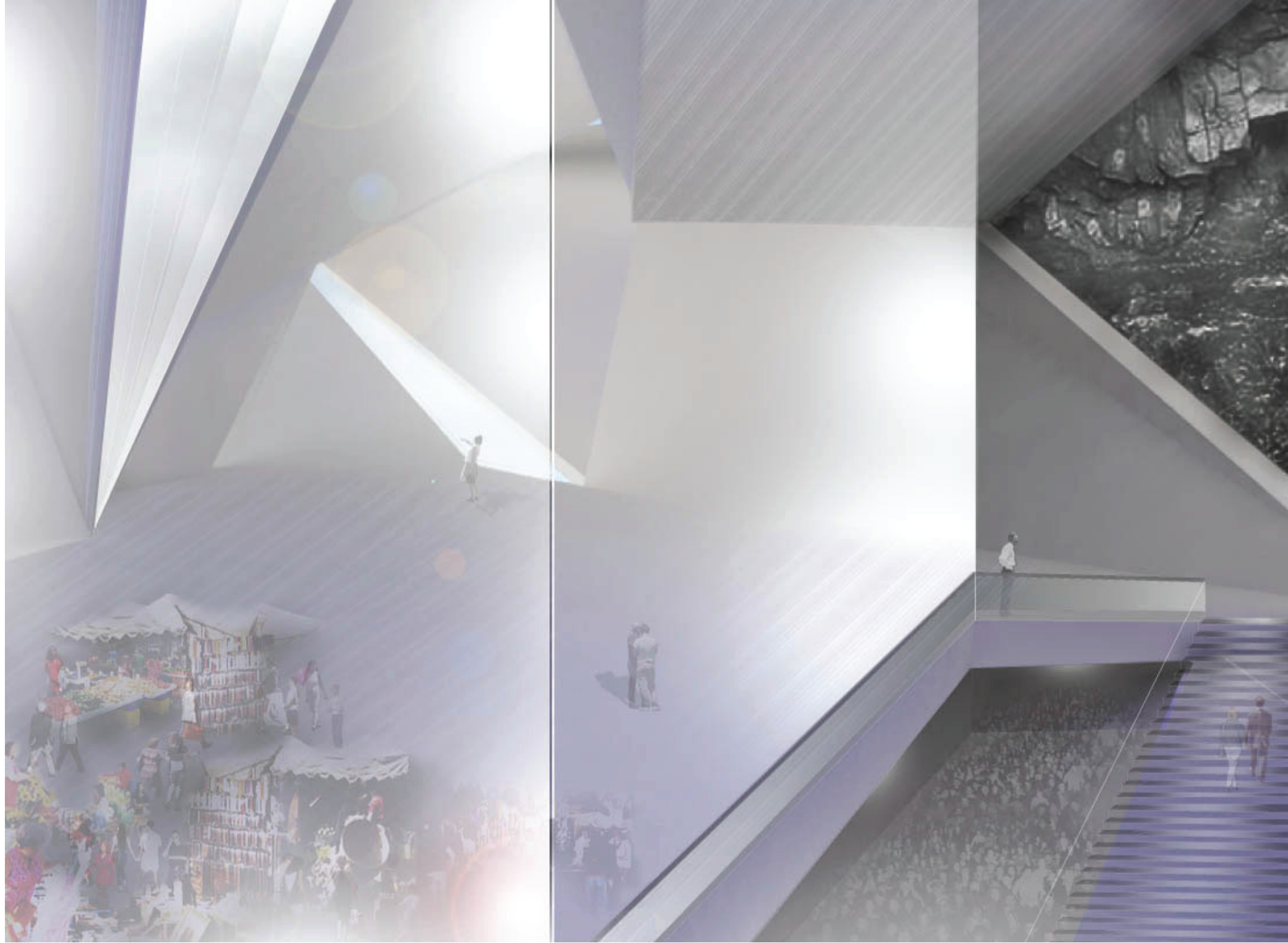
level 1



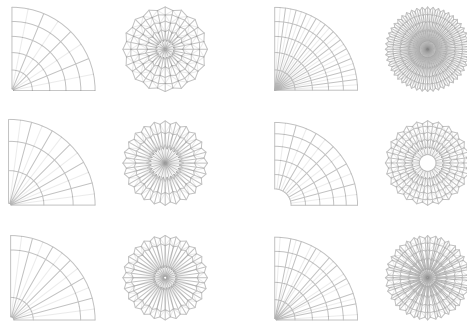
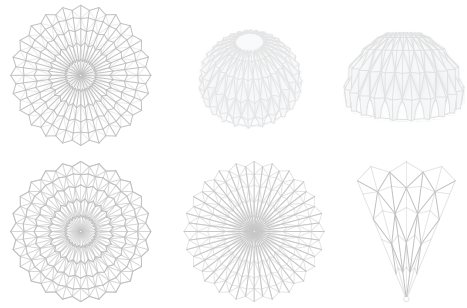
level 2



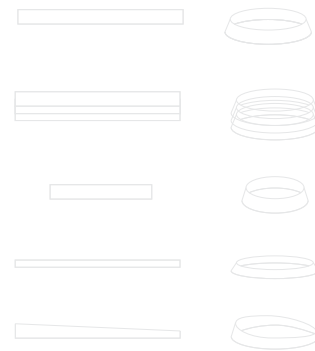
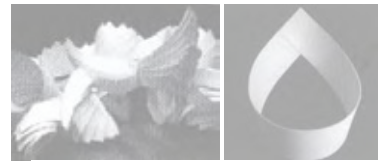
- top-bottom
1. formal space for market booths
 2. open decks for sun bathing
 3. observation rooms



shared aisles for weekly market and temporary art galleries



structural precedents

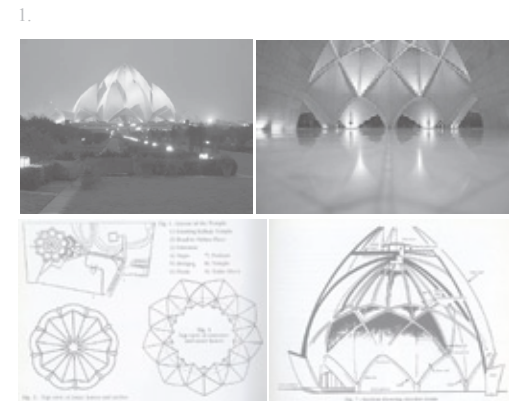
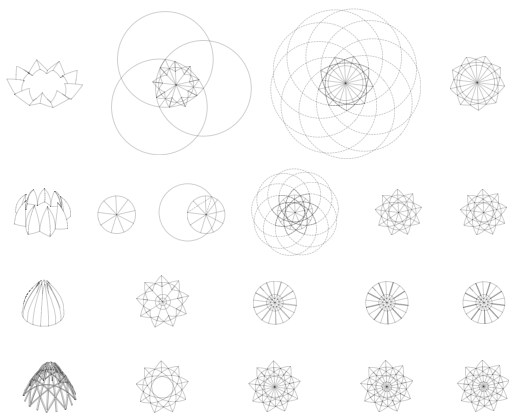


material studies

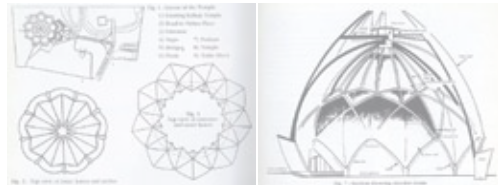
material geometry

site: open grass field, northern california
 ucbl graduate digital seminar, spring 11
 instructor: lisa iwamoto

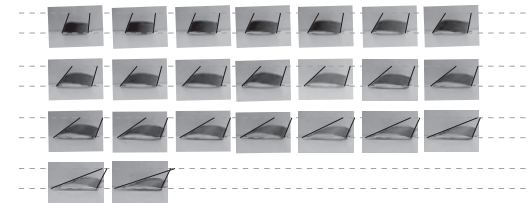
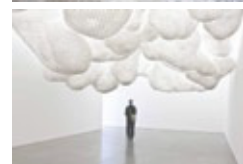
the form of this two-person outdoor pavillion is based on a study of structural precedents and material properties. the relevance of a column, arch-like openings, and redundancy of units are the basis of the structural system.



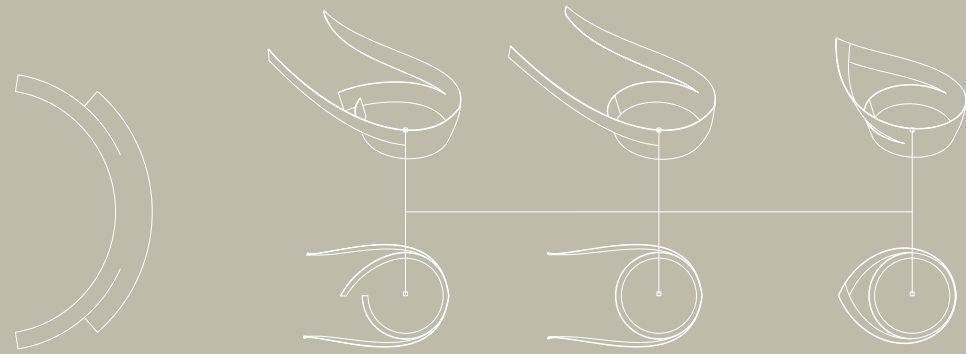
1.



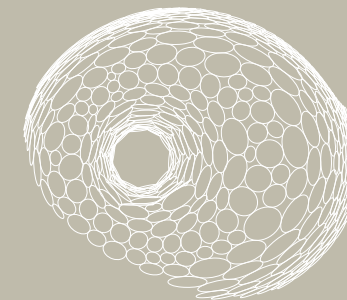
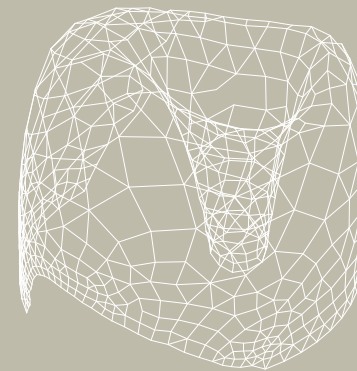
2.



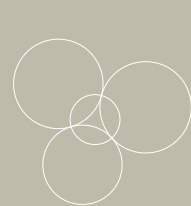
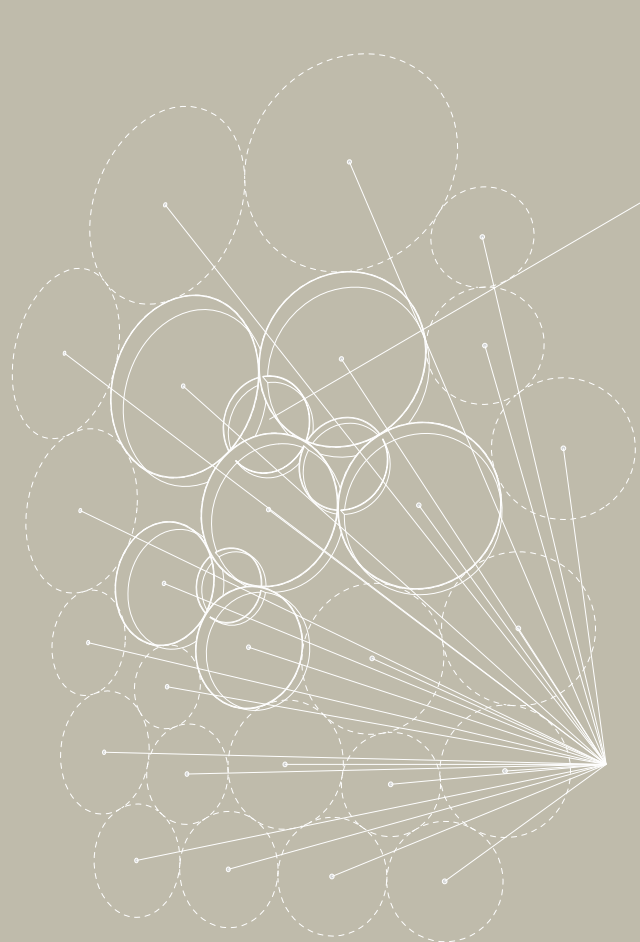
1. bahai house in new delhi, by fariburz sahba
 2. untitled, by tara donovan



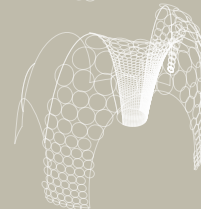
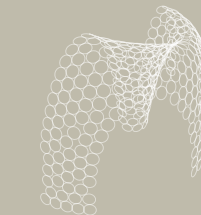
module development



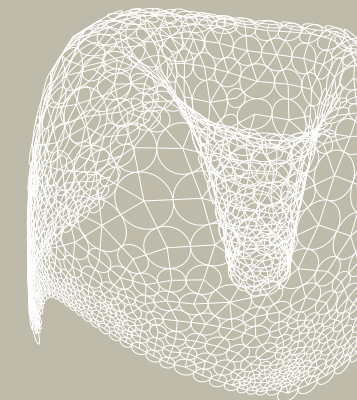
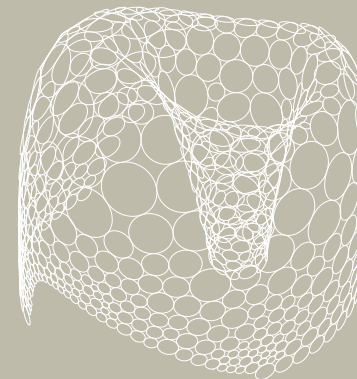
folded paper is used to create the “teardrop,” the structural module for this pavillion. the redundancy of modules generates a gradient that is self-standing and interconnects each unit with circular joints. moments of tension mostly occur in the top portion of the central column, responsible for supporting most of the weight.



joint development

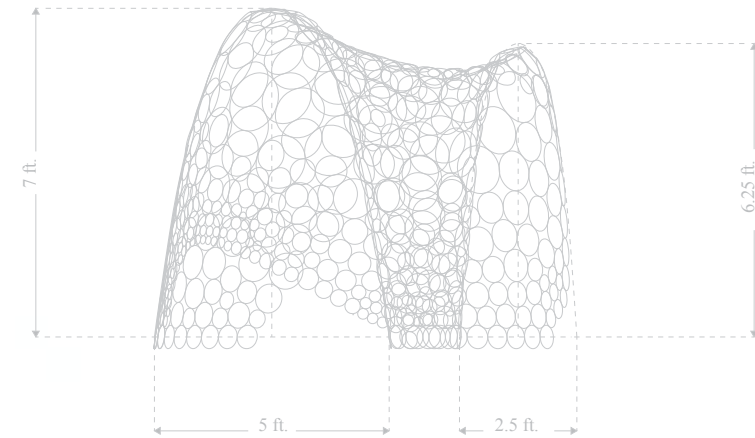
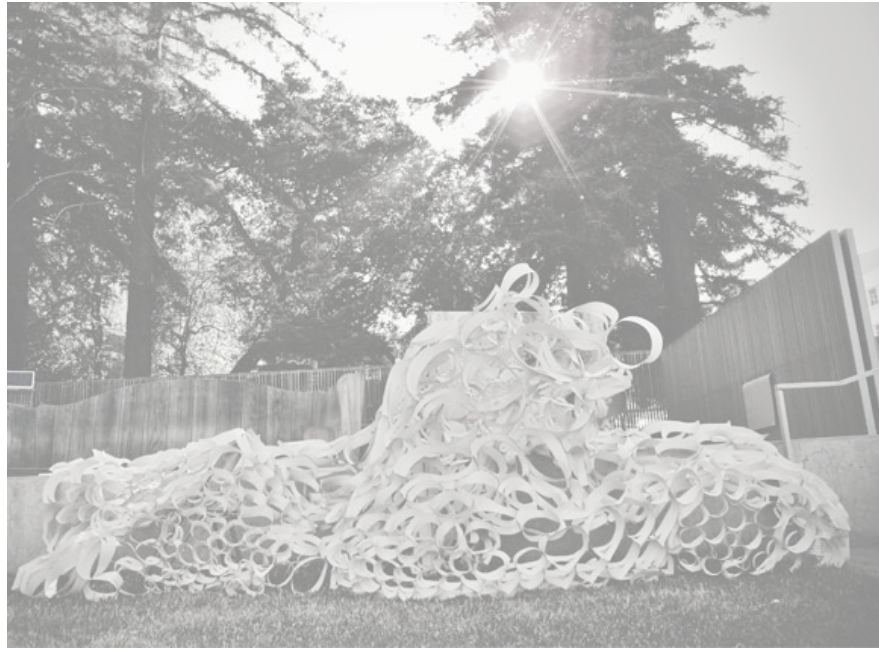


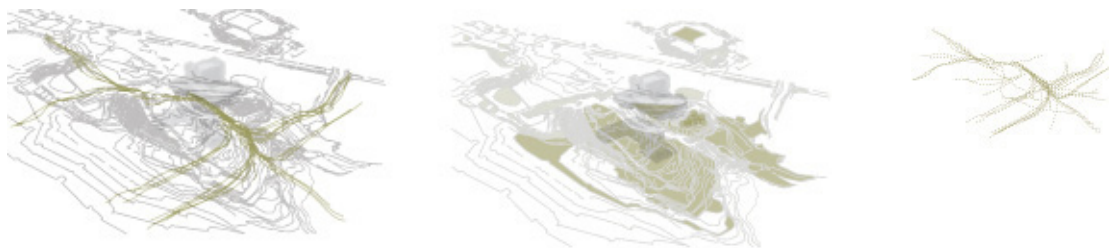
moments of tension
algor analysis



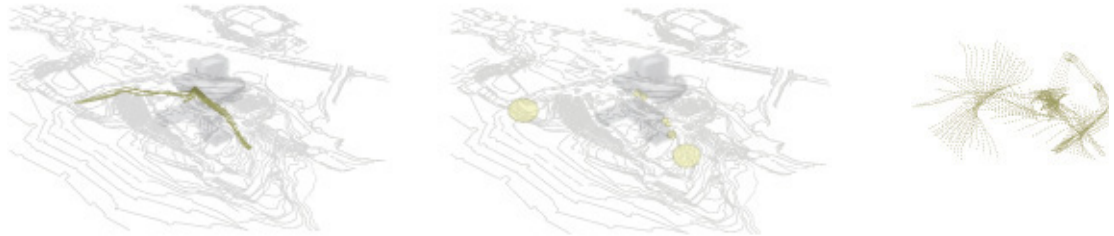


in the end, the gradient of teardrops lacked needed joints to withstand structural pressures.

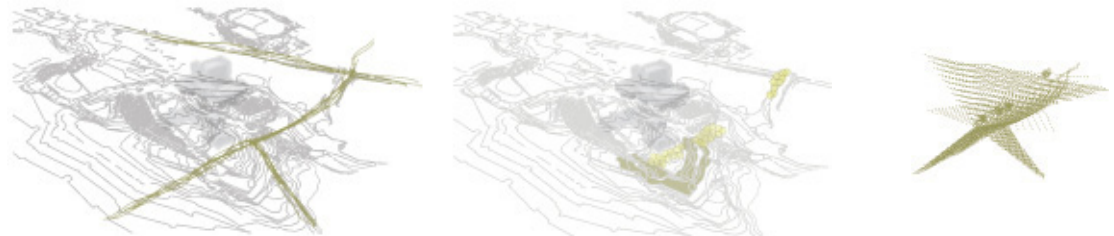




site movement



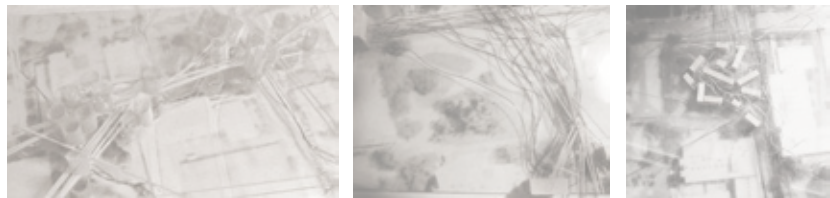
pedestrians



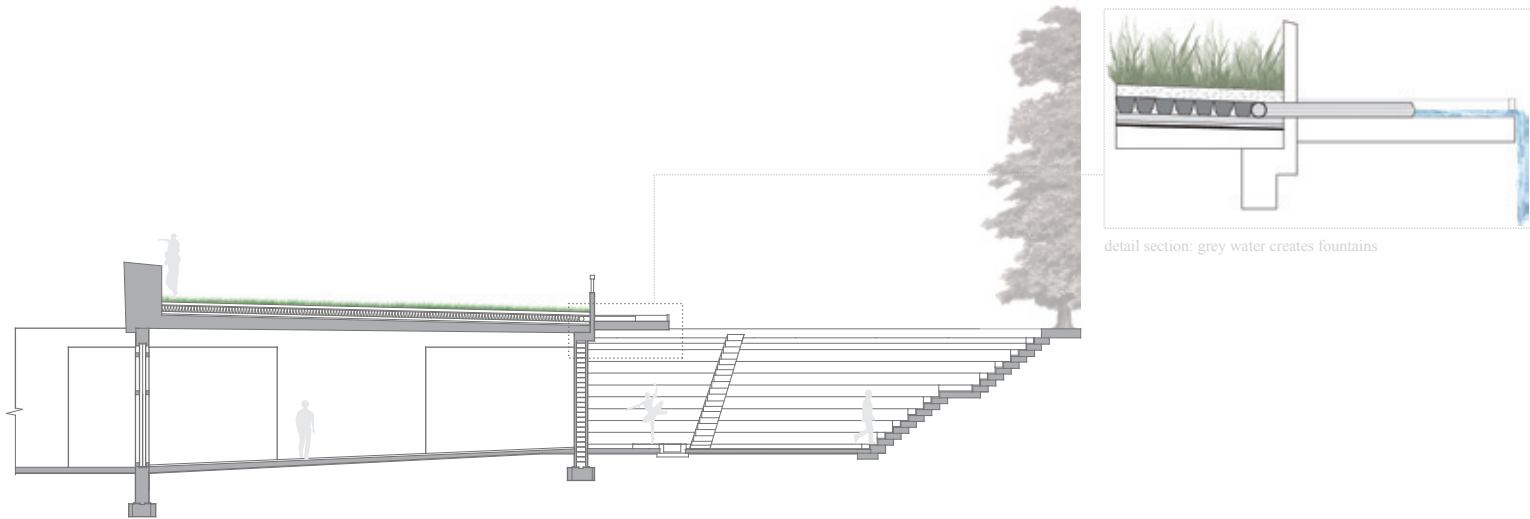
automobiles



bicyclists



physical models: overlapping moments of movement & stasis

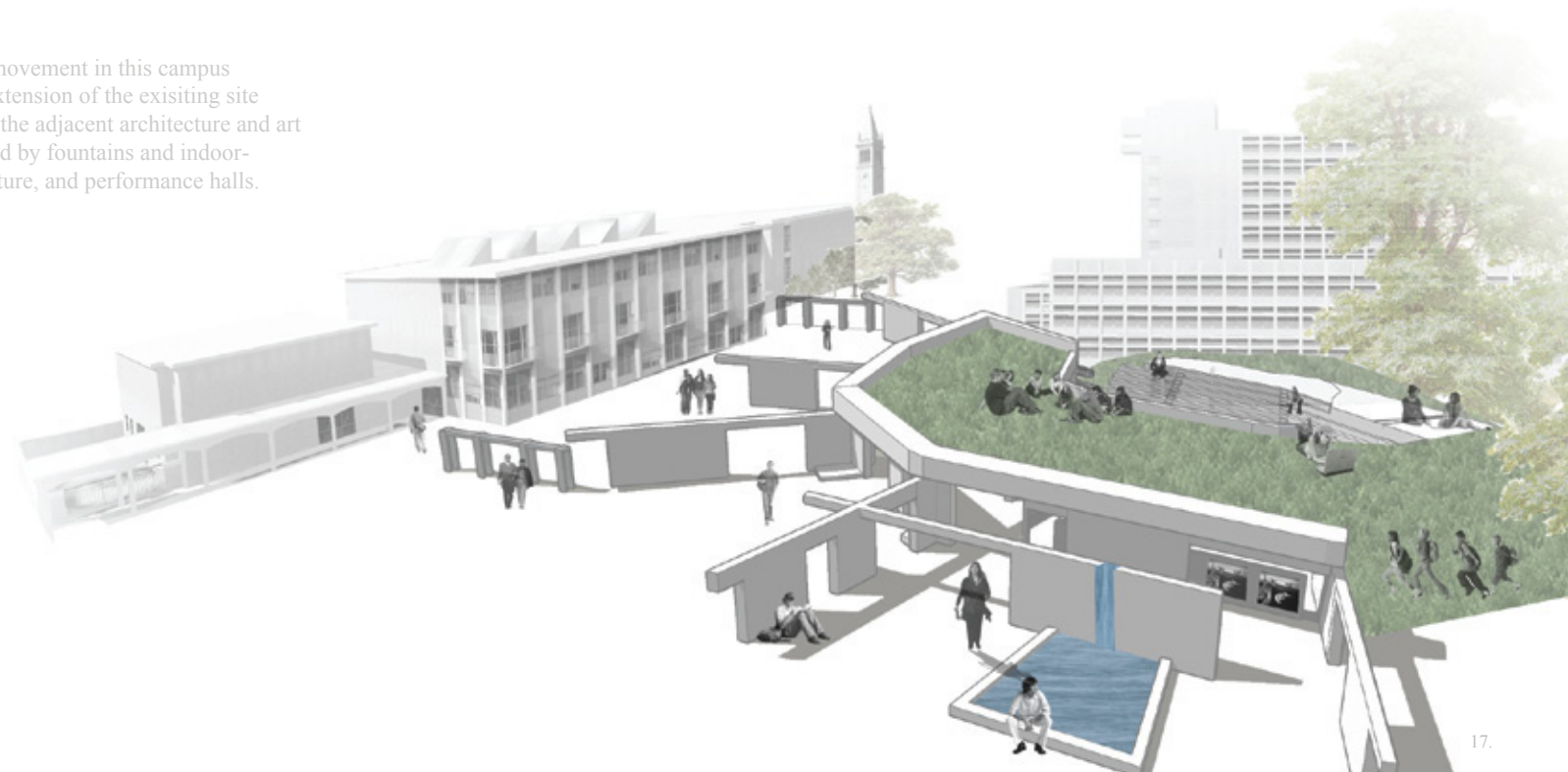


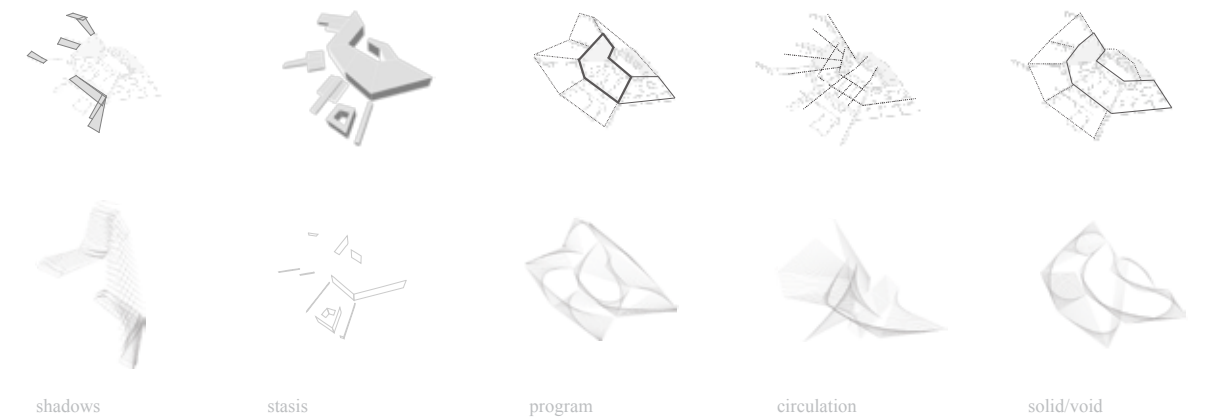
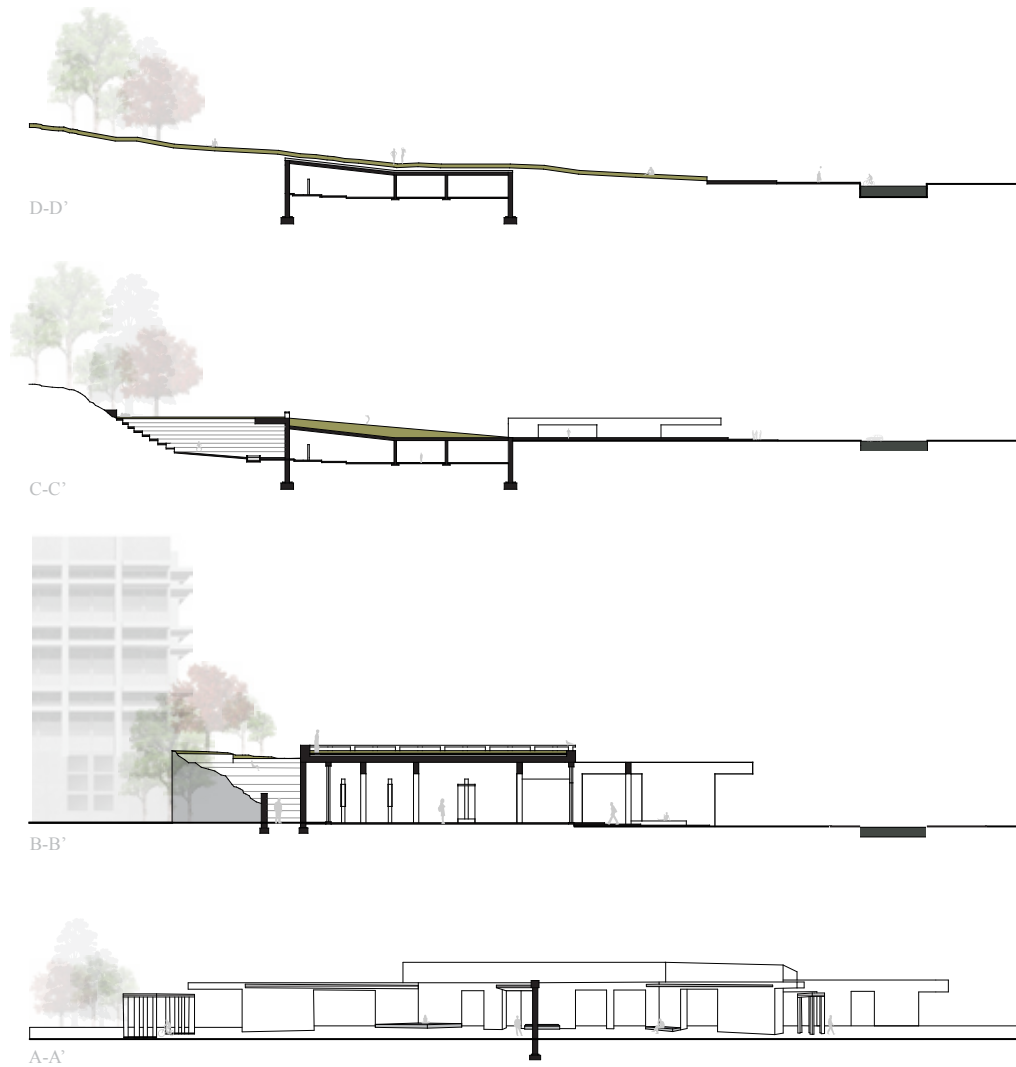
detail section: grey water creates fountains

transitional display-engagement

site: uc berkeley campus, northern california
 ucb studio fundamentals of architecture, spring 09
 instructor: marvin buchanan

a wall parti highlights the existing student movement in this campus gateway. the transitional space is a subtle extension of the existing site mound. materials and form camouflage with the adjacent architecture and art buildings, creating a new movement directed by fountains and indoor-outdoor leisure spaces used as galleries, lecture, and performance halls.



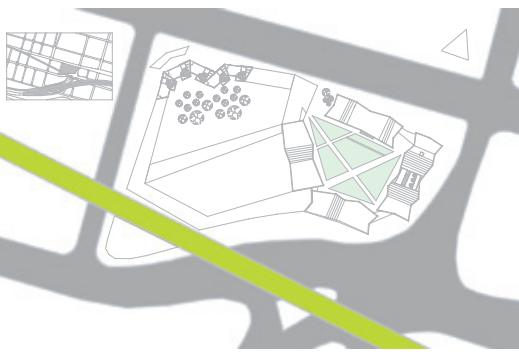




segregation and integration of communities is created by industrial boundaries



natural vs. industrial



film strip sequences



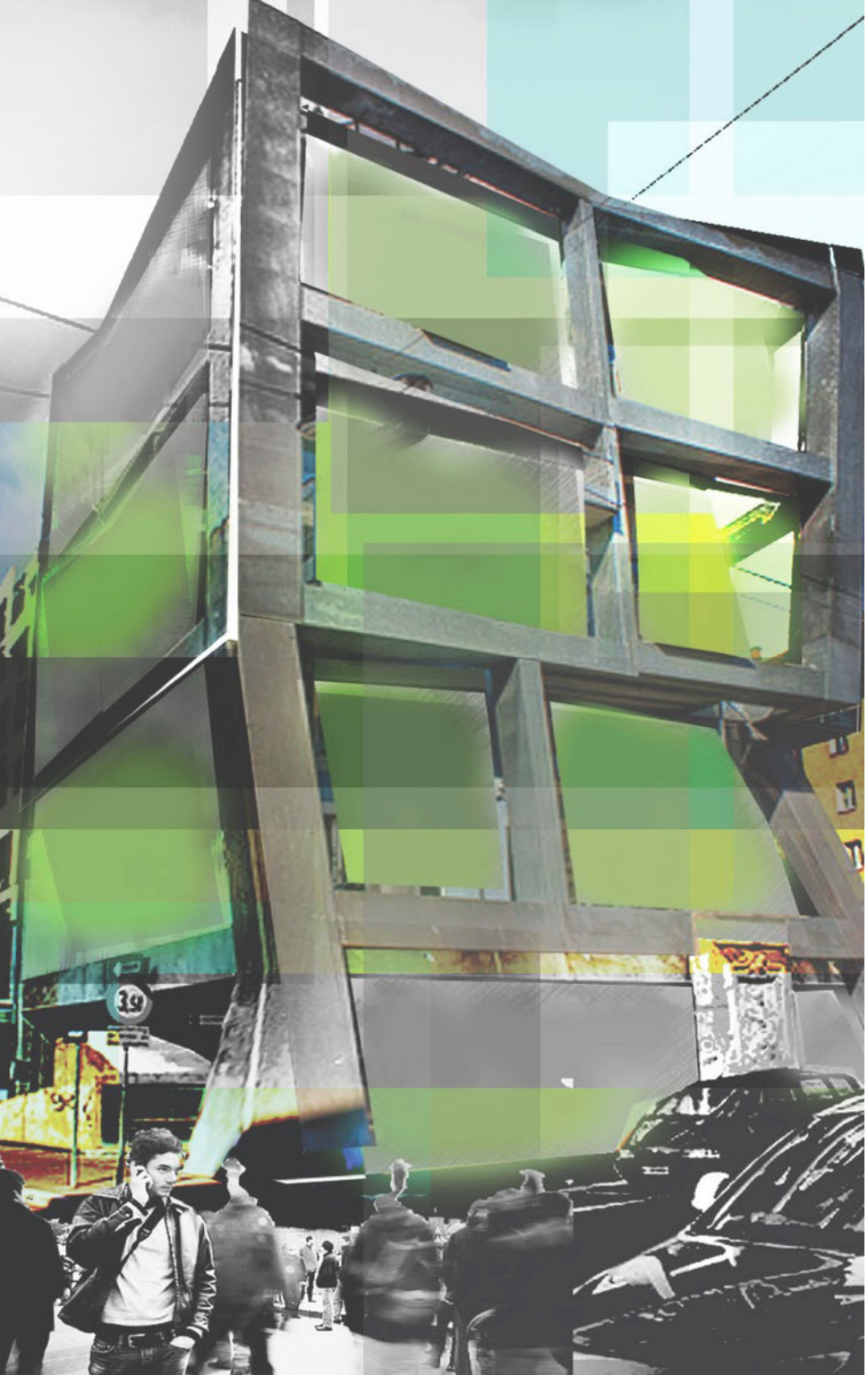
separation + integration, plan view



distribution of program



north elevation



film school community center

site: west oakland, northern california
 ucb studio fundamentals of architecture, fall 09
 instructor: jean-paul bourdier

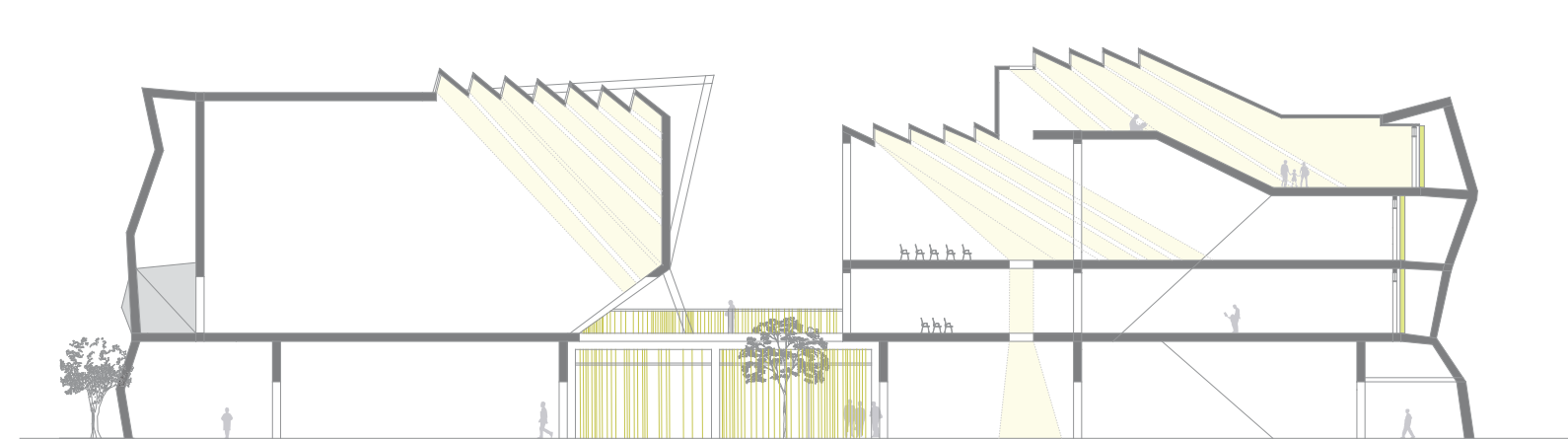
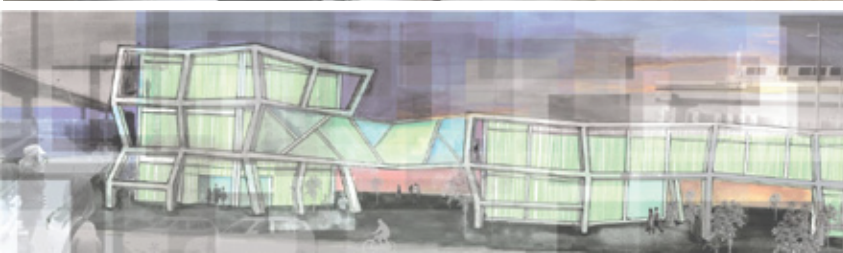
the distribution of sequences as separated "frames" in a film inspires the division of program into various buildings connected through bridges. the center opens up as a cinematic piazza and recreational community park. finally, the vibrant colors and "dancing" concrete frames showcase the fast pace lifestyle in this industrial sector.



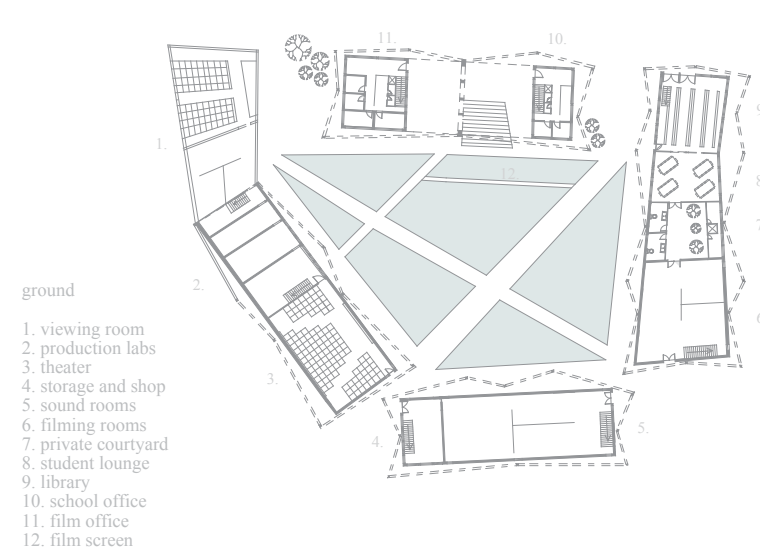
library entrance



library entrance

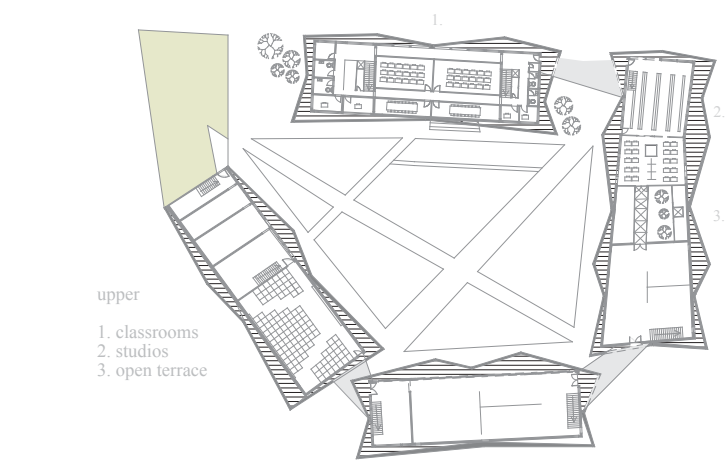


A-A' courtyard + library



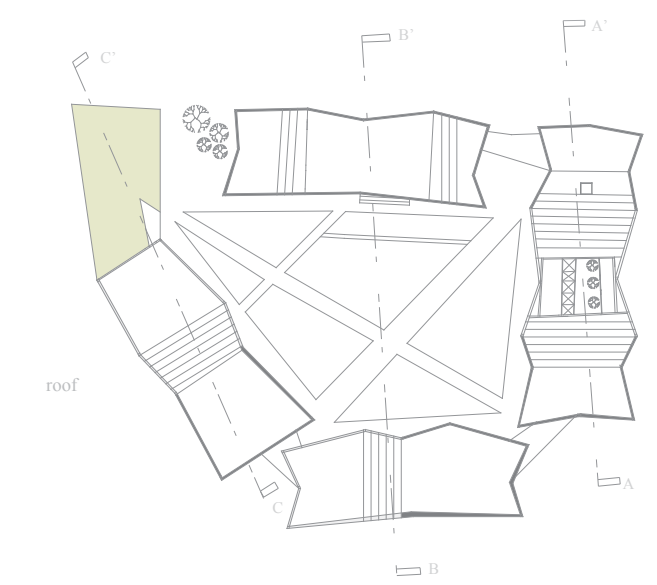
ground

- 1. viewing room
- 2. production labs
- 3. theater
- 4. storage and shop
- 5. sound rooms
- 6. filming rooms
- 7. private courtyard
- 8. student lounge
- 9. library
- 10. school office
- 11. film office
- 12. film screen



upper

- 1. classrooms
- 2. studios
- 3. open terrace



roof

B-B' sound, piazza, classrooms



C-C' recording facilities

32
gallons of water per car

\$7,000
total cost of water per month

80%
total monthly fees of water use

70%
monthly water recycled

touchless carwash

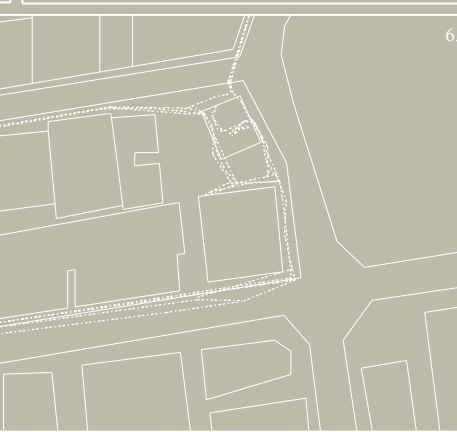
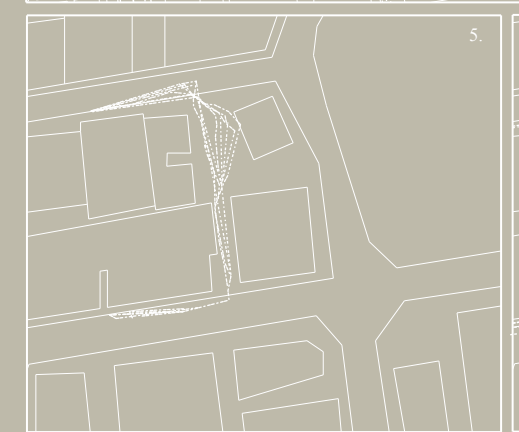
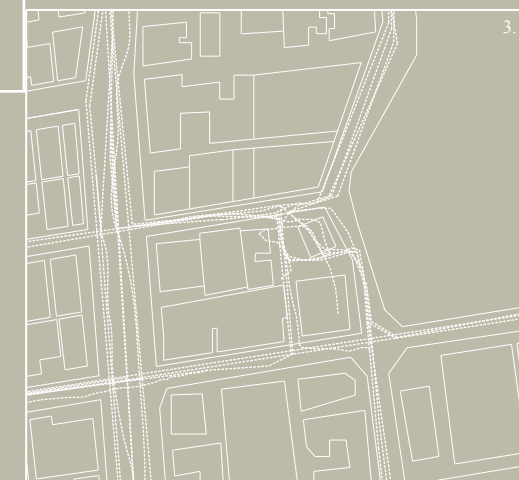
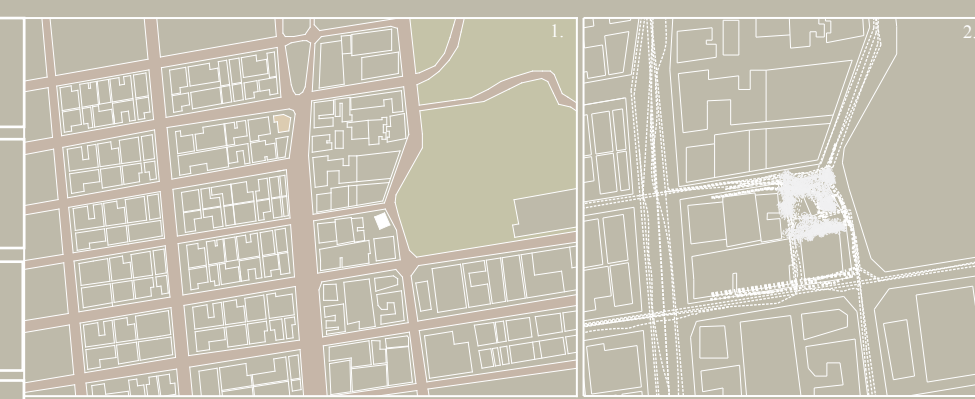
site: berkeley, northern california
ucb deep green design, fall 10
instructor: susan ubbelohde

the exploration of a carwash/ gas station as a vertical system becomes an alternative for a denser future. the various iterations use different approaches to environmental design, paying close attention to the use of energy and resources. the final form results in providing a carwash that creates its own water resources for the building and street block.

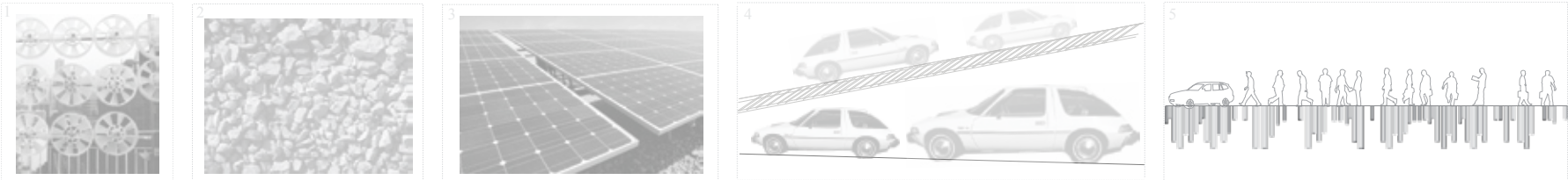
left: underground creek in berkeley may be used to create more immediate resources of water

bottom: vertical and horizontal possibilities of organizing water in carwash

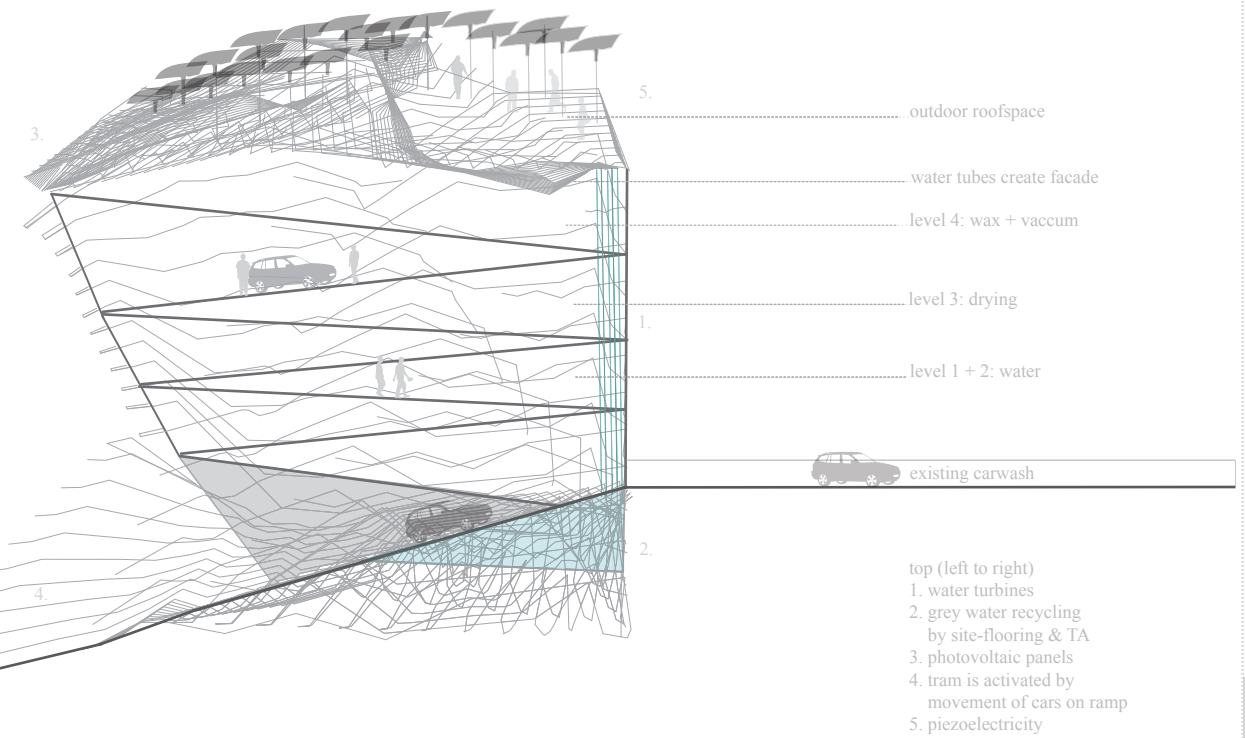
- 1. berkeley, bay area
- 2. flow of passages on site
- 3. vehicles
- 4. nodes of cars + people
- 5. flow of water
- 6. pedestrians



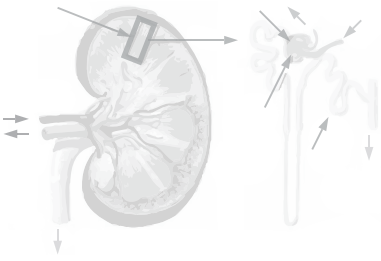
how do we create more immediate and local natural resources in urban environments?



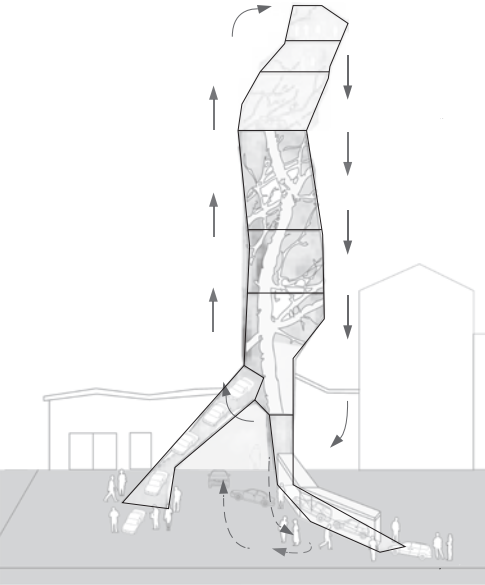
net-zero energy carwash



process: passage of water and urine through kidney > nephron > bowman's capsule > loop of henle

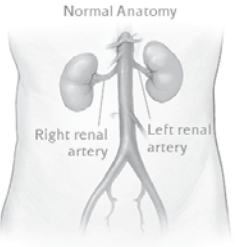


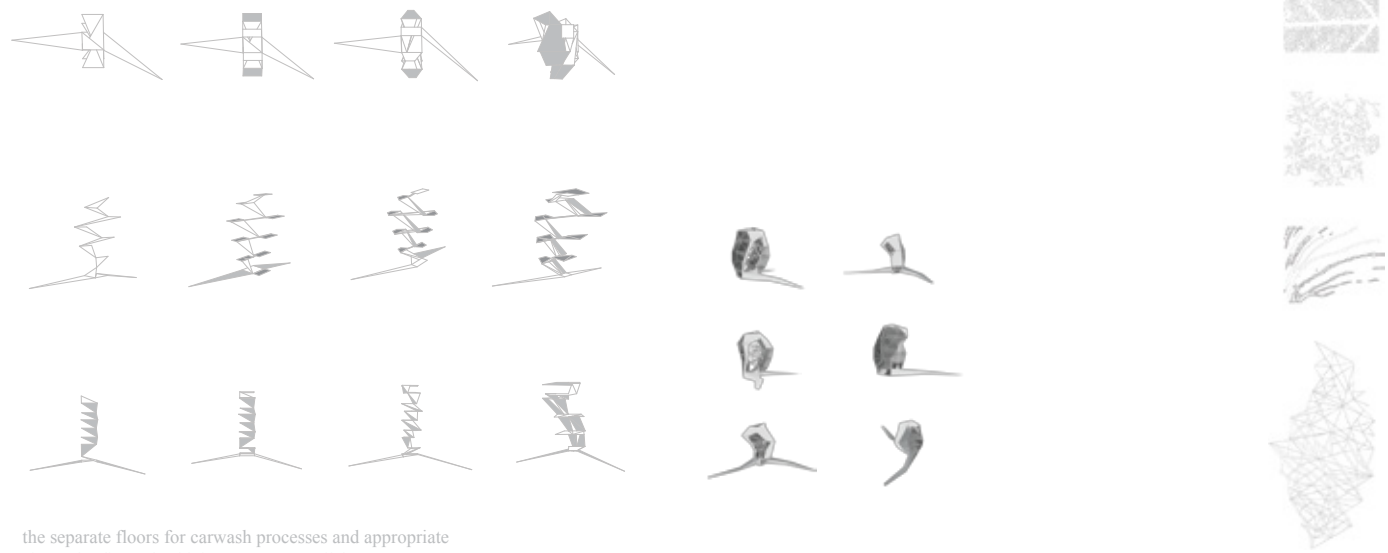
biomimicry + biophilia carwash



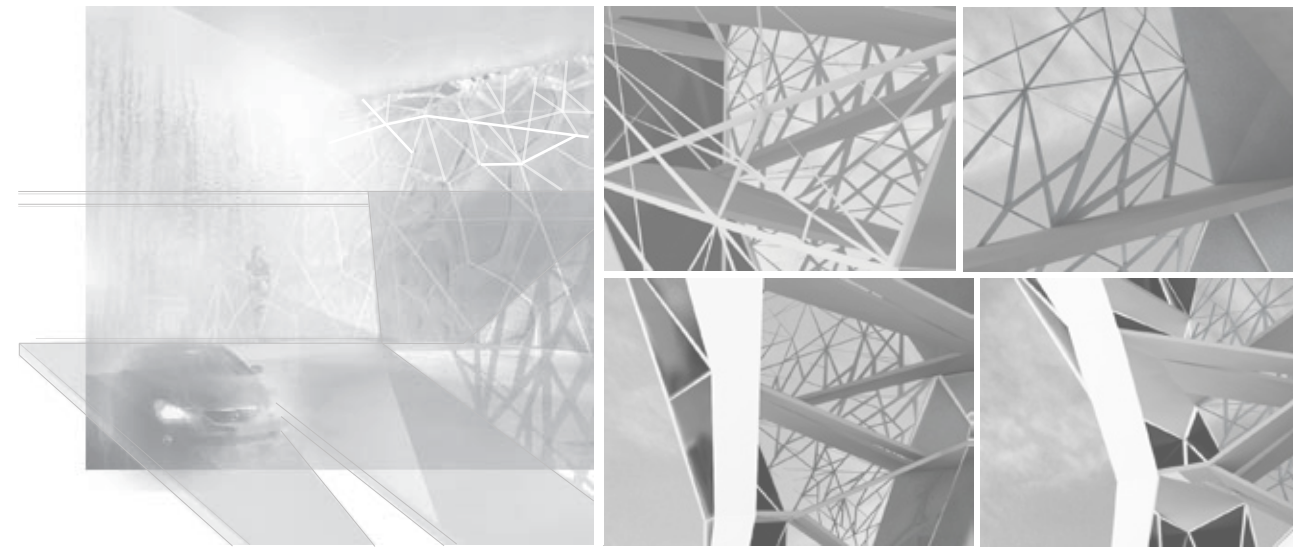
"waterfall": interaction with water is created by didactic approach to educate user about car wash/ water recycling processes.

form: vertical structure of renal artery

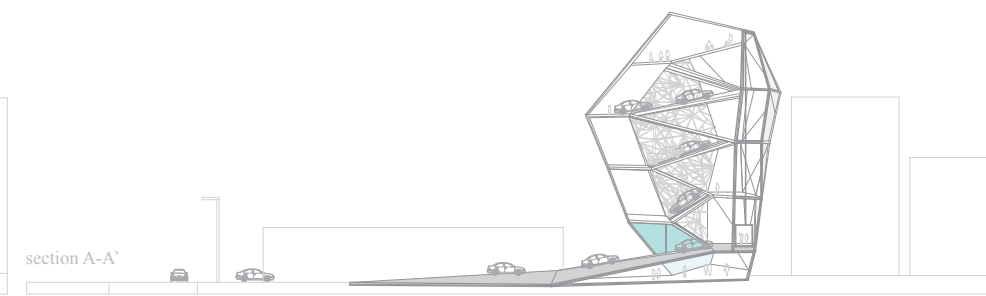
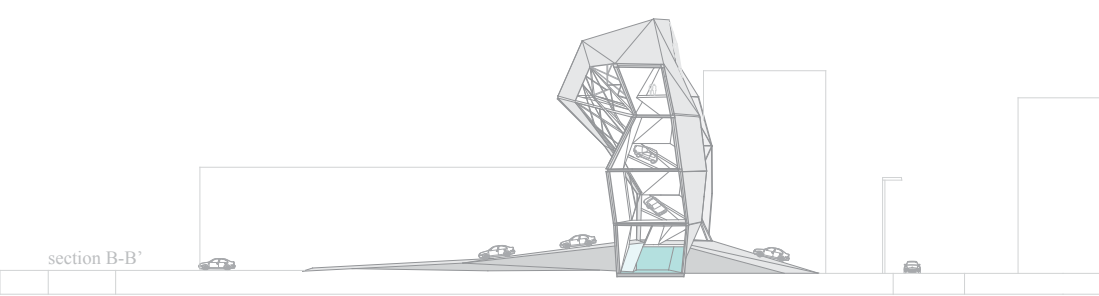




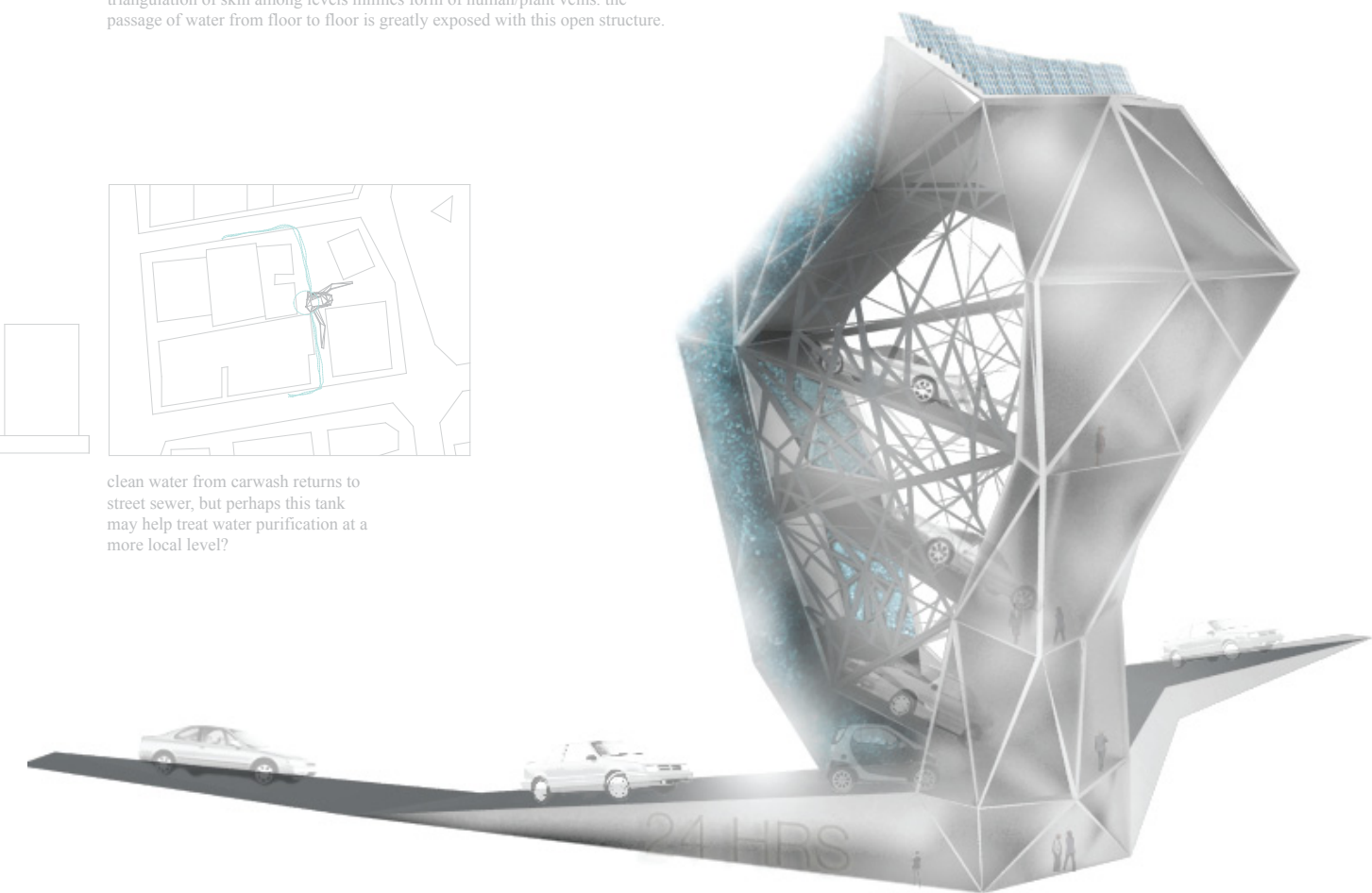
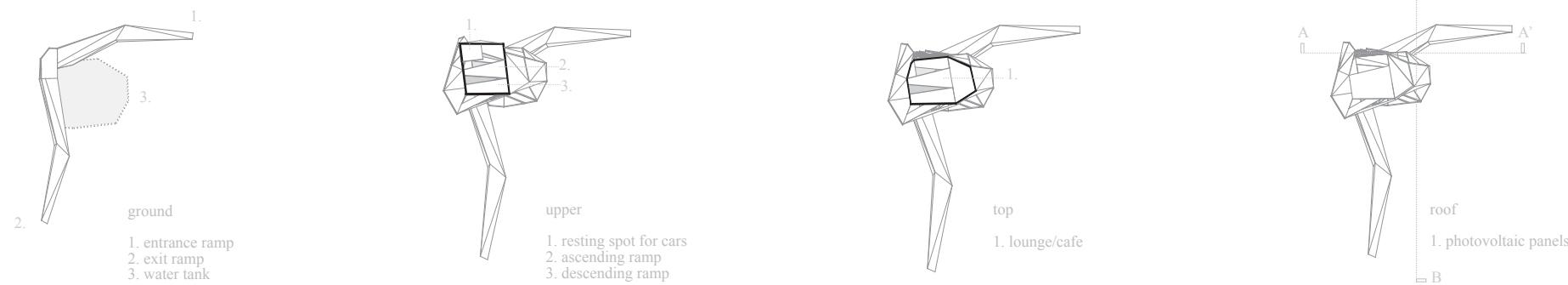
the separate floors for carwash processes and appropriate slopes for flow of vehicles creates overall form



triangulation of skin among levels mimics form of human/plant veins. the passage of water from floor to floor is greatly exposed with this open structure.

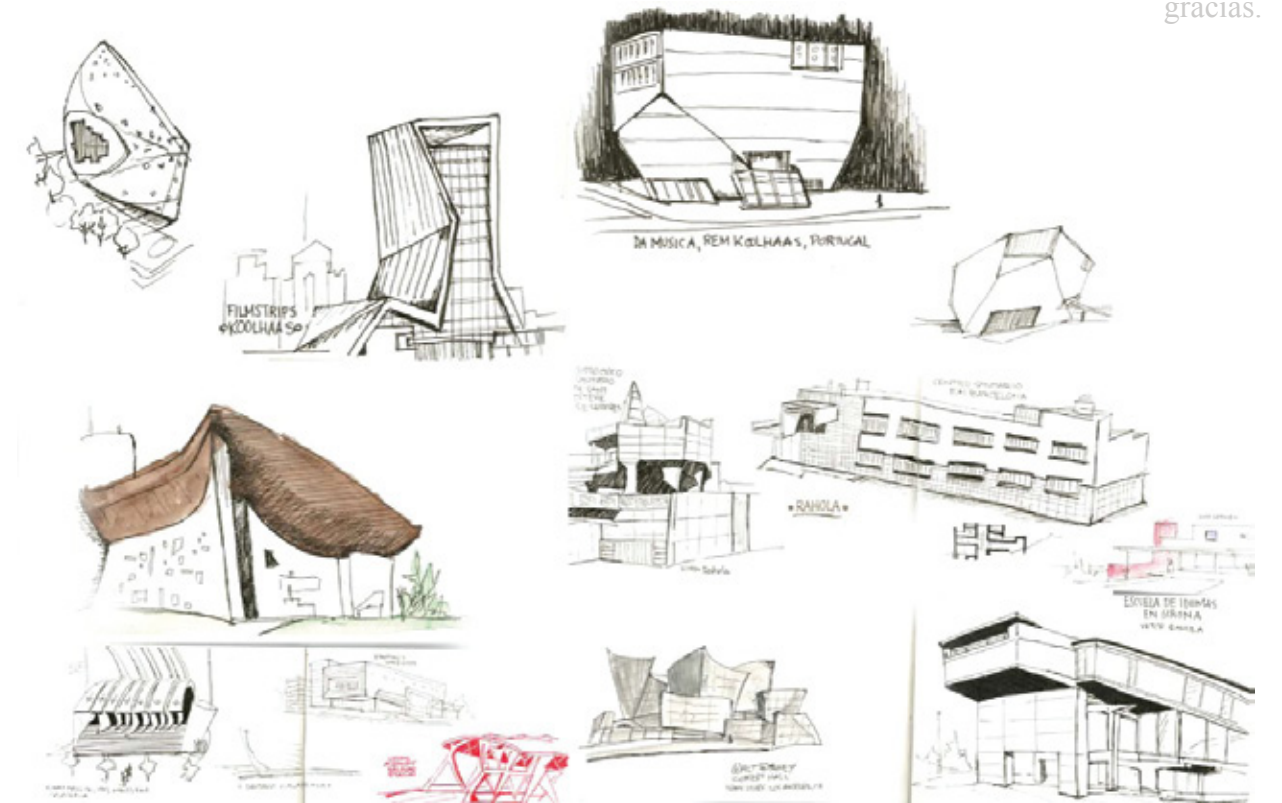


clean water from carwash returns to street sewer, but perhaps this tank may help treat water purification at a more local level?



“community disintegrates because it loses necessary understandings, forms, and enactments of the relations among materials and processes, principles and actions, ideals and realities, past and present, present and future, men and women...”

american farmer wendell berry, culture and fidelity, 1970s



gracias.