

# NJIT CoAD Pre-college ARCHITECTURE + INTERIORS

**SUMMER 2019 with Professor K Brandt Knapp**  
brandt@njit.edu

**SESSION 1 \_ 07 July - 12 July**

TEACHING ASSISTANTS

**TBD**

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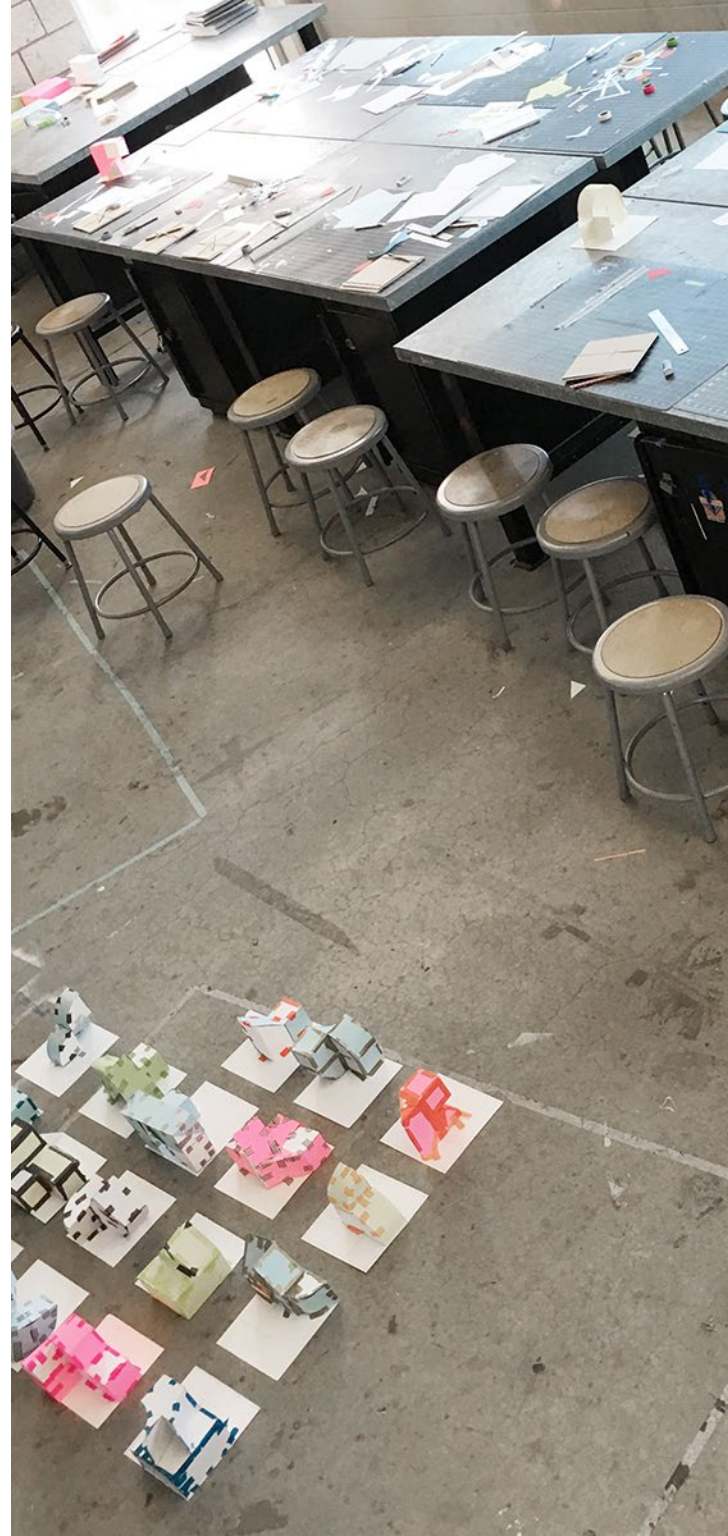
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**STUDIO LOCATION - LAB 140 | 4th FL Deck**

\*DRAFT - subject to change



# ARCHITECTURE + INTERIORS

## SYLLABUS

### COURSE DESCRIPTION

This pre-college course is designed to be an exploratory, week-long retreat into contemporary design ideas and modes of making relevant to potential architecture and interior design majors. Design fundamentals are taught through quick exercises, and the students gain technical means using current software, fabrication tools and analog processes. Creative work is produced and discussed in the computer lab, the open studio, the pin-up areas in the building as well as during the field trip to New York City.

### GOALS

The goal of the “studio” is to introduce architecture and design education to the potential undergraduate student. By the end of the one-week intensive, students will have work to include in a portfolio and the unique experience of studio culture to help guide each student into his or her college life. An understanding of current, accessible modes of making is sought to assist students to continue building a body of work.

### STUDIO ETIQUETTE

As in all studio environments, the student will learn more from his or her peers than from the instructors. It is a place for discovery, comradery and creative collaboration! The studio shall be a fostering, encouraging and challenging in the sense of broadening perspectives, safe place for all artists/designers to work his or her best. (Any issues such as music preference or supply sharing should be discussed in a positive manner \*respect is key)

### ASSIGNMENTS

*Exquisite ~ Corpse | Cut ~ Line | Scale ~ Dimension | Sight ~ Site | IN/OUT-STALL*

The initial three exercises establish creative, design thinking, drawing/modeling conventions and tool workflows, both analog and digital processes. The project IN/OUT-STALL will focus on the relationship between exterior form and interior experience. The initial exercises will act as building blocks for the design of an inhabitable stall. The fieldtrip will reveal the city through an architectural lens (sight) - sketching, noting or photographing will document each students experience. At the various sites, emphasis on “in” and “out” will be documented.

### DOCUMENTATION

It is paramount for artists/designers/architects to document well. All 2D work will be on 8” x 8” cardstock provided. Models will be photographed. Sketches will be scanned. A final PDF will be submitted. A physical “book” will be ready to bind all 2D work at the week end.

# ARCHITECTURE + INTERIORS

## SCHEDULE

SUNDAY	3:30pm 5:00pm	Move-in at Honors College / Campus Tours Welcome Dinner @ CoAD
MONDAY	9:00am 11:00am 11:30am 12:30pm 1:30pm 2:30pm 3:30pm 5:00pm	Introductions   <i>Exquisite ~ Corpse</i> 3D Partner Game Drawing Conventions & Scale + Q&A Working Hour (orientation - elevations) - studio Lunch Rhino 2D lines & 3D Exquisite Corpse + Q&A Working Hour - computer work Demonstration <i>Cut ~ Line</i> (cricut machine) Dinner & Activities
TUESDAY	9:00am 10:00am 11:00am 11:30am 12:30pm 1:30pm 2:30pm	Interiority - Poché   Light and Experience Working Hour (plans and sections - sketch poché) Representation Talk in Lab Working Hour (lab or studio for <i>Scale ~ Dimension</i> ) Lunch Group Pin-up Discussions (& Shake Shack Order) Activities & Dinner..
WEDNESDAY	9:00am 10:30am 12:00pm 1:15pm 3:30pm 6:00pm 7:00pm	Public Transit to NYC (Manhattan)   <i>Sight ~ Site</i> Architecture Office Tour (Varies per Session) Lunch in a Park (Pick-up from Shake Shack) Exhibitions (Storefront & Arch League) High Line Walk Pizza in the city Public Transit back to NJIT
THURSDAY	*9:30am 11:30am 12:30pm 1:30pm 3:00pm 3:30pm 5:00pm 6:30pm	Collective Site Discussion Section Crits Lunch Desk Crit Sign Up / Working Hour Demonstration - Photographing Models Final Desk Crits or Demonstrations (laser cutter..) Dinner Working Hour w/ TAs & Activities
FRIDAY	9:00am 10:00am 10:30am 11:00am	Computer Lab File Exchange Pin-up in The Gallery Guests Arrive Presentation w/ Family & Friends

\*Extra Curricular Activities may - GameRoom, Manhunt, Pool Time, Movie Night...

\*This is a working syllabus & schedule - subject to change

# IN/OUT-STALL

**IN**terior **EX**terior / **OUT**side **IN**teractions

In architecture there is a fundamental relationship between the exterior form and the interior experience of the building. Is the concept of the architecture a dichotomy between the two? Is the exterior the result of the interior? What is “inside” and what is “outside”? What about composition – symmetries, proportions, hierarchies? Does the space have a perceptual “affect” from the way light comes into the building or the materials used? In any case, the stuff that makes architecture (drawings or actual building materials) deals with exactly these questions.

Working through a geometric game using the square, the quarter circle and the triangle, each student will develop a massing based on a 10' three-dimensional grid with maximum extents being 30' x 30' x 20' at scale. This massing will be the instigator for questions like the ones above. It is through model making and drawing, that each student will transform this massing into an architecture – with an **IN**terior and an exterior.

## **STALL** /stôl/

noun

- 1 a stand, booth, or compartment for the sale of goods in a market or large covered area.
- 2 an individual compartment for an animal in a stable or barn, enclosed on three sides.

verb

- 1 (of a motor vehicle or its engine) stop running, typically because of an overload on the engine.
- 2 stop or cause to stop making progress.

As a framework both for the building organization and for the programmatic component, each student will interpret **STALL** as it relates to the habitation of the project. Thinking of the word in both its noun form and its verb / act form is useful to propose the organization / layout of various elements as well as define a narrative or story from an inhabitant's perspective – why someone might “stall” / slow-down in speed to experience the architecture. The curation of light, view and body positioning will occur through the design of architectural elements – specifically the wall, the floor and the roof.

## COLLECTIVE SITE

The collective site is a clearing in a wooded area of rural New Jersey. The clearing itself easily accomodates a 25 Square (5 x 5) grid each @ 30'-0" and one enters via a hiking path. Main Street is a 10 minute walk on the path from the clearing. The hiking trail continues and is a loop that takes approximately 2 hours to complete. The **IN/OUT-STALL** location is a negotiation with your neighbors. North should be taken into consideration and the program path or sequence should be the instigator for the negotiations.

## PROGRAM

The program for the project is defined by the narrative(s) / story of happenings each student develops of light, view and body positioning. A wall can be developed to incorporate a framed view, a roof can allow a slot of light to wash a wall, a floor can morph to create stadium seating. The program should help to define what the relationship is between inside and outside. Drawings and models allow for the communication of these architectural ideas.

# EXERCISES / DELIVERABLES

## Exquisite ~ Corpse

The result of the game will provide each student with a three dimensional volume that can be used to generate elevations from and be the basis for creating a model in the computer.

SKETCH MODEL	1/4" = 1'-0"
DRAFTED ELEVATIONS	1/4" = 1'-0"
3D PRINT	1/8" = 1'-0"

## Cut ~ Line

Through "the cut" we will understand how to best describe / communicate the architecture. This exercise will also focus on fabrication principles - making use of the cricut machines, students will work simultaneously by hand and in a digital environment.

ELEVATION SILHOUETTES	1/8" = 1'-0"
SECTION COLLAGE - POCHE	1/4" = 1'-0"
EXPERIMENTAL DRAWING	Any Scale

## Scale ~ Dimension

Body measurements and the relationship between built form and the human body will drive the discussions as they relate to the larger context and drawing techniques.

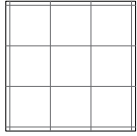
SECTION MODEL	1/2" = 1'-0"
DRAFTED PLAN(S)	1/8" = 1'-0"
SITE PLAN W/ CONTEXT	1/16" = 1'-0"

## Sight ~ Site

On our field trip, each student will be asked to find a particular relationship between an architectural element and an impactful experience. These happenings should be documented as to inform the IN-STALL project and narrative.

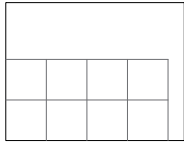
PHOTOGRAPHS - FIELD TRIP	not to scale
WRITTEN NARRATIVE	not to scale
PERSPECTIVE VIGNETTES	not to scale

# EXQUISITE CORPSE GAME



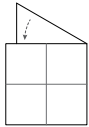
## 1 CREATE A GROUND

Using the 8" x 8" cardstock provided, center a 10'-0" grid @ scale - 1/4" = 1'-0" using light construction lines.



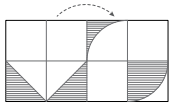
## 2 CREATE THE CANVAS

With a sheet of 8 1/2" x 11" cardstock, make a grid using construction lines that consists of 4 columns and 2 rows - again at 10'-0" with scale 1/4" = 1'-0" and cut it out.



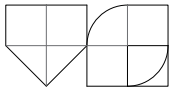
## 3 PLAY THE GAME WITH YOUR PARTNER

Fold the canvas in half so that a four square grid (2 columns and 2 rows) is visible. On one of the four square grids, add one shape given (full triangle across the diagonal, 1/4 circle) in column 1 and one in column 2. Indicate cut by hatching the shape or the negative space of the shape in relation to the grid. Turn the canvas over and hand it to your partner. Partner to repeat.



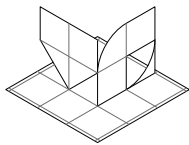
## 4 CUT THE HATCH

Cut the hatched shapes out of the canvas, being mindful of thin connection points.



## 5 ORIENT THE CANVAS ON THE GROUND

Using the grid on the ground (Z) that was created, orient the folded canvas with cut out shapes to establish a front (X) side and a right (Y) side - defining the 3-Dimensional 10'-0" grid (X, Y, Z) or lattice to work in.



## 6 INSPECT / IMAGINE, SLICE & FOLD

Within the 3 Dimensional 10'-0" grid established by the folded canvas, imagine each cubic volume attached to the canvas to be filled with extrusions from the shapes given. Slice and fold the canvas, with the imagined volumetric massing in mind.



### RULES:

- one shape per cubic volume
- slicing is only permissible at the grid lines
- the result should be one massing (ie be careful of corners)
- extrusions are limited to 10'-0"
- the 9 square 10'-0" grid established as the "ground" is a boundary

## 6 CREATE A "WATERTIGHT" VOLUME (MASSING)

Using a different color paper, make a sketch model (using tape) by filling in the imagined extrusions - creating one volume.



# SIGHT ~ SITE

## Session 1 \_ Wednesday, 10 June

As we experience the city, close observation with creative documentation through sketching and photographing, shall foster a better understanding of the built environment. Students are encouraged to use their visual *sight* to analyze and document various *sites* (building and social) for design strategies.

SCHEDULE	9:15am	Public Transit to NYC (Lightrail or Bus - WTC <b>PATH</b> - <b>WTC</b> walk)
	10:30am	TBD - Office Tour (...)
	12:00pm	Lunch in a Park (Shake Shack pick up) (...)
	1:15pm	<i>Architecture Books</i> Storefront for Art & Architecture (...)
	2:30pm	Arch League Exhibition @ Parsons (long walk)
	3:45pm	High Line Walk (enter at 14th Street) (34 ST - Hudson <b>7</b> - Times Square <b>2/3</b> - Park Place)
	6:00pm	Little Italy Pizza (11 Park Pl) (short walk)
	7:00pm	Public Transit back to NJIT (WTC <b>PATH</b> - Newark Penn - <b>lightrail</b> )

\*This is a working schedule - subject to change