Assembly & Sequence

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Assembly & Sequence was a ARC 500 Selected Topics seminar taught during the Spring of 2019 at the Syracuse University School of Architecture. This course is a hybrid integrating architectural design, process, theory, and representation. The course was an experiment in the methodology of disintegrated design. We embraced the idea of a building as a collection of autonomous parts and examined their integration as a whole. The course was structured around a series of exercises progressing in scale. The course consisted of three primary design exercises, each building upon the last culminating in a team architectural project. After each exercise students were required to 'pass' there work on to other students and were not allowed to use what they produced from the previous exercise.

The course was initiated by an interest in early Dada and Surrealist ideas. Dadaism was born and created in response to the atrocities of World War I. The Dadaists believed the war was a result of the celebrated and unchecked embrace of progress and rationalism. In response, their art was to be anti-rational, embraced chance and happenstance. In other words, there work needed no reason or understanding. Rationale and reason has become a dominant approach to architectural design education, where students are asked to produce proofs, arguments and construct complex rationalizations of their work. This course aimed to follow the Dadaist approach by creating a pedagogy that would release students from all logical and critical defense of their work.
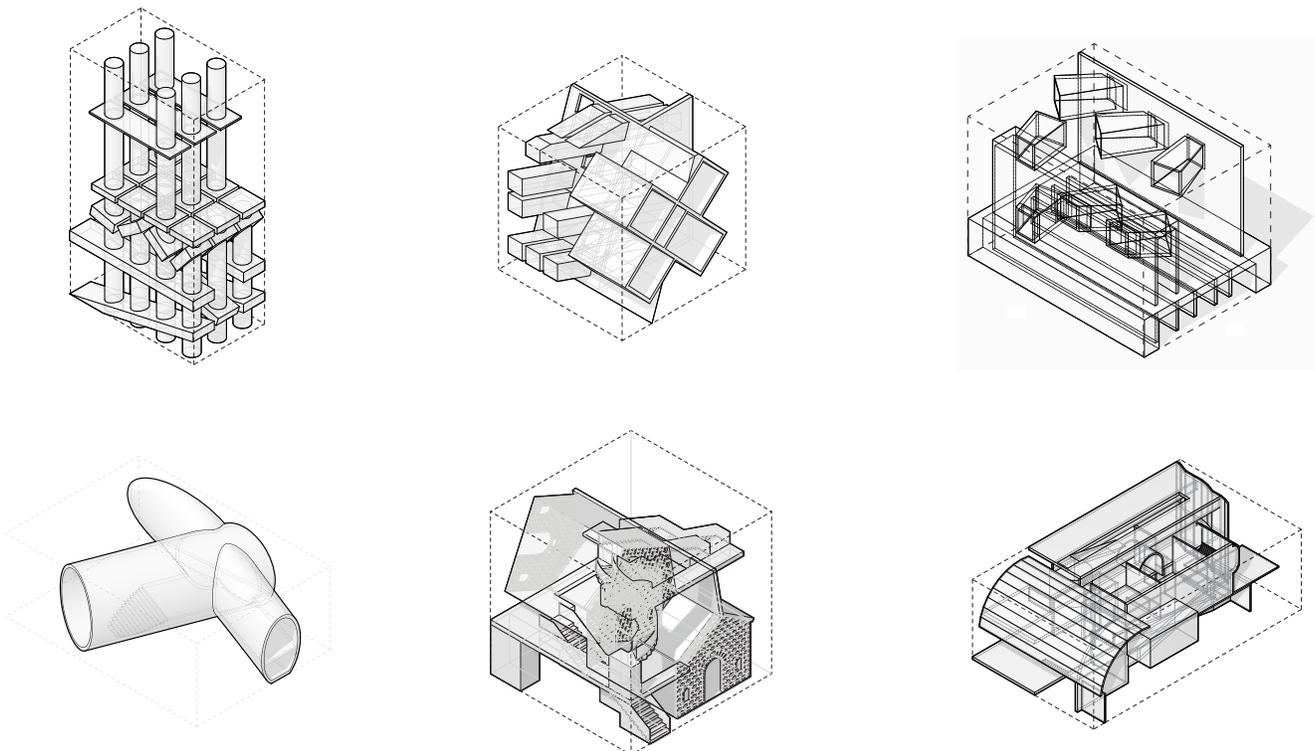

Figure 1. *Exercise 1: Spatial Primitives (SP)*. David Bullard, Alejandro Collantes, Kristine Do, Yuanqi Hua, Ketaki Kini.
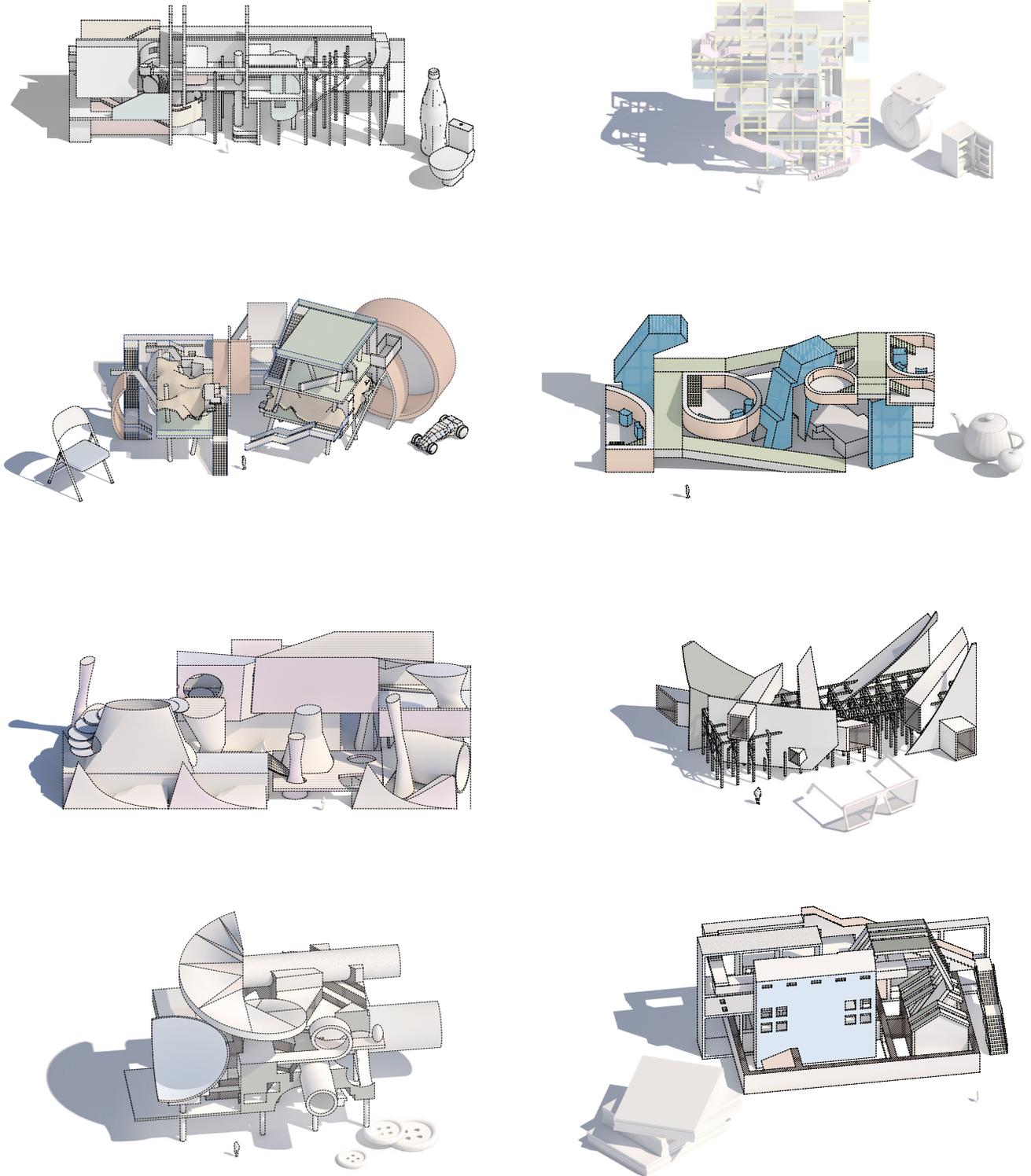
Figure 2. *Exercise 2: Accumulated Mass (AM)*. David Bullard, Kristine Do, Yuanqi Hua, Ketaki Kini, Ema Scheifele, Yizhou Zhao.
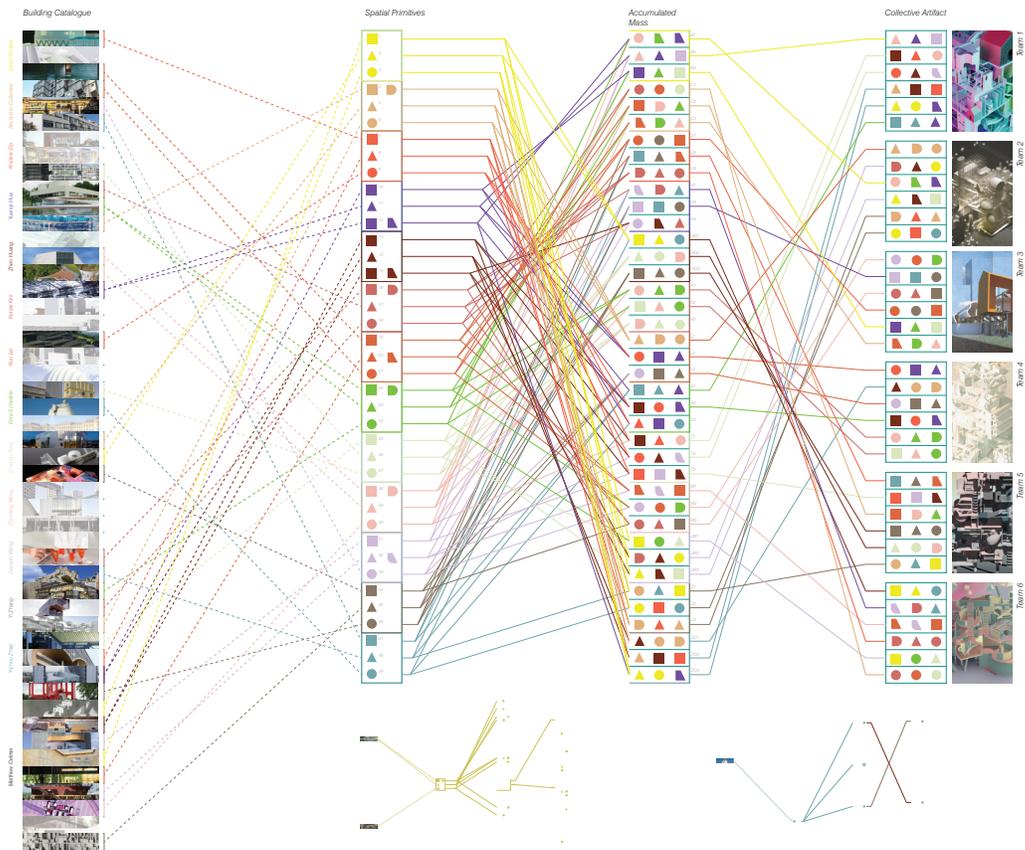
Figure 3. *Assembly & Sequence Course Structure Diagram*. Bullard, Collantes, Do, Hua, Huang, Kini, Lei, Scheifele, Tang, Weng, Weng, Zhang, Zhao.

Early Surrealism was in search of ways to suppress our conscious control over the process of making. As the Dadaists looked at collage, the Surrealists used psychic automatism and created games in an attempt to access the subconscious irrational portions of our mind. This culminated with the Exquisite Corpse, the well-known parlor game. The game entails collectively creating a drawing, each collaborator adds to the composition in sequence, allowed only to see the end of what the previous person contributed. Each Exquisite Corpse is a collective artifact, which could not be created by one mind alone, revealing the "unconscious reality in the personality of the group."[1] As Andre Breton noted "Finally, with the Exquisite Corpse we had at our command an infallible way of holding the critical intellect in abeyance."[2] Following this model the courses aim was to erase the single author in architecture education by having the class operate as a shared collective.

The courses structure is also influenced by the work of the OuLiPo, a group of French-speaking writers and mathematicians who created literary works using self-imposed voluntary constraints. For example Georges Perec's novel *Life: A User's Manual* uses the rooms of an apartment building, a knights tour, forty-two lists of ten elements and "bi-squares" to create the books "scaffolding". For Perec self-imposed constraints (rules) liberated his creativity, they were a "pump to his imaginative powers."[3] This course positions itself as a constructed game,

a place where chance, intuition, arbitrary decisions and rules all meet.

Sequence has a double meaning for this course. There is the obvious sequential nature of the course structure but we also understood sequence (circulation) as a system that can unify disparate architectural elements. Continuous forms of circulation were one of the required rules of the exercises, not only did this force a conversation on circulation as unifier but it also maintained an architectural rigor for each phase of production. This portion of the course was led by interests in Sergei Eisenstein's use of montage as a cinematic technique dealing directly with the combination of several dissimilar elements.[4] The course also closely simulated heterogeneous urban aggregation (collage city) while simultaneously arguing for an architecture that mimicked this urban complexity. Conceptually the course could continue into perpetuity with the students (or computers) continuing to share, sample, hybridize and combine their ever larger megastructures.

The design, form and aggregation strategies were left open to the students to decide. In following the logic of "holding the critical intellect in abeyance", there is no wrong answer in regards to how the students approached the work as long as they operate within the rules of the game. This created a type of unabashed production and creative output. If the students

Figure 4. *Exercise 3: Collective Artifact (CA)*. Yuanqi Hua, Joseph Weng.
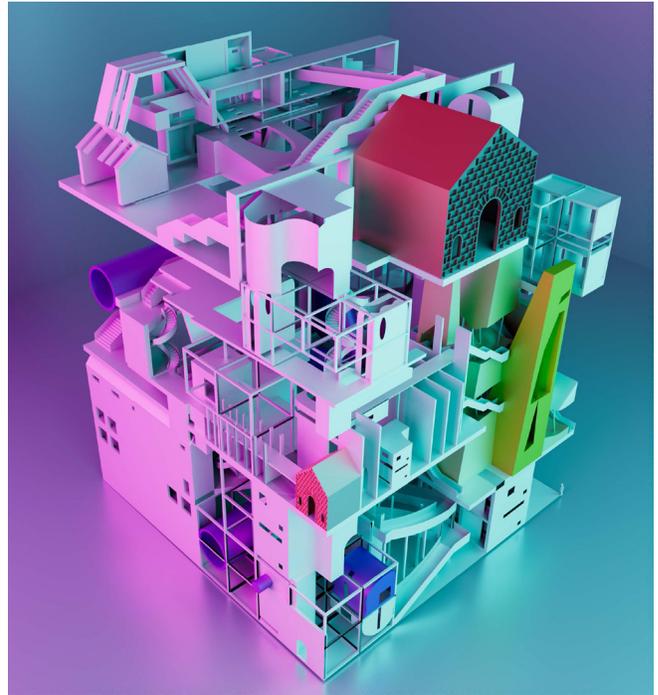

Figure 5. *Exercise 3: Collective Artifact (CA)*. Yuanqi Hua, Joseph Weng.

Figure 6. *Exercise 3: Collective Artifact (CA)*. Chunling Weng, Yizhou Zhao.

Figure 7. *Exercise 3: Collective Artifact (CA).* Kristine Do, Zhehan Tang.

Figure 8. *Exercise 3: Collective Artifact (CA).* Bullard, Kini, Scheifele.

were required to rationalize there decisions through diagrams, writing or other illustrations this would negate the Dadaist and Surrealist notions.

One of the key inputs that drastically affects the outcome are the initial building samples, which provide the courses content. The students were directed to create an initial catalog of buildings that we characterized formally as assemblies. The original Spatial Primitive were already complex in nature, as they were aggregated, the complexity compounded itself. The resolution, fineness and complexity can be modified by beginning with a simpler initial sample set. Another suggestion would be to start with objects or works of art outside of architecture.

The instructor creates the rules of the course; once the rules are set, the instructor can remove themselves directly from the process and operate as an administrator. In a future version of the course, I would be interested in having the students create the rules for each exercise. Not only would they be producing the work but also the constraints they are to work within, this would hypothetically allow them to better understand the implications of constraints on the design process.

As the course progressed, it became evident that we were operating like a manual computer or analog algorithm.

Parameters were set by the rules; each student processed the rules to produce an object, and then passed it on through random lottery to the next operator. This machine like process resulted in a high level of production for a seminar course, which only met once a week. Two potential paths forward, one would be to write a true search algorithm to digitally produce thousands of simplified versions of this courses output. The other would be to have another instructor teach the same course and analyze the outcomes. How much does instructor subjectivity influence the final work?

ENDNOTES

1. "About Exquisite Corpse," Exquisite Corpse, accessed January 15, 2020, http://www.exquisitecorpse.com/about.html.

2. Andre Breton, *Le Cadavre Exquis: Son Exaltation* (Paris: La Dragonne, Galerie Nina Dausset), 9-11.

3. Colin Symes, "Writing by Numbers: OuLiPo and the Creativity of Constraints," *Mosaic: An Interdisciplinary Critical Journal* Vol. 32, no. 3 (September 1999): 87-107.

4. Sergei Eisenstein, "A Dialectic Approach to Film Form." In *Film Form: Essays in Film Theory*, ed. Jay Leyda (New York: Harcourt, Brace & World, 1948), 45-42.
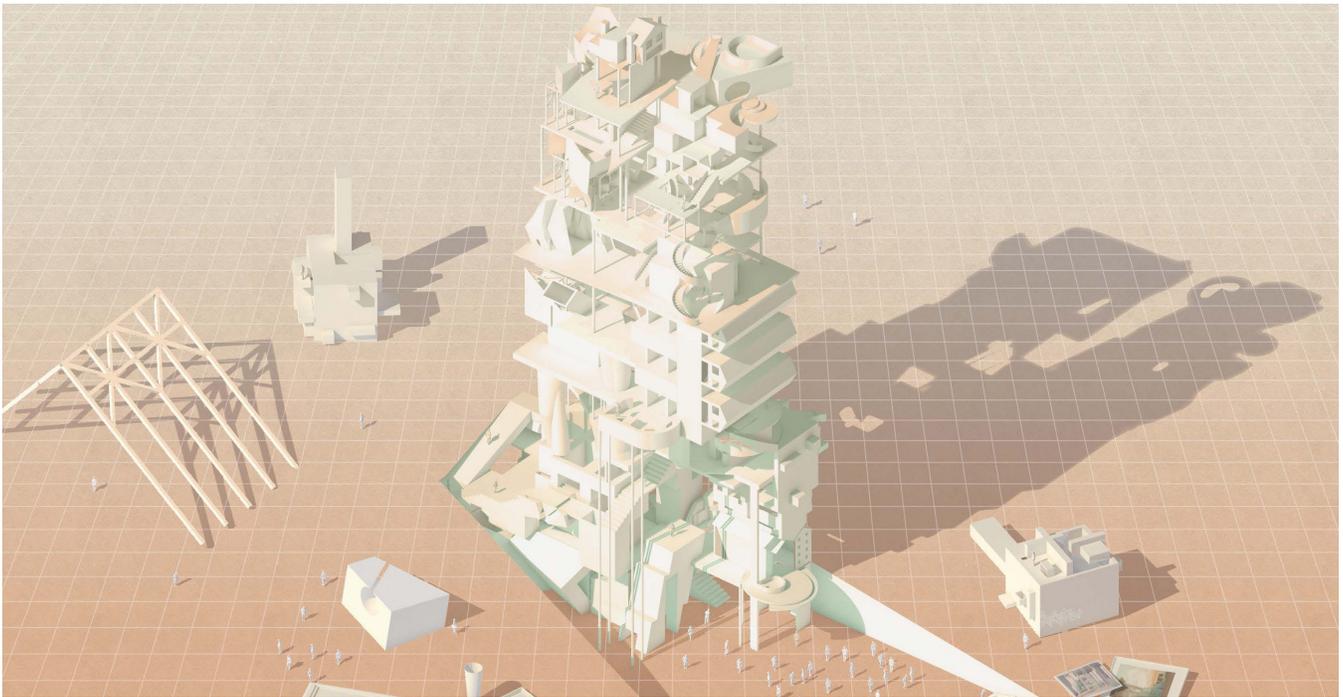
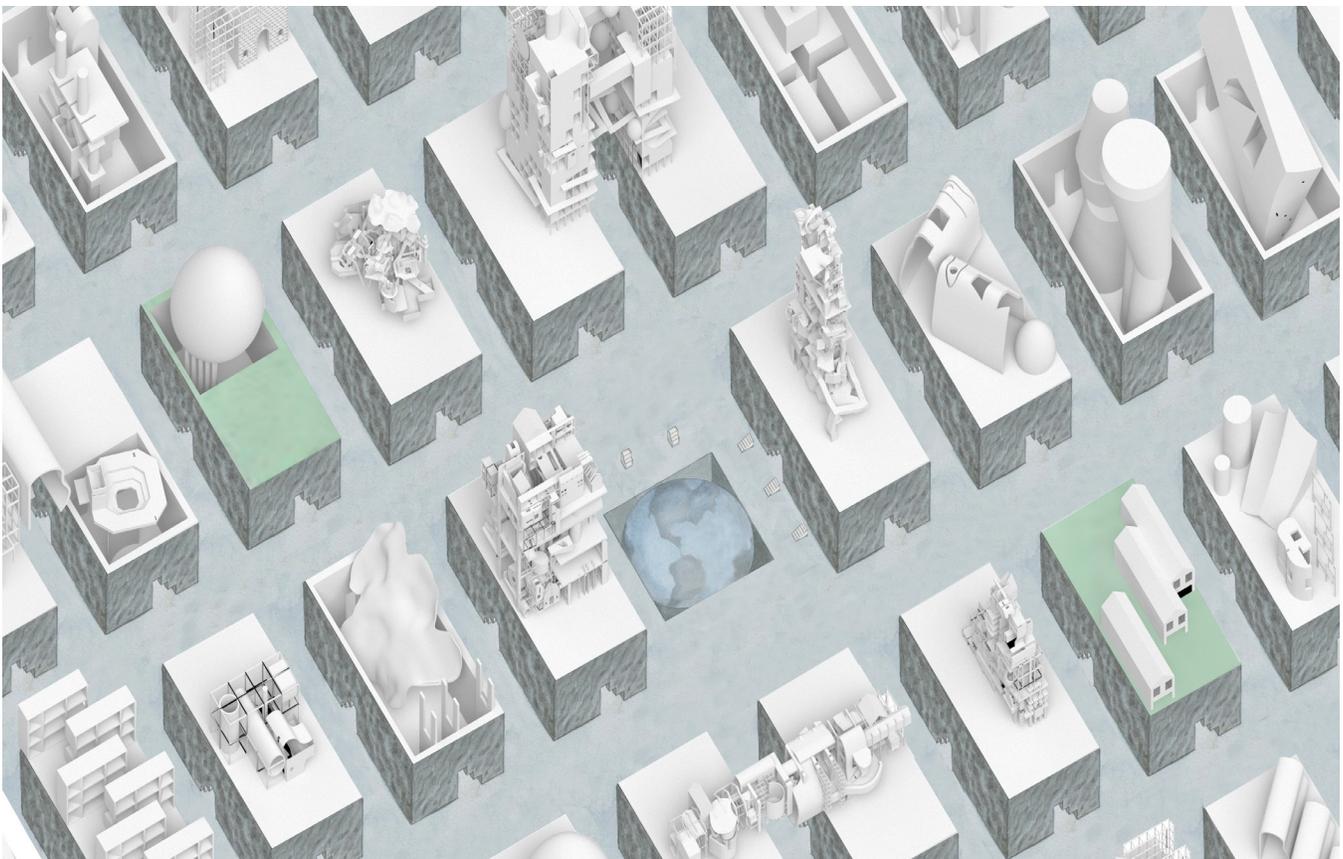Figure 9. *Exercise 3: Collective Artifact (CA).* Yi Zhang, Alejandro Collantes.

Figure 10. *Assembly & Sequence Collective Artifact City.* Yuanqi Hua, Joseph Weng.