

Representation As A Method To Explore The Scale Of The World

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ABSTRACT

Undoubtedly, everyone lives in the same objective world. However, no two people would believe that the world in which they live and that they experience is the same because people's feelings about the world differ. People choose to express themselves to each other to make their point of view known in writing, verbally, and visually, to share an understanding of the world. These articulations of the physical world are more than just mechanical copies; they demonstrate each person's personal understanding. A project's proportions and scale present a distinct identity and this has implications. While these elements are influenced by their surroundings, they also add new colors to the community and extend to society.

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INTRODUCTION

Throughout this journey of learning, I have rediscovered the deeper meaning of representation. This meaning, I believe, extends beyond the reappearance of the architectural world to my re-perception of the physical world. I worked on hand drawings, model-making, and graphic organization in sizes ranging from "S" to "XL." Not only did I absorb knowledge and practice the application of informative symbols using a variety of advanced software applications through computer graphics, 3D modeling, and data visualization, but I also recognized the imperceptible significance of scale in terms of spatial temperament and authenticity. Through highly readable representations at different scales via light; texture; materials; and so on, ethnic; historical; and social issues can arouse considerable thought. Aside from

professional training and expertise, careful observation of life and the environment is required in architecture. More specifically, in this essay, I will discuss the important nature of architectural design in size, medium, and application to the urban scale and society.

THE 'S'

The letter 'S' usually denotes a small size. It can refer to a chair, a table, a curtain, a floor, a door, or any other detail of space in architecture. It could be a shadow in the picture, a splash of color, or a highlight point. The in-depth study and presence of the letter 'S' has made even the most inconspicuous things in life stand out. It forces us to pay attention to them again and assists us in interpreting our surroundings on a smaller scale.

This feature is especially evident in my studies at Pezo and Sofia von Ellrichshausen's OPEN CASE studio. We went back to the most primitive and basic form of representation for architecture majors: hand drawing. In fact, after years of architectural training, we have become more reliant on

computer graphics, with hand drawings essentially existing only in the sketching stage. The reason is obvious: hand drawings takes much time and effort. To finish a perspective drawing, we usually use Photoshop. If a cement effect is required on a wall, look for a material image of cement texture; and simply copy and insert a picture of a table and chair if the room requires them. Rendering can complete the drawing's light and shadow effect. Using only rendering software such as Lumion, Keyshot, or V-ray, among others, we can create an ideal rendering with the actual material, subtle light and shadow, and appropriate atmosphere.

However, as I began to draw the final drawings, I realized that my understanding of these elements was too superficial. Every stroke determines the image: what color is the cement? What changes should be made to one wall to make it appear natural? How do you draw a terrazzo floor? How can the proportions and shapes of tables and chairs reflect the room's mood? What is the source of the light? Where do you want the shadow to appear? What is the difference between the biological structures of the pine tree and the cactus depicted in the drawing? What should be on the

forest floor? What is the building's current state in relation to the environment? How do you express a 'house' with life instead of a lifeless 'building'? All of these questions are based on experiences gained through careful observation of life and the environment. It not only represents the effect of hand drawings, but it also extends our thought process. In the OPEN CASE studio, we used a hand drawing to verify our ideas and determine our thinking when discussing light and shadow, materials, and space.

In this case, representation reveals its true meaning: it is a way of thinking, not just a tool. New experiences emerge as a result of the re-use of previously unfamiliar representation. The method has changed, but it serves as a reminder to pay attention to the forgotten existence.

THE 'M'

We will discuss how representation relates to a building and its overall atmosphere in the Medium field. How is space defined as a component of the environment? This definition will assist users in comprehending and utilizing space. At this scale, representation is an interpretation that not only defines the characteristics of the space but also has an impact on the community to which it belongs.

DRAMA, Florian Idenburg's studio, creates the concept of theater space through various forms of exercise. The most important technique we used was to photograph a physical model. A two-dimensional image is transformed into a three-dimensional space using this method of expression. The space's temperament, characteristics, and atmosphere

are then presented in the photo by re-composing the image using three-dimensional space processing (light, material, and so on). In the Stage exercise (which requires you to use the same stage set to express three different emotions), I chose to first imagine the photo's composition and the atmosphere of the space before deciding how to make the model. To put it differently, the model must serve the images. I decided to convey three moods: isolation, warmth, and interrogation. How can these spatial atmospheres be captured in photographs? The use of light was the first thing that came to mind. Different lighting methods (such as point light and flat light) and light colors in a photograph can result in a variety of atmospheres. The black and non-reflective model material produces minor light interference, maximizing the effect of light on the space.

This exercise had a direct impact on my exploration of architectural space during the Mask design stage. Elements such as function, circulation, and structure, which I once thought played an important role in space, now serve the same purpose: to express the atmosphere and temperament of a building. Unlike in the past, this type of space

atmosphere is represented through shooting model spaces rather than renderings. I have always thought that the building model is a simulation of the actual construction process: how do you connect a wall to a floor? Where should the pillars be connected? Furthermore, model-making presents another challenge: expressing the temperament of a building, whether it is the interior space or its appearance. First, while ensuring structural stability, I use thinner columns to weaken their presence and make them appear as lines in the space. Second, the model employs a large number of curves to guide the circulation. Free-arranged thin columns and staggered curves enhance the drama and freedom of the space. The facade is covered in a translucent metal mesh, which unifies the internal white complex volume from the outside, adds mystery to the entire structure, and piques visitors' interest. The model's shoot emphasizes the hazy atmosphere and free flow. Plant and figure models also add authenticity and a sense of life to the space. Making models and taking photos inspired me to reconsider the spatial temperament inside and outside of a building in order to simulate the actual architectural environment.

THE 'L'

After all, the city is a collection of buildings, so it will inevitably become the focus of large-scale debate. When we discuss the city, we refer to its organization, system, and complexity. In the urban context, representation serves as a filter, simplifying the complex and rearranging and organizing the context to show how the city system works.

As part of Jesse LeCavalier's Architecture + Urbanism project, we investigated and researched Rochester's egg production system. One of the most difficult challenges of sorting out the entire system at the urban scale is a large amount of information. We displayed various machines that were required to produce eggs, representing various factories that were involved in egg production with

machines and connecting the entire system with an assembly line organization. A system as large as the entire urban space and as small as each egg is depicted in the image, and it describes the operation of the entire industry at the urban scale. The narrative sequence at the urban scale is denoted by varying degrees of color, and different processes are denoted by varying degrees of color. We used comic forms to draw readers' attention, highlight important points, and break up the monotonous reading sequence. The use of symbolic representation to represent and narrate complex systems makes complex issues readable and visible at the urban scale.

THE 'XL'

Finally, we consider society as a whole. The discussion of disciplinary issues should not be limited to architectural design and representation on the 'XL' scale. They should have a positive attitude toward social issues.

Richmond has been rife with racial issues throughout its history, particularly since the Black Lives Matter campaign; the city has reawakened much social attention. My team and I focused on the relationship between social media and cities, particularly historic districts, in the Architecture + Discourse project directed by Jeremy Foster. Using a large amount of data collected and classified, we have graphically presented keywords that have appeared frequently on major social media platforms in recent years.

The content of the information is a secondary element of performance in symbolized images. The main element is the density of the symbols, which can clearly demonstrate the impact of a topic at a given stage.

Furthermore, we designed a plan to visit Richmond's historical city ethnically by drawing on social platforms and apps and connecting several locations in the city related to ethnic issues at different points throughout the year. Positive, negative, and neutral historical locations are clearly marked on the map with contrasting colors. This poster serves as a guide map, with essential information such as historical locations and related dates bolded and enlarged, making the entire map highly readable. History can be viewed and accepted fairly through this intuitive, clear, guided, and neutral mode of representation, and social thinking will be stimulated. Extreme methods and a cruel history have shaped our society today, so we must learn from the past and make improvements to usher in a new era of de-racialization.

APPENDIX

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DRAMA

Fall 2021 Studio

The theater is more than just a place to watch a play; it can also be a container for theatrical moments and a place where the community can be activated. The translucent box conceals the interior volume but provides a hint that piques the viewer's interest in the interior space. It is a transitional layer: from the real outside world to the world of drama. People inside can still feel the weather and hear the sounds of the street. However, what they see is something hidden, paths leading somewhere, and some activities taking place behind walls. The entire space is transformed into a theater, not just for temporary use but as a daily communication space that keeps this historic neighborhood active.

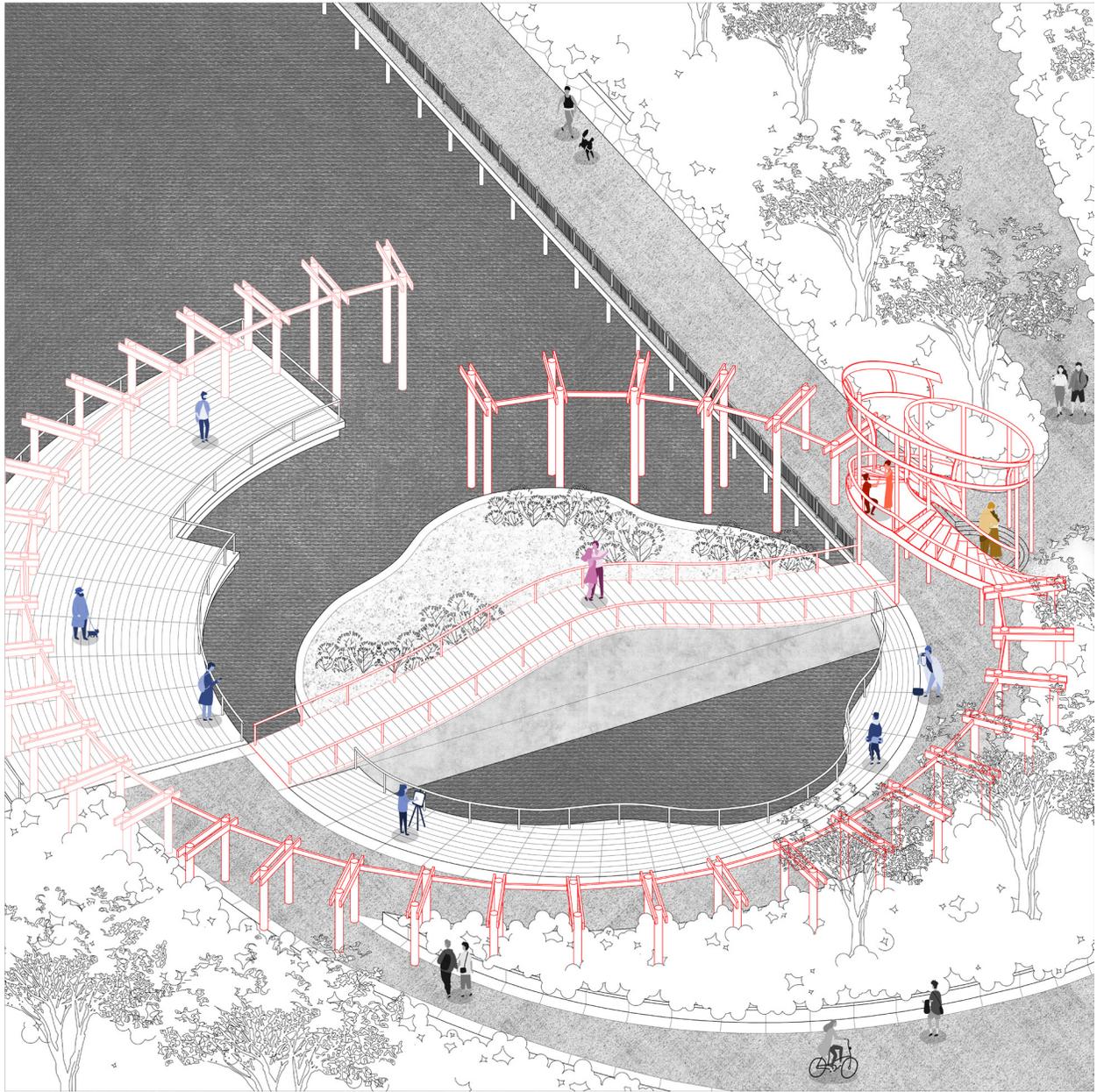


Fig. 1

Frame: Dramatic Space in NYC, The South Cove Park



Fig. 2 - Stage: Isolate

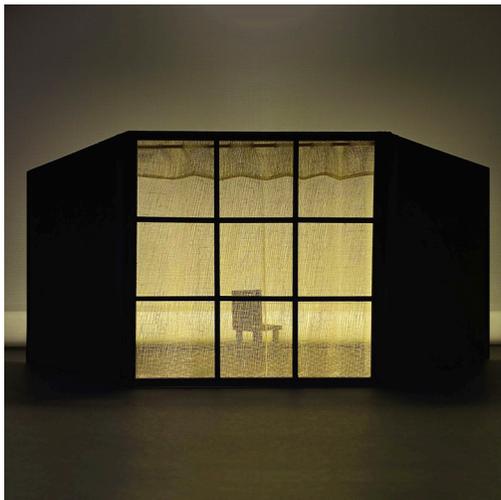


Fig. 3 - Stage: Warmth

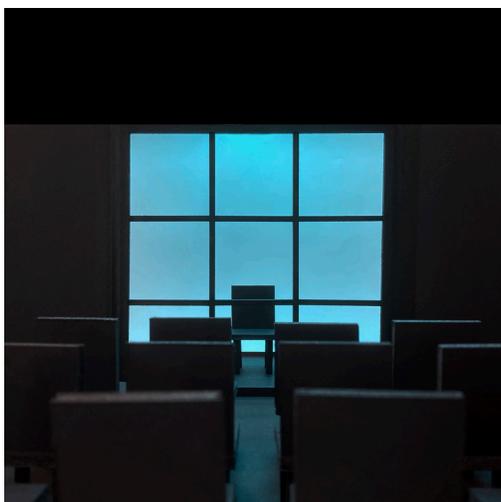


Fig. 4 - Stage: Interrogation



Fig. 5 - Mask: Lobby

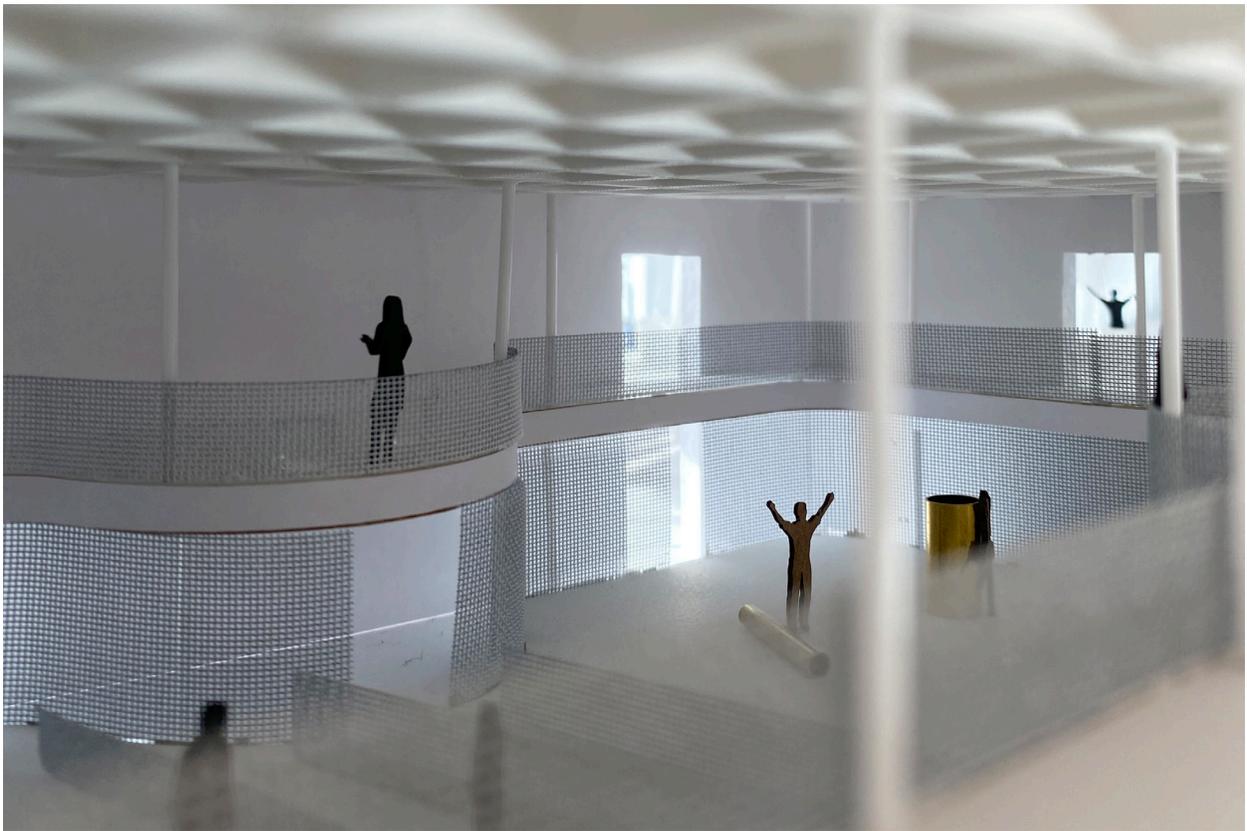


Fig. 6
Mask: Theatre



Fig. 7
Mask: Courtyard

OPEN CASE

Spring 2021 Studio

The structure houses a cactus garden as well as a botanist's studio. To take full advantage of the natural scenery from East to West, from sunrise to sunset, we have adopted a light-steel structure with glass interfaces covering this single large greenhouse, which maximizes light capture and allows for dynamic cactus shadow-displays. We made the volumes that articulated south and north even more solid to distinguish the transparency in-between to strengthen the mediation between the natural and artificial landscape. Furthermore, the 'mediating' triangle has been applied to beams and columns as connections to better frame the scenery from the inside, creating a stronger sense of orientation towards the landscape.



Fig. 8
Still-life

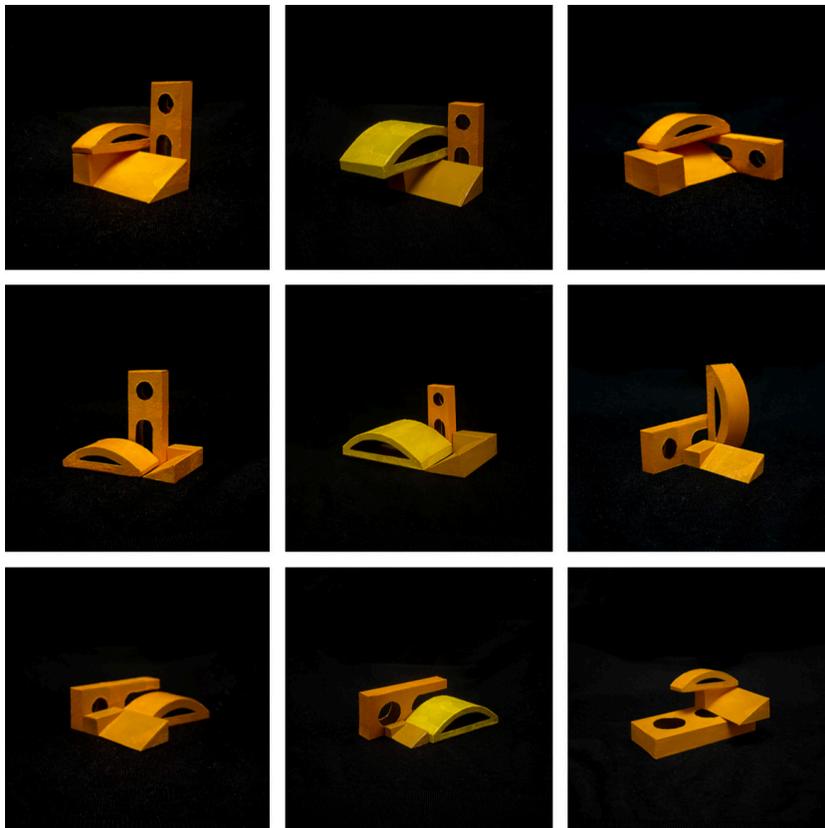


Fig. 9
Miniature

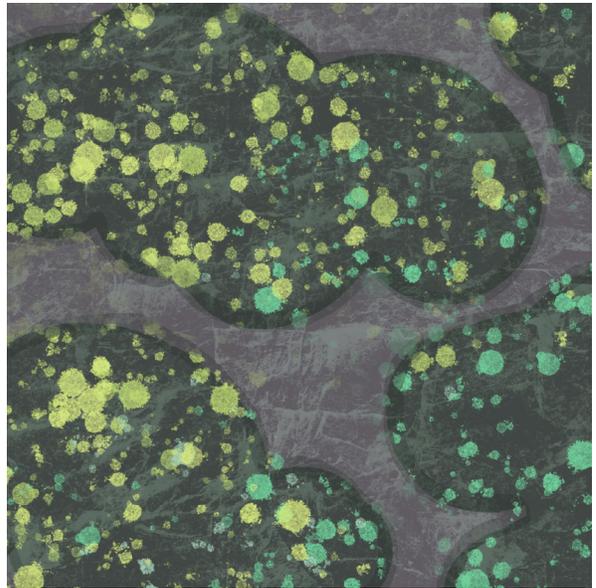
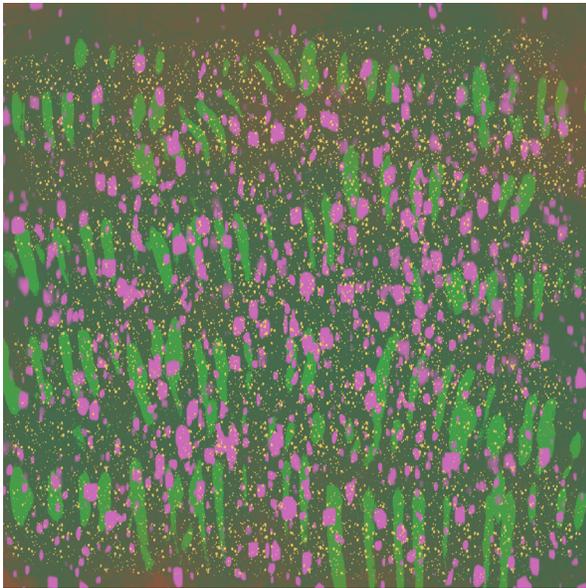
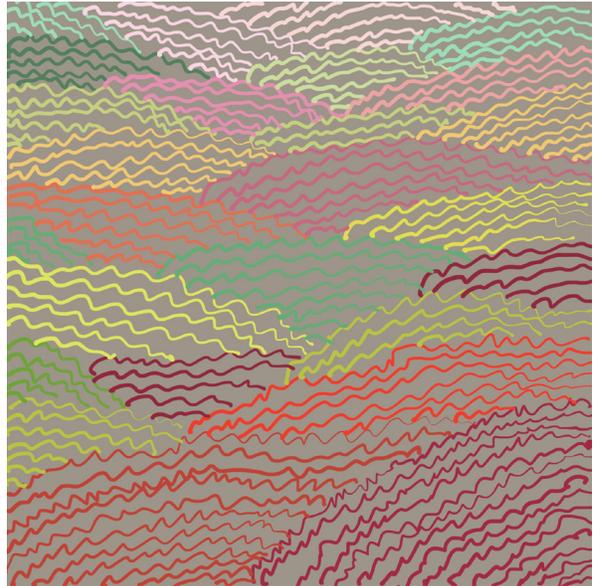


Fig. 10
Vegetation Patterns



Fig. 11
Sunrise



Fig. 12
Sunset

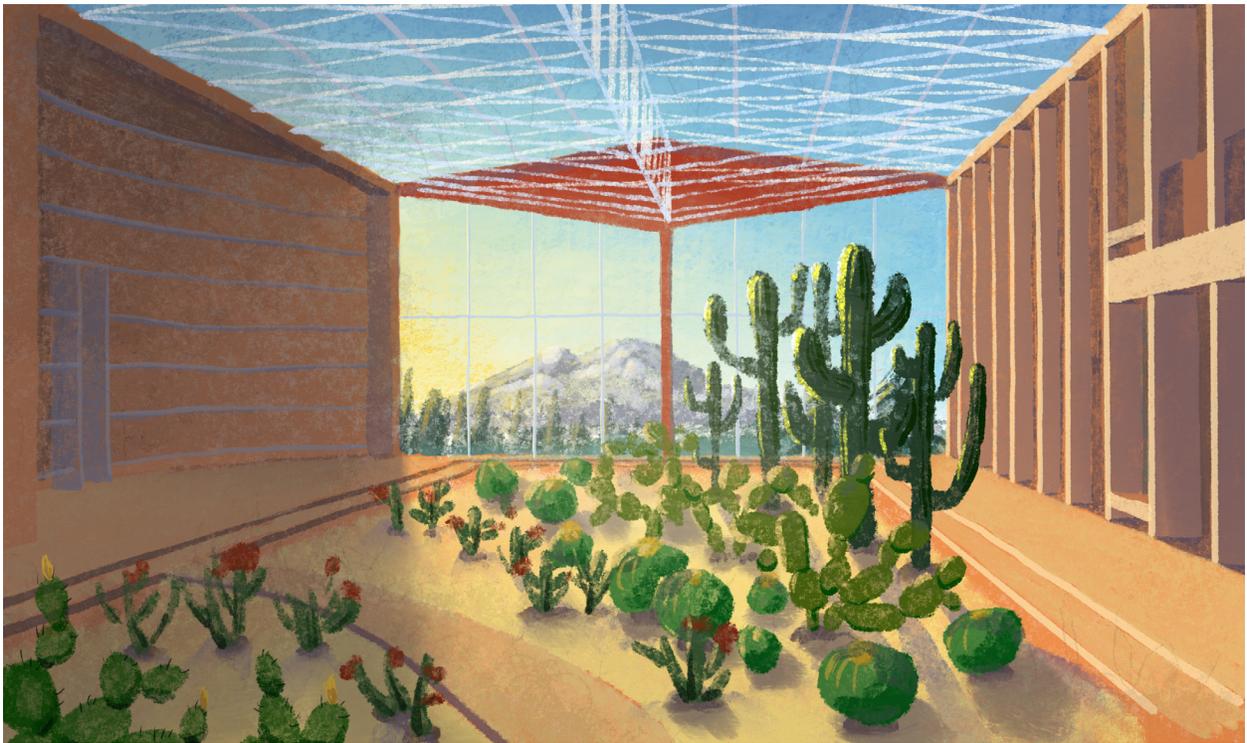


Fig. 13
Scenery from Greenhouse





Fig. 14

Cavalier Projection

EGG DISTRIBUTION IN ROCHESTER

Fall 2020 Architecture + Urbanism



Fig. 15
Egg Distribution

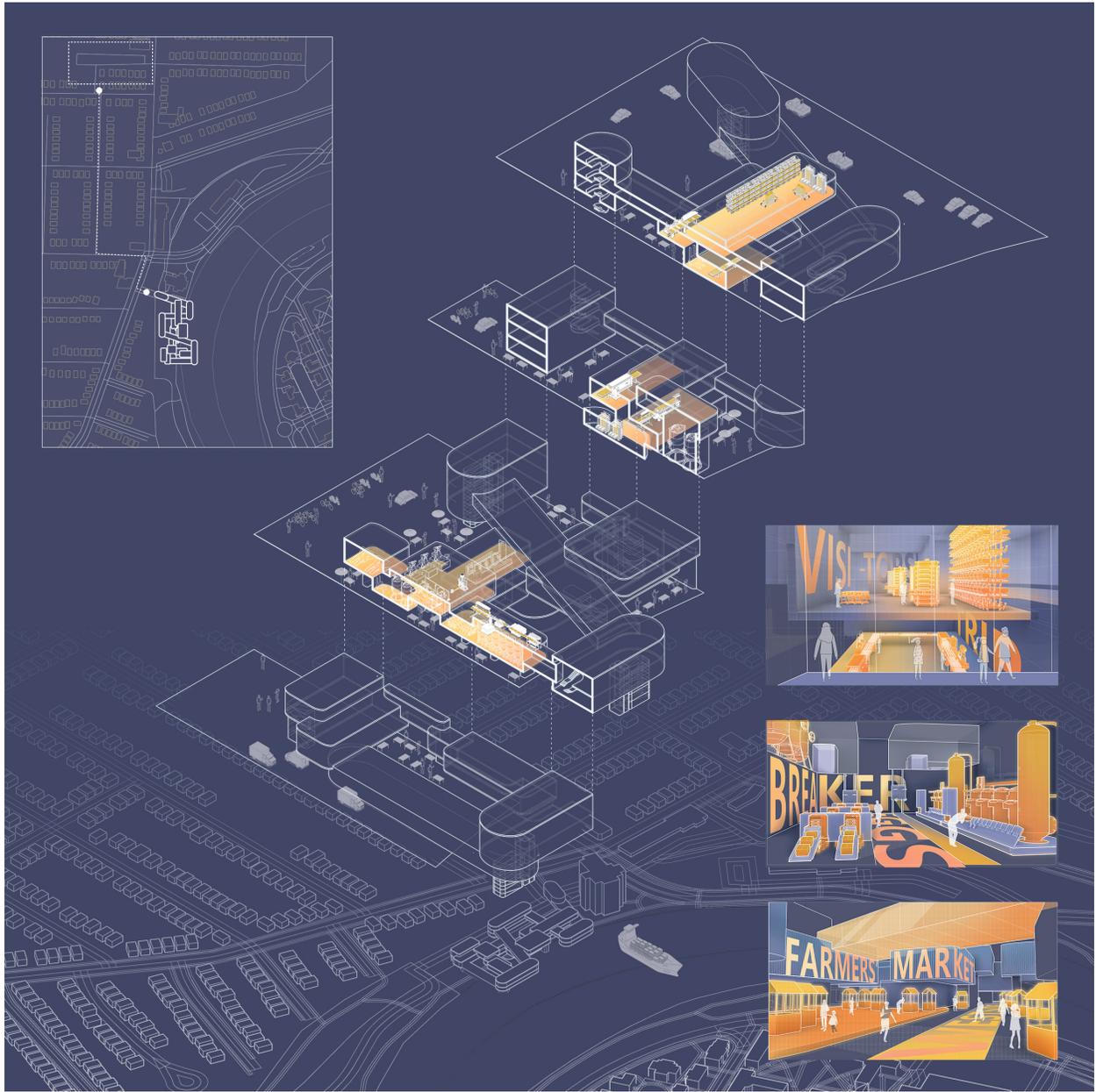
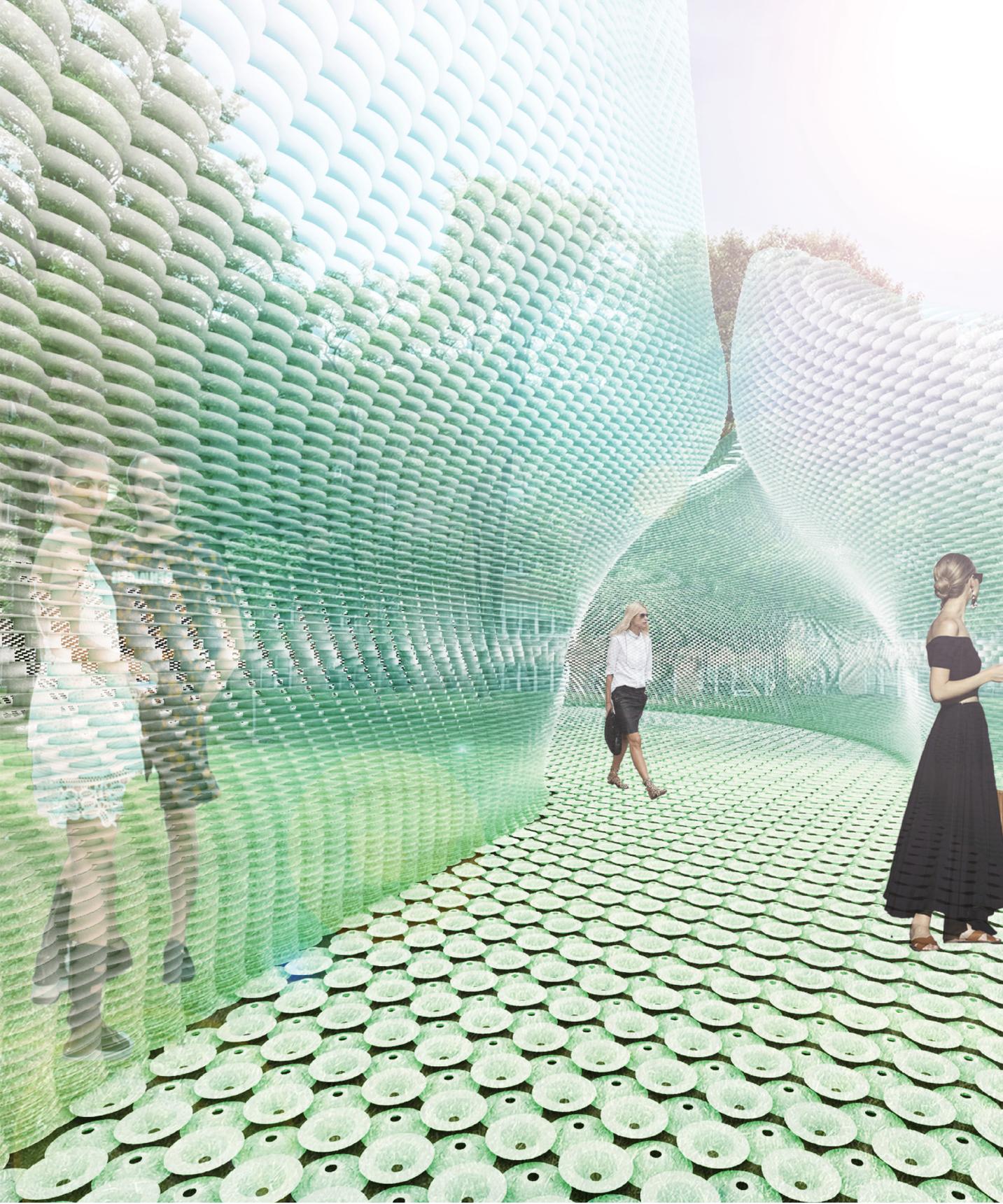


Fig. 16

Egg Distribution Centre

DISCO MIRAGE

Fall 2020 Architecture + Ecology



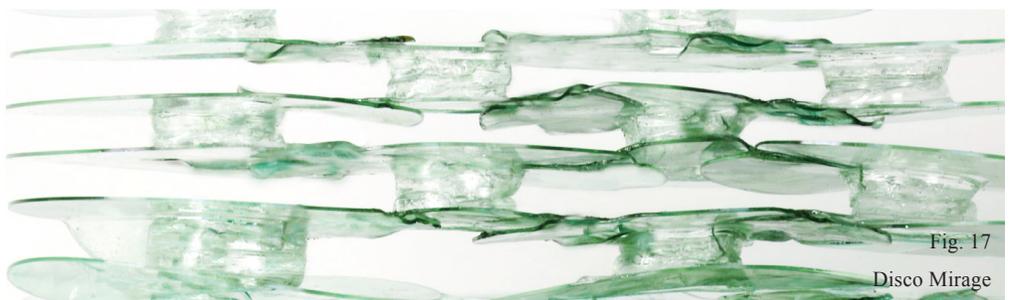


Fig. 17
Disco Mirage

VIRTUAL MEMORY OF RICHMOND

Fall 2020 Architecture + Discourse

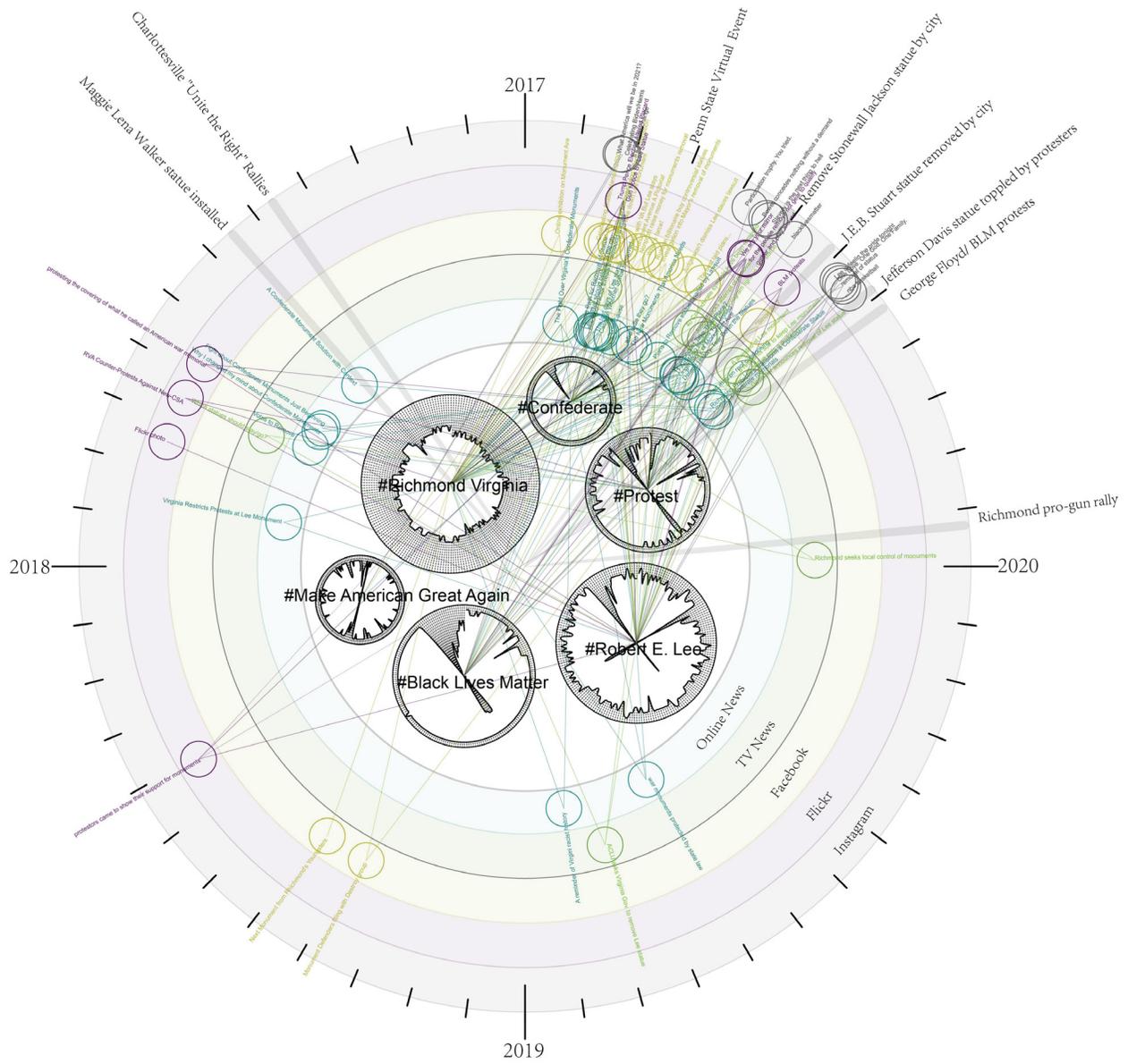


Fig. 18
Data Mapping

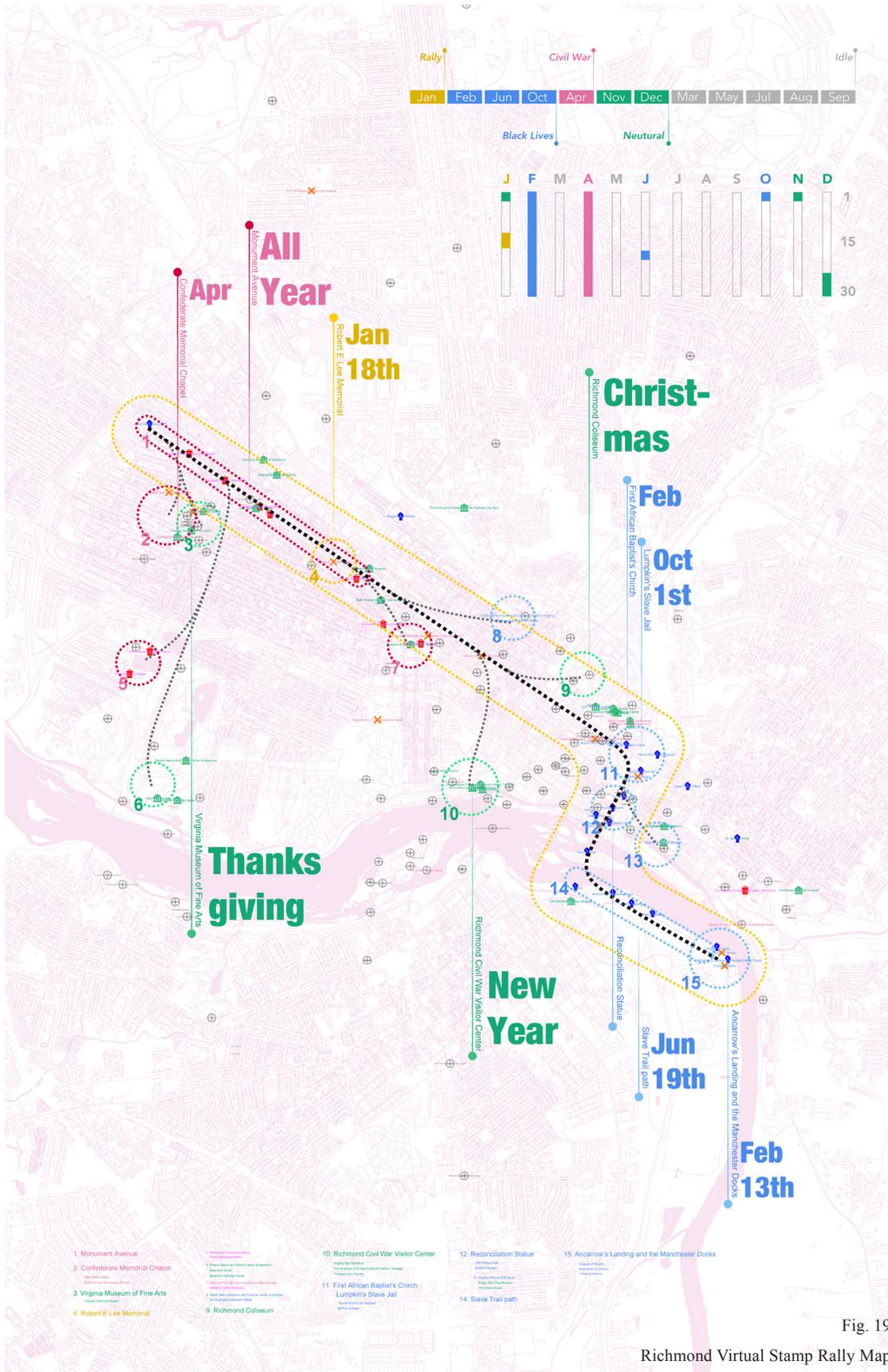


Fig. 19

Richmond Virtual Stamp Rally Map

