SOFTlab

LEAVES OF GRASS
Entrance Artwork

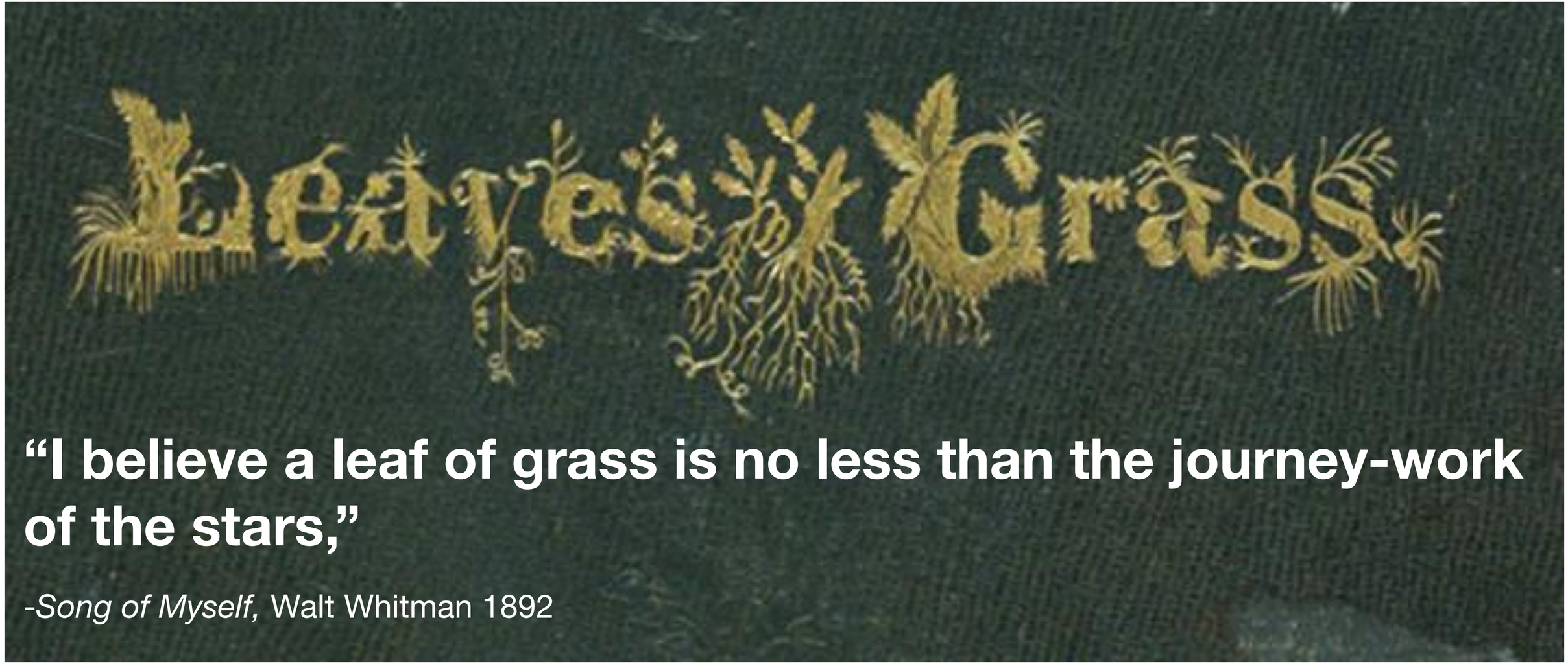
SEPTEMBER 19, 2025

WMATA

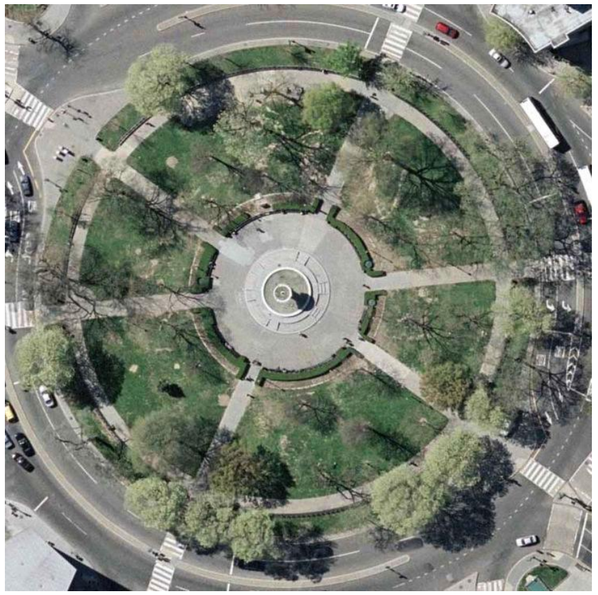
Concept

Our proposal is inspired by the Walt Whitman excerpt inscribed on the inner surface of the entrance cylinder and the larger collection of poems it is included in, *Leaves of Grass*. Whitman's celebration of life and nature along with the interconnectedness of the WMATA system, commuters, and the city are major themes captured in our proposal. Whitman's interest in nature served as inspiration along with the formal language and dynamic behavior of our proposal, *Leaves of Grass,* is driven by the brief's call for a Biophilic artwork.

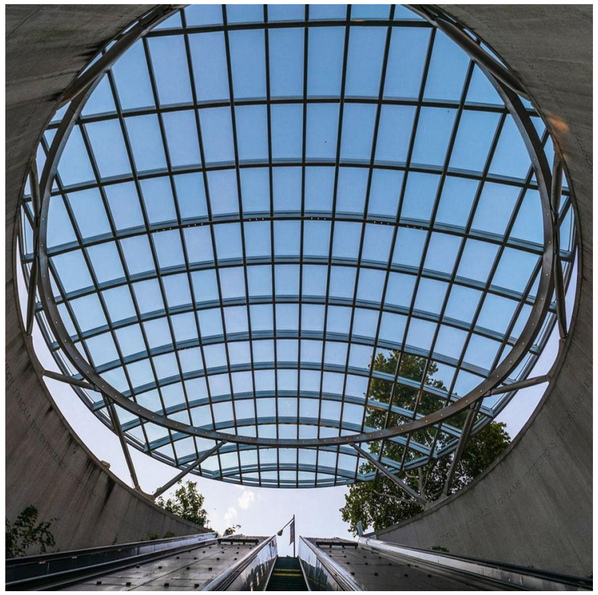
Leaves of Grass The cover and title of the first edition of *Leaves of Grass* are rendered as growing plants. This not only shows Whitman's affinity for nature, but that the world is a place that is always in state of flux as it grows and changes. Whitman asserts that a simple leaf of grass is just as important and worthy of attention as the grandeur and complexity of the stars. This celebration of the ensemble of individual people that come together to produce a beautiful whole is the underpinning of our proposal.



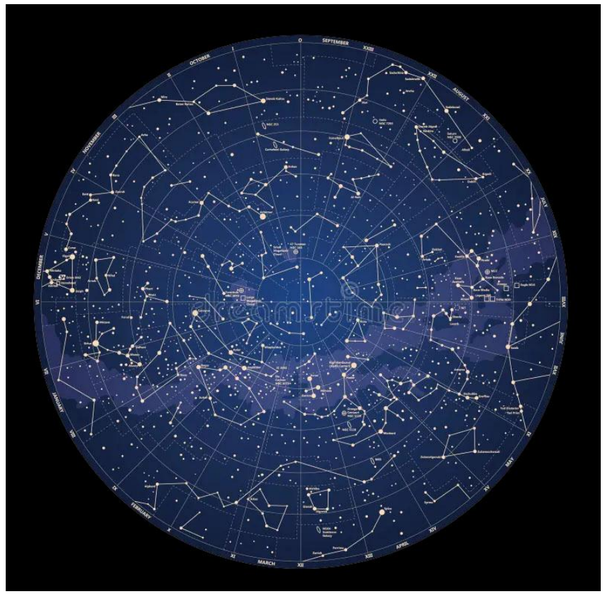
Interconnectedness from Dupont Circle to the strong circular void of the North Entrance to the broader context of the stars the entrance is a node in an ever expanding network. A network where each person or even a single blade of grass influences the actions of everyone else and vice versa. Whether it is people or the natural world, we captured this interconnectedness, movement, and change that this larger network fosters.



Dupont Circle



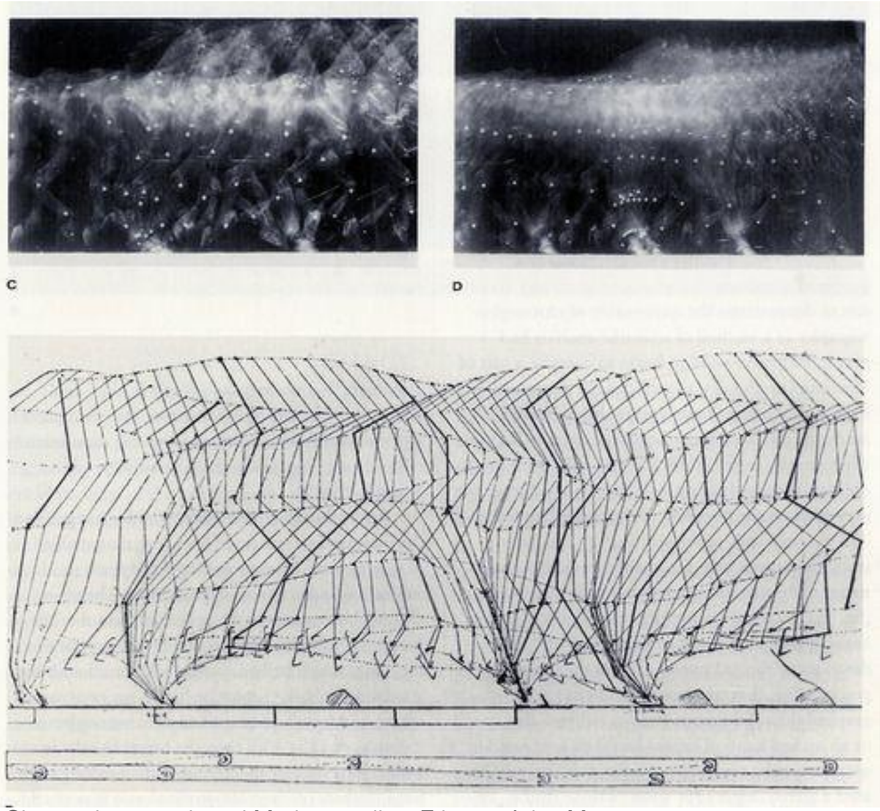
North Metro
Station Entrance



Constellation of
Many Parts

American Tall
Grass

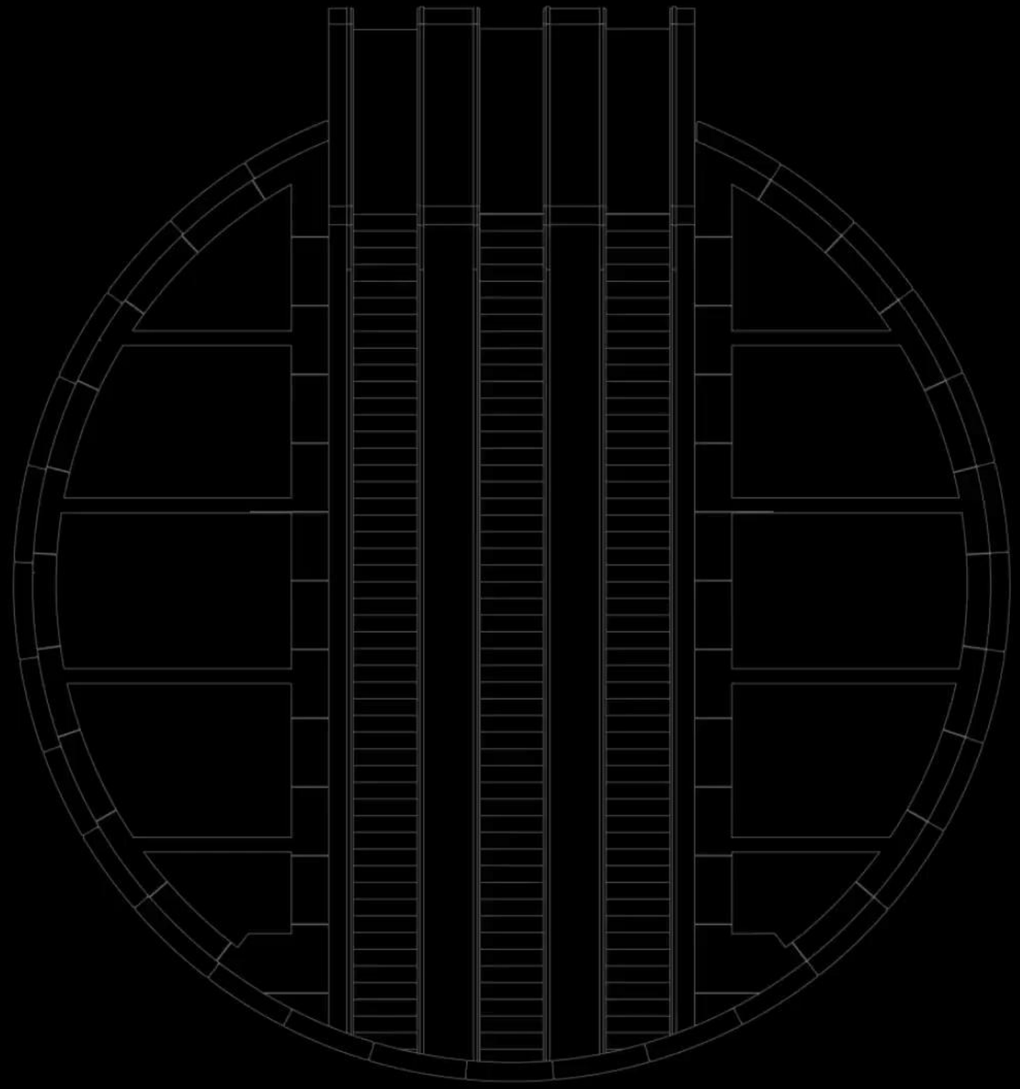
Movement Over Time Much like a performance that unfolds over time, our proposal is made of a simple set of rules that are simulated through a large field of elements. The number of elements creates a softness, and organic patterns emerge much like a field of grass blowing in the wind.



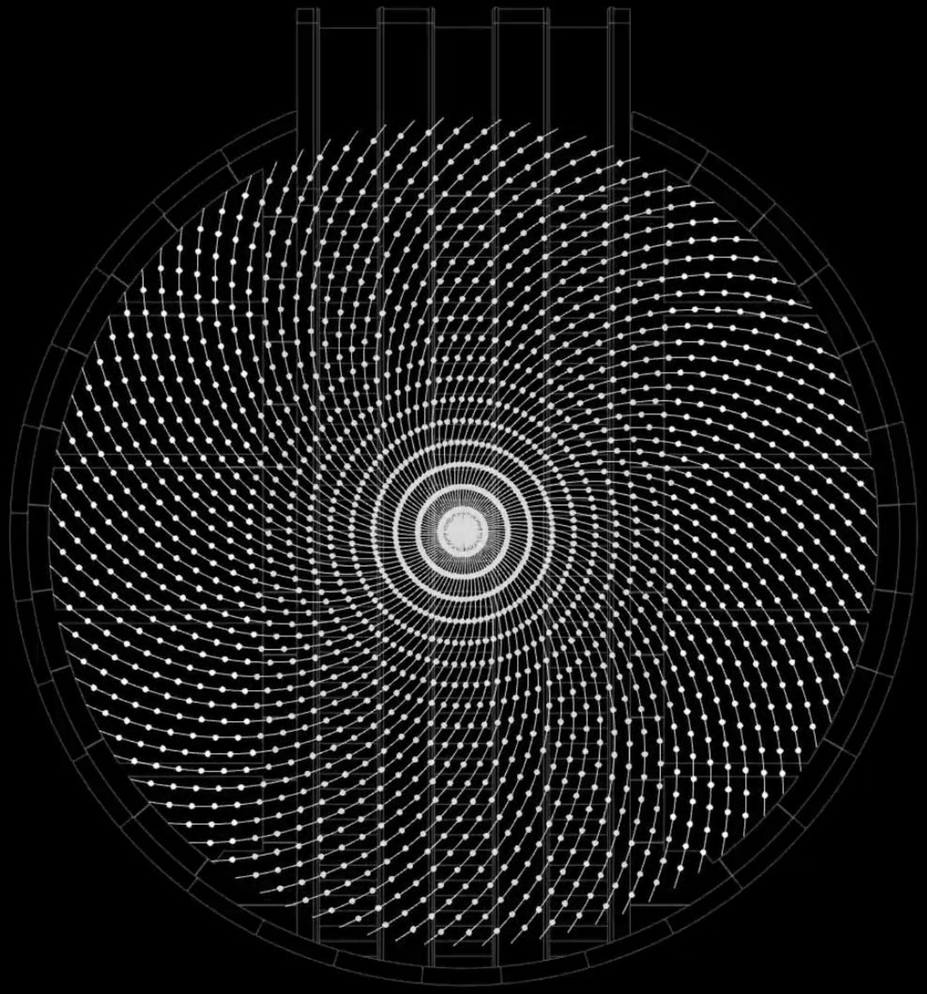
Chronophotograph and Motion studies, Etienne-Jules Marey

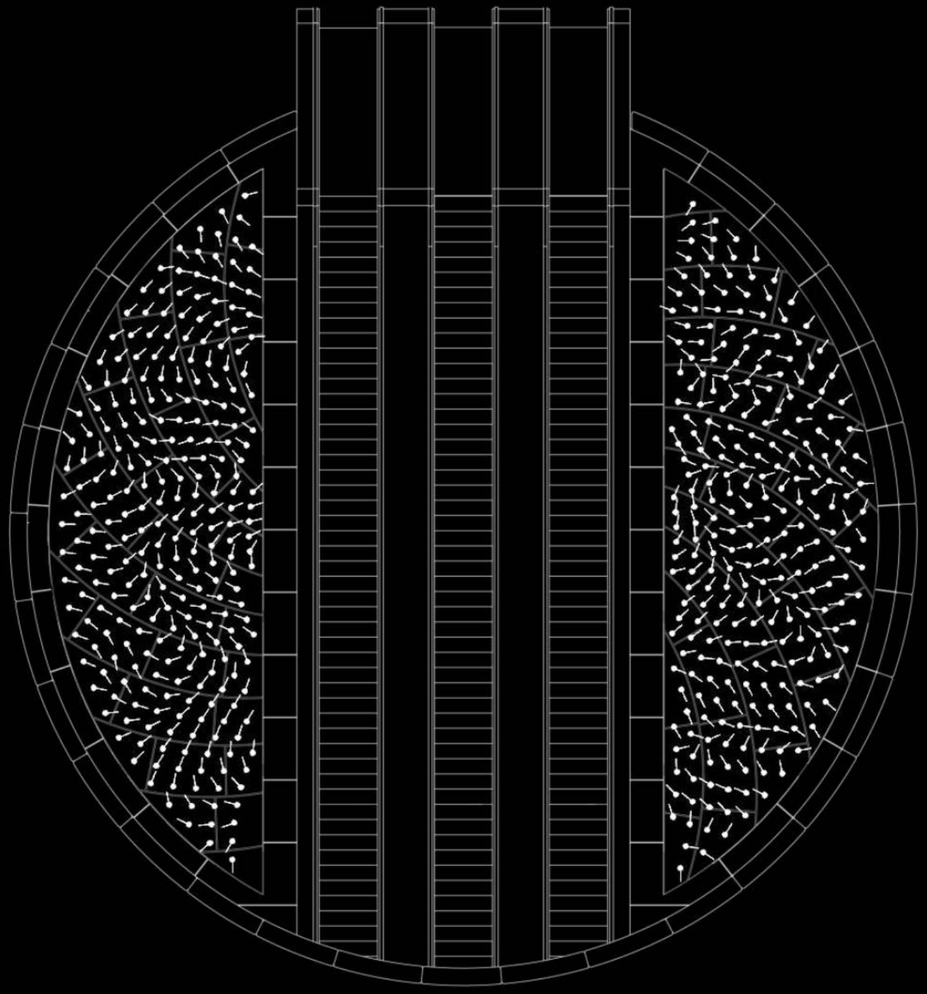
Modern Chronophotograph of a dancer

Melting Pot We are using a phyllotaxis pattern based on a Fibonacci sequence for the distribution of 528 vertical stems and petals. This spiralling pattern also treats the granite cylinder of the entrance as a large mixing or “melting pot.” Reminiscent of the nations heterogeneous culture that fosters the mixing of people, backgrounds, and ideas.



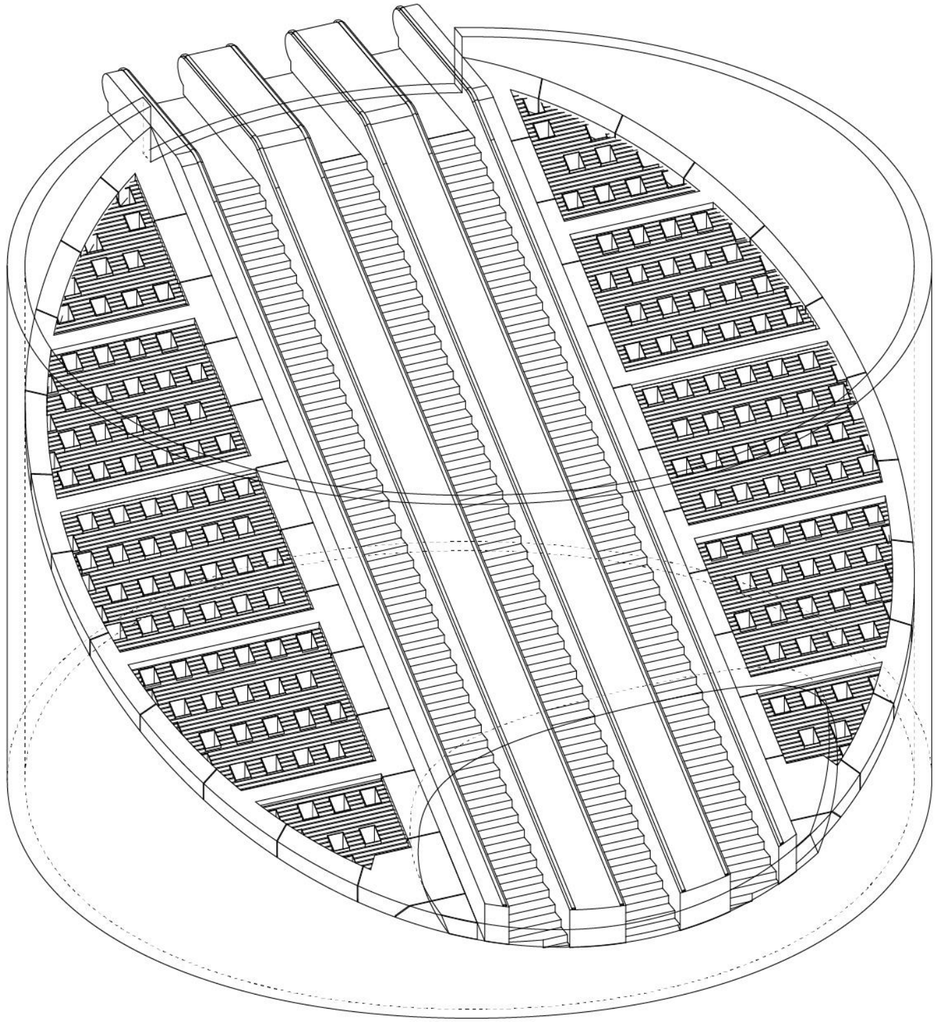
Melting Pot We are using a phyllotaxis pattern based on a Fibonacci sequence for the distribution of 528 vertical stems and petals. This spiralling pattern also treats the granite cylinder of the entrance as a large mixing or “melting pot.” Reminiscent of the nations heterogeneous culture that fosters the mixing of people, backgrounds, and ideas.





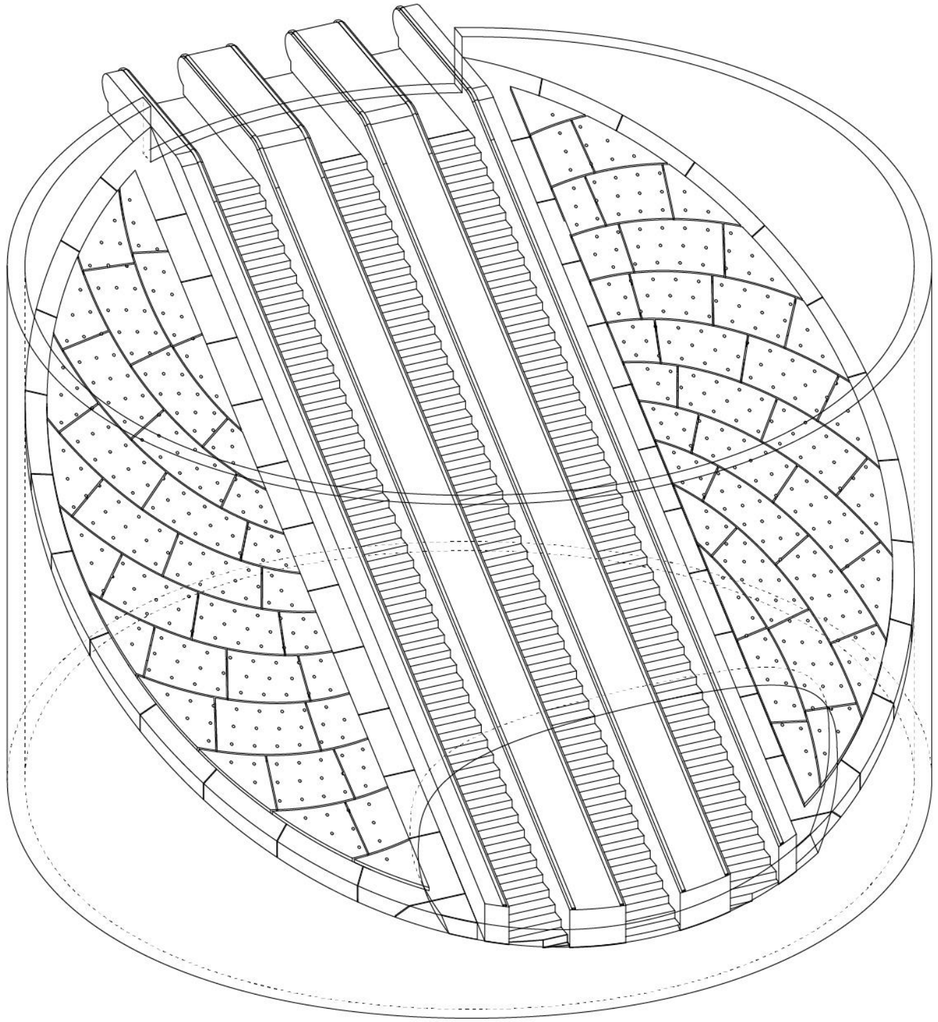
Current Entrance the site of our proposal is the existing planters on either side of the entrance.

Existing condition of planters and brickwork



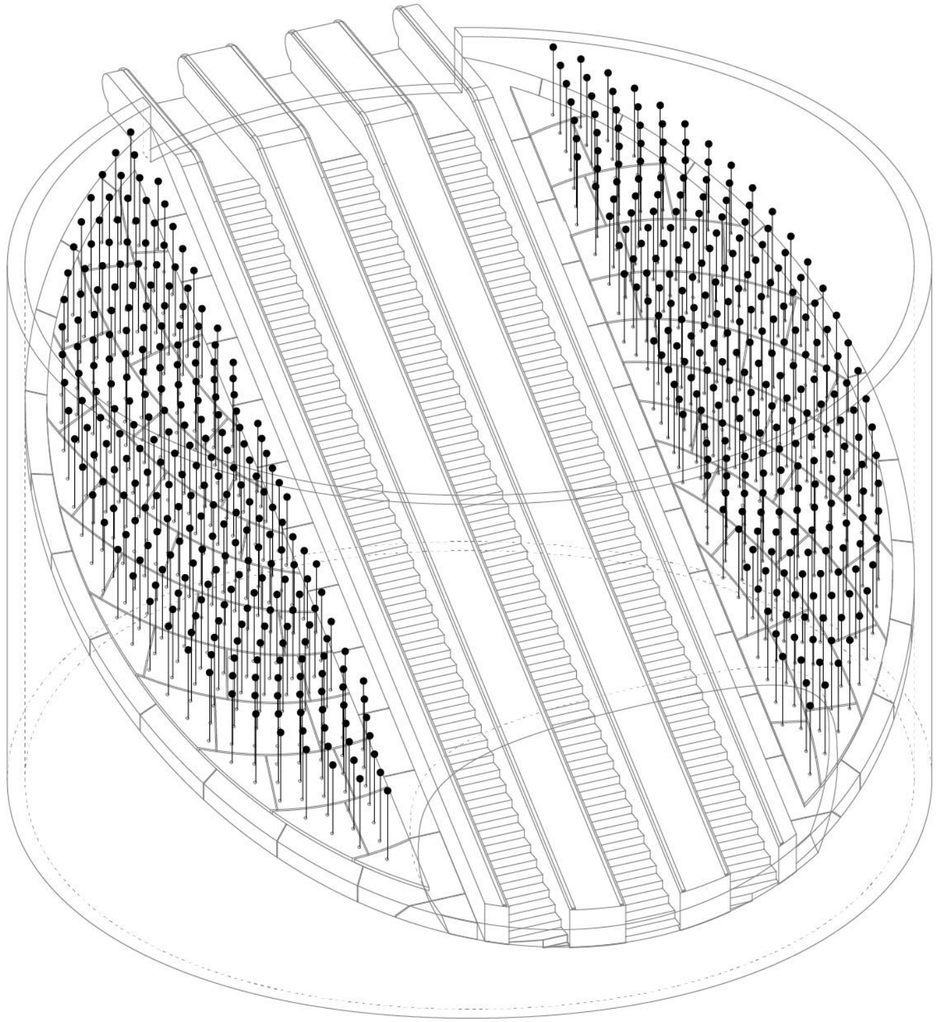
Phyllotaxis Plan a series of stainless steel panels on a substructure would be placed over the planters in a spiraling pattern based on a Fibonacci sequence.

Aloe Polyphylla with spiraling growth based on the Fibonacci sequence



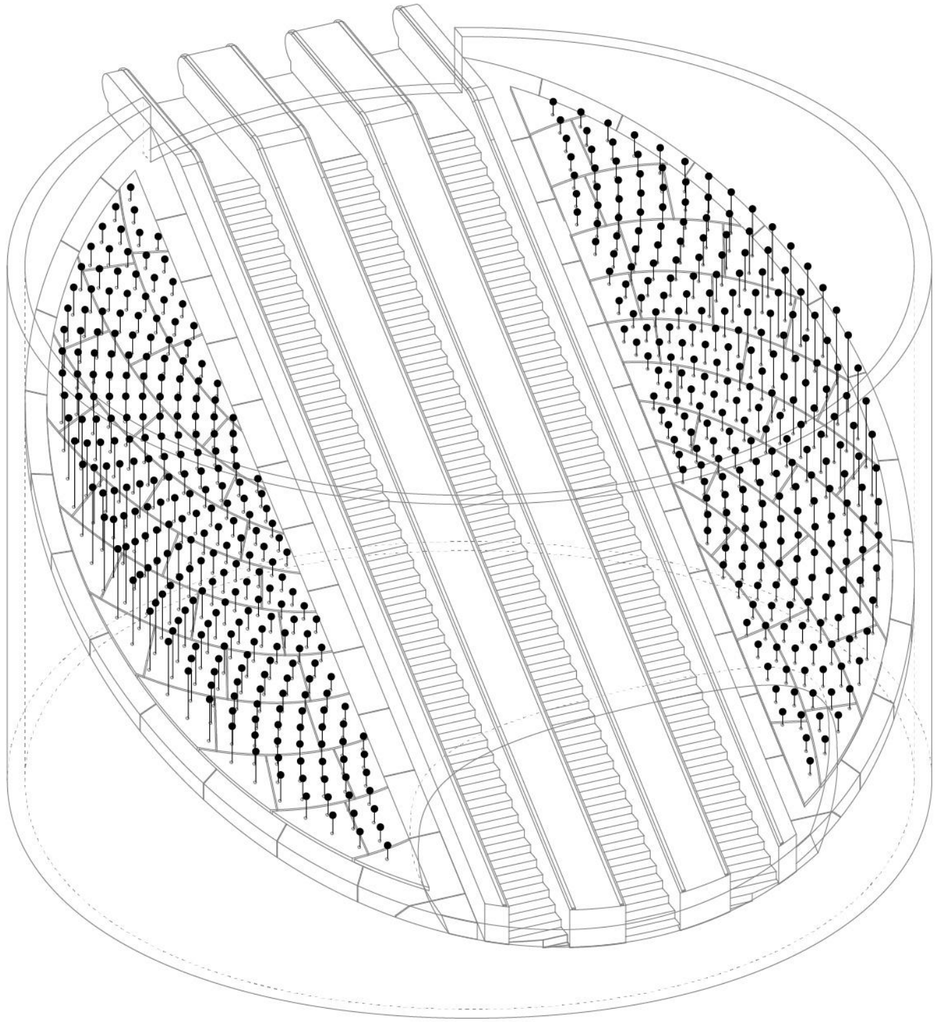
Field of Stems vertical “stems” made of stainless steel round tube would be distributed through the panels in the same phyllotaxis pattern similar to the seeds of a sunflower. This pattern is found throughout nature and represents how individuals make room for each other as a system grows.

Seeds of a sunflower arranged in a phyllotaxis pattern

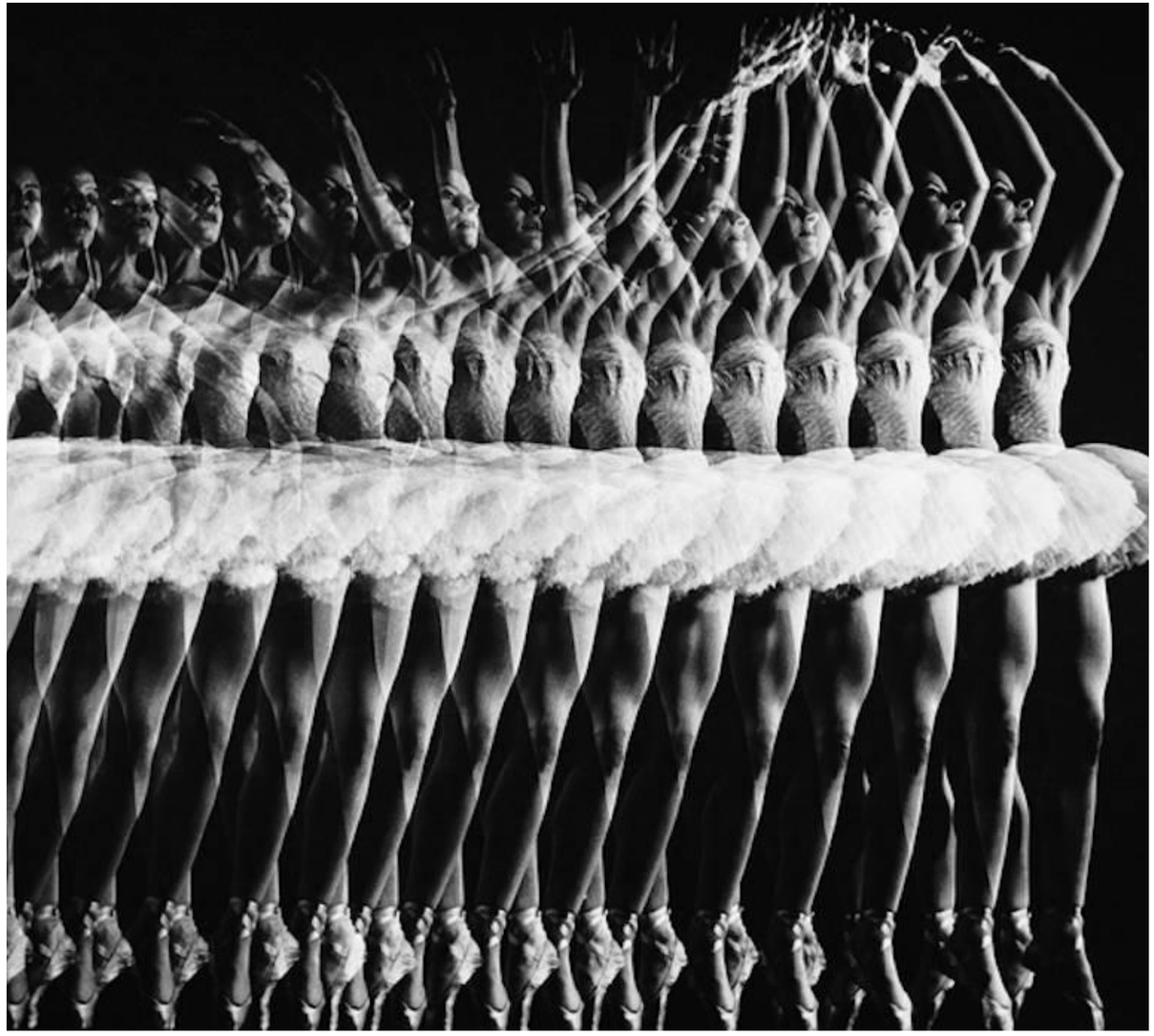


Ensemble the height of the stems has been adjusted to focus on the center of the cylinder. This creates an orchestral ensemble where the focus is on the audience, or in this case the commuters.

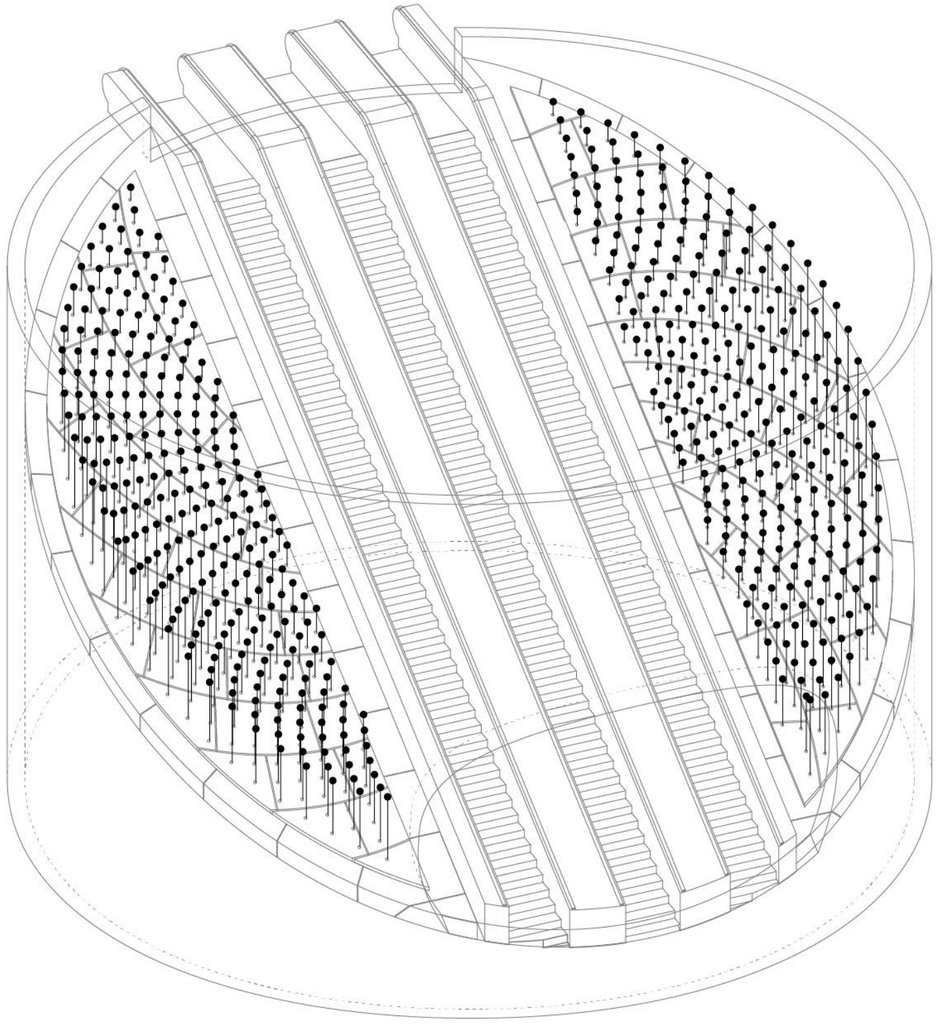
Spatial arrangement of an ensemble orchestra



Ascending Movement we also increased the height of the stems towards the tunnel at the bottom of the entrance. This ascending pattern or visual crescendo celebrates the procession into the entrance and envelopes the commuters as the field of stems and petals appears more dense as they descend the escalators.

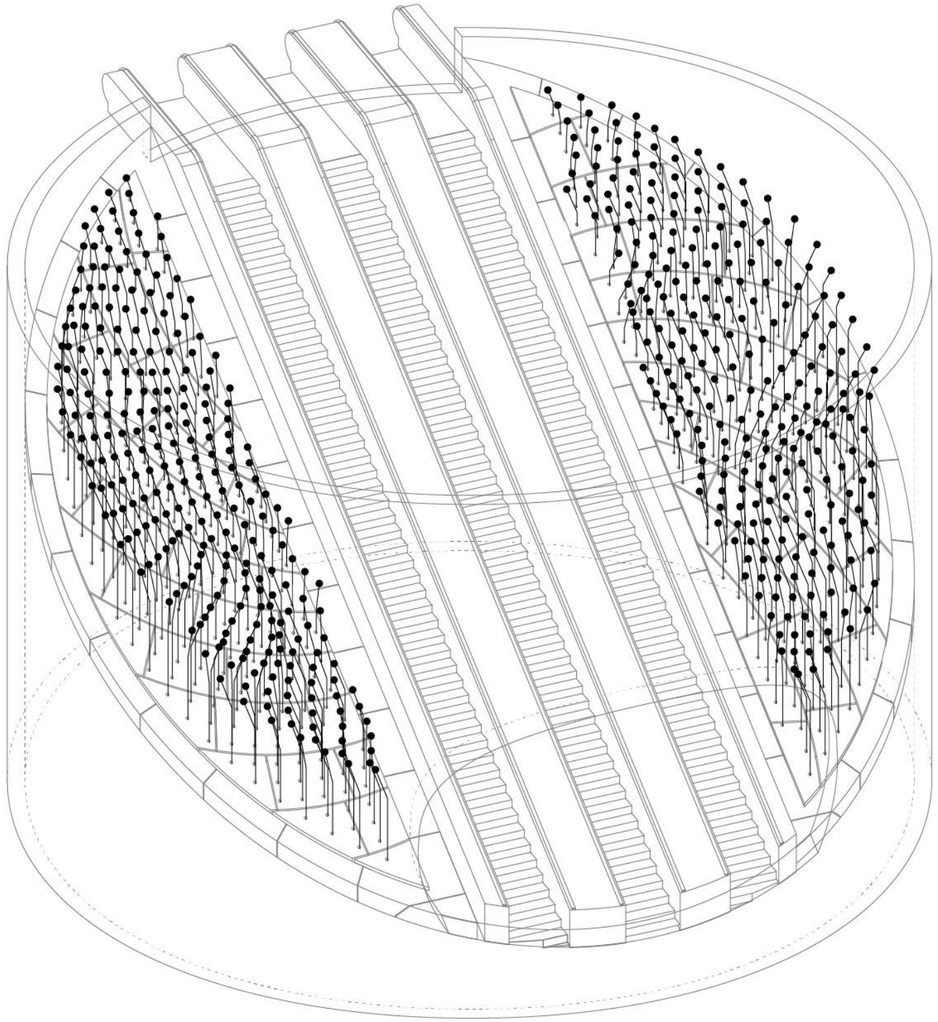


Ascending dance choreography



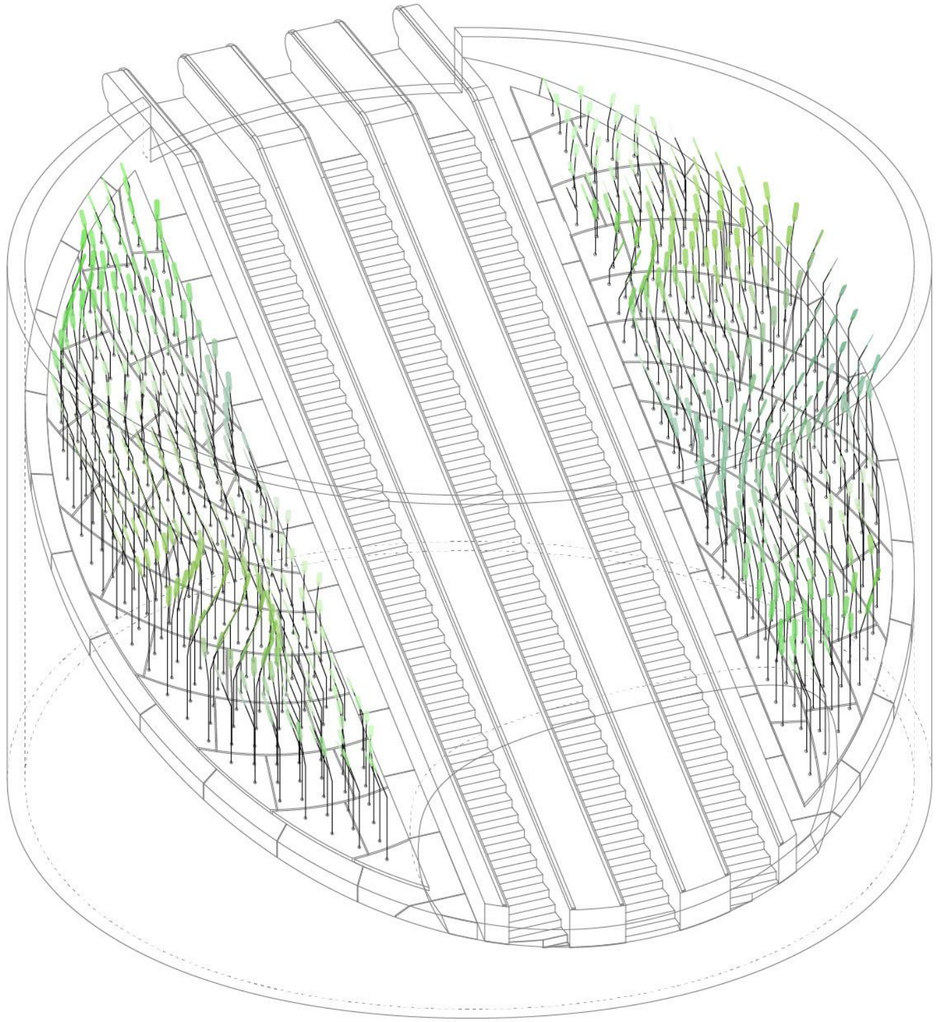
Leaves of Grass Each stem is bent and rotated at a precise angle to give the sense that the field is blowing in the wind. While the pattern is made of individual elements, they all come together in a way that a pattern of flow emerges. From above these patterns are apparent, while they create a dynamic sense of movement through a moiré effect and pattern interference as commuters move through the field on the escalator.

Turbulence made visible in a field of grass



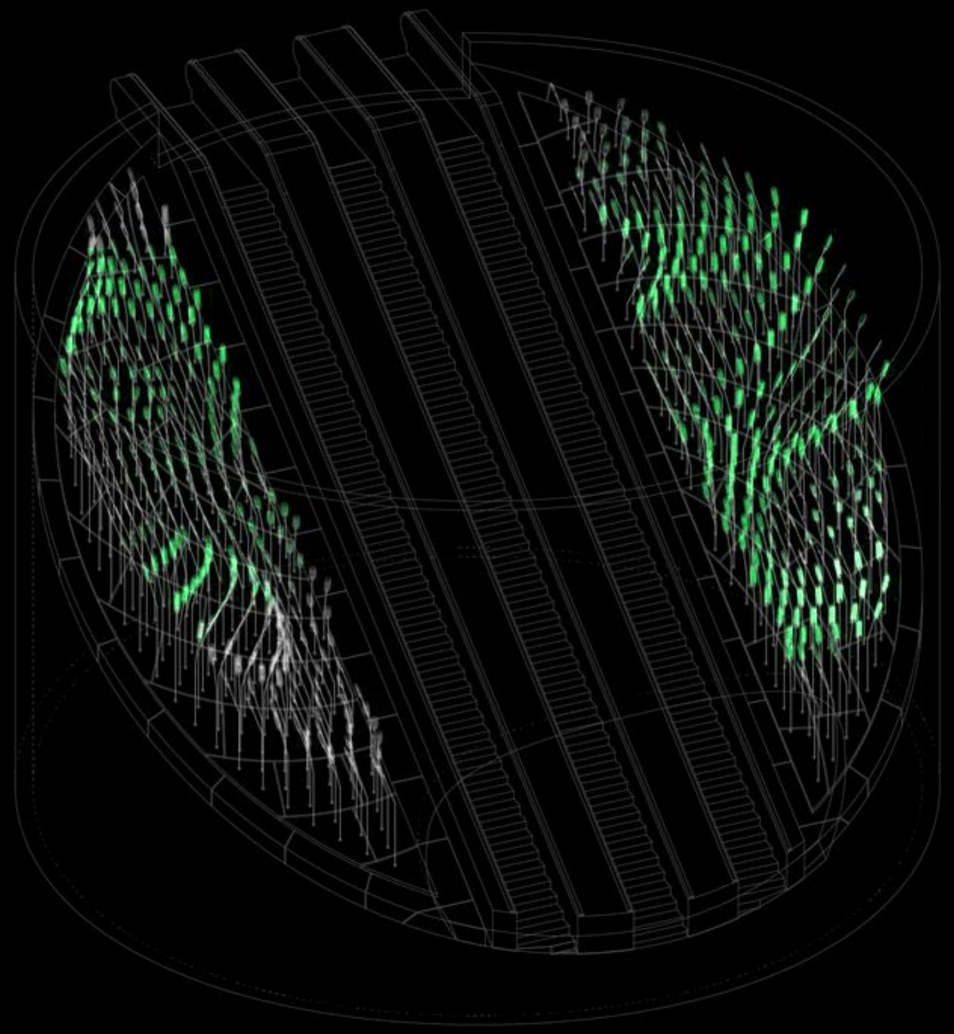
Coloration Glass/acrylic petals on each stem are laminated with colored film in a spectrum driven by the subtle hues of greens, yellows, and blues from the grass and expansive sky found in the plains of the United States.

American Tall Grass



Light and Transparency In addition to color film, each panel is laminated with Electronic PDLC Smart Film that can shift between transparent and opaque with a low voltage electric current. The end of each stem also has an LED fixture that will be turned on to accentuate the changes in the film. The light will be more visible at night, but the transparent shift and casting of sunlight through each panel will be visible during the day.

Speed and light animation to be developed with WMATA team

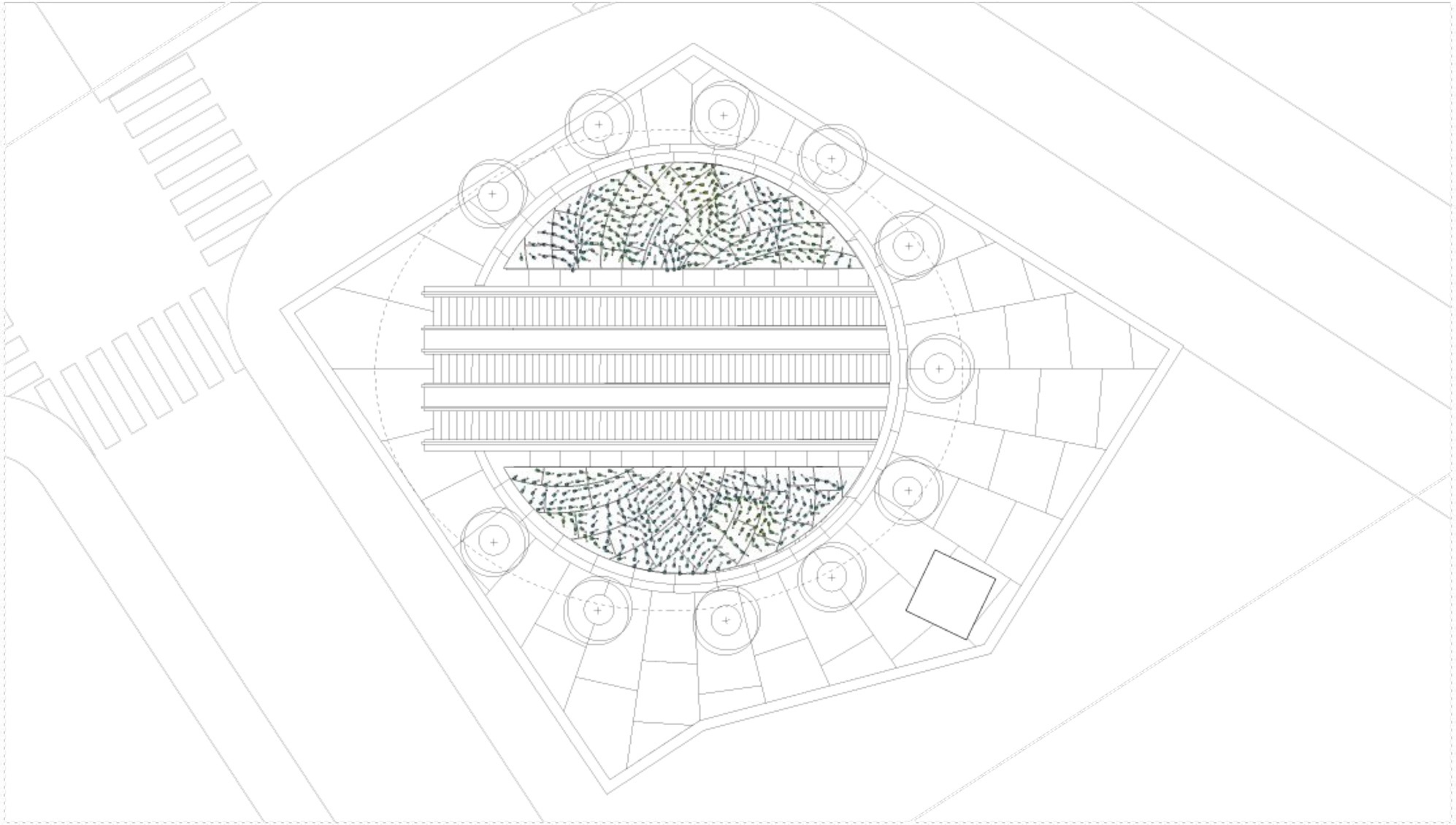


Note: This is just a sketch to give an idea of how this will be dynamic and is not the final animation. The final animation will be extensively studied for speed, patterning, and duration

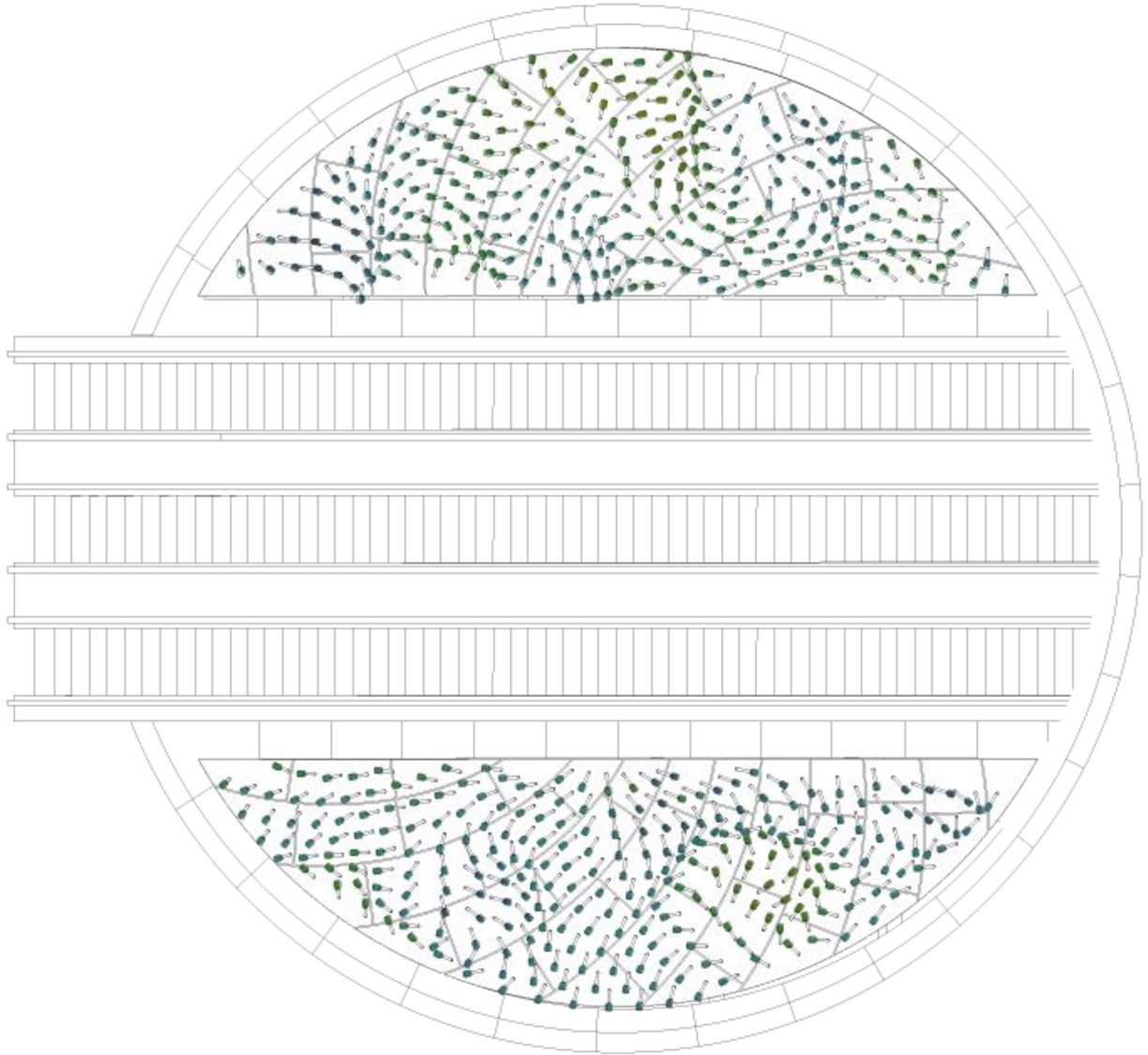
Proposal

Our proposal is an ensemble of custom cut and bent stainless steel stems that are each topped with a translucent colored acrylic “petal”. The field of these “grass blades” come together to form a dance of sorts where they create a larger waveform. Each petal contains a programmable LED fixture and is laminated with controllable smart film. Dynamic lighting and transparency imbues a sense of atmosphere and motion.

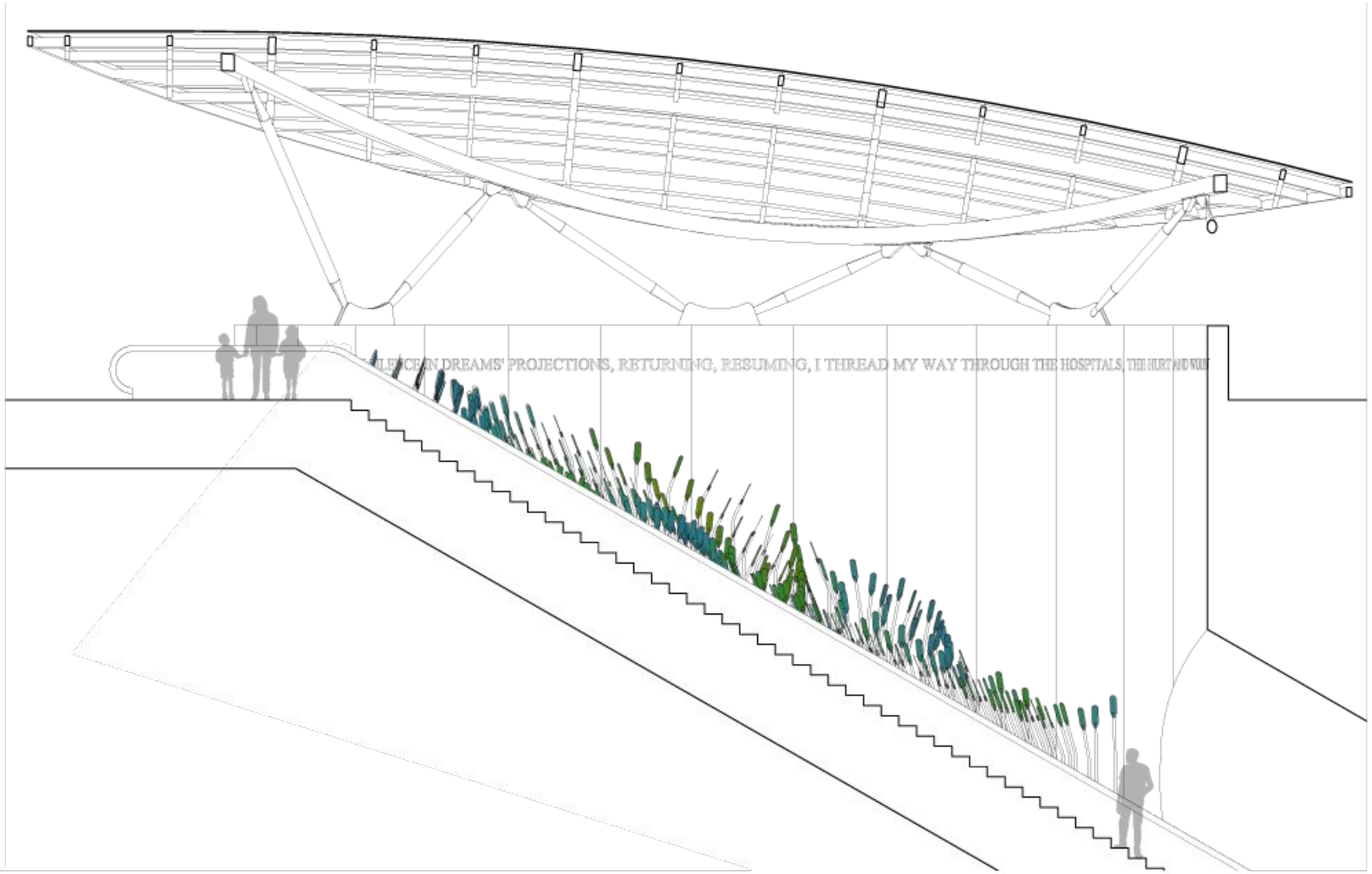
Site Plan



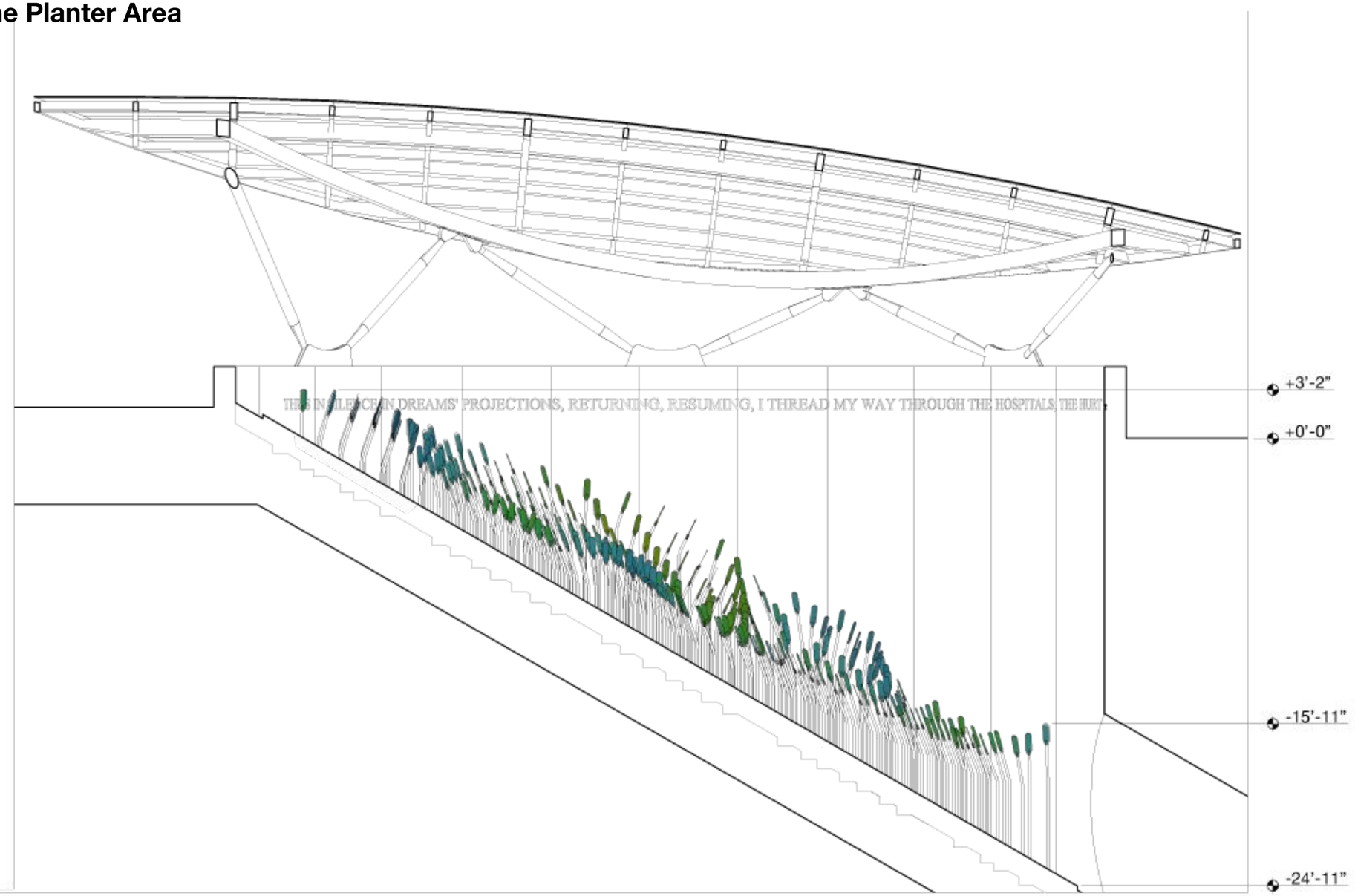
Artwork Plan



Section Through the Escalator

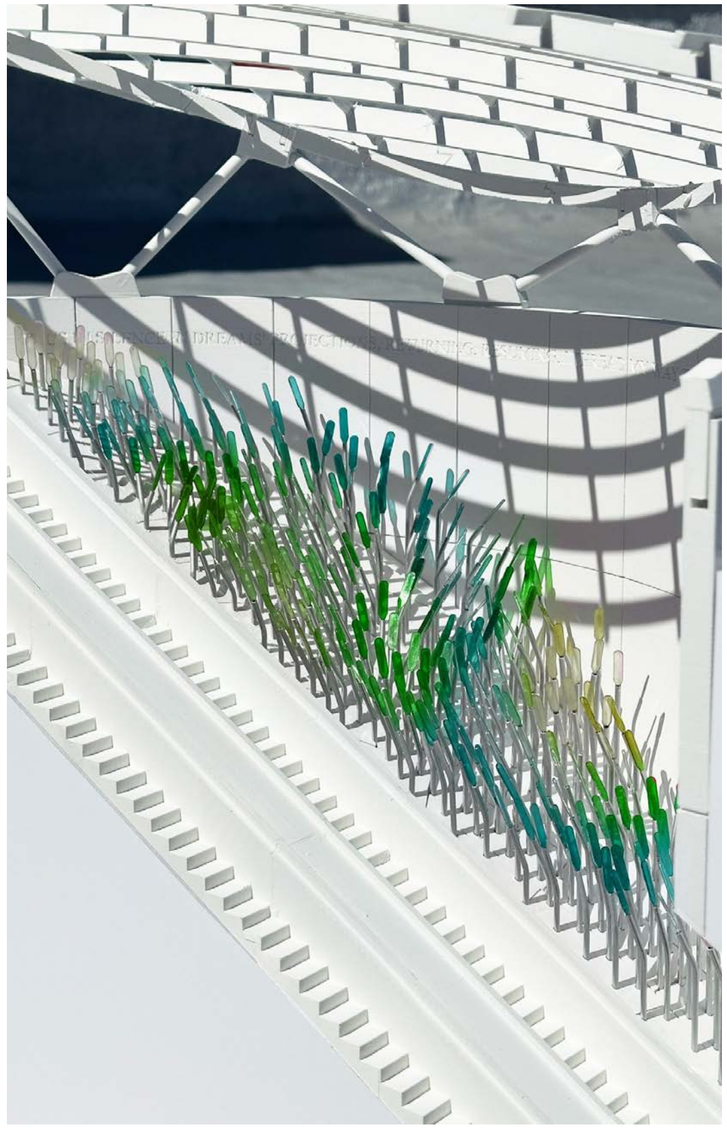


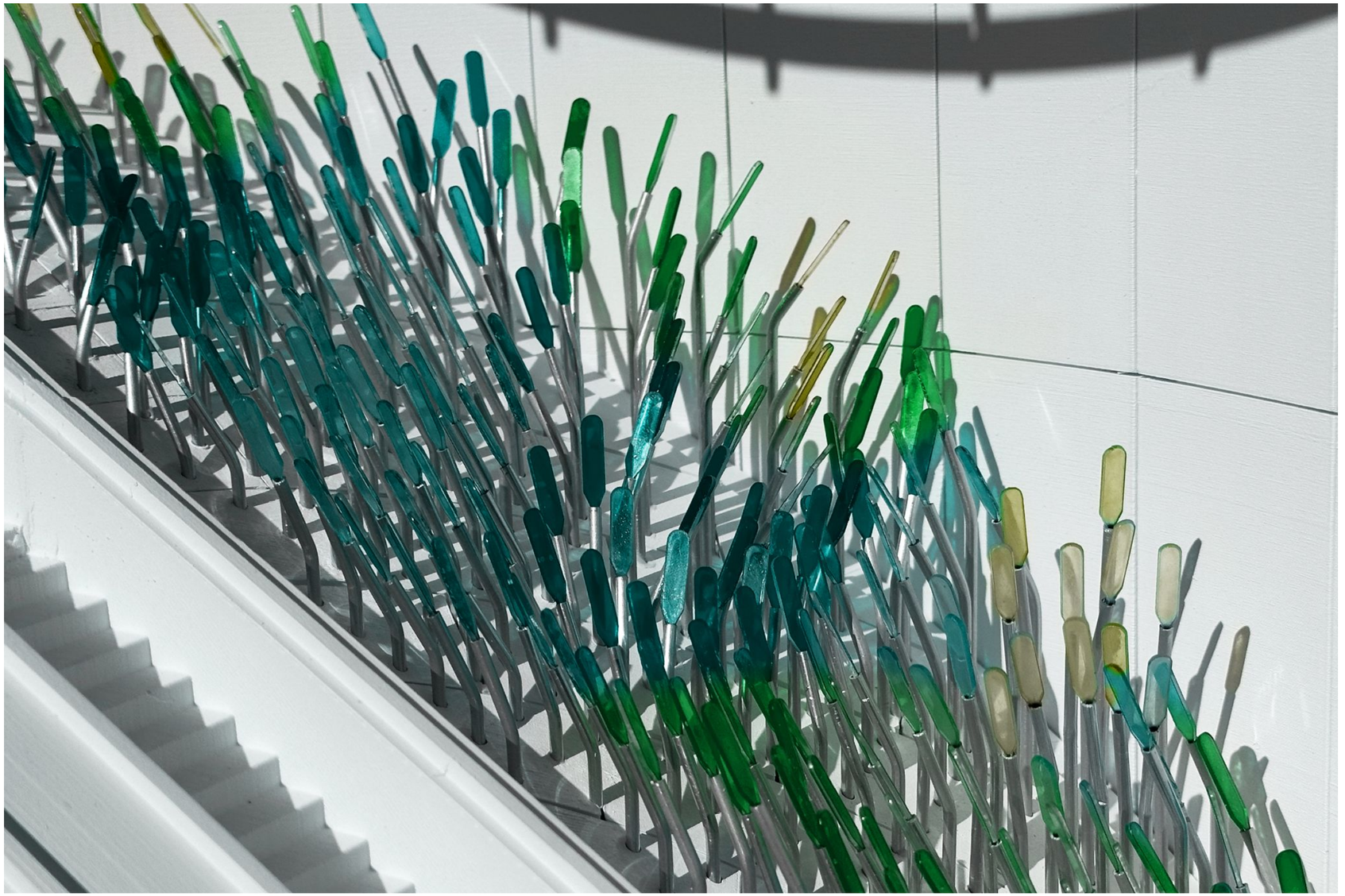
Section Through the Planter Area

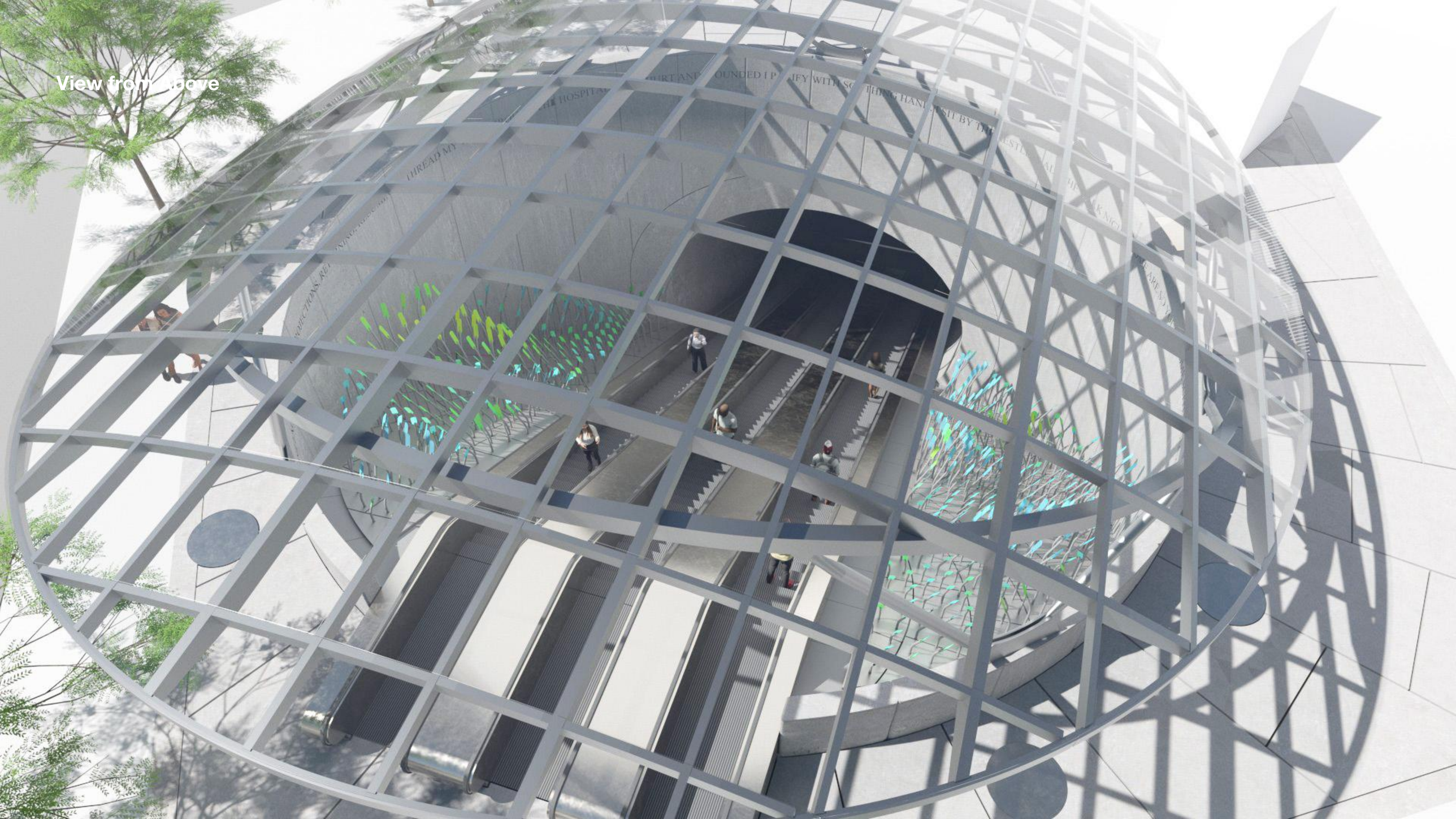


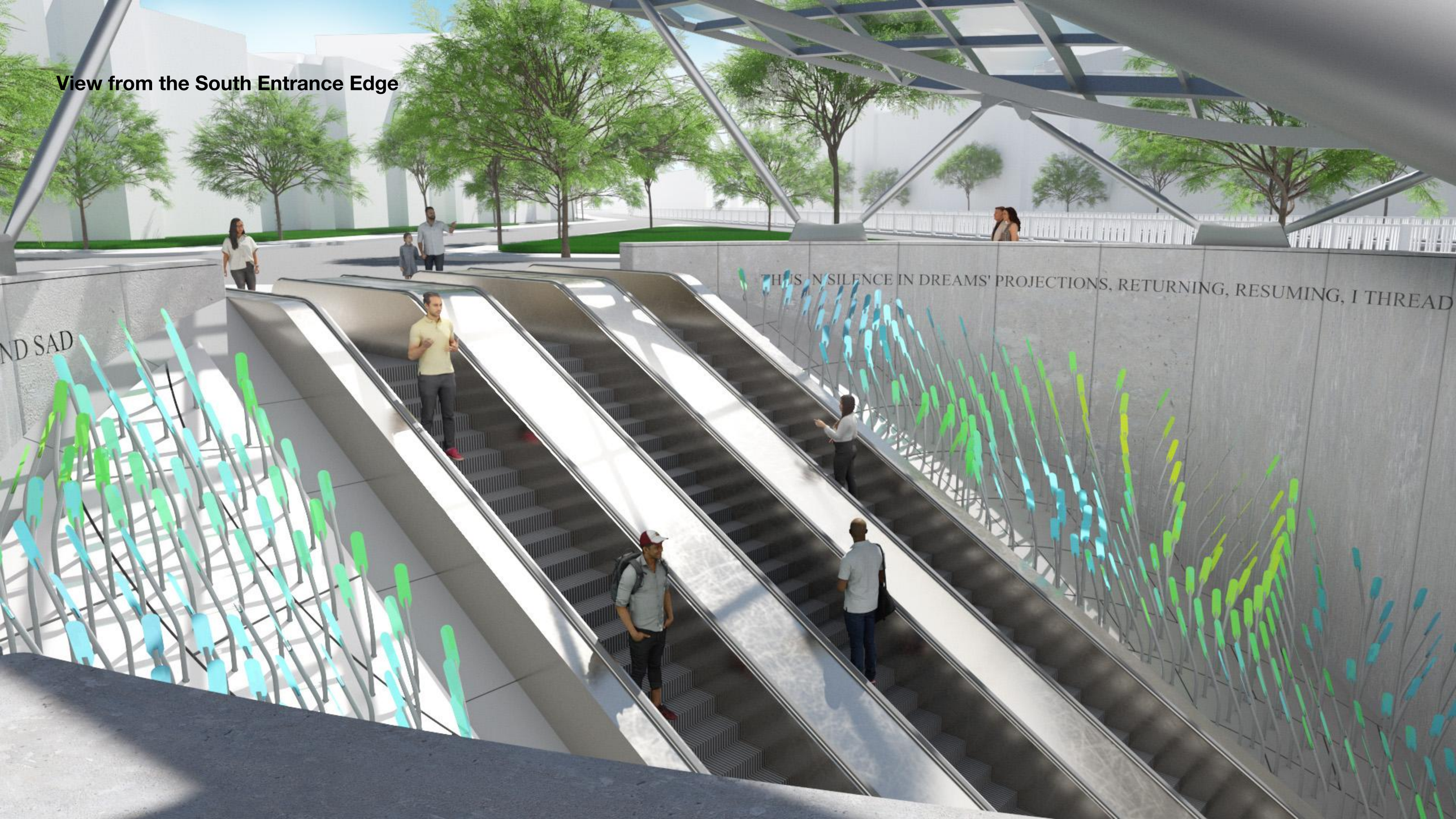
Scale Model Study we created a sectional model of the station entrance to explore the color, size, density, and arrangement of the stems and petals on either side of the escalators.

Model Shadow Study we used the model to study how sunlight and shadows would be cast on the graniet surface of the cylinder surrounding the entrance.

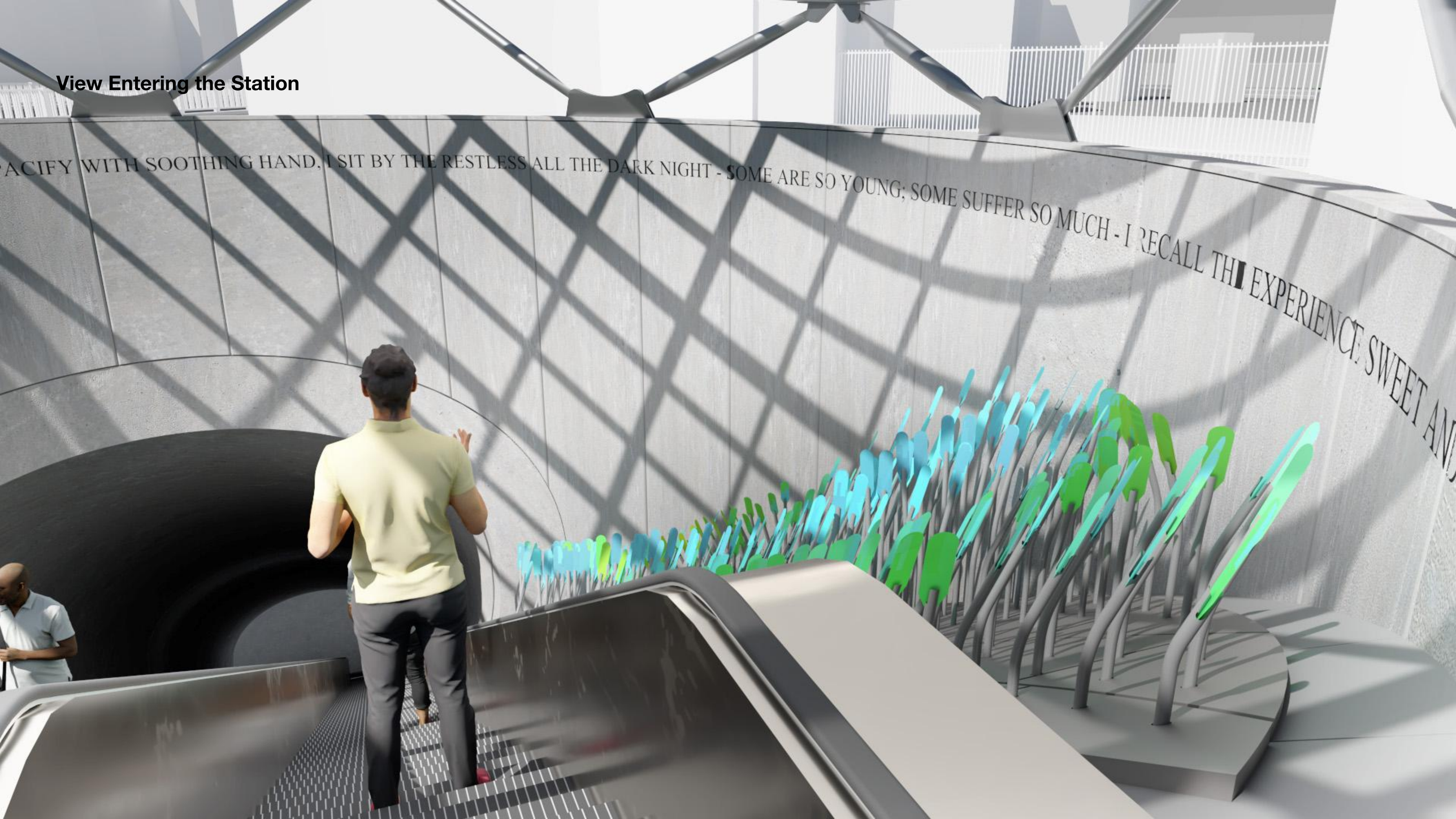





View from above

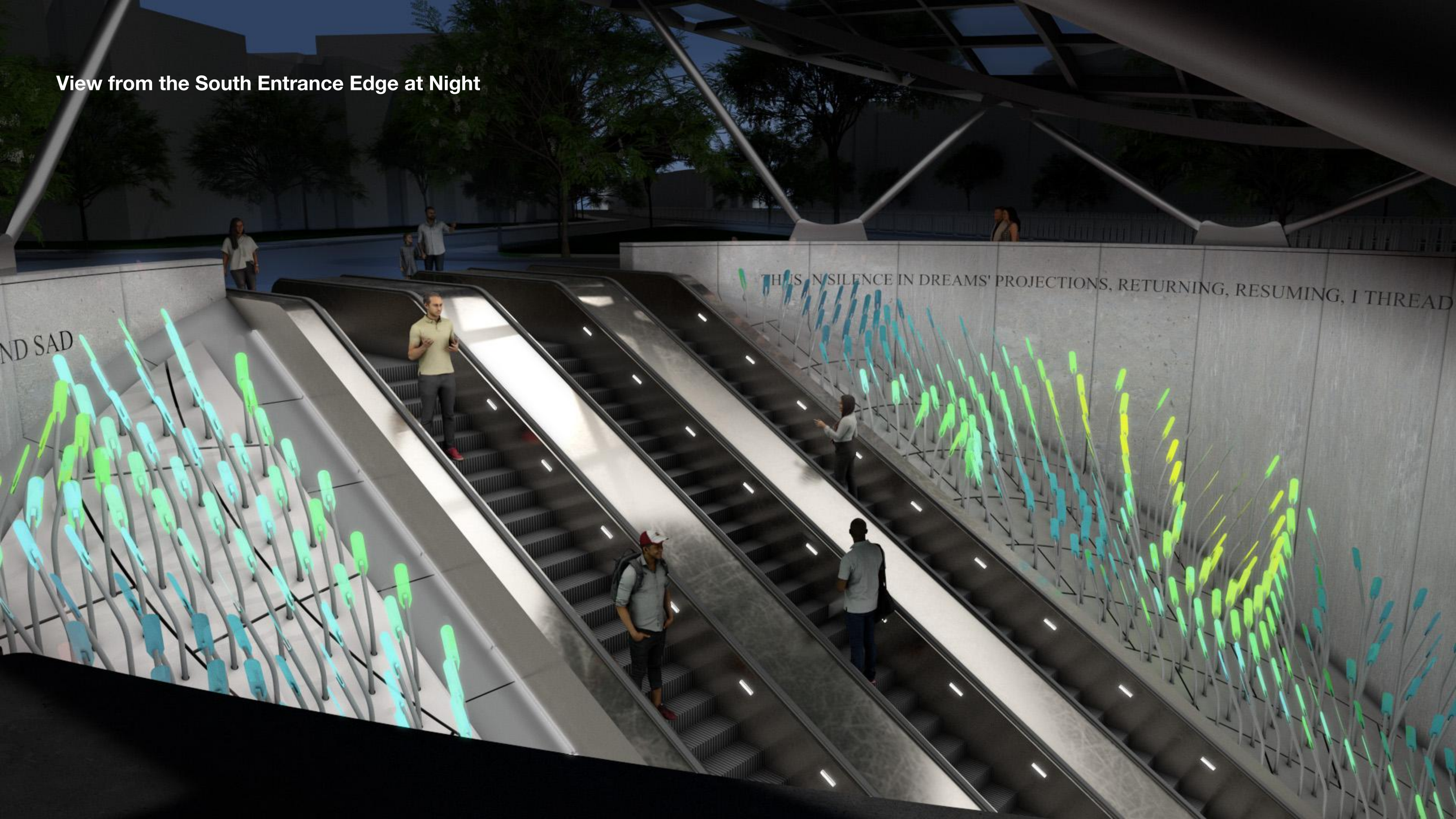


View from the South Entrance Edge



View Entering the Station

View Exiting the Station



View from the South Entrance Edge at Night

Light Animation Study

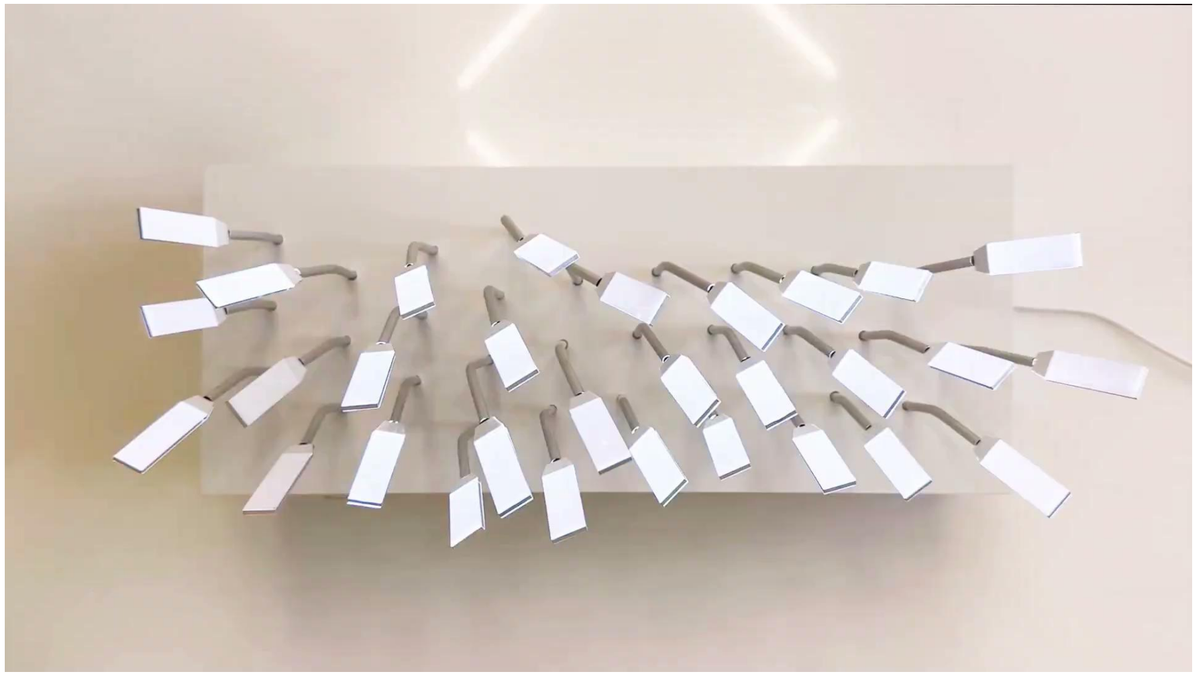
Speed and light animation to be developed with WMATA team

Transparency and Lighting

Our proposal uses a combination of programmable LEDs and smart film to animate the field of petals on each stem. This combination of color, light, and transparency will produce an experience unique to the station entrance that is visible during the day and night. During the day, sunlight cast through each petal will flicker as the film is activated, while at night the lighting and film will operate together to create a new animated material.

We have extensive experience in dynamic and interactive lighting and while we feel dynamic light and transparency per petal is achievable with today's technology in a way that will require the same maintenance as standard architectural lighting, we would be happy to explore less dynamic lighting such as architectural lighting around the perimeter of the artwork. We also feel the artwork stands alone as a formal representation of nature and motion regardless of the lighting.

Lighting Study Model Each metal stem is bent and rotated at a precise angle to give the sense that the field is blowing in the wind. While the pattern is made of individual elements, together they reveal a larger flow. From above these patterns are apparent, while they create a dynamic sense of movement through a moiré effect and pattern interference as commuters move through the field on the escalator.



Smart Film along with an LED fixture in each stem that lights the petals at night, they are also laminated with smart film. Smart film switches between transparent and opaque with a low voltage current. While light is not as visible during the day, this animated transparency will be. Affecting how sunlight will cast onto the surrounding surface of the graniet cylinder as the light dances it will create an unexpected and playful performance.

Note: Privacy film can have variable opacity with a dimmer control

Previous work with integrated atmospheric light

These projects show examples of our work where we have integrated programmable LED arrays in to aluminum and brass tubes. The lighting animation is generative, which means it is always different and is meant to give a playful impression of atmosphere or air blowing through the spaces they inhabit. Not only does the lighting give each piece a dynamic quality, but also breathes life into static artworks.

Bluebonnet at TIAA's new HQ in Frisco, TX

Halo at Google's new Main Campus in Mountain View, CA

Stratus for Vornado Realty in 315 Montgomery San Francisco, CA

Thank You

SOFTlab
34 West 27th Floor 9
New York, NY 10001
212-481-5759
soft-lab.com

Michael Szivos, Director/Founder
michael.szivos@soft-lab.com
212-481-5759