

Lake Itasca Greenway II



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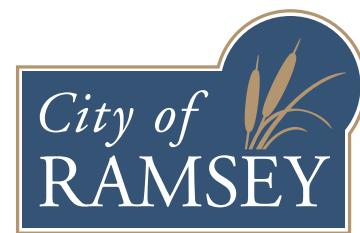
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Resilient Communities Project

UNIVERSITY OF MINNESOTA

Building community-university partnerships for sustainability

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LAKE ITASCA GREENWAY

Ramsey, MN | Resilient Communities Project | University of Minnesota

TABLE OF CONTENTS

Objective, Scope, & Program	1
Site Plan	2
North Gateway	3
Hammock Forest	4-5
Bird Blind.	6-7
Picnic Grove	8-9
South Gateway	10
Plantings	11
Site Photos	12
Process Work	13-27
Models	28-29

PROJECT OBJECTIVE

Through communication with the City of Ramsey, it is apparent that the city's goals of regional connectivity and sustainable growth reflect the need for a trail connection between the Center of Ramsey (C.O.R) and Lake Itasca. The Lake Itasca Greenway project addresses that need through a multi-use experiential trail and accompanying boardwalk in a wetland corridor adjoining the two areas. The greenway offers the opportunity for new and existing residents to connect to their surrounding environment and local ecology, and also better understand the natural processes at work in the area's current rural setting. Such a dedicated space for natural connection could foster heightened environmental stewardship in the community, while also providing opportunities for public recreation and gathering. The greenway completes an integral connection between the C.O.R. and Lake Itasca within the city's larger trail system, allowing for easier bicycle and pedestrian movement, and a stronger culture of non-automotive transportation. Such an atmosphere of environmentalism in Ramsey may allow the city to become a leader in resilient growth, as many cities continue to follow the trend of sprawling away from urban centers.

SCOPE & PROGRAM

The project presents a detailed look at what could be possible for the Lake Itasca Greenway. A site easement is proposed to encompass and preserve the wetland area, while also allowing for the construction of a trail, boardwalk, and five spatial nodes. For much of the corridor, the trail consists of fifteen-foot multi-purpose asphalt path traveling along the southern edge of the large wetland area. The boardwalk consists of a ten-foot wide wooden superstructure on a helical pile foundation, and extends northward from the trail into the wetland area, traveling through marsh and aspen forests. An additional fifteen-foot section of boardwalk and a widened seating platform allows the main trail to cross over the wetland and continue to the northwest. Two nodal spaces serve as gateways at intersections on either end of the trail, and include physical gateway structures, seating, and bike maintenance stations. A "hammock forest" on the northwest end of the site creates a unique experience for people relax in a natural setting and observe the growth of trees as the space ages. A bird blind structure along the boardwalk creates an iconic shelter to observe local bird species and provides opportunities for community education. A picnic "grove" on the southeast end of the site serves as a destination on the greenway for gathering and relaxation. Lastly, a wind/water activated sculpture overlooked by the seating platform demonstrates natural processes on site and initiates a greater understanding of how humans interact with these natural forces.

LAKE ITASCA

puma st nw

hammock forest

CURRENT RESIDENTIAL

north gateway

A

bird blind

B

FUTURE COMMERCIAL

picnic grove

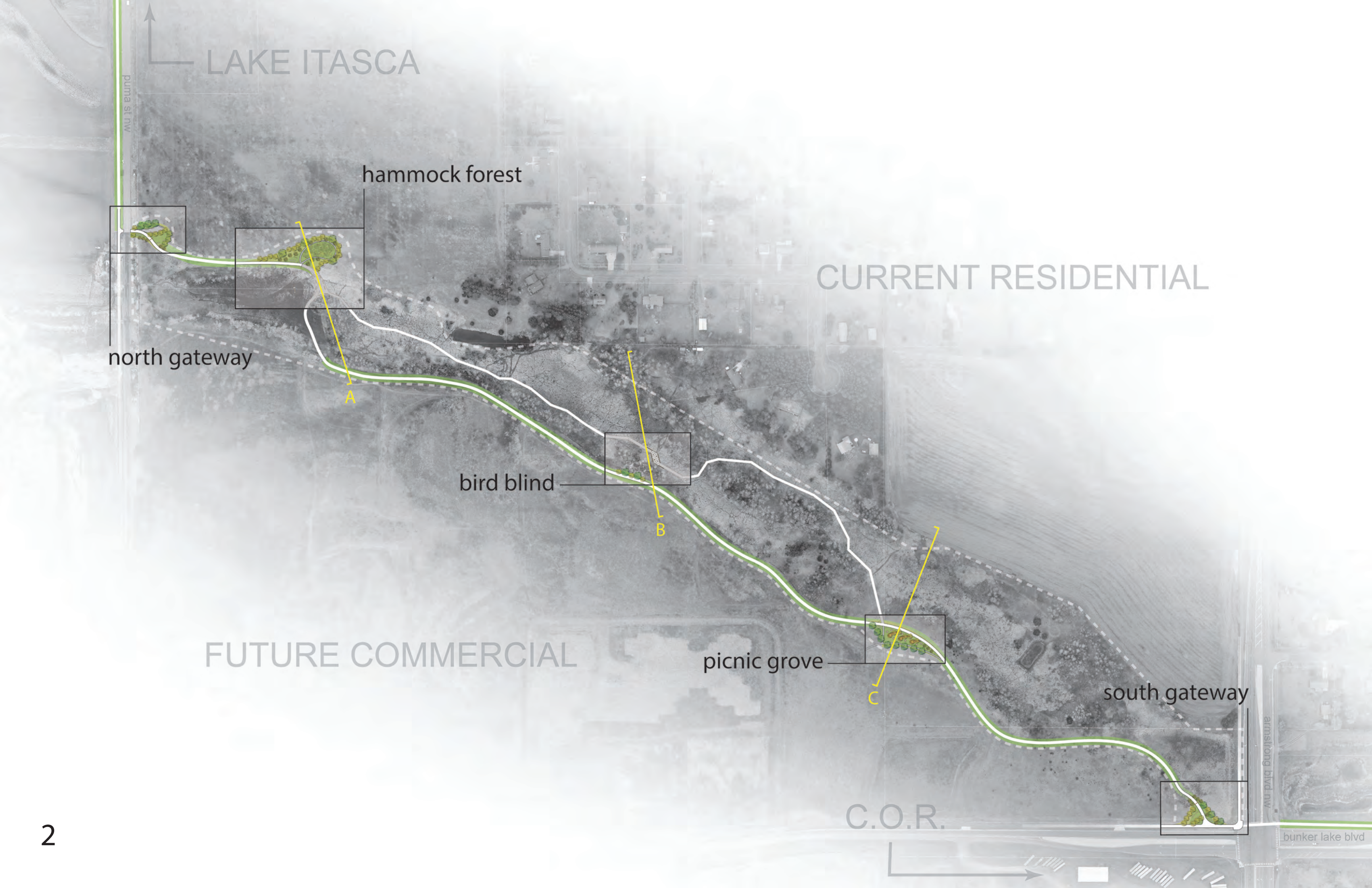
C

south gateway

C.O.R.

armstrong blvd nw

bunker lake blvd



SITE PLAN

An aerial plan view of the proposed greenway is shown to the left, including the project site easement, trail and boardwalk routes, planted buffer, and the five nodal spaces along the corridor. The five spaces are illustrated in further detail in the following pages, as well as illustrated site sections A, B, and C, which bisect three of the five nodes.

INSPIRATION

From early visits to the project site, a design motif was developed from the existing state of the wetland. The motif reflects the shape and movement of the tall grasses and bird species that inhabit the site, and was used to inform the design of the project's landscape forms and structural elements.



north gateway

At the northern endpoint of the trail, this space marks a gateway to the Lake Itasca Greenway with one of two proposed sculptural arches along the corridor. This arch stands as a welcoming and wayfinding technique to indicate to users their position within the Circle of Ramsey. The space also contains functional elements including bike maintenance stations, bike racks, and small shaded seating areas.



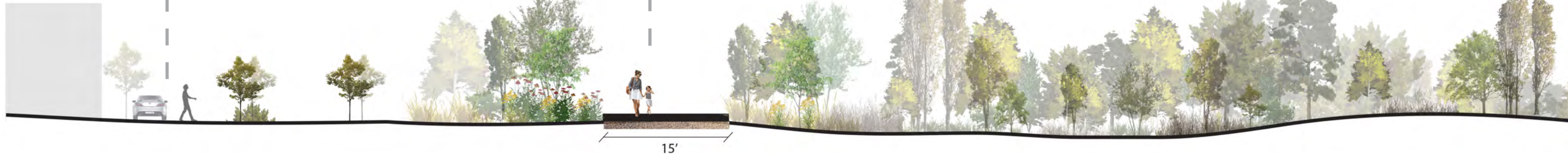
hammock forest

A secluded offshoot from the main trail will serve as a designated area for hammocking. To the immediate southeast, an elevated seating area is proposed to overlook the water/wind activated sculpture. The sculpture and seating area gives identity and purpose to this point on the greenway as the crucial junction between the paths of the main trail and the elevated boardwalk.



future commercial

multi-purpose trail



15'

The hammock forest will feature constructed posts to serve as sturdy alternatives to hammocking on newly planted red pine and aspen trees. As the trees age, the structures and plantings will come together to create a space for reflection and relaxation.

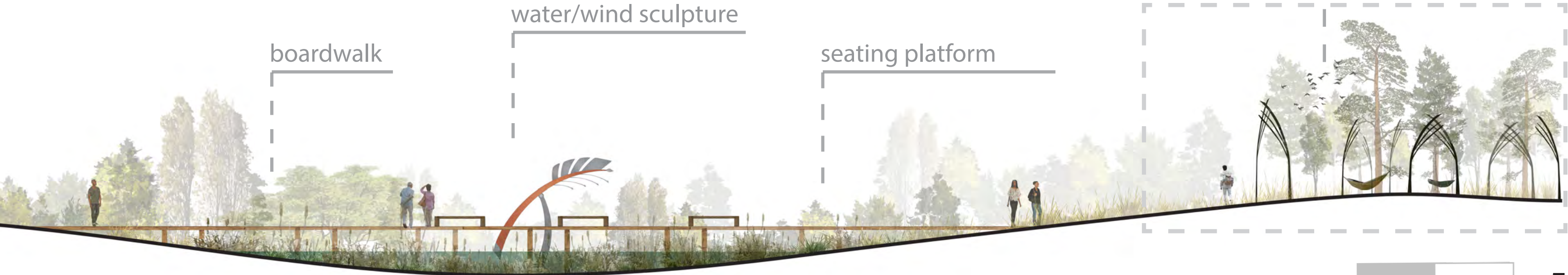


hammock forest

boardwalk

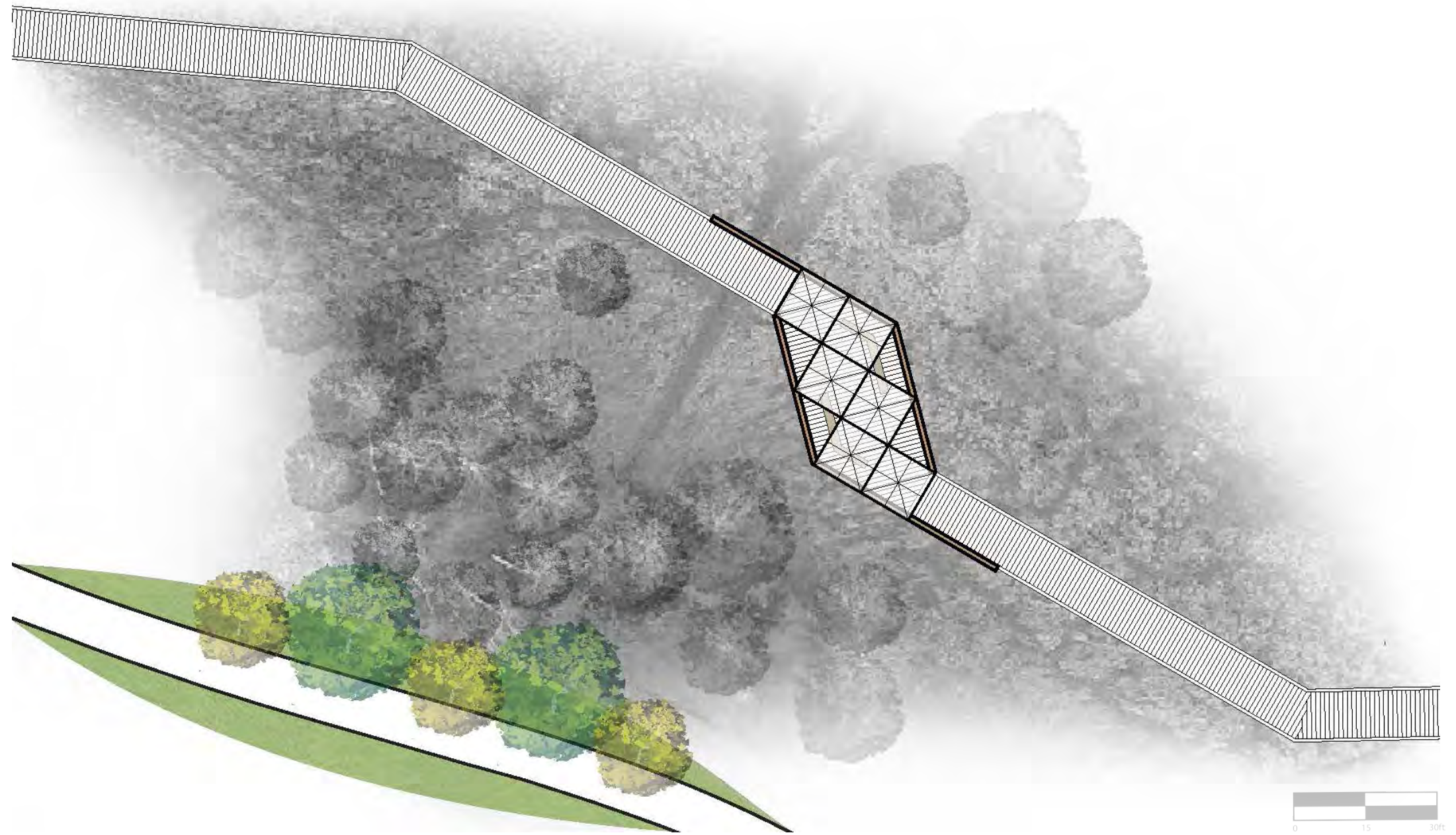
water/wind sculpture

seating platform



bird blind

The proposed bird blind structure along the boardwalk will serve as both a point of interest and a form of public education for residents to connect with the local ecology. The structure is located between two existing tree groves within the wetland, and creates viewsheds outwards toward bird habitats. It will also be partially visible from the main trail, allowing users to view the structure from a distance.



current residential





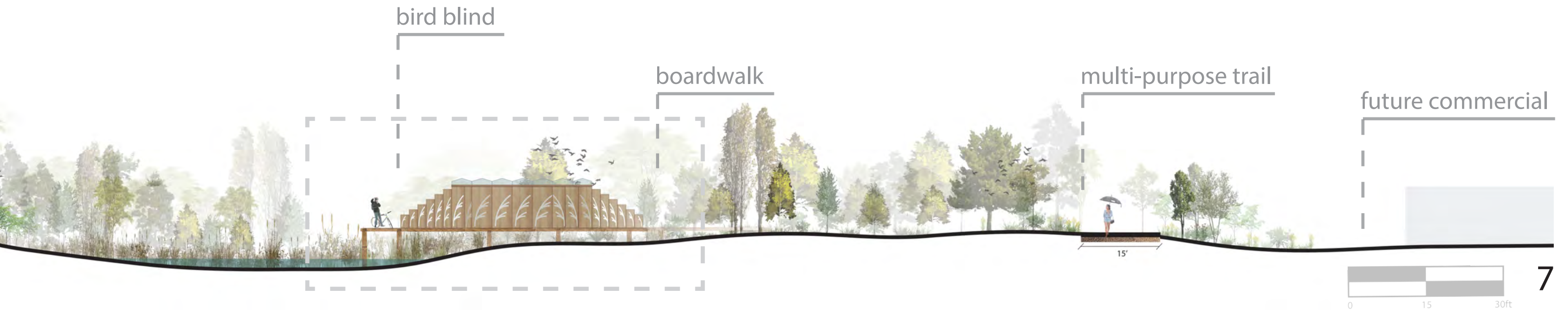
The bird blind structure's paneled wall reflects the form and movement of wetland grasses, and is meant to accommodate residents of different ages and heights. A semi-translucent "blue roof" above the bird blind would act as a temporary hold for stormwater while also acting as baths to attract birds to the site.

bird blind

boardwalk

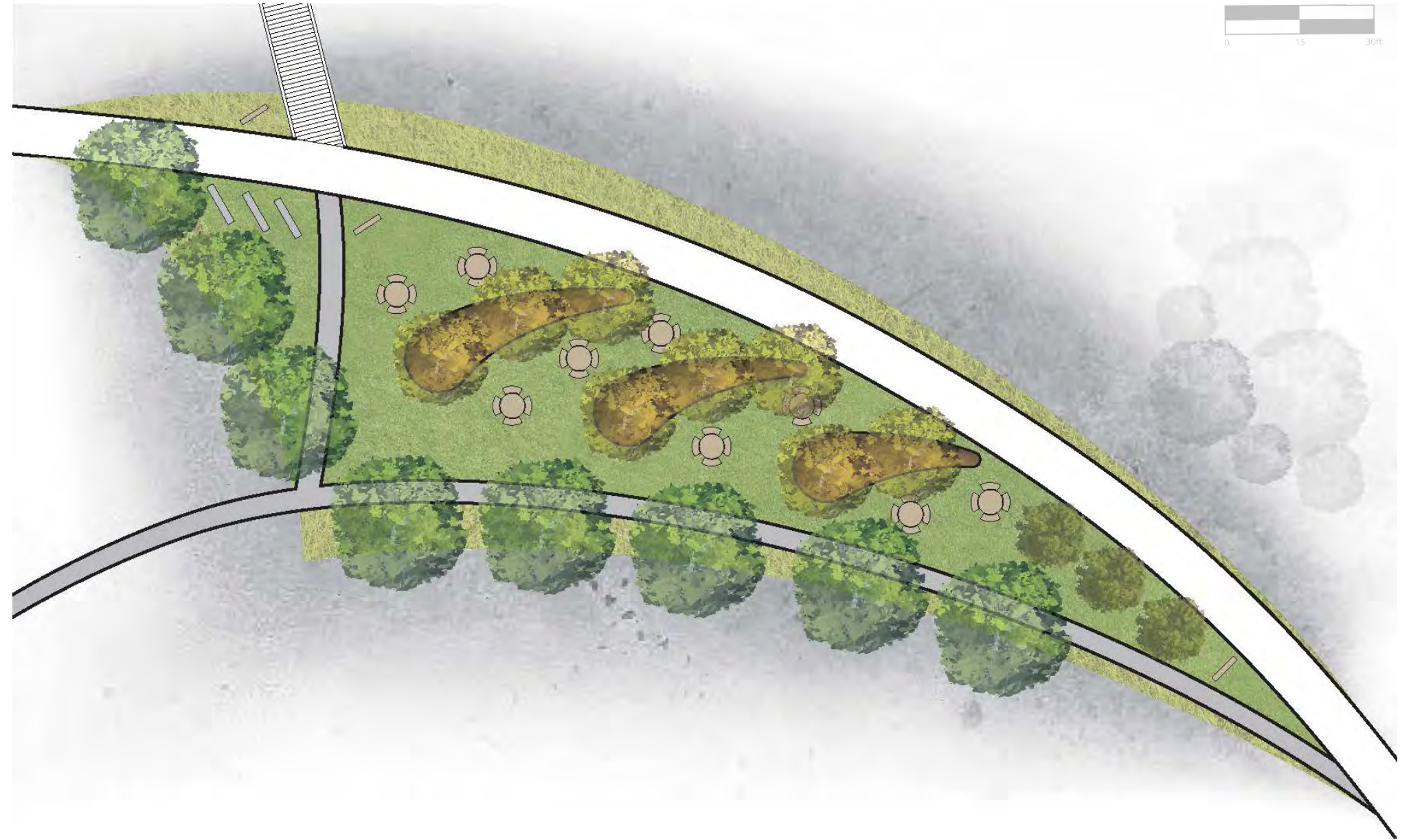
multi-purpose trail

future commercial



picnic grove

A landscaped picnic area will serve as a gathering space at the southern conjunction of to the boardwalk and trail. Gravel paths and planted berms lead users from the trail into shaded birch alcoves with picnic tables. The picnic grove is designed as both a buffer and opportunity for future connection to commercial or mixed-use development on the southern edge of the greenway corridor.





The seating area of the picnic grove is intended to provide a resting space for trail users and employees of adjacent commercial uses. Planted berms create individualized experiences in the space, while also offering shade and a place for children to play.

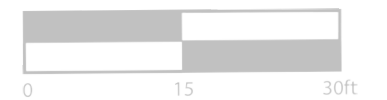


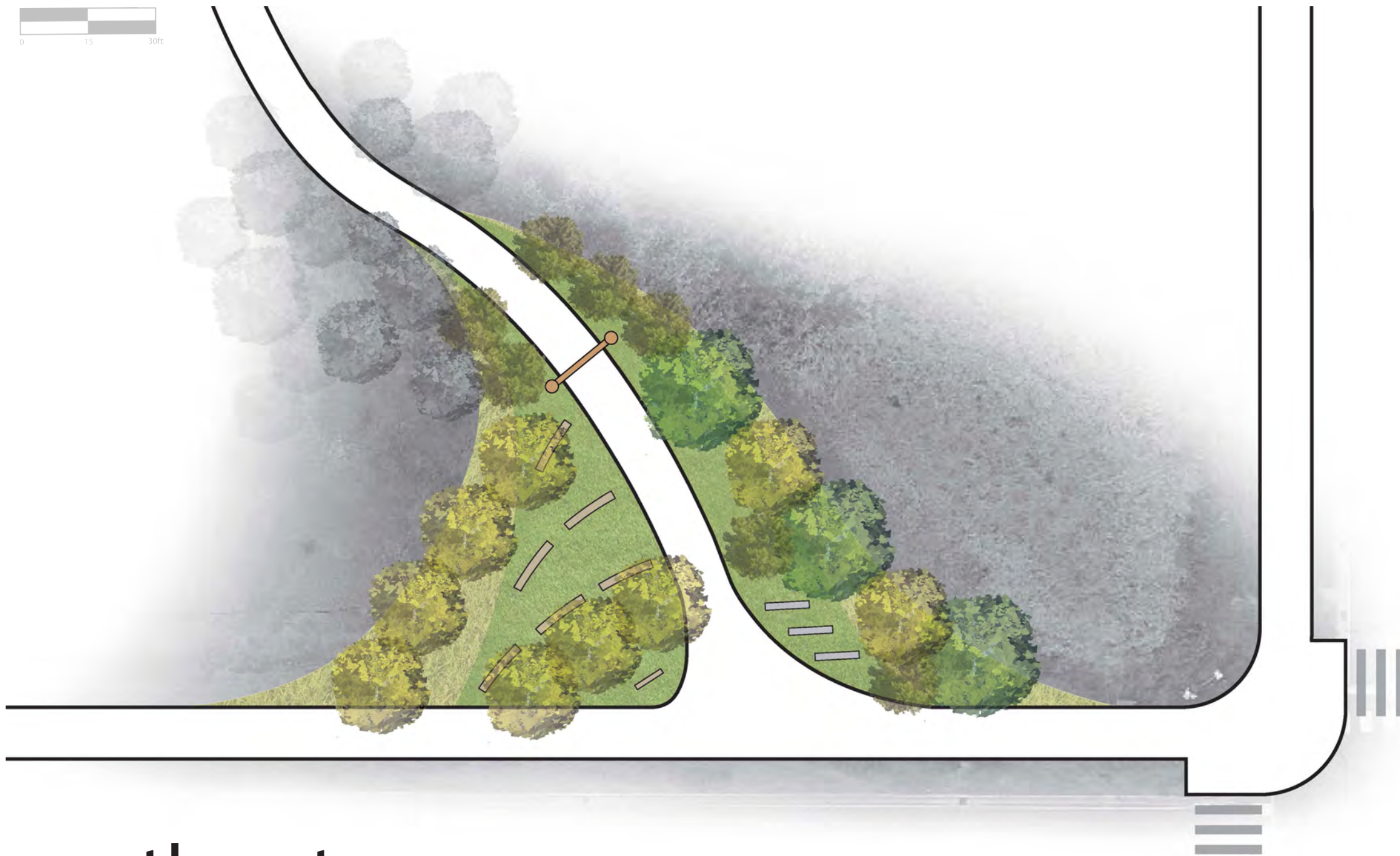
multi-purpose trail

boardwalk

current residential

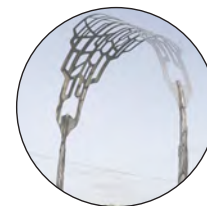
15'





south gateway

At the southern endpoint of the trail, this space marks the second gateway to the greenway, and features another sculptural arch to bookend and identify the corridor. The gateway will serve as the entryway from the C.O.R. to the Lake Itasca Greenway, and include bike racks, shaded seating, and wayfinding signage.



PLANTINGS

The palette of site plantings to the right was chosen after taking inventory of existing vegetation on-site. Observations of species including aspen, cedar, pines, yarrow, goldenrod, and cattails provided insight into the existing environmental conditions.

With this information, the following species were chosen due to their similarity of required conditions to those on the site. The proposed buffer of new trees and plantings along the southern side of the trail will offer opportunities to slow down and filter stormwater runoff from the asphalt trail. A function such as this is crucial due to the trail's proximity to the wetland area. Any of the following native species can be selected for the buffer and designed nodes. Both upland and lowland species have been identified to adapt to areas on the site that consist of higher, dry soils as well as lower, moist soils.

TREES

DECIDUOUS



river birch



hackberry



american linden



pin oak



white oak



beech



kentucky coffee



aspen

CONIFEROUS



red pine



white pine

PERENNIALS

UPLAND



Asclepias tuberosa
butterfly milkweed



Solidago rigida
stiff goldenrod



Salvia azurea
blue sage



Monarda fistulosa
wild bergamot



Agastache foeniculum
hyssop



Echinacea purpurea
purple coneflower



Rudbeckia hirta
black eyed susan

LOWLAND



Asclepas incarnata
swamp milkweed



Vernonia fasciculata
ironweed



Vernonicastrum virginicum
culver's root



Lobelia siphilitica
cardinal flower



Liatris ligulistylis
meadow blazing star



Eutrochium maculatum
joe pye weed



Aquilegia canadensis
wild columbine

SEEDS, GRASSES & VINES



Celastrus scandens
bittersweet vine



Clematis virginiana
virgin's bower



Vitis riparia
riverbank grape



Stipa gigantea
golden oats



Sorghastrum nutans
indian grass



Panicum virgatum
switchgrass



Andropogon gerardii
big bluestem



Cornus sericea
cardinal dogwood



Spartina pectinata
pairie cord grass

SITE PHOTOS



Photos were taken on multiple visits to inform our understanding of the wetland corridor's properties, including existing textures, topography, vegetation, hydrology, and spatial attributes and context.



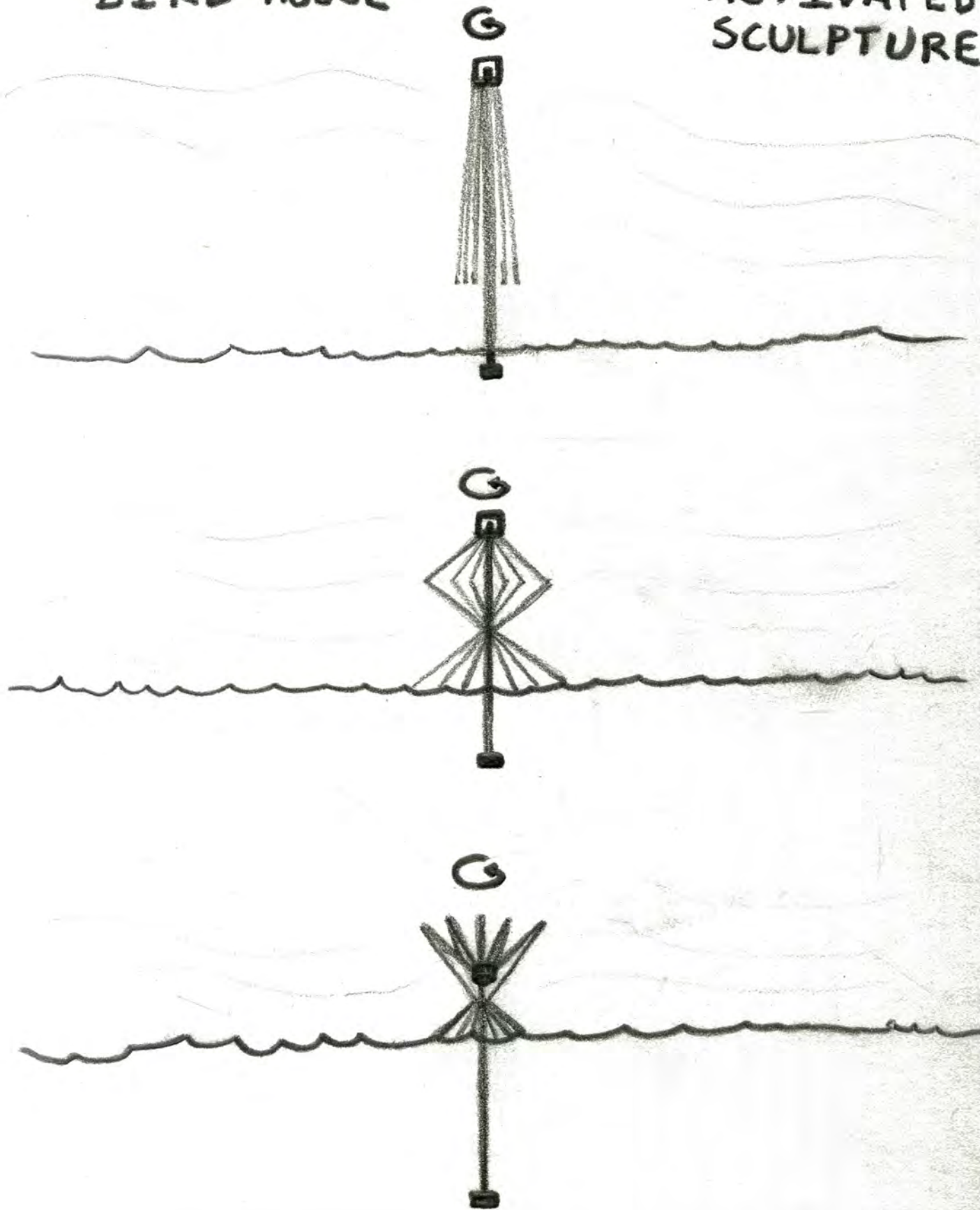
PROCESS WORK

Our design team explored a variety of media and techniques in our process working on the Lake Itasca Greenway. By hand drawing our concepts and iterating the strongest ideas as a team, our designs were born from a genuinely collaborative process. Graphite pencil, charcoal, pastels, watercolor, photography, wood, and metal were employed to further our investigations into designs for the greenway. This section displays our process work in order to illustrate where we came from and how we arrived at our final designs.

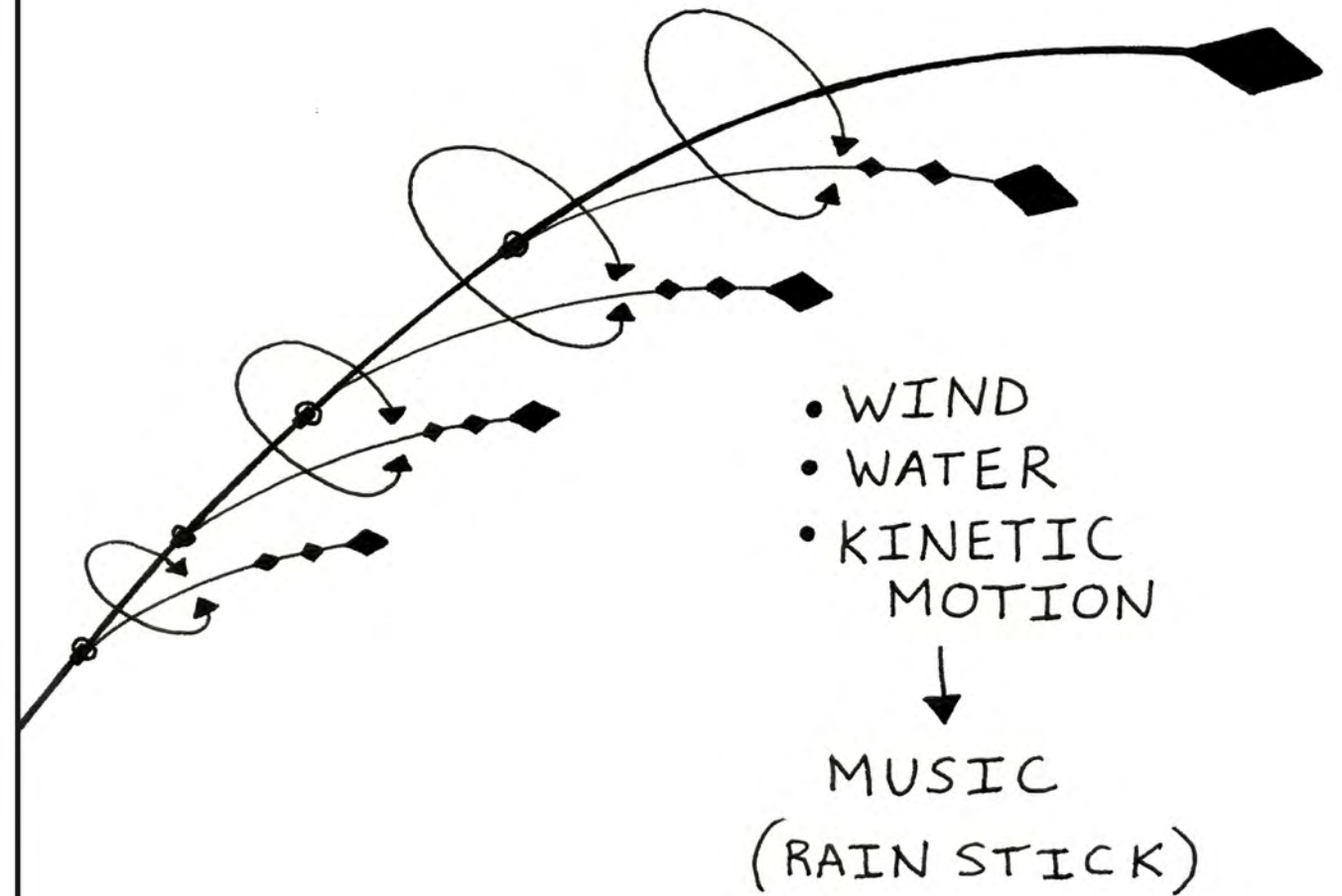


WITH INTEGRATED
BIRD HOUSE

WATER/WIND
ACTIVATED
SCULPTURE

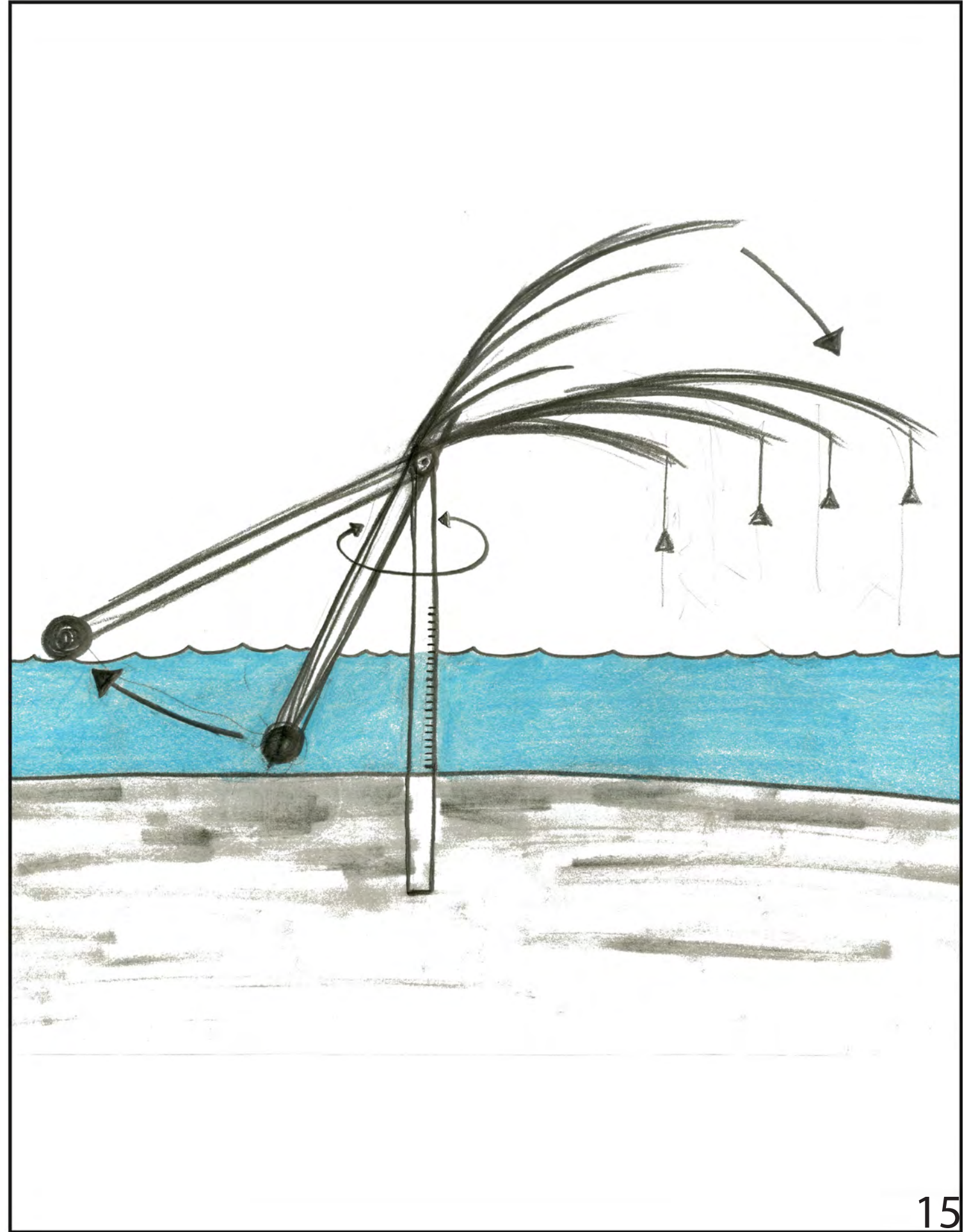
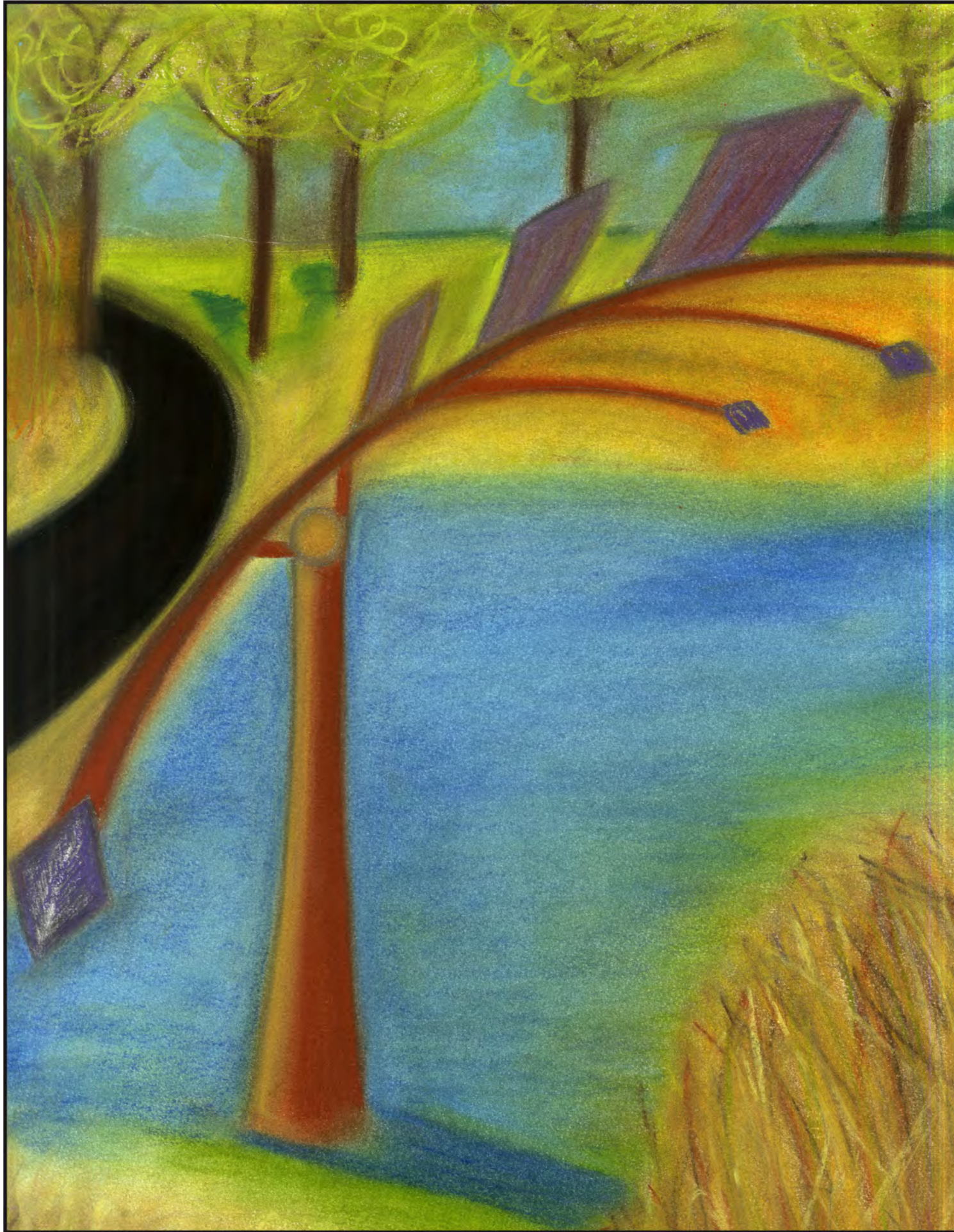


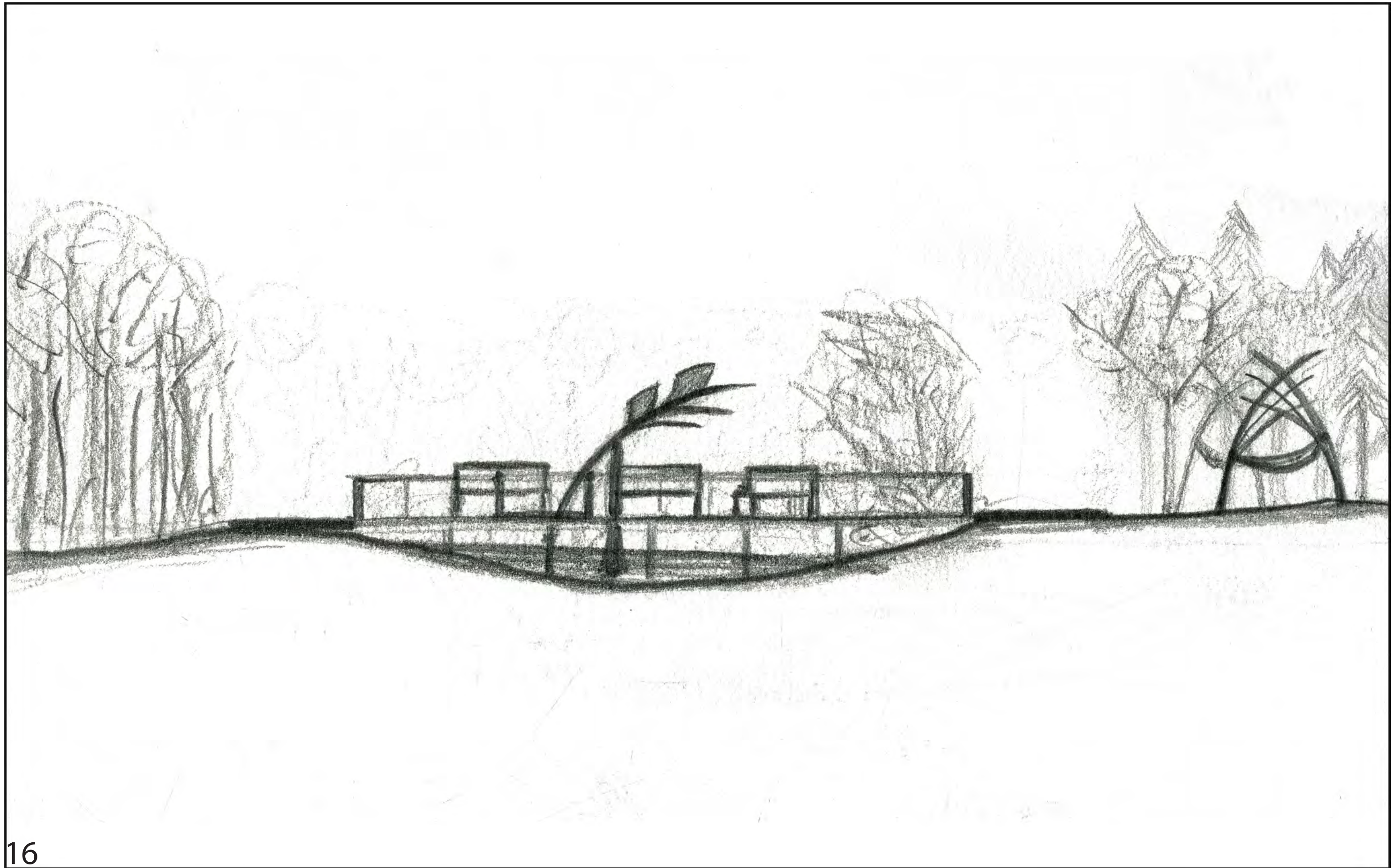
Anthony Howe - Kinetic Sculptures
(wind)

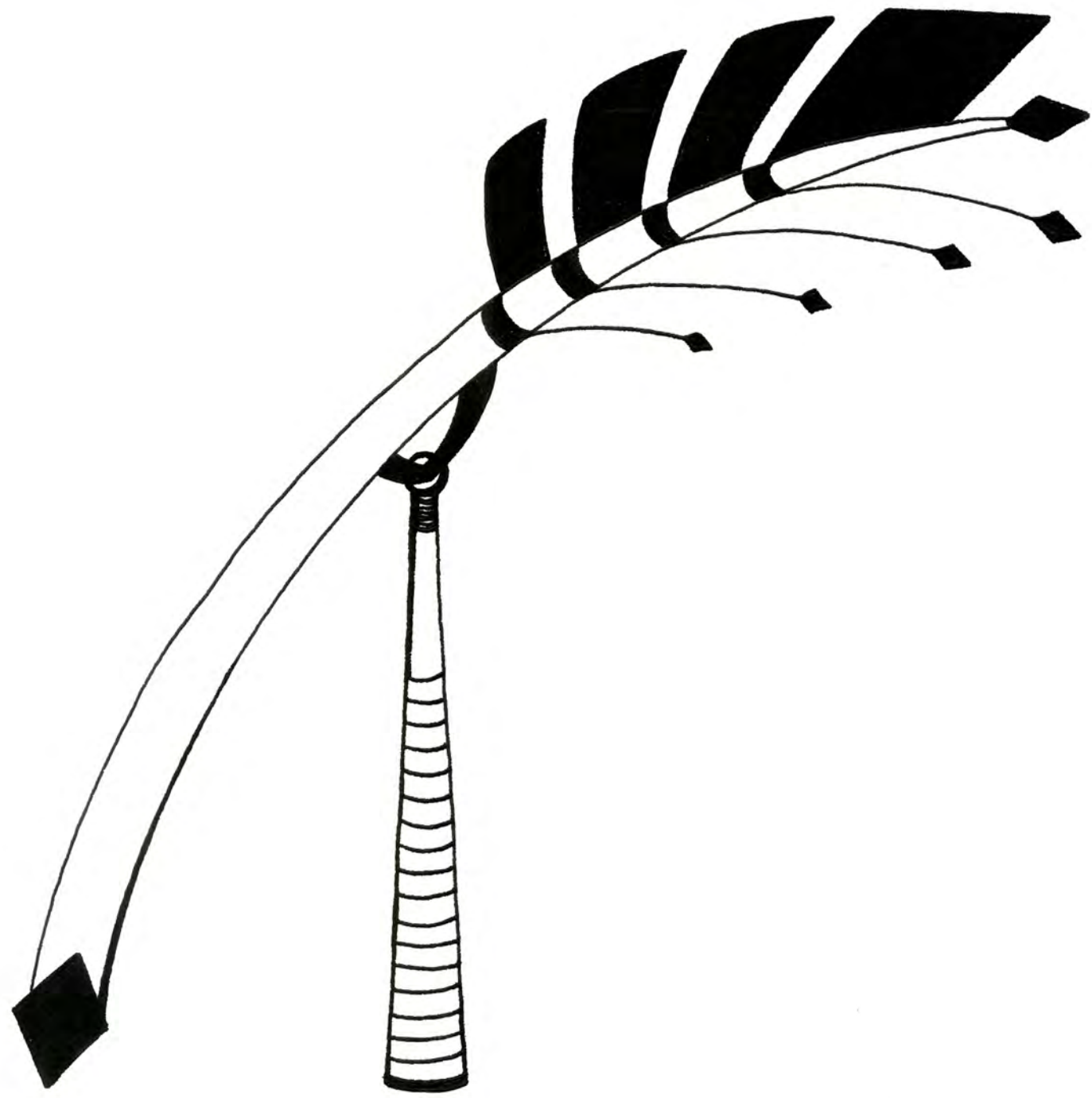


David C. Roy - Kinetic Sculptures

- weight drive "Silver Symphony"
- double pendulum
- random motion
- constant force spring





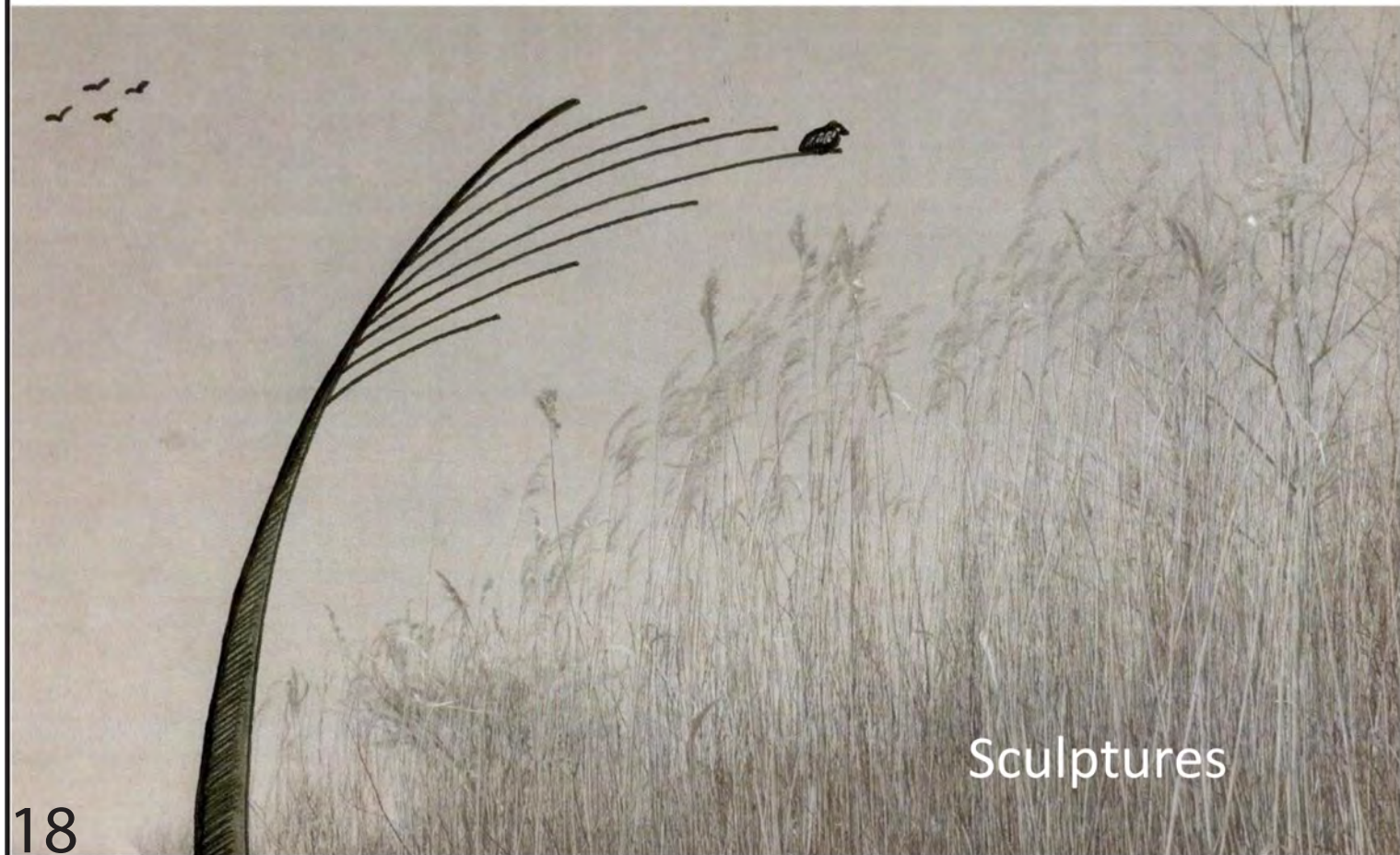




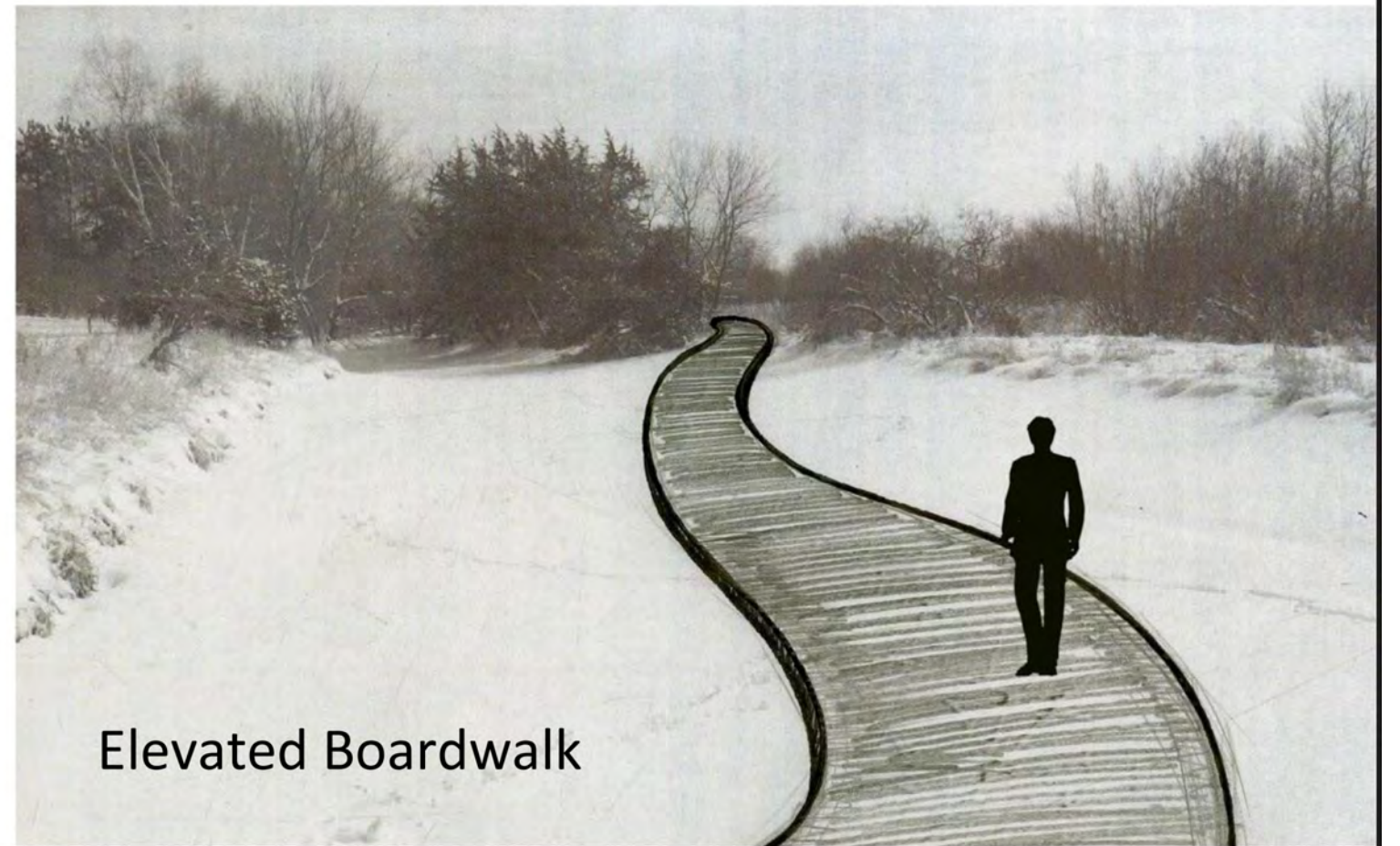
Seating Area



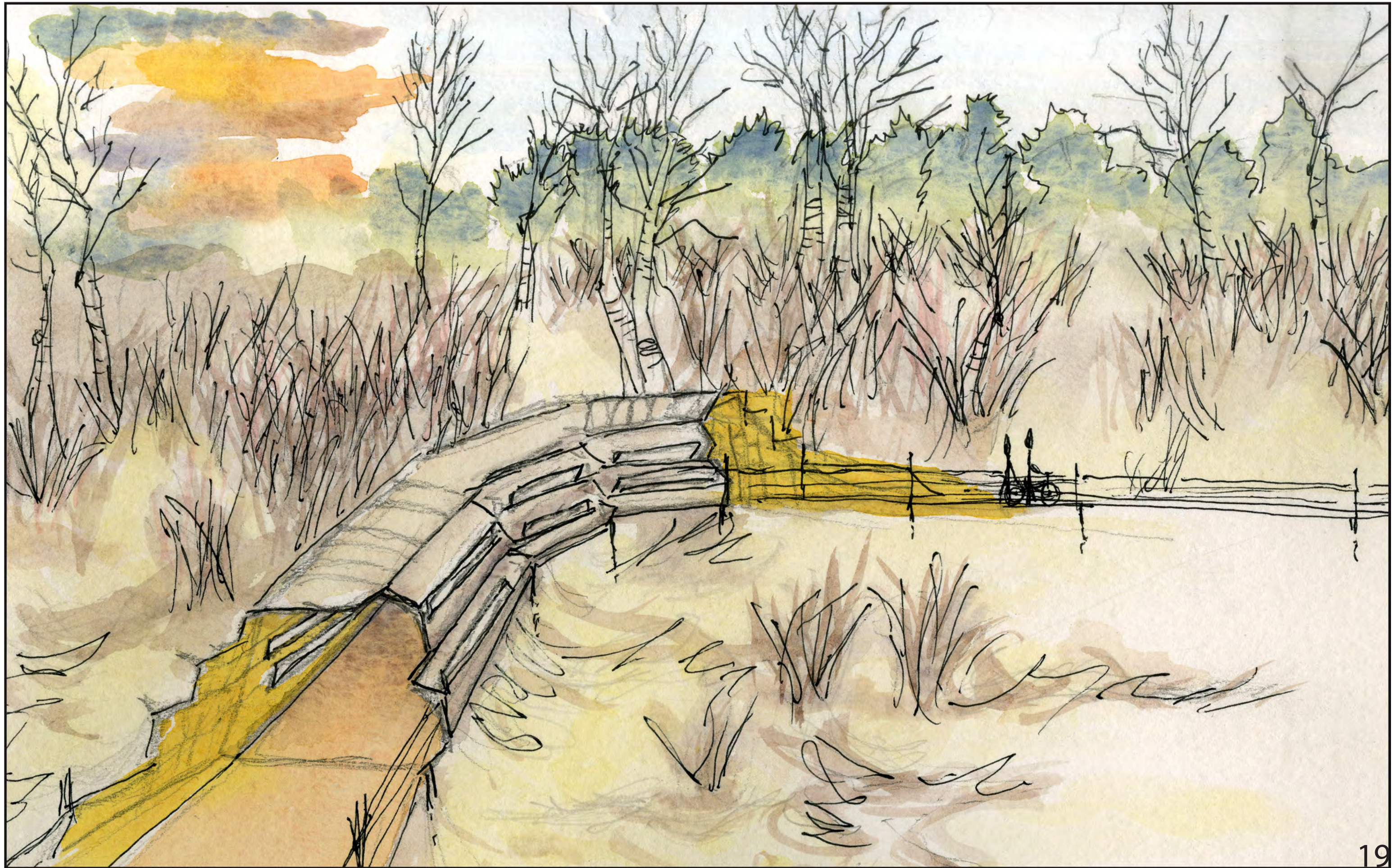
Bird Blind



Sculptures

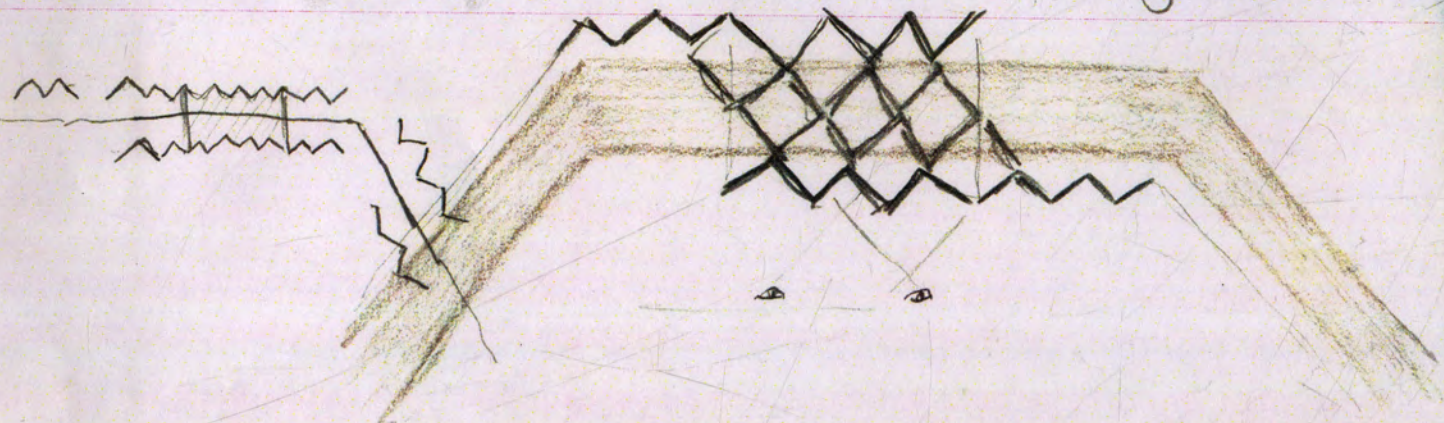


Elevated Boardwalk

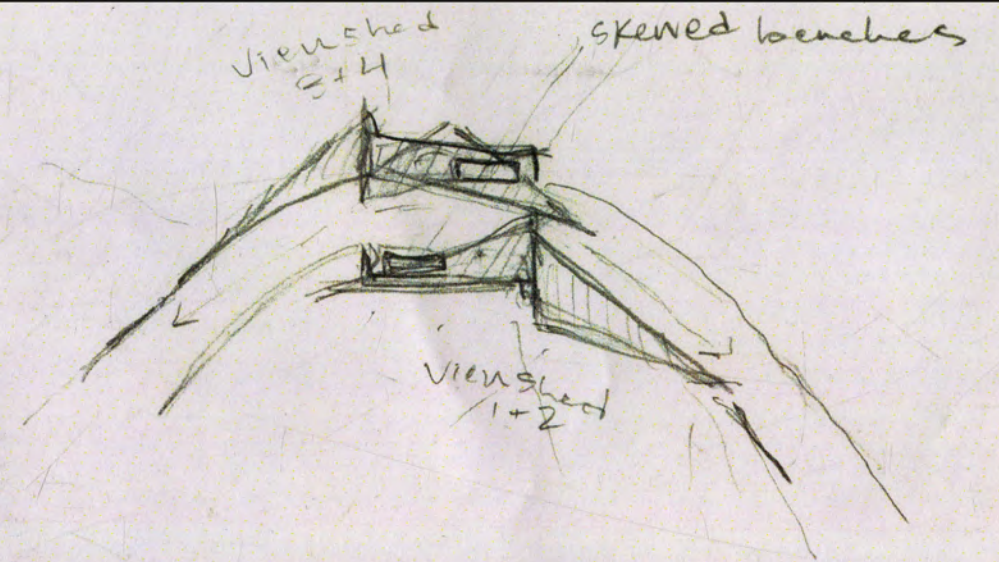
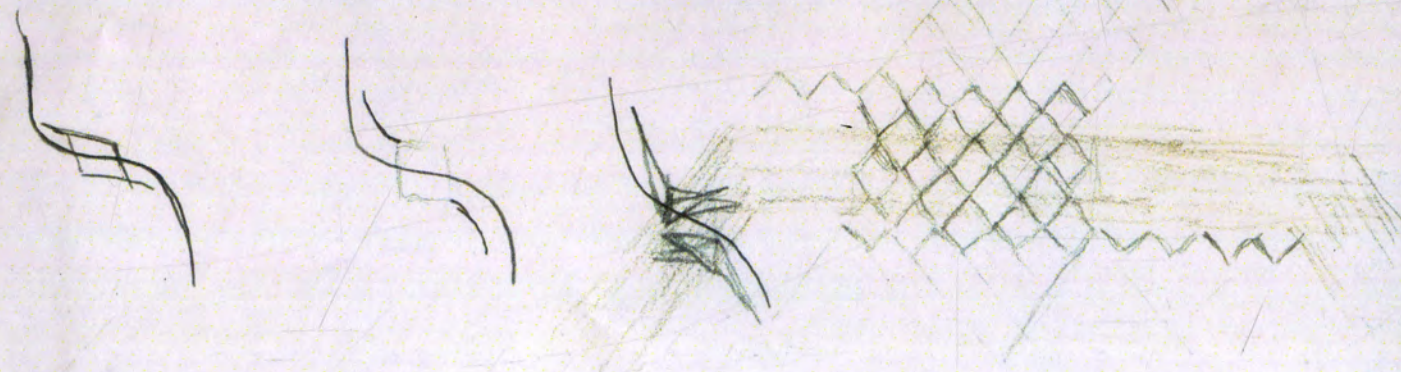




lattice work / pergola



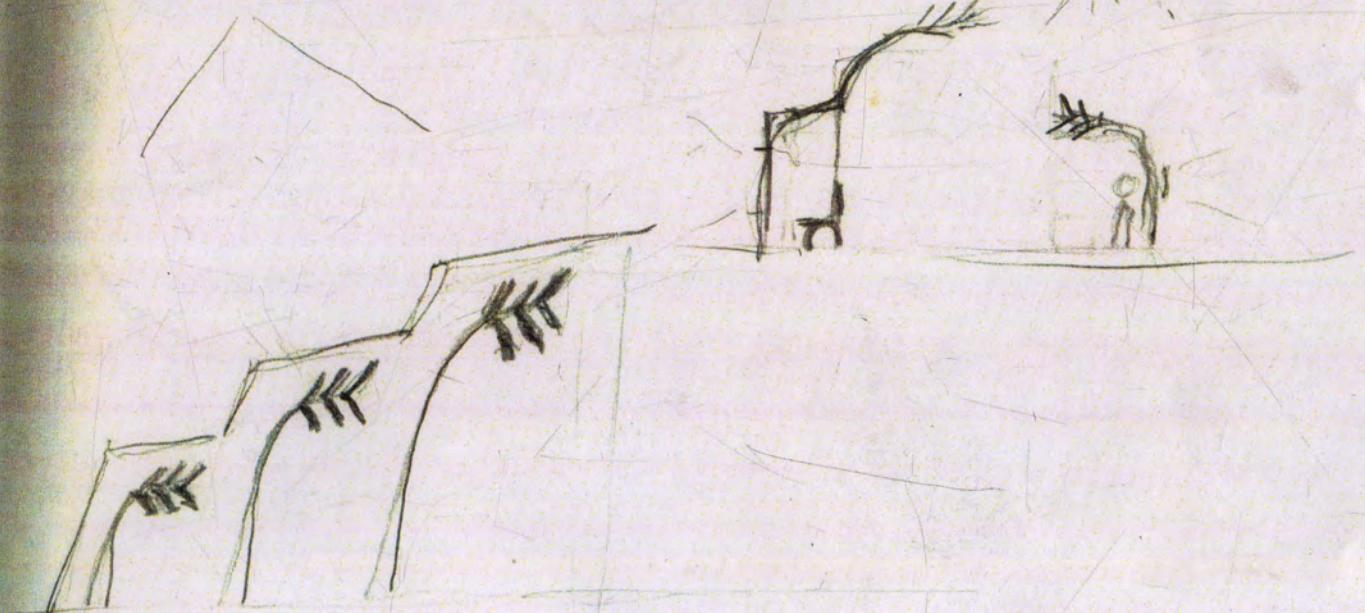
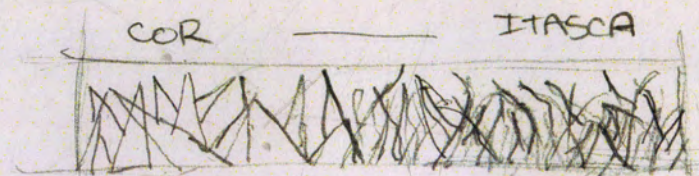
S-trail



viewshed
S+H

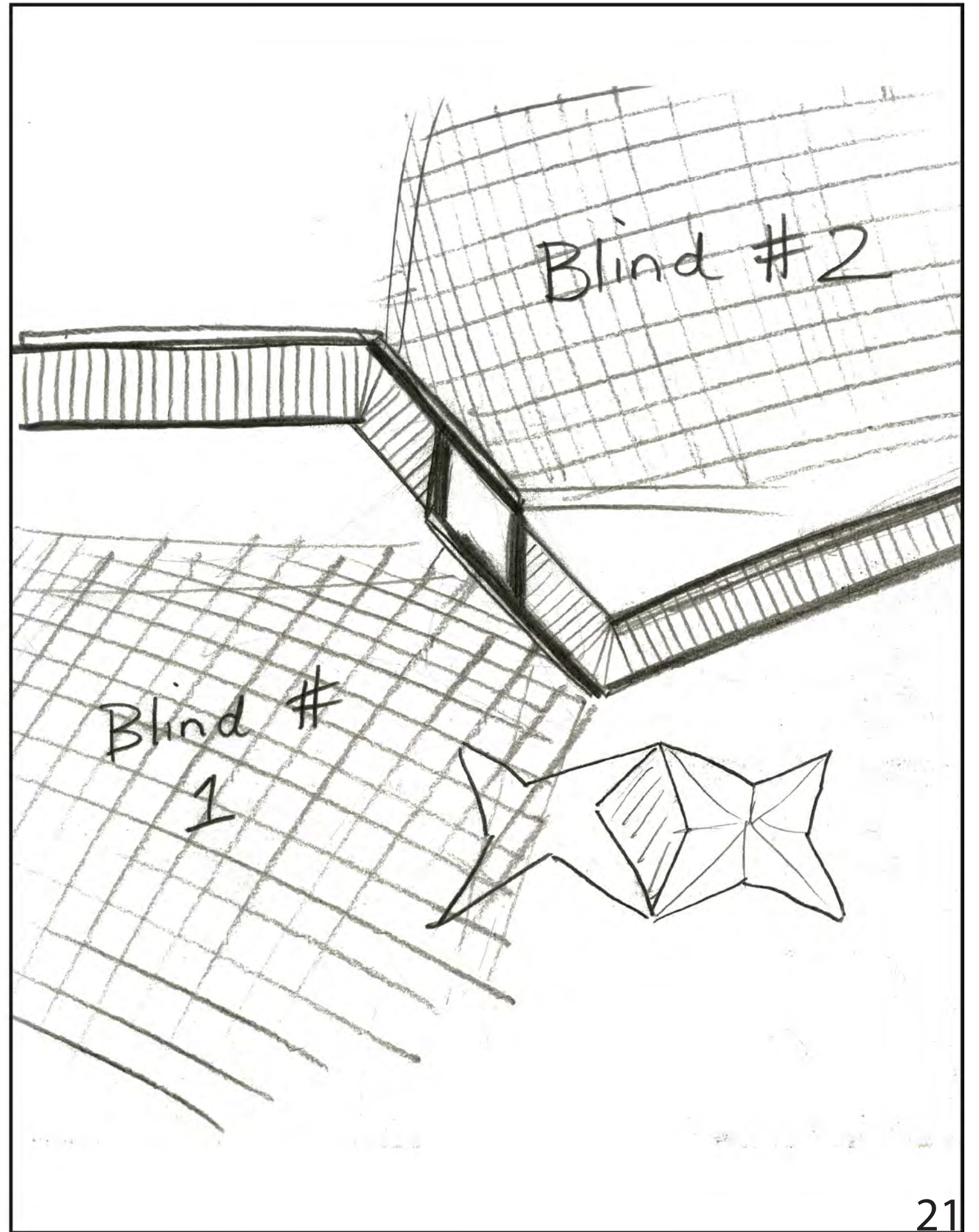
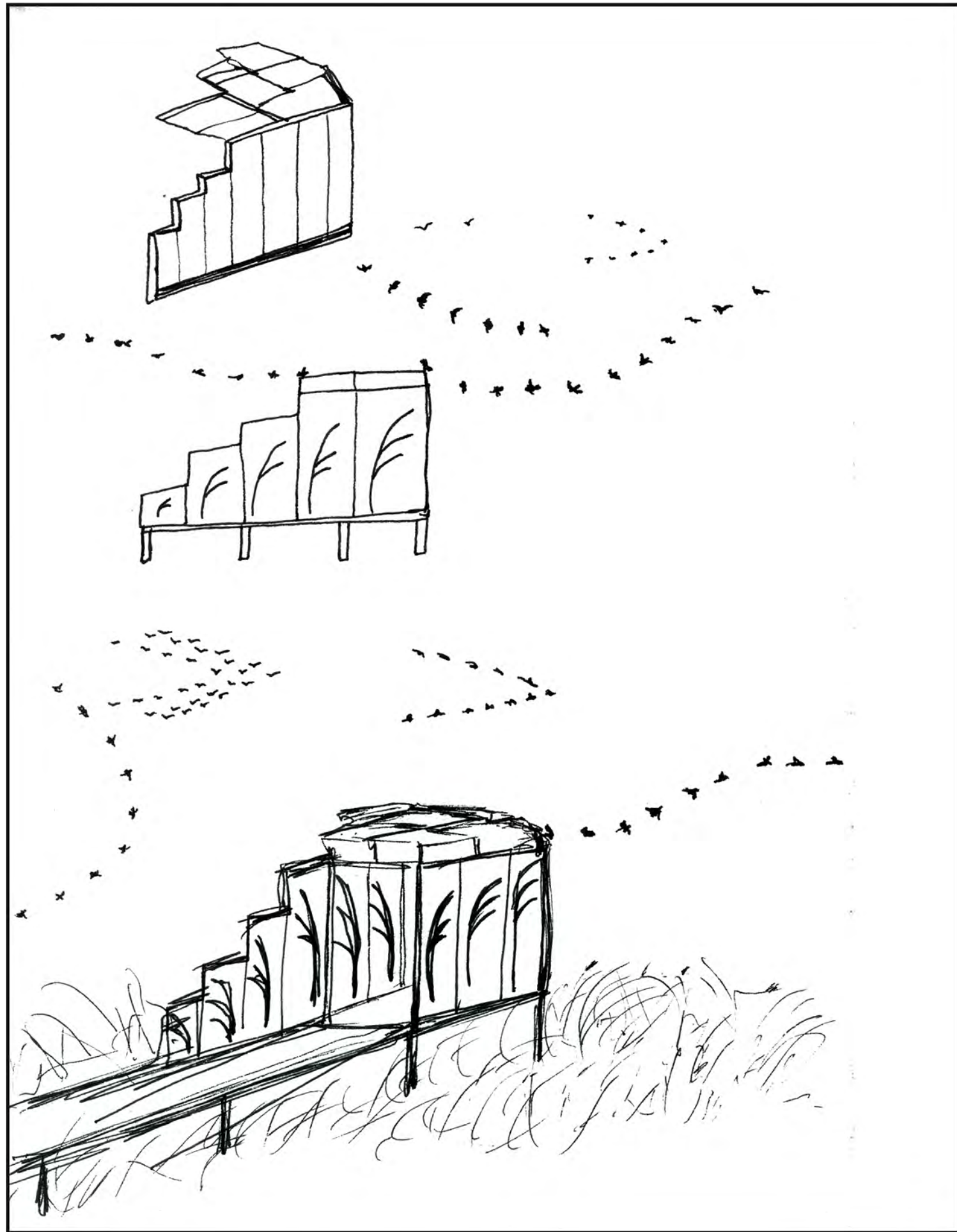
skewed benches

viewshed
1+2

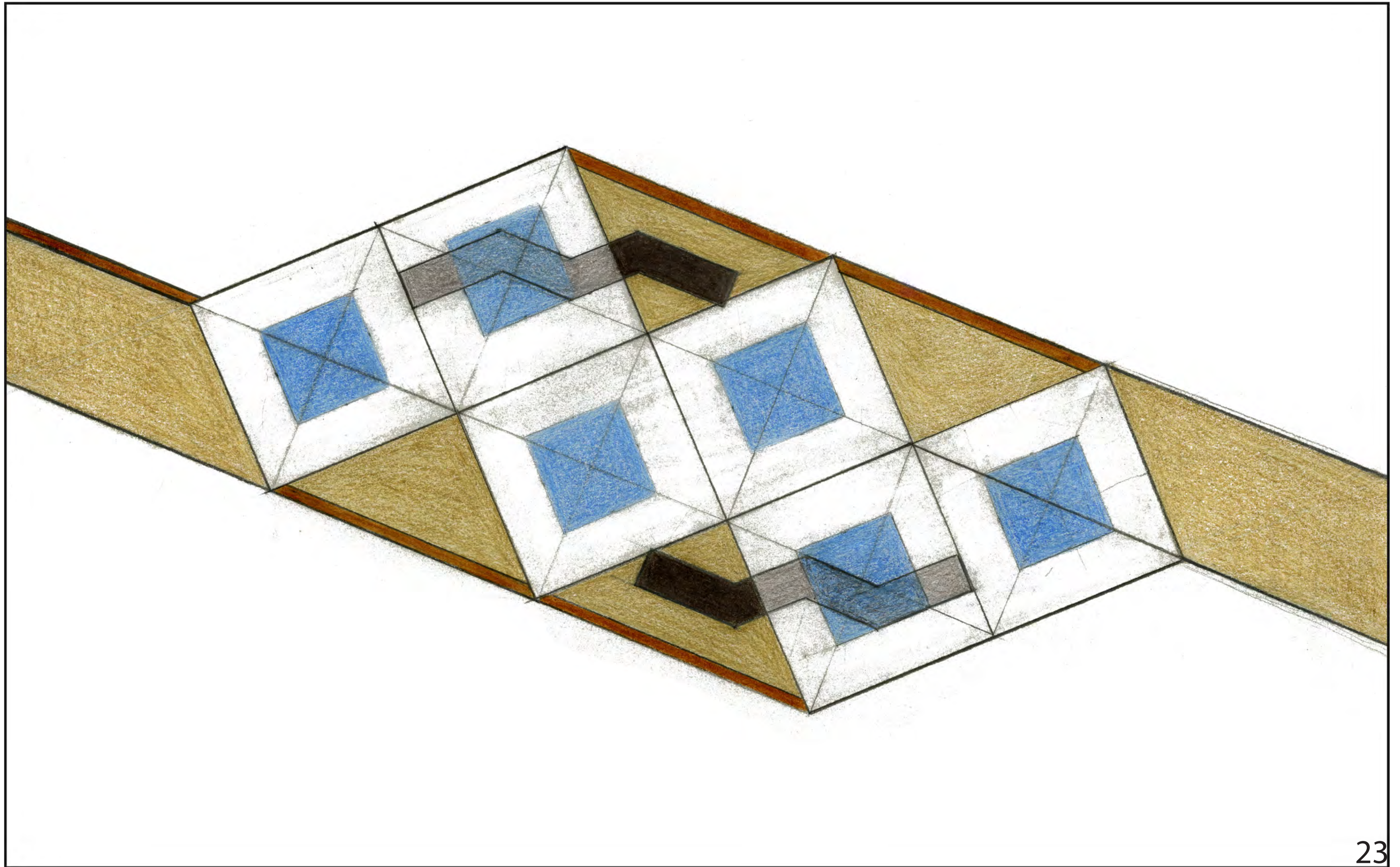


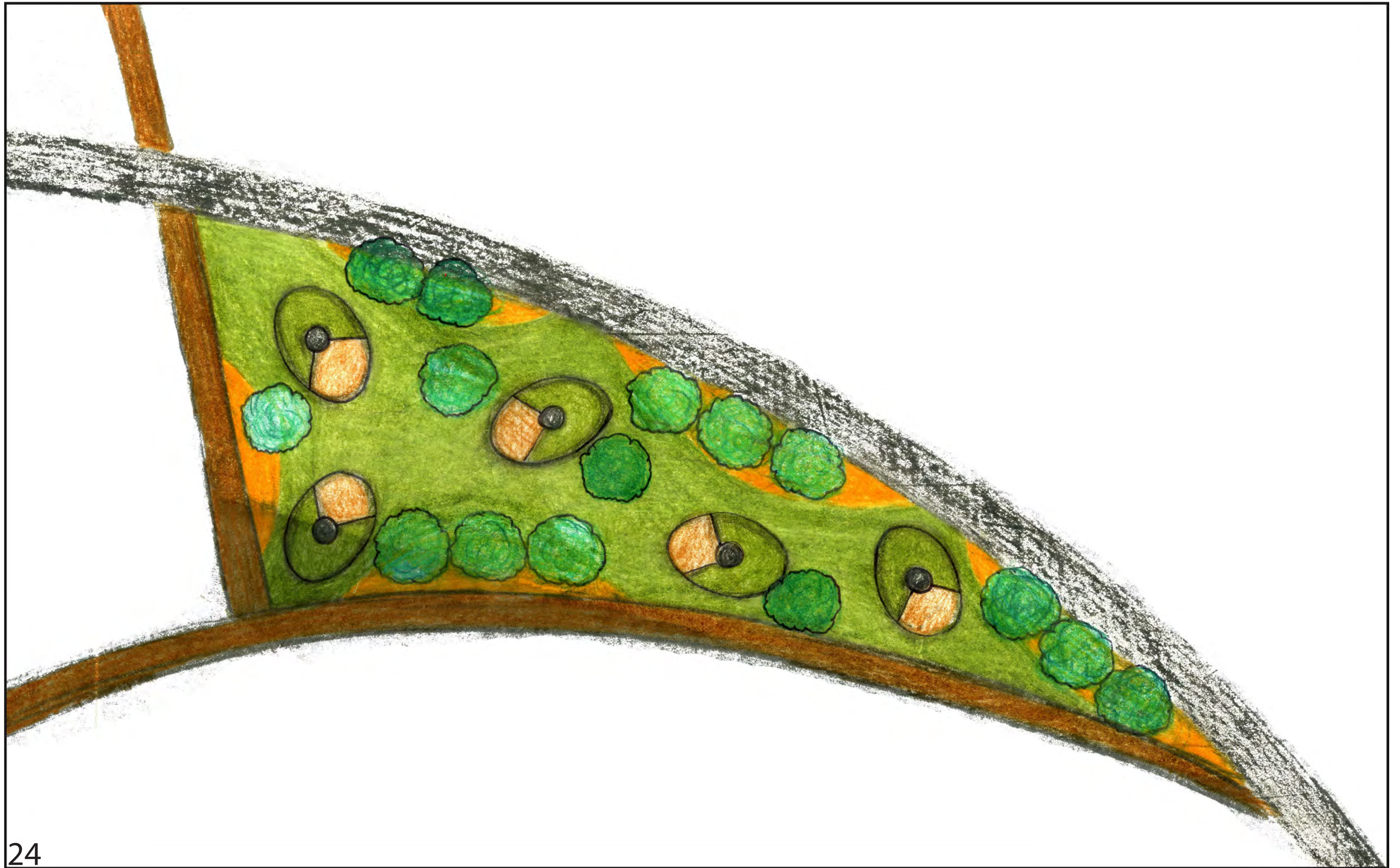
ramp up to
bird blind?

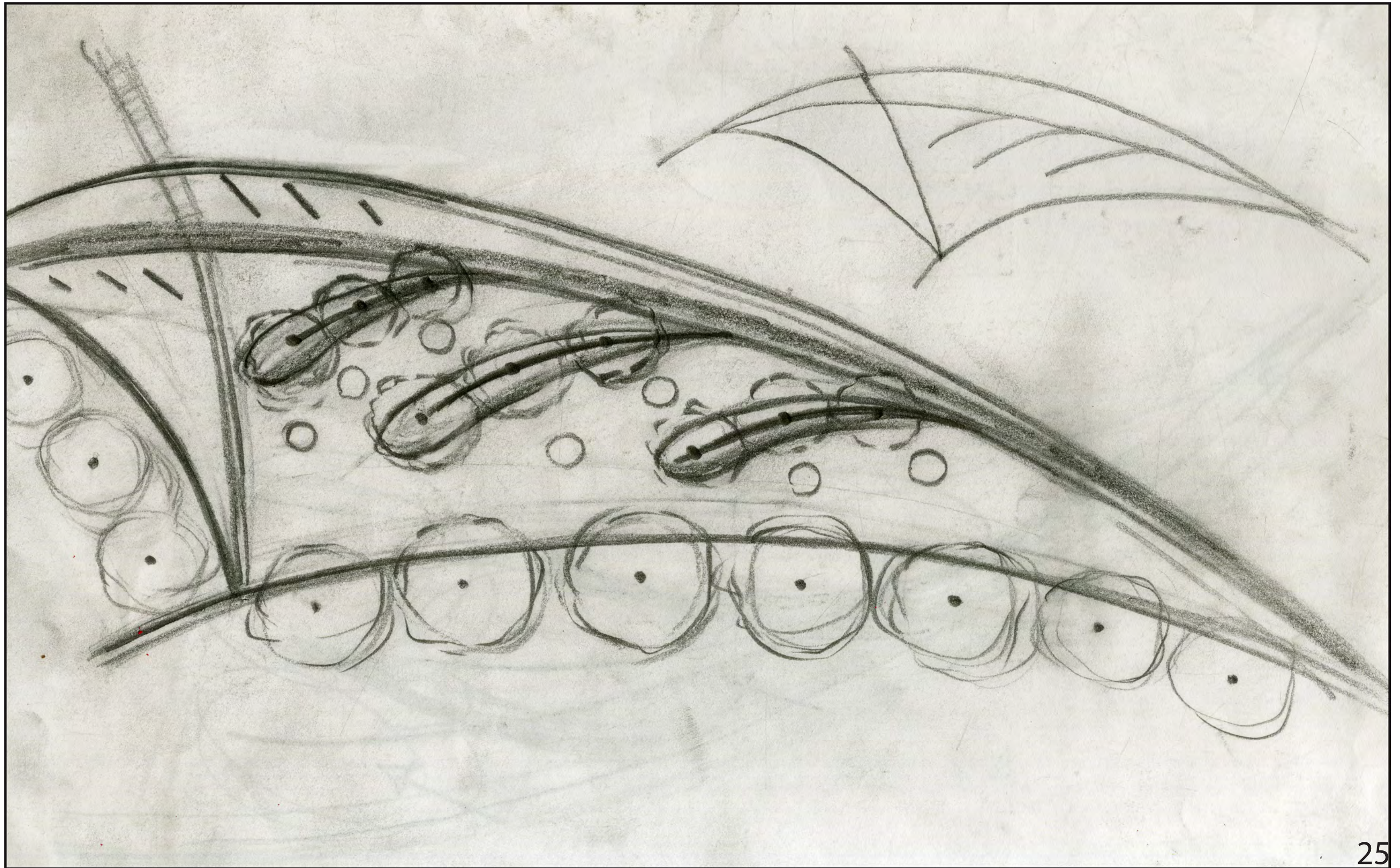


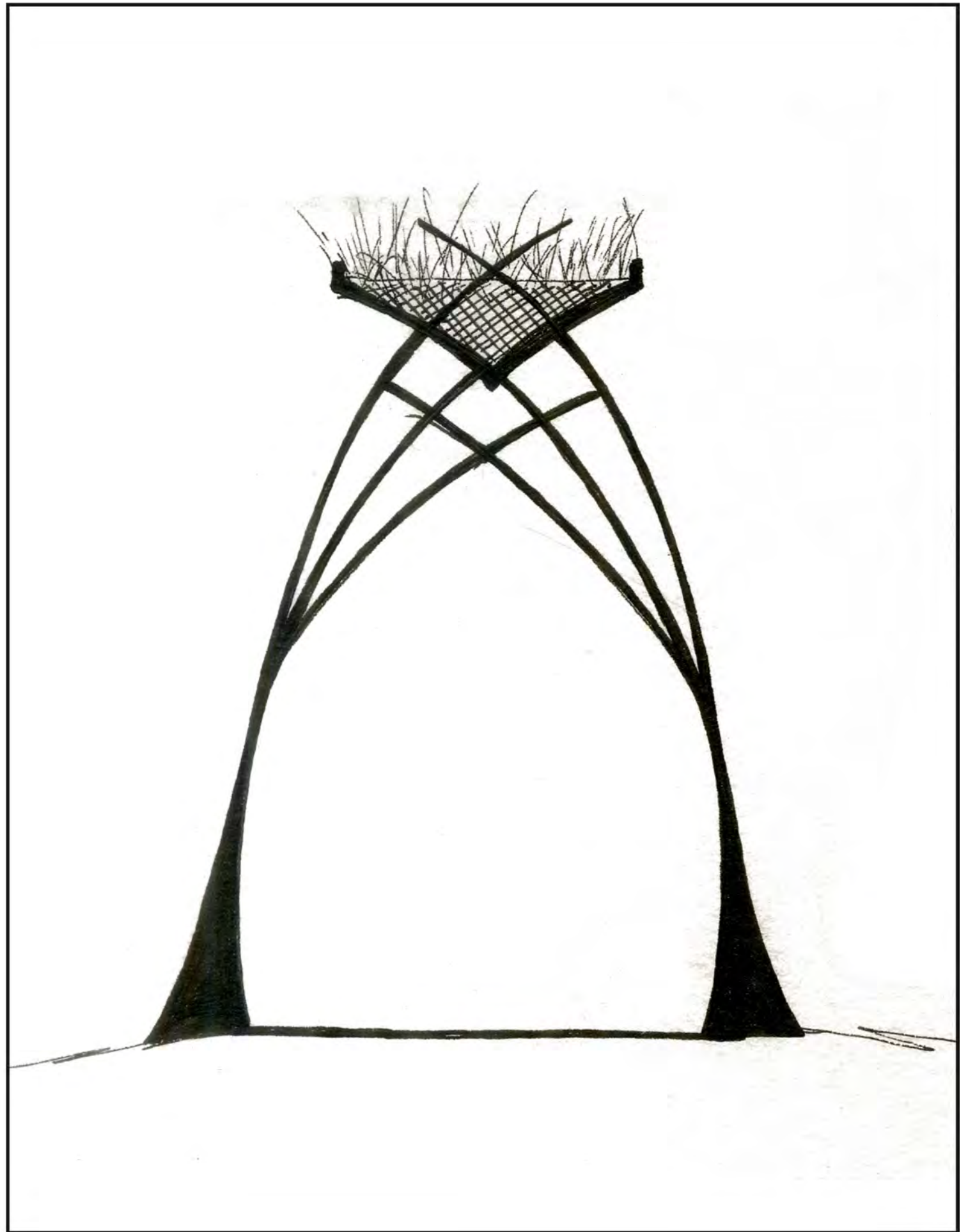
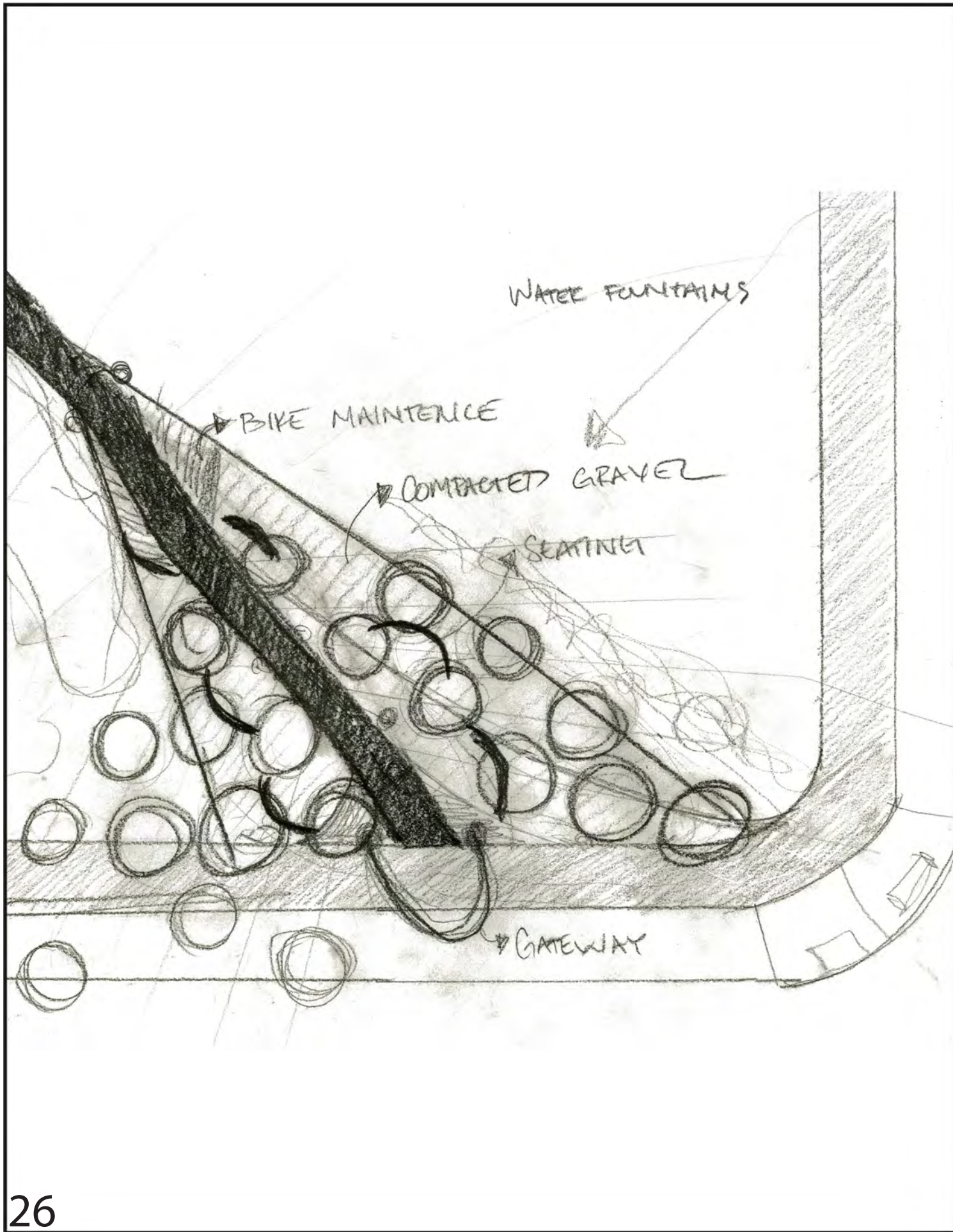






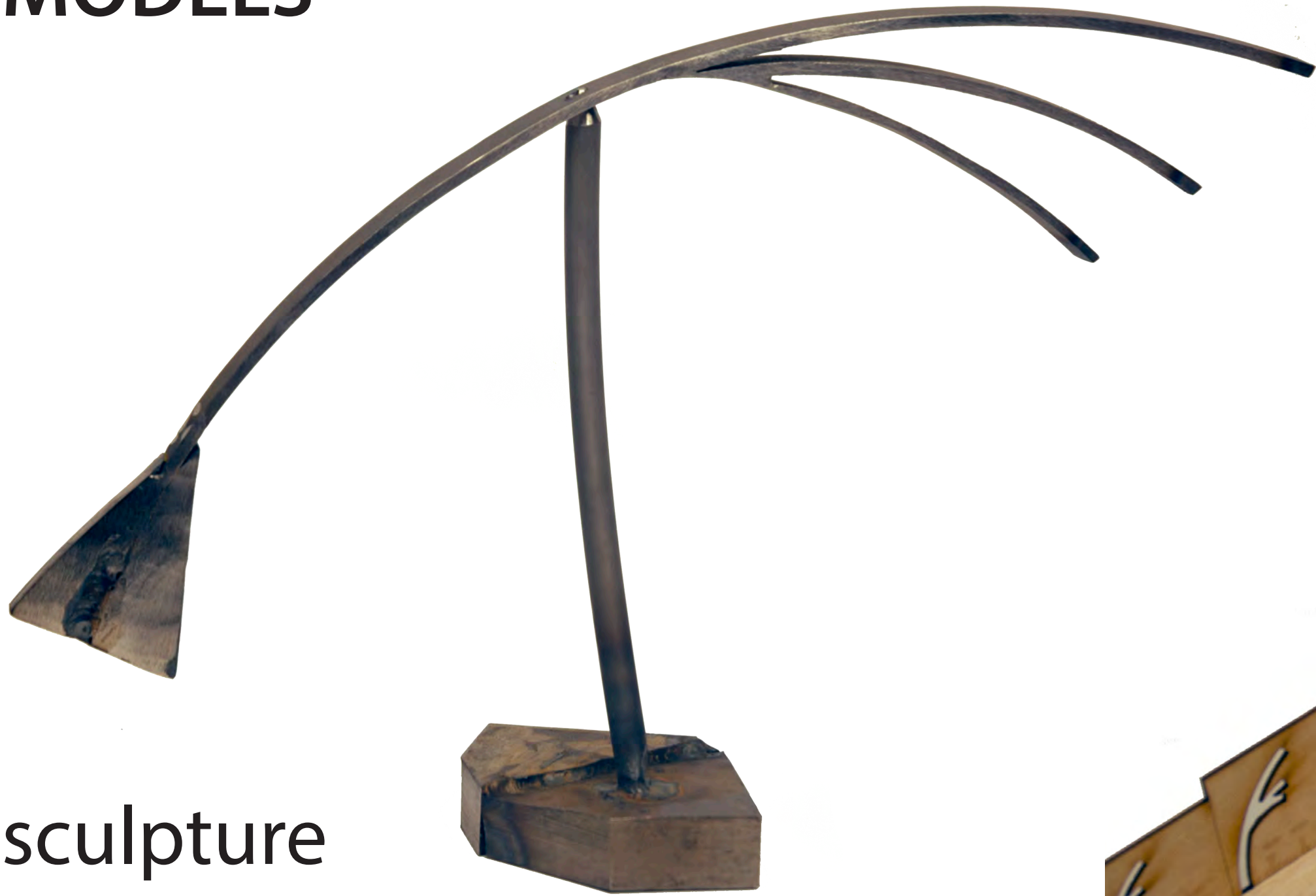




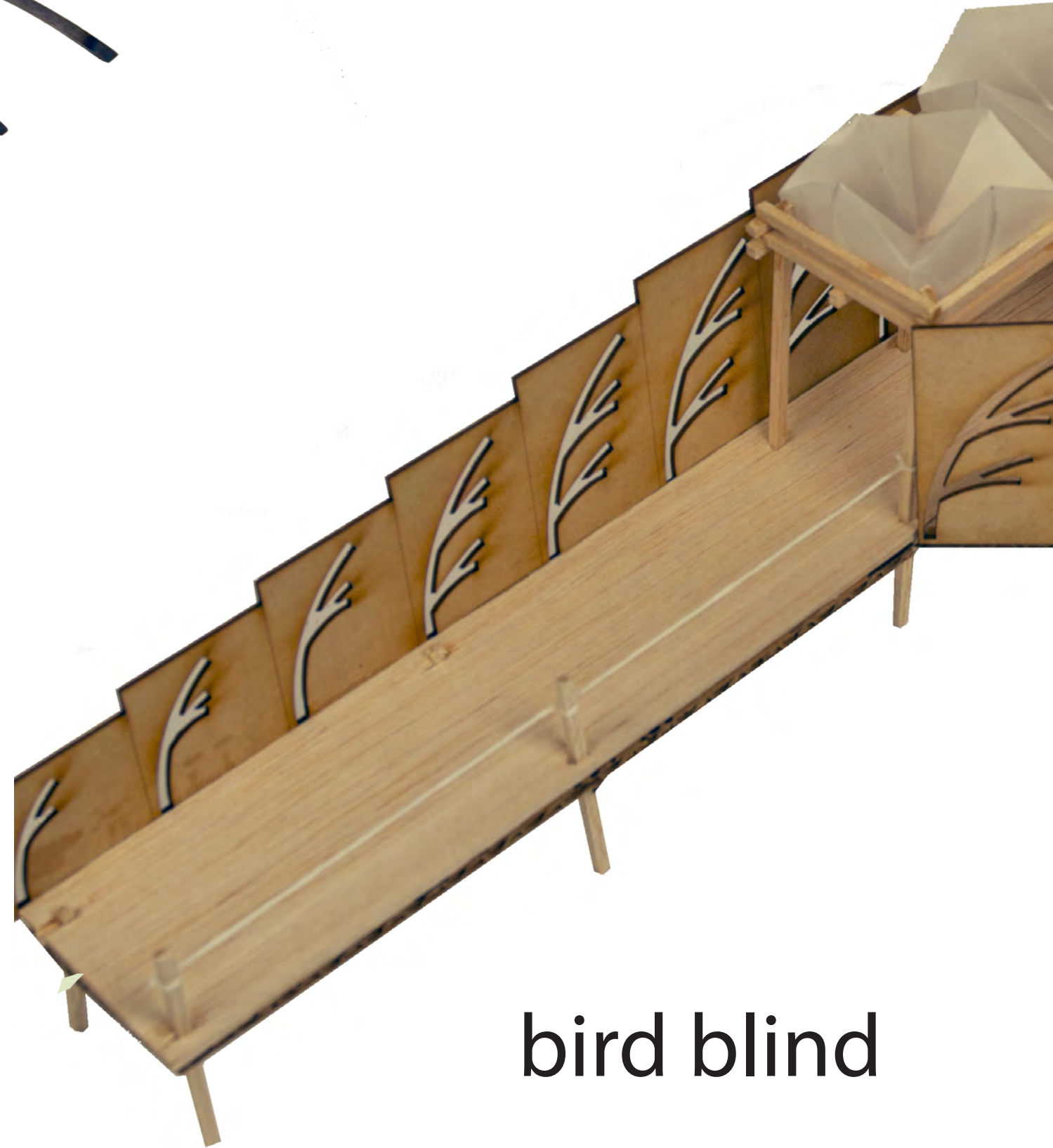




MODELS



sculpture



bird blind





gateway

LAKE ITASCA GREENWAY

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