Project 1: Community Hub

Near 40th and Grant Streets in Omaha, Nebraska is a 9 acre site surrounded by a residential neighborhood adjacent to the Beltline Corridor, an abandoned industrial rail corridor that had traversed the city north to south prior to its dismantling in the 1980's. We will imagine the future of the Beltline as a connected trail and future transportation corridor connecting the important commercial and institutional centers in Omaha. As such, this site can become a well-connected node serving the local neighborhoods and the the surrounding community. We will consider most of the 9 acres as a new park, dedicating 1-2 acres for a new community hub. This hub will provide social space for the community and otherwise activate an under utilized property. The site is made up of multiple parcels, most of which are owned by the Omaha Land Bank.

This community hub will be a place for both people and nature, working with the idea that the future of cities includes design not just for people but for animals, insects, and vegetation. Our program will include animal habitats as well as a branch library (public use) and a small amount of subsidized office or commercial space (private use) for use by the neighborhood. Your challenge will be to think relationally about this mixture of program, working against century-old modernist zoning and design principles that have separated uses, handling buildings as separate from a place, and prioritizing built form over surrounding space and landscape. You will think relationally to the existing structures, site topography, climate, infrastructure and circulation, zoning and boundaries between uses, vegetation and habitat, and current and future uses. Both visible and invisible forces at work on the site will be considered. We will work with a Kayla Meyer, a landscape architect and Omaha Permaculture to for research and design of our urban habitats.

The proposed programmatic mix sets up the potential for a campus or clustering of complimentary spaces and structures. Building form and programmatic relationships will emphasize the space between buildings. We will use programmatic overlap to rethink assumed relationships allowing the uses to be mixed or interchanged in ways that provide surprising relationships.

Project Goals:

- Consider the landscape as an equal player in the site development, creating both active and passive landscapes
- Design will emphasize a future that integrates nature and green spaces into Omaha, providing habitat for other species
- Design and architecture as a continuum of other conditions, not an isolated objectified condition
- Foregrounding the activities, behaviors, use patterns, flows and dynamics of the projects' living beings including humans, animals, insects, and plants
- "Seeing" the site as a complex, multi-layered condition of the history, culture and dynamics of human settlement as well as the natural processes

Representation of the project will work toward drawings that are activated, detailed, literal, and specific, where conventions for human inhabitation are given equal weight as the site and animal habitat. By developing an extensive set of symbols and graphic convention that describe human activity, architectural elements, animal habitat, and vegetation, we will have a better understanding of space planning and a fuller understanding of species-specific behaviors. Hatches and pattern fills representing textures will contribute to the representation of our designs as integrated into the site.

P1.1: Site Investigation and Mapping

The form that evolves during the design phase will "learn from the site." This mapping exercise will allow you to better understand what is going on within the site and how existing physical form and conditions have evolved from both visible and invisible forces. Mapping and the synthesis of information should allow you to evolve an attitude toward the site, which will affect your decision-making, and there may be elements that overtly provide geometries, formal qualities, and delineation of different spaces. The literalness of interpretation will be up to you.

Teams will be formed to execute the inventory and analysis:

Team 1:

- Zoning, Building Use, and Ownership
- Demographics

-This team will also gather building code information for the future design phase regarding setbacks, building typology, parking requirements, bathroom fixture counts, and egress

Team 2:

- Existing habitat and ecologies
- Slopes analysis and hydrology

-This team will also research city of Omaha landscape requirements

Team 3:

- Circulation, Infrastructure and Transit
- Detailed look at physical properties and conditions of infrastructural elements

Team 4:

- Existing structures, age and condition
- History and culture
- Spatial definition/boundaries/edges analysis

Team 5: Quality control

- This team will consist of 1-2 people from each of the other teams that will draw backgrounds, be in charge of graphic accuracy and legibility while other team members focus on their assigned inventory and research elements

Additionally each team will pursue 1-2 more detailed inventory based on our initial impressions of the site and observations of physical traits tied to behaviors near the site.
(What are the physical elements and traces that reflect informal behaviors, how people use their outdoor space and neighborhood? What are the moving pieces that are important to consider?)

- signs of how people use the neighborhood or DIY culture
- have people altered their houses? what do people have in their backyard?
- signifiers of relationship of commercial uses to residential uses - signage, use of color
- informal paths and land use (not city condoned)
- fences and other boundaries, signs
- use of streets and infrastructure - types of vehicular traffic, speeding traffic, potholes
- noise
- more detailed look at building materials, patching, and renovation
- indications of drossscape - junk, trash, dumping, pollution

Representation

Mapping will be performed at two scales in order to capture the relevant information, scales TBD. Graphic consistency and legibility will be of utmost importance. Recording of information through drawings must be accurate.

P1.2: Graphic Library: Site Program and Building Elements

To help generate design solutions we will build two libraries to be shared by the class: a 2D graphic library of programmatic elements, and 3D elements that help catalyze ideas of spatial definition.

P1.2a. Site program and 2D library

Below are the programmatic elements for the project. This is loose and can be added to or subtracted from depending on how your project evolves. Consider access, circulation, and control points necessary for all programmatic elements.

• Habitat for at least 2 non-human species including vegetation and other conditions that provide ideal place for this animal/insect to live	1-2 acres
• Location for nature appreciation/interpretation	
• Connective paths, walks, and public spaces to connect to the neighborhood and city	

• Public library
  • Stacks, computer lab, check-out desk, offices and admin.
  • Bathrooms and drinking fountains, mechanical spaces, and janitor's closets as required
	2,000 sf

• Leasible office/retail bays	3,000 sf
• Snack kiosk or cafe	200-500 sf
• Public space - develop at least 3 public space amenities to complement the library and park use (outdoor classroom, outdoor reading area, playground)	
• Parking (quantity determined by zoning requirements for Omaha zoning requirements)	

Process and Representation

1. The program will be divided up among teams. Teams will become acquainted with the program through observation and research of real life approximations. Through observation (taking notes and photographs) and looking at graphic standards, you will come to understand the following programmatic elements for qualitative and quantitative requirements.

2. Draw the program in plan and section in a detailed way showing use by including scale figures of animals and people. Use line weight, line type, hatch, shade and shadow to create legible and graphic drawings. These drawings will become our symbol library for the next phase.

P1.2b. 3D library: Spatial definition

Each student will build a model that will contribute to a 3D library of building elements that explore spatial enclosure and definition using the following rules. The goal of this assignment to generate ideas of how we think about the relationship of the building envelope to outdoor space. The models will become part of a 3D library shared by the class.

1. Use a grid module that is 9 squares in size, in any configuration, each square to be 2"x2"
2. Design a gradient of conditions describing the minimum to describe spatial enclosure to maximum of spatial enclosure.
3. Shows conditions of enclosure, extension, and continuity
4. Use addition and subtraction for architectural and landscape elements: walls, partial height walls, eroded walls, roof planes, ground plane surfaces, other seating elements, structural rhythm, threshold, aperture (punched opening), screens

5. Use 1/8" foam core, blue foam rigid insulation and paper elements to help describe the building elements and surface treatments that describe spatial definition and spatial extension

1.3: Site design

Steps to start:
1. With an attitude toward your site, start arranging program on the site starting with 3 iterations:
    1. Grid (allowing stretching and rotating)
    2. Random casual
    3. One strip or multiple strips
2. Accompany each of these with an idea about site circulation, access, and overall future use of the site.
3. Continue to integrate the ideas of spatial definition and extension learned from Phase 2b.
4. Consider mixing and matching program in unexpected ways

Final project deliverables:

- physical model, scale TBD
- overall site plan
- plan, scale TBD
- site sections, scale TBD
- axonometric, scale TBD

Project 1 Schedule

Week		Due
Week 1	M: studio selection, Syllabus Intro, Project 1 Intro, team selections, start backgrounds W: P1.1 mapping discussion, work on background s and research, prepare for site visit F: P1.1, site visit with Kayla	M: W: readings due, F: draft of backgrounds due
Week 2	M: P1.1 W: P1.1 site visit and meet Omaha Permaculture F: P1.1	M: review drawings W: F: review drawings
Week 3	M: MLK day W: P1.1 Review of mapping, reading assignment F: Part 1.2a	M: W: Mapping due F: reading assignment due
Week 4	M: Part 1.2a W: Parts 1.2a and 1.2b F: Parts 1.2a and 1.2b	M: drawings printed, review work W: review models F: review final models and drawings
Week 5	P1.3 design development	
Week 6	P1.3 design development and representation	
Week 7	P1.3 design development and representation	
Week 8	M: Project 1 reviews	

Readings and reference:

Readings:

O'Donnell, Caroline. *Niche Tactics: Generative Relationships between Architecture and Site*. New York: Routledge, 2015.

Giedion, S. *Space, Time and Architecture: The Growth of a New Tradition*. Cambridge, MA: Harvard University Press, 1980. Print.

Pope, Albert. *Ladders*. New York: Princeton Architectural Press, 1996.

Lynch, Kevin. *Site Planning*. Cambridge, MA: MIT Press, 1962.

https://placesjournal.org/article/everything-sings-maps-for-a-narrative-atlas/?cn-reloaded=1

Denis Wood, "Everything Sings: Maps for a Narrative Atlas", https://www.youtube.com/watch?v=xISTgUj7JcQ

Drawing reference:

Atelier Bow-wow and Studio So-il

Ramsey Sleeper Architectural Graphic Standards

Landscape Architectural Graphic Standards

Other:

International Building Code, 2012 Edition
Omaha Zoning Code, Omaha Municode
Douglas County GIS, https://www.dogis.org/Html5Viewer/?viewer=dogis
Omaha Permaculture: http://www.omahapermaculture.org