SCALE OF DESIGN

1. REGIONAL GATEWAY: TRI-E FACILITY
2. AFRICA RENEWAL UNIVERSITY
3. ALAMDEDA LIGHTRAIL DEVELOPMENT
4. ENVIRONMENT LEARNING CENTER
5. MORGAN LIBRARY: SOCIAL STUDIES
6. VEDAUWOO: NATURE CAMPUS
7. GRAPHIC MOVEMENT
1. REGIONAL GATEWAY: TRI–E FACILITY

To design for a region depends on the collection and application of research for a variety of populations and systems. This information combined, not only provides function, but well justified solutions to preserve key natural reserves, reusable post-industrial sites and providing opportunity to expand and involve the local community and culture.
Most of any regional scale will have more than 2 distinct functions. To filter, use GIS, site photos, and even trail maps. Using the new Sustainable Sites Initiative (SSI), benefits and warnings of site use were explored highlighting multi-functions for various site elements.

Or with editing software, I imposed the information to reveal function/distinction relations. Looking at the negative space of the info revealed land of least disturbance for development. A concept map began character of design and finally at the city scale, could the design take true form.

### Sustainable Sites Initiative Analysis

| Vegetation | Information collected | How can this information influence site design  
|------------|----------------------|--------------------------------------------------------------------------------------------------
| Switchgrass  | Natural vegetation | Highly effective for rainwater harvesting and erosion control.  
| Tall Fescue  | Natural vegetation | Good for erosion control and soil stabilization.  
| Big Bluestem | Natural vegetation | Suitable for cold climates and drought tolerant.  
| Sunflower   | Natural vegetation | Attracts pollinators and provides food for wildlife.  

### Natural Habitat

- Ponds
- Streams
- Wetlands
- Auger holes
- Nests

### Watershed

- Drainage basins
- Riparian zones
- Floodplains

### Waterways

- Rivers
- Lakes
- Reservoirs

### Topographic Model

- Elevation changes
- Slope
- Aspect

### GIS Inventory

- Land use
- Natural preserve
- Solar field
- Poudre River

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Information collected</th>
<th>How can this information influence site design</th>
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<tr>
<td>Transit station</td>
<td>Site feasibility</td>
<td>Site selection for future transit sites</td>
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<tr>
<td>Tri-E facility</td>
<td>Site feasibility</td>
<td>Site selection for future multi-modal facilities</td>
</tr>
<tr>
<td>Welcome center</td>
<td>Site feasibility</td>
<td>Site selection for public Welcome centers</td>
</tr>
</tbody>
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- With editing software, I imposed the information to reveal function/disfunctional relations.
What do you get when business, agriculture, and science collaborate?

A research community and facility provides venue for a nearby university to study, work, and live adjacent to the local nature preserve and agriculture.

The creek/bioswale spine collects/cleanses water via a variety of mitigation pools before deposit into the Poudre River watershed.

<table>
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<tr>
<th>Nature Preservation</th>
<th>Bio-remediation Park/Turf</th>
<th>Agriculture</th>
<th>Community Garden</th>
<th>Main Research Facility</th>
<th>Hotel/Residential/Hotel</th>
<th>Public Space/Nature Trail</th>
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<tr>
<td>ECONOMIC</td>
<td>EDUCATION</td>
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<td>TRi-E Facility</td>
<td>FACILITY/Building Use</td>
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<td>PUBLIC</td>
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<td>PUBLIC vs PRIVATE</td>
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Shallow Marsh: shallow filtration, important to migratory birds.

Mud Flats: shallow filtration, important to migratory birds.

Wet Meadow: phytoaccumulation, phytovolatilization, aquatic habitat.

Open Water: sediment deposit and solar exposure.

Water filtration stages:

- Shallow Marsh: shallow filtration, important to migratory birds.
- Wet Meadow: phytoaccumulation, phytovolatilization, aquatic habitat.
- Mud Flats: shallow filtration, important to migratory birds.
- Open Water: sediment deposit and solar exposure.

FORT COLLINS: TRI-E RESEARCH FACILITY
The Community Gardens are the capstone for community. The gardens become a new landmark presenting a variety of rooms each with unique experiences. Kids and parents, enjoy the fun of growing food, community identity and the outdoor/active lifestyle Fort Collins has.

A variety of areas such as the farmers market pavilion; orchard; community fields and node; rain garden; riparian perect; wind turbines; and the interpretive garden structure-30’ tall exhibit of color, education and a variety of plants; all provide plenty of excitement, education, community growth, and interaction for parents and kids alike.
2. AFRICA RENEWAL UNIVERSITY

The community requires design that reflects the local culture. To pull away from the paper and act as an investigator to understand the foreign needs and site specifics. This is important for collaborating with the various engineers that were working on the site as well. To reach the community requires solutions that connect directly with the individual’s scale.
Volunteering in Africa, I had the first time experience to collaborate with a wide range of engineers and locals. The goal was to use culturally identifiable functions and create multi-purpose solutions. With limited technology and need to share ideas, my hand graphic skills were a key tool to communicate.

What we consider LEED and new technology, the local culture had been doing for the past centuries:

a) building placement for full light
b) rainwater collection
c) shade and vegetative planting as natural cooling systems
Connection is one of the most needed elements in the world we live. Visual, access, economical, environmental, the list goes on and on, but when connections are not healthy, a vein of our life seems to die. The community scale requires noting connections between districts and the existing. Modern day examples include pedestrian and transit oriented developments.
Historical city figuregrounds and charcoal reductive drawings explored and integrated the three arteries (waterways, interstate traffic, secondary traffic) into a pedestrian focused multi-purpose community.

With a rough concept, I drew Sequential Experiences of patrons traveling in the space. Such drawings shared ideas of major aspects of the function, character, and details contributing to the final design.
Even at a view from above (maybe from a helicopter, opposite page), one starts to see various elements juxtaposed creating a multipurpose space. Adhering to a unique district, take the speed of use (quiet residential or busy commercial), and apply the various uses/connections of a site and a multipurpose design is created.
4. ENVIRONMENT LEARNING CENTER

Like a room in a house, districts are defined by their unique purposes in a landscape (ex. commercial, housing, natural preserve). The Environmental Learning Center is a district set to fuel interaction between the community and its natural environment. The scale of design focuses further down to elements such as topography, vegetation, and materials that create experiences addressing the district's purposes.

Tangible models were done to explore these materials and their effect within the site.
The Environmental Learning Center is inspired by the motion of a nearby suspension bridge. An earthwork compression/release (dubbed the “Swagger Allee experience”) occurs as alternating hills reveal specific views of surrounding natural habitats and the site rooms.
5. MORGAN LIBRARY: SOCIAL STUDIES

An experience comes not only from a concept but on the details: texture, tone and accessibility. “Social Studies” Courtyard is no exception where function inspires concept and concept inspires the interaction (details).

The sequence of drawings depict the inspired form of bookshelves used to conceptually imposing two distinct experiences in a constricted space.
At site scale the location of elements begins to direct focus through methods such as screen and revealing. The allee of trees mimic shelves creating enough space for an individual to sit comfortably, the sunken lawns open for larger social gatherings.

For a fluid and effective experience, design must be taken to the intimate scales. In "Social Studies", construction details were the foundation to create the unique experiences in such a small space.
Commuting to the office everyday wasted too much time at the stop lights. Using pads of paper and scraps, I would do quick sketch studies during the stop light, drawings ranging 5-30 seconds.

pencil, watercolor, ink, collage, paint, photoshop
While teaching and working closely with clients and collaborators, direct and open communication has become more character than skill. My strong and versatile skills for graphic communications, hand-drawing and digital illustration/3-D modeling, connect others and I with visual ideas.

I carry a sketchbook with me at all times so that even a simple sketch can begin exploratory discussion.