Public Spaces | Public Life for Seattle’s South Downtown

2008 Scan|Design Interdisciplinary Master Studio
University of Washington
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Acknowledgements
Scan|Design by Inger & Jens Bruun Foundation
Gehl Architects
Todd Vogel, International Sustainability Institute
Seattle Department of Transportation
Seattle Department of Planning and Development
U.W. College of Architecture and Urban Planning (College of Built Environments)

Scan|Design Master Studio 2008
Through the generous sponsorship of the ScanlDesign Foundation, our graduate planning, architecture and landscape architecture students at the University of Washington have experienced a rare opportunity to work together in an interdisciplinary design studio environment. The class was able to travel together to Denmark and Sweden, work with the internationally renowned Copenhagen firm of Gehl Architects, and apply the lessons and inspirations of human-oriented design to Seattle’s South Downtown. Together we walked Copenhagen’s pedestrian network, sketched and analyzed the city’s public spaces and traveled on the city’s separated bicycle tracks to experience its renewed neighborhoods, innovative architecture, repurposed waterfront and restorative parks and gardens. The class toured a variety of unique housing projects in Denmark and Sweden—historic, new and planned—with a focus on understanding sustainable practices, and examined the design treatment of space that contributes to urban conviviality and civic sensibility. Guided by the staff of Gehl Architects, Copenhagen’s bicycle planners, and Malmö’s Mayor and Western Harbor designers, the class gained insight into these cities’ historical development and contemporary planning issues, design approaches to successful projects, and personal Danish perspectives.

We brought these collective experiences back to Seattle, to consider how Seattle’s pedestrian spaces can create a better and more ecological urban environment for the city. Working with data generated through Gehl Architects’ Public Spaces Public Life project for the City of Seattle, along with additional analyses and recently completed plans for Seattle’s South Downtown, the design studio focused on five study areas at different scales in the south downtown area of the city. The sites ranged from the entire Pioneer Square district between the transit hubs at Union/King Stations and Coleman Ferry Dock, to the alleys of the district, to the two-block area over the rail tracks north of the train station, to the station area itself. Students from all three departments worked together as interdisciplinary student groups, and created both group contextual plans for their large sites as well as designed individual projects for individual sites. The students developed and re-examined their work through several cycles over the course of ten weeks, interacting with Louise Grassov of Gehl Architects and outside professional reviewers as well as through faculty and peer review. Their final proposals are represented on the pages within this document. We sincerely hope that it will suggest new ideas and possibilities for the City of Seattle, and that it might be useful in illustrating Gehl Architects’ recommendations for cultivating “life between buildings” in the city’s downtown.

We have many people to thank for this remarkable opportunity. Without the support of the ScanlDesign Foundation, this rich set of shared experiences could not have reciprocated, and we are sincerely grateful for this solid pedagogical opportunity for our students. We are deeply appreciative of Louise Grassov’s clear teaching and helpful critique—and her ability to adapt so easily to UW ways and Seattle times—and to Helle, Lars, Lærke and Kristian at Gehl Architects for the fantastic lectures and tours in Copenhagen. Todd Vogel has been a fountain of encouragement, coordinating with Gehl’s project for Seattle and contributing his understanding of Gehl’s methods and the needs and opportunities of the neighborhood. We also very much appreciate the City of Seattle’s interest and support, including Barbara Gray, Gary Johnson and Robert Scully. Finally, we couldn’t have done it without our tireless and able teaching assistant, Liz Stenning, who has kept us on track for the last many months, in Copenhagen and in Seattle.

We thank you all, and hope that this work will make a difference not only in the education of our students, but also in the positive, sustainable evolution of our city’s public realm.

Nancy Rottle, Associate Professor, Landscape Architecture
Kathryn Merlino, Assistant Professor, Architecture
Green Futures Lab Data Collection

Before our studies began, the Copenhagen firm of Gehl Architects initiated their Public Space I Public Life project for the City of Seattle to improve the city’s Downtown pedestrian realm. As part of this work, the University of Washington’s Green Futures Lab (GFL) conducted extensive baseline surveys on the physical qualities of the Downtown environment, and the human uses of it. For one week in July 2008, a large corps of University of Washington students counted, observed, mapped, and interviewed pedestrians throughout downtown Seattle.

In addition, over the course of several months two Scan|Design interns in the GFL thoroughly mapped the experiential qualities of the 100+ block district. This data contributed not only to the studio’s work, but also to Gehl Architects’ final recommendations and report. The 40 + maps they generate will establish a baseline snapshot for the city against which the results of new design interventions may be measured.
Copenhagen Study Tour

September 7-21: Scan|Design Master Studio Study Tour
Masters students from the University of Washington's College of Architecture and Urban Planning traveled to Copenhagen, Denmark in September 2008. Students were immersed for two weeks in the city's and region's design and planning strategies, absorbing the famous Danish networks of public space and the culture's emphasis on bicycle and pedestrian planning. The trip to Copenhagen was generously supported by the ScanIDesign Foundation.

Students came from three disciplines: Architecture, Landscape Architecture, and Urban Planning & Design. In Copenhagen, these students were led by the renowned urban planning consultants Gehl Architects, who introduced the group to their working methods. Other highlights included tours of redeveloped neighborhoods, the waterfront, plazas, and parks.

After returning from the trip, the group continued working in our Scan|Design Master Studio course to study and design public spaces in Seattle’s South Downtown, with the goal of creating a socially vibrant, ecologically healthy public realm.
Studio Project

The project area for the UW Master Studio consists of the southern portion of Gehl Architects’ project area, denoted in green on the map below. This area was selected due to its significance as a transportation hub and its potential for quality pedestrian space.

Project Area

Seattle

Project Boundaries:
West - Waterfront
East - 5th Avenue
North - James Street
South - King Street
Early South Seattle

Long before the Euro-American settlers arrived in the Pacific Northwest, the Coastal Salish people had developed a complex culture based on fishing, hunting and gathering around the area of present day Seattle. In 1853, the south downtown area saw the beginning of the Northwest’s first commercial enterprise, Henry Yesler’s sawmill, which was constructed on the downtown waterfront in 1853. The first transcontinental railroad was completed in 1869 and in 1883 the city finally achieved connection to national rail lines at the south end of the city. Thereafter the surrounding area slowly grew to serve as the city’s center of commerce and industry.

On June 6, 1889, Seattle’s commercial district burned to the ground. In place of the two and three-story wood buildings, a four to six story city was constructed over the old city, and was created in fire-resistant stone, brick, and heavy timber with cast iron and terra cotta detail to match current architectural trends. In addition to the architectural upgrades, streets were widened and paved. A thorough regrade of the downtown area made an interesting temporary underground area from the old street grade, but also built functional water and sewer systems. In certain areas, the first floor of the old city was placed directly underneath the new modern city, creating an ‘underground Seattle’ that stayed in use for years as a shopping area and additional commercial space. Soils from the regrade provided fill to transform the expansive tidelands into buildable spaces.

The new and improved city benefited greatly at the turn of the century from the Alaska Klondike gold rush. Prospectors were outfitted from sellers in the city, and prosperity and population continued to grow. With new steel framed buildings and elevators, the commercial district moved both upward and northward, beginning in 1914 with the Smith Tower on the northeastern edge of our site on Yesler Avenue. It remained the tallest building in the city until 1969 when new, taller buildings began to rise in the new commercial district north of Pioneer Square.

In the mid 1960s, the preservation movement began to take hold, and the first historic district in the city was created in Pioneer Square. In the 1970s, this set up regional guidelines for the preservation, rehabilitation and conservation for development around historic districts, and the area became a popular region for tourism and entertainment. Now, with the additions of the sports stadiums, rehabilitation of two train stations and light rail station, and new residential developments, this district in South Downtown is seeing a resurgence of population and activity. With careful attention to its rich natural, cultural and architectural history alongside sustainable urban growth, the area can be a place thriving with public spaces for a rich public life.

Future Plans

Planning efforts in the Pioneer Square neighborhood stem from the South Downtown Study, a project of the Mayor’s Center City Seattle strategy. The Center City strategy focuses on the Seattle downtown and the surrounding nine neighborhoods. The Livable South Downtown Plan, May 2008 focuses on Pioneer Square, Chinatown/International District, Little Saigon, the stadium area, and the predominantly industrial area south of Chinatown. The primary goals for the Livable South Downtown plan include:

- Housing and job stimulation through zoning and land use decisions
- Respect neighborhood character and plans
- Promote integrated mixed-use development
- Enhance quality connections between neighborhoods and downtown
- Encourage economic vitality
- Promote environmental sustainability
- Support regional services while maintaining community goals

Future Developments

The following developments are in the development phase or recently implemented.

- Housing: North Lot, Yesler Terrace, Goodwill site developments
- Transportation: King Street Station restoration, Light Rail
- Streets: Waterfront connection improvements, Dumpster-Free Alley Initiative
- Public Realm: Sidewalk Cafe permit expedition, Busker program

Underground Seattle
Open Space, Vegetation, Habitat

Existing Vegetation and Habitat
- Street trees comprise the majority of vegetation

Potential
- Green development may provide additional vegetation due to LEED or Seattle Green Factor landscape requirements.
- Green roofs and courtyards
- Shoreline habitat restoration at Pier 48

Existing Open Space
- Private and Public Plazas
- Streets and Alleys

Potential
- Parking lots and unbuilt spaces
- Redesigned streets and alleys with dumpster removal
- Lids over rail tracks

Tree Canopy
- London Plane Tree (Platanus x acerifolia)
- Sycamore Maple (Acer pseudoplatanus)
- Linden Tree (Tilia cordata)
- Red Oak (Quercus rubra)
- Honey Locust (Gleditsia triacanthos)
- Tulip Tree (Liriodendron tulipifera)

ECOLOGY - Tree Canopy Species

ECOLOGY - Site Vegetation

Potential Shoreline Habitat

Occidental Mall: London Plane tree canopy

Occidental Park: vertical vegetation on building façade
Topography + Hydrology

Conditions
Seattle’s downtown is largely built upon deposits from glacial outwash from the late Pleistocene and subsequent riverine deposits from the Duwamish River. The original shoreline is outlined in the map below, indicating that much of the southern portion of Pioneer Square is built up fill. Continued regrades of the city, filling in the south downtown tidal flats, supported a steady outward growth of the city.

Stormwater Control
Under normal conditions, all runoff water in the site area falls into catchbasins. Much of it joins combined sewer outfalls (CSOs) and heads north to the West Point treatment plant. In heavy storm events, these CSOs empty sewer and stormwater from the shaded area directly into Elliot Bay via the CSO beneath Pier 48. Some of the area regularly drains polluted stormwater into Elliot Bay through stormwater outfalls.

Underground Infrastructure
During the rebuilding of Seattle, the streets were filled and underground sidewalks were left open and accessible for occupants. Now used primarily for underground tours, the city below has left a complex system of underground spaces. These areas, spread throughout the district, do not leave room for stormwater infiltration.
Transportation and Circulation

The Pioneer Square neighborhood currently hosts several transportation systems. The site has the potential to act as a major transportation hub for the entire city. Coordinated ticketing and wayfinding would enable tourists and residents to easily navigate from one system to another.

**Automobile:** The site is surrounded by two major freeways, Interstate 5 and the Alaska Way Viaduct. They serve as the two major north/south highways for automobiles and busses.

**Bus:** Numerous bus stops are located throughout the neighborhood with local and regional service. Additionally, two underground bus tunnel access locations easily connect the International District and Pioneer Square to the center of downtown.

**Light Rail:** Light rail serving Seattle will be accessed through the International District/Union Station bus tunnel, beginning in early 2009.

**Train:** Long distance train travel is served by Amtrak located in King Street Station, which is currently being remodeled and restored to its original grandeur. Commuter train travel is served by Sound Transit accessed just north of King Street Station.

**Ferry:** The Colman dock located at Alaskan Way and Marion is the ferry terminal for service to Bainbridge Island and Bremerton. Thousands of commuters arrive at and depart from the city daily.

**Bike:** Designated bike lanes run along 2nd Ave S and Alaskan Way. The Bike Station, a bike repair and storage facility, is located on 3rd Ave S, north of S. Jackson St. With the 2007 Bicycle Master Plan, further improvements are planned for bike facilities throughout the entire city, including the bike trail south of the study area.
Pedestrian Circulation

Pedestrian Counts
Results from the summer 2008 pedestrian counts (see p. 2) indicate that downtown’s pedestrian network is fragile, but has excellent potential. Counts tend to be lower in the southern portion of downtown. The number of pedestrians ebb and flow significantly, due to stadium events.

Stationary Mapping
Pedestrians at parks and plazas throughout the downtown were observed and mapped to determine the predominant activities in the park. The following results show trends in usage at 8 parks and plazas in Pioneer Square on a summer weekday with warm temperatures and clear sky.

Further analysis can be found in Gehl Architects’ Public Space | Public Life report for Downtown Seattle.

<table>
<thead>
<tr>
<th>Park/Plaza</th>
<th>predominant activities</th>
<th>sample times totals (10 am - 8 pm)</th>
<th>peak usage hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Hall Park + Prefontaine Place</td>
<td>lying down</td>
<td>178</td>
<td>2 pm</td>
</tr>
<tr>
<td>Union Station Plaza - north</td>
<td>sitting on benches</td>
<td>39</td>
<td>8 pm</td>
</tr>
<tr>
<td>Union Station Plaza - east</td>
<td>sitting on benches</td>
<td>122</td>
<td>12 pm and 8 pm</td>
</tr>
<tr>
<td>King County Plaza</td>
<td>sitting on cafe chairs</td>
<td>21</td>
<td>12 pm</td>
</tr>
<tr>
<td>Pioneer Square Park</td>
<td>standing</td>
<td>168</td>
<td>10 am and 8 pm</td>
</tr>
<tr>
<td>Occidental Park</td>
<td>sitting on cafe chairs</td>
<td>217</td>
<td>12 pm</td>
</tr>
<tr>
<td>Occidental Mall</td>
<td>sitting on cafe chairs</td>
<td>72</td>
<td>12 pm</td>
</tr>
<tr>
<td>Waterfall Park</td>
<td>sitting on cafe chairs</td>
<td>40</td>
<td>12 pm</td>
</tr>
</tbody>
</table>

Summer Weekday 8 am - 6 pm
Tuesday, July 8, 2008
Weather: clear sky/sunny 80 F

Summer Weekend 8 am - 6 pm
Saturday, July 12, 2008
Weather: clear sky/sunny 75 F
The Pedestrian Environment

Building Stock, Facade Quality
The Pioneer Square neighborhood has numerous historic buildings, most of which were constructed in the post-fire era. Most are four to six stories in height, constructed of stone or brick and decorated with terra cotta and cast iron detailing, typical of the end of the century. Much of the ground floor is activated with retail and restaurants. The following is a sample of students’ assessments of building façades using Gehl Architects’ 12 Quality Criteria (see p. 14 for explanation of the 12 Quality Criteria).

AGAINST CRIME AND VIOLENCE: transparency allows passive surveillance.
AGAINST UNPLEASANT SENSORY EXPERIENCE: canopy provides a shelter from weather.
FOR WALKING: interesting facade, quality surfaces, no obstacles
FOR STANDING AND STANDING: attractive and functional edges, defined spots for staying
FOR SITTING: defined zones for sitting
FOR VISUAL CONTACT: unhindered views
DIMENSIONED AT HUMAN SCALE
AESTHETIC & SENSORY: quality design, robust materials, rich sensory experience.
EXPERIENTIAL: The quality of the brick and stone material of the facade and active ground floor provide stimuli for the pedestrian.

PROTECTION
AGAINST CRIME AND VIOLENCE: transparency allows passive surveillance.
AGAINST UNPLEASANT SENSORY EXPERIENCE: canopy provides a shelter from weather.
FOR WALKING: interesting facade, quality surfaces, no obstacles
FOR STANDING AND STANDING: attractive and functional edges, defined spots for staying
FOR SITTING: defined zones for sitting
FOR VISUAL CONTACT: unhindered views
DELIGHT
DIMENSIONED AT HUMAN SCALE
AESTHETIC & SENSORY: quality design, robust materials, rich sensory experience.
EXPERIENTIAL: Awning provides protection for sitting while still allowing sunlight for the rest of the sidewalk. Transom windows above the awnings allow interior lights to further activate the street at night.

PROTECTION
AGAINST CRIME AND VIOLENCE: transparency allows passive surveillance.
AGAINST UNPLEASANT SENSORY EXPERIENCE: canopy provides a shelter from weather.
FOR WALKING: interesting facade, quality surfaces, no obstacles
FOR STANDING AND STANDING: attractive and functional edges, defined spots for staying
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FOR VISUAL CONTACT: unhindered views
DELIGHT
DIMENSIONED AT HUMAN SCALE
AESTHETIC & SENSORY: quality design, robust materials, rich sensory experience.
EXPERIENTIAL: This facade defines Occidental Square on the west side. The vines covering the entire surface provides a humane contrast to the hardscaping of the square.
**ANALYSIS**

**PROTECTION from Vehicular Traffic:**
- Railings, green buffers, bollards, and parked cars
- Signalized crosswalks

**PROTECTION from Crime & Violence:**
- Many street lamps present, but often lighting too high
- Tree canopy blocks light to street
- Passive surveillance: active ground floors
- Overlap in functions: offices, cafes restaurants, bars, and night clubs

**INVITATION for Walking:**
- Wide sidewalks on all streets (4-7 feet)
- Pedestrian-only street along Occidental Ave.
- Accessible to two major transport hubs, stadiums, and waterfront
- Few obstacles inhibit pedestrian circulation
- Sidewalk quality normal with occasional uneven surfaces

**INVITATION for Standing and Staying**
- Objects to lean against: Street furniture, railings, and ledges throughout the district

**INVITATION for Sitting**
- Benches and cafe seating generally found in parks and bus stops
- Variety of people lend to people watching

**INVITATION for Visual Contact:**
- Stadiums, tall buildings, and waterfront create visual wayfinding landmarks; however, the Viaduct inhibits clear views of the waterfront
- Few maps
- Abundant street signs
During the initial stage of site analysis, students researched relevant precedent studies. Below is a list of the students’ research in the categories of Alleys, Plazas, Transportation Hubs, Lidded Tracks, Green Infrastructure, and Waterfront Connection. The following pages highlight four case studies. Further detail can be found on the Master Studio website (http://courses.washington.edu/gehlstud).

**STREETS & ALLEYS:**

- **Melbourne Lanes**
  Melbourne, Australia
  source: Melbourne Today

- **Post Alley**
  Seattle, USA
  source: UW Master Studio

- **Pirate Alley**
  New Orleans, USA
  source: www.inetours.com

- **Chicago Green Alley**
  Chicago, USA
  source: City of Chicago

- **Cat Street**
  Tokyo, Japan
  source: www.flickr.com

**GREEN INFRASTRUCTURE:**

- **Green Streets**
  Portland, USA
  source: City of Portland

- **Urban Food Chain Project**
  Los Angeles, USA
  source: www.worldchangement.com

- **SEA Street**
  Seattle, USA
  source: UW Master Studio

- **Musée du Quai Branly**
  Paris, France
  source: www.greenroofs.com
PLAZAS & TRANSPORTATION HUBS

Pioneer Square Courthouse  
Portland, USA  
source: Portland Development Commission

Potsdamer Platz  
Berlin, Germany  
source: www.uploadwikimedia.org

Kogod Courtyard  
Washington D.C., USA  
source: David S. Holloway/Getty Images

Place de l’Homme de Fer  
Strasbourg, France  
source: Ben on picasa.google.com

LIDDED TRAIN TRACKS:

Atlantic Yards  
Brooklyn, USA  
source: www.nolandprob.org

Federation Square  
Melbourne, Australia  
source: Bates Smart

Embarcadero  
San Francisco, USA  
source: www.preservenet.com

WATERFRONT CONNECTIONS:
Precedent Studies

**Chicago Green Alleys** Chicago, USA

The City of Chicago started the Green Alley program in year 2006. Since this time, more than 80 Green Alleys have been installed. One of the most significant driving factors in motivating the city to give attention to their alley system was stormwater management. Chicago’s alleys are paved in asphalt or concrete that doesn’t allow for stormwater to filter back into the ground and flooding is a frequent occurrence in the city’s alleys.

Green Alley features include:
- permeable pavement (asphalt, concrete or pavers) used the full alley width or in a center trench
- open bottom catch basins to capture water and filter into ground
- high-albedo pavement to reflect sunlight, reducing the urban heat island effect
- recycled materials (concrete aggregate, slag, and recycled tire rubber)

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**Federation Square** Melbourne Australia

In 1996, the Federation Square Management Pty Ltd, the State Government of Victoria, and the City of Melbourne held an international design competition for a new civic square capable of accommodating up to 20,000 people in an open-air amphitheater to be built above the Jolimont railyards. The site was completed in 2002 with a total budget of $440 million, entirely publicly funded. It is colloquially known as “Fed Square.”

The deck over the railways is supported by over 3,000 tonnes of steel beams, 1.4 km of concrete ‘crash walls’ and over 4,000 vibration-absorbing spring coils and rubber padding. It was designed to support sensitive uses, such as galleries, cinemas, and radio and television studios, which needed to be isolated from vibration and noise.

The site functions as a street-like space with flexible uses, which attracts a broad range of civic, cultural and commercial activities. The flow of the site creates a series of exciting and varied experiences that encourage public interactions and promote spontaneous activities.

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![Chicago Green Alley - before](source: City of Chicago)

![Chicago Green Alley - after](source: City of Chicago)

![Federation Square](source: Bates Smart)
Place de l’Homme de Fer  Strasbourg, France

Place de l’Homme de Fer is located in the city center and serves four of the five existing tram lines. It is sited in the middle of a triangular shaped, pedestrian-oriented square, the design of which was left to a competition designed and constructed by architect Guy Clapot in 1994.

The circular glass roof rises above a pedestrian plaza and defines the public space, while serving as a tram stop for north-south and east-west lines. The roof also helps to lower the scale of the square, acting as a canopy amidst the surrounding six-story buildings.

The square provides a mix of public and café seating. Furniture and paving on the square are pink, white, and gray to coordinate with the façades of surrounding buildings.

The plaza encourages gathering or hosting impromptu celebrations following some sporting events. There is also plenty of foot traffic on the plaza, even in the rain. However, while the plaza seems to be a perfect venue for impromptu or scheduled performances, it does not seem to host buskers or similar activities. More could be done to encourage passive street life like sitting and watching, aside from the sidewalk cafés in one corner.

Pioneer Courthouse Square  Portland, Oregon

The Square, often cited as Portland’s Living Room, is a downtown focal point, host to major civic events, and a lively meeting and gathering place with a variety of users. It is cited as Portland’s most visited site with 26,000 visitors daily and over 300 yearly events. The decision to develop a public square of one city block marked the beginning of a more vibrant and active downtown. Formerly the site of the Portland Hotel then converted to a 2-story parking garage by landowners Julius Meier and Aaron Frank (owners of Meier and Frank Department Store), the Square was redeveloped in 1984, in close relation to the opening of the MAX Light Rail system. Since the Courthouse Square and MAX Light Rail system openings, Portland has become a well recognized site for successful transportation improvement projects.

Site features:
- Public art displays, flowers, trees, walls, and stairs that allow people to engage and use the space.
- Frequent public events
- Coffee shop and food vendors
- Visitors Center
- Small amphitheater
- Keystone lectern: focal speaking point for public gatherings
- Weather machine with daily weather forecasts
- Seward Johnson’s Allow Me aka Umbrella Man statue
- Large chessboard
12 Quality Criteria
During site analysis, students used Gehl Architects’ 12 Quality Criteria approach for observing and assessing sites for their pedestrian quality. This qualitative approach complemented the project’s quantitative analysis, allowing for students to further understand how pedestrians experience the neighborhood. For examples of how students incorporated this approach, see The Pedestrian Environment on pages 10-11.

Sustainability Metrics
In addition, each team chose a set of metrics to guide and evaluate their overall plans. Students were asked to use or modify an established system to assess the sustainability of their proposals. These assessments can be found with each team’s plan description later in the document. Metrics employed included:
- The Seattle Green Factor
- LEED ND (LEED for Neighborhood Development)
- The Living Site Challenge
- Gehl Architects’ 12 Quality Criteria (to which the team added 12 Environmental Criteria)
Studio

During the 10-week studio, students added to the site analysis and researched pedestrian-use, employing Gehl Architects’ working methods. In addition to using the 12 Quality Criteria, in one exercise called “Life Space Building” students took on different roles: student, artist, business woman, clubber, etc. to establish the required program elements needed to create vital public space that is inviting to all.

Over the course of the terms, students continually refined their initial group and individual design proposals, working between districts and site scales and responding to feedback from guests, peers, faculty, and Louise Grassov of Gehl Architects.

Louise Grassov first introduced students to Gehl Architects’ working methods while in Copenhagen. Students benefitted from an additional two weeks working with her in Seattle, during the middle and end points of the studio. She provide valuable feedback to guide the development of students’ designs for the pedestrian realm.
Connections
Alleys
Alleyways
Stations
Lidded
CONNECTIONS
Integrated Networks

Students: Brian Fabella | Claire Gear | Seth Geiser | Tori Halligan | Eric Scharnhorst
Orion Stewart | Corinna Welzenbach | Gilbert Wong
Connections: Integrated Networks

Pedestrian Network: Before

Pedestrian Network: After

Integrated Networks

The scope of this master plan is the entire study area in the South Downtown/Pioneer Square historic district. The neighborhood can be seen as an incomplete network—a series of disconnected nodes and paths—each with varying characteristics that are often not complementary. Our initial goal to develop a pedestrian connection between the Coleman Ferry Terminal and King Street Station grew into a master plan to fill the gaps between existing nodes and paths, creating a complete pedestrian network.

Our proposal also aims to energize the site as a whole by adding housing units to the neighborhood. Census data and walking audits revealed a relative lack of housing in our study area compared to other neighborhoods in Seattle. Well-used urban spaces contain a mixture of functions that is inclusive of housing, a 24/7 land use. Some of our individual schemes explicitly address this goal.

Central to the plan is regeneration of the waterfront. This would be possible with the removal of the Alaskan Way Viaduct. The removal of the Viaduct will result in a vast space of underutilized urban fabric that can be used to tie the neighborhood back together and to the waterfront. Many of the projects presented here take advantage of this opportunity.

All schemes aim to knit together the physical pedestrian environment with transit, cyclist circulation, and ecological patterns. Green infrastructure and pedestrian priority circulation paths connect and integrate the individual schemes, both with one another and the existing fabric of Pioneer Square. Integral to all targeted sites is a focus on the physical pedestrian environment. This includes all urban open space: circulation, façade quality, climatic comfort, safety and beauty. The result is a more than a pedestrian network, it is a comprehensive series of integrated networks.

LEED for Neighborhood Development:
- Reduce Urban Sprawl
- Encourage healthy living
- Protect Threatened Species
- Focus on locations that are closer to existing town and city centers
- Focus on areas with good transit access
- Focus on Infill sites
- Focus on Previously developed sites
- Focus on sites adjacent to existing development
Project Locator
Yesler Way Plaza: reConnected

Water Stop Intersection Fountain
Pedestrian Priority Intersection: an All Way-Walkway

Water's Edge Fountain
The Edge Fountain is where you can safely touch the water for the first time—like the very edge of the ocean.

Rain Garden Plaza
Plaza functions as a place for gathering. (Art Walk, education-ecology and history) during nice weather.

Plaza is also a great outdoor theater. Boardwalk can be used as a stage and green space and streets for audience.

Section View of Pier+Plaza

People experience delight in water.

Salmon can swim safely along shoreline.

Underneath pier, light reaches shoreline through windows.

Water Stop Fountain in intersection stops auto traffic.

Edge fountain in plaza offers first interaction.

In Rain Garden Plaza, where building meets ground and water.

On building facade, between windows.

More than just Visual cues of water process.

Infiltration Storage Tank
Runoff from Streets and Linked

Living Wall
Green Roof runoff ultimately filters through building facade and into rain garden

Like the shoreline, the edge of water acts as a guide for paths and gathering areas—it defines spaces.

Water used onsite gets recycled and filtered back into Rain Garden.

The constant cycle of water supports people's activity. The constant use and care by people will support the hydrological cycles present on site and in the area.

This new relationship reveals how place and people have become reConnected.

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Salmon can swim safely along shoreline.

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Yesler Wharf - reBuilt

The reBuilt Yesler Wharf and Plaza is located on the shoreline at the intersection of Yesler and Alaska Way, where the historic Yesler Mill and Wharf once stood more than 150 years ago. These were some of the first structures ever built in Seattle by early settlers. This marked a great historical achievement as well as the beginning of radical change in the landscape—from massive deforestation to changing the path of the shoreline. This site has endured severe ecological stress since settlement began.

Inspiration was drawn from the historic structure, its interaction with the shoreline, and the need to manage urban runoff. The overall layout of the pier follows the narrative of how water moves on land, as it returns to the ocean, completing part of the hydrologic cycle. Amenities for comfort, education, safety, play, and socializing are spatially arranged to allow the user to metaphorically explore the different ecological zones of a natural shoreline: Riparian, Intertidal, and Subtidal. The treatment of runoff follows this concept and reinforces these activities and amenities. By reBuilding an ecologically sensitive Wharf and Plaza, this site will “reConnect” people to one of our most important natural resources and create a new sense of place built upon history.
Neighborhood Network & Node
[ incorporating the human dimension at King Street, Seattle WA ]

_site identification_
At the master planning level, King Street was identified as a corridor of particular importance within the context of Pioneer Square. King Street is located between Qwest Stadium and the pedestrian street Occidental Ave, and links the industrial waterfront and King Street Station. Currently, a strong disconnection exists between the lower level of King Street Station and any form of pedestrian environment, particularly the connection to Occidental Ave.

_stormwater_
A sustainable stormwater management plan is integrated into the building and site development to reduce the damaging effects of urbanization on surrounding bodies of water and disconnect the flow from storm sewers. By mimicking the natural process of infiltration through landscaped planters, swales, and ecoroofs, stormwater infiltrates the soil, replenishes groundwater and assists in creating a beautiful, cohesive character on King Street.

The current condition as a pedestrian, looking west to King Street Station at intersection of King Street & Occidental Ave.

Scan|Design Master Studio 2008
life space building

The scheme aspires to create a node within the Pioneer Square neighborhood that is lively, diverse and distinctively pedestrian. This public space embraces the qualities of Pioneer Square and creates an open, flexible, inviting neighborhood node at the important intersection of Occidental Ave S and King Street. Multiplicity and diversity is encouraged in the flexible space: an area is provided for a local grocery store, urban gardening, seating, bicycle parking, and an integrated system for stormwater collection and management.

life space building

The buildings framing King Street currently do not contribute to the public realm at the ground level, lacking uses that engage pedestrians. The proposal includes activation and engagement in the facades, mainly through introducing diverse public uses on the ground level and features speaking to the human scale (awnings, benches, texture of materials). The introduction of residential units, a neighborhood grocery store and daycare facilities will provide the life and vibrancy of truly pedestrian space along King Street.
Reimagining the Viaduct

In order for Seattle to reconnect to its waterfront, the Alaskan Way Viaduct must come down. But as a lasting memory of the past, a portion of the Viaduct should be retained and repurposed as a multi-functional public space.

Situated at the intersection point of Downtown, Pioneer Square and the Waterfront, the Viaduct Relic could enliven and activate the pedestrian environment by providing Seattle with a new elevated park and a flexible public plaza. Envisioning more than just the movement of cars, the Viaduct Relic would provide Seattle with an iconic landmark that would celebrate the importance of public space and life.
Viaduct Plaza - By routing the Alaskan Boulevard around the Viaduct Relic, a unique urban space is created. Partially open and partially covered, the Viaduct Plaza is a flexible space for a variety of active, public functions. Ground-floor uses in the adjacent buildings spill out onto the plaza, further expanding the pedestrian realm.

Viaduct Shops - In addition to the possibility of a public market underneath the Viaduct Relic, the 1st level provides additional space for commercial uses which help to activate the site at all times of the day. By benefiting from the special location and vibrant street-life below, businesses here can attain iconic stature and draw more visitors to the site.

Viaduct View Park - Unlike any other park in Seattle, the Viaduct View Park gives visitors and residents an opportunity to experience scenic views into Downtown and across the Sound. The elevated park provides a relaxing space to meet friends and reflect on the beauty of Seattle.
**Waterfront: Tidalscape Park**

**PARAMETERS:** This project focuses on the removal of the existing seawall and re-grading of shoreline to provide for pre-existing estuarine habitat and to restore flow patterns from the Duwamish River into Elliot Bay.

**STRATEGY:** This is accomplished through the creation of a self sustaining offshore archipelago connected to the city network by two pedestrian trestle bridges terminating in piers off of S. Main and S. Jackson (mirroring the railroad trestles that existed in the late 1800’s). A third bridge extends along the existing Vashon Pedestrian Ferry Pier. These islands are structurally sustained via the construction of intersecting tapered jetties made from recycled pier rubble and viaduct remains. The jetties are placed in succession, like catches; open to the flow and natural sedimentation build up from the Duwamish outflow and wave action from the Sound. The shapes of the islands are designed to fluctuate with the process of sedimentation and aggradations.

**RESTORED HABITAT:** The archipelago creates a protected and non-uniform habitat which varies from shoreline to bluff to lagoon to inner urban shoreline. At each trestle the shoreline is cut back to provide for tide pools coupled with floating docks for recreational purposes.

**CULTURAL ENGAGEMENT:** The archipelago incorporates a 700 meter pedestrian loop to symbolize the cycle of the Salish Medicine wheel. This cycle is evidenced through the color, stone, season of life and the spiritual significance each cardinal direction represented within the
Salish Nation. These directions are brought to life in strategically placed portals set within the bluffs looking west, and framing the Sound and the Olympics, signifying transcendence and the unconscious. The paving consists of embedded railway ties that provide directionality and flow like logs down a stream. The stream is represented in a mosaic of red and gold glass, expressing the sunrise colors of the East, to Blue and Black signifying the colors of the west; Likewise Alabaster and Serpentine are incorporated into the paving pattern running north to south. These four qualities intersect at key moments where the trestles meet the islands.
The Problem
Pier 48 is a dead node within Seattle’s integrated ecological, pedestrian, and economic networks. It extends the western axis of Main Street over Puget Sound. The ferry terminal lies to the north. South of Pier 48 is an active industrial area where shipping containers are loaded onto freighters. The views from the pier are breathtaking. Today the pier is rotting. It is locked and wrapped by a chain link fence. A dusty orange sign warns trespassers that they will probably fall through the floor.

Solutions
Life
The proposal on this spread aims to energize the site and stimulate the networks. A walkable, highly residential mixed use framework will replace the current structure and activate the pier 24 hours a day, seven days a week. This pedestrian hub will be nested within its own network of beautiful water-focused public spaces. The development will extend east into today’s parking lot where it will transform the concrete and strengthen the site’s neighborhood connectivity.

Environment
This new human habitat will be engineered in response to the site’s ecological functions. Prior to construction, the shore will be re-graded to accommodate better intertidal habitat. The defunct structure is to be rebuilt as two parallel piers, doubling the potential for promenading while allowing sunlight to reach the water through the open axis. Shared green roofs will be engineered to support enough soil for gardening.

Space
Almost two acres of useful new public space will be created. The varied architecture of Pier 48’s new buildings will contribute a texturally delightful frame without compromising the space’s new form & functionality.
Buildings

Many vibrant and scenic places are functionally broken into smaller pieces. The new pier’s integrated public spaces will create the frame for 102,000 square feet of new real estate, packaged into 35 buildings.

- Define building footprints with smaller parcels
- Enable greater flexibility of use with unique zoning that affords an elastic response to market conditions
- Provide 102 new housing units
- Integrate the site into the existing and proposed neighborhood networks
- Measure the design & construction using LEED for Neighborhood Development - Platinum
- Design spaces & buildings for people
Ferry Terminal: Colman Transit Plaza

Unrealized potential
The Colman Ferry Terminal is one of three major transit hubs in Downtown Seattle. Annual ferry ridership out of the terminal is more than 8.7 million. Yet the streetscape outside the terminal belies the activity within. A 2008 Gehl stationary survey found a total of only 26 people using the space throughout a warm, sunny day in July. Poor-quality edges, noise from the Alaskan Way Viaduct, little space to wait for buses and taxis, and a skybridge that connects pedestrians directly to downtown Seattle all likely contribute to this low number. The eventual removal of the viaduct will provide the opportunity to recreate the streetscape as a welcoming, human-scale environment. The Colman Transit Plaza offers such a vision.

Foot traffic
Walk-on ferry terminal traffic activates the Colman Transit Plaza. The pedestrian skybridge is removed so that all walk-on traffic is at street level. With only 44% of passengers accessing or departing the terminal by car, this is a significant amount of foot traffic. Walk-on ferry passengers access the upper level of the terminal via a ramp aligned with Columbia St, now a pedestrian-priority street. This arrangement also provides better access to the waterfront and the Pioneer Square historic district.

Waiting for transit
Outdoor, covered transit waiting areas formalize the space as a true transportation hub and create the sense of a coherent multi-modal system. These stations would likely reduce the number of vehicle ferry passengers. A 2006 survey found that better transit at the origin/destination is the improvement most likely to cause ferry riders to leave their car at home.

Standing and sitting
Passengers are encouraged to stay and enjoy the plaza. It offers numerous comfortable and interesting seating opportunities that are well-buffered from traffic. Spaces for food vendors with outdoor seating act as a further invitation for pedestrians to sit and eat. Ample space is provided for street performance, seasonal markets, or other special events.
Tiered ledges and movable tables and chairs provide seating options. A ramp leads travelers to the terminal and a green wall with a trellis structure acts as a buffer to the adjacent parking area while permitting views across the sound.

Influences: Pioneer Courthouse Square, Portland; Harbor Steps, Seattle

Local access lanes separate drivers seeking parking spaces from through traffic. Local traffic uses a narrow one-way lane with textured paving materials. This encourages drivers to travel slowly and makes it safe and comfortable for pedestrians.

Influence: Sonder Boulevard, Copenhagen

A New Colman Clock Tower serves as a landmark and wayfinding device. It displays the time of the next ferry departure, allowing passengers to linger in the plaza until the last minute.

Influence: old clock tower that once stood on site

Bioswale buffers separate modes of traffic and provide stormwater management for the site.

Influence: SEA Streets, Seattle

Source: HistoryLink.org

Public Spaces | Public Life for Seattle’s South Downtown
Pedestrian Only Streets are designated on Washington Street from Alaska Way to Occidental. The Occidental Mall is extended one block to the North and South to extend from Yesler to King. Washington Street’s prime location leads people from the historic Pioneer Square neighborhood to the Sound and draws tourists and ferry users on the waterfront into the city. Washington’s 60’ width provides the perfect scale to create an enjoyable pedestrian park.

Copenhagen, Denver, Tokyo, Paris.....Seattle! Many cities throughout the world are reaping the benefits of pedestrian streets. Pedestrian streets provide: Safety (40% of Seattle Streets lack full sidewalks on both sides of the road), Invitation to visitors (Denver’s 16th Street Mall rated #1 visitor attraction in the metro area), and an increase in Character, Community and Health. By acting now Seattle can transform into a world class pedestrian city.

The Emerald City... Swales on the site capture street and roof runoff. The water is cleaned in settling tanks and by aquatic plants and sand filters. The clean water is used in the Compass Center Building for flushing toilets, feeds the cisterns that water green walls, and flows into the sound. Lush vegetation is planted in the swales and throughout Washington St. from 1st Ave to Alaska Way.
KEY
a. Settling pond: underground outlets  
b. Cobble plaza  
c. Sand filter weir  
d. Stacked recycled concrete seat  
e. Runnel catching roof and street run-off  
f. Steel grate pedestrian bridge  
g. Recycled concrete mosaic paving  
h. Settling pond w/ biofiltration  
i. Extend pedestrian realm to 1st Ave bollards and paving narrows street  
j. Benches throughout
The Ship Sails On......
to a more vibrant and cleaner environment

Goals:
- Revitalize the “Sinking Ship”
- Preserve the history and culture of Pioneer Square
- Create a user friendly site for pedestrian, cyclists and commuters
- Serve as an integral part of the community networks
- Mitigate urban stormwater runoff
- Provide green corridors for biodiversity
Enhancing life between buildings:

- Pedestrian streets
- Narrow 2nd Ave. S. and Yesler Way to reduce vehicle traffic
- New bicycle tracks
- New Green Streets
- Green corridors for birds and insects
- Rooftop garden/plaza
- James Street Plaza
- Video art wall
- Diner, coffee house, deli
- Farmers market
- Outdoor movies

James Street Plaza

Seattle Hotel replaced with parking garage in 1970s
source: www.skyscraper.com

Current site of parking garage
source: Fred Chabot, www.panoramio.com

Coffee shop for gathering

Mural for local artists

Yesler Way looking east
Connections

Alleys
Alleyways
Stations
Lidded
ALLEYS
Connecting the Dots

Students: Sarah Ferreter | Ro Hohlfeld | Selina Hunstiger | Michael Lewis | Heide Martin
William Payne | Bradley Pavlik | Megan Schoch
Connecting the Dots

Alleys as the new pedestrian network

Changes to downtown Seattle’s transportation network, including increased mass transit opportunities with the proposed light rail additions and the impending changes to the Alaskan Way Viaduct, will have a direct impact upon how downtown functions, and how public life will be affected. This neighborhood will face two major changes with regards to circulation. First, it will be better served by mass transit which will eliminate the need for some parking spaces because fewer people who work downtown will need to drive there. Second, changes to the Alaskan Way Viaduct will disperse more vehicular traffic that is not stopping in downtown throughout its grid which will have a negative impact upon the pedestrian network, making it less pleasant and safe to move about on foot.

The proposed North Lot development will also contribute more pedestrians to the neighborhood, further highlighting the need to create safe and pleasant spaces for people.

In response to these challenges the following projects seek to engage the existing network of alleys as a new network of pedestrian passageways. Some projects seek to address the alleys through programming and in changes to the spaces themselves, while others seek to address spaces and open lots that directly border an alley. All projects respond to a pedestrian promenade along Main Street that is anchored at its center where it intersects with the existing pedestrian-oriented Occidental Avenue.

Proposed Transit Network

Proposed Auto Street Network

Proposed Green Network and Water Route

Scan|Design Master Studio 2008
**ALLEYS: Connecting the Dots**

**Incorporating the Underground**

- Project Location Map
- Known Underground Passageways
- Design Referencing Underground

**Proposed Bicycle Network**

- Alleys with Bike Priority
- Bike Lanes
- Bike Parking
- Regional Bike Route

**Residential Buildout Opportunities**

- New Residential Infill
- New Residential, Replacing Existing Low Rise

**12 Pedestrian Criteria:**

- Strengthen the Pedestrian Network
- Connect major destinations throughout the site
- Utilize alleys and improve East/West connections as pedestrian ways
- Design inviting, human scale pedestrian routes
- Increase public transit use and bicycling

- Activate the Neighborhood
- Improve safety with lighting and nightlife opportunities
- Encourage unique shops, services, restaurants and entertainment
- Provide a variety of comfortable, human scale spaces for different users
- Transform alleys and parking lots into new pedestrian spaces

**12 Environmental Criteria:**

- greenhouse gas emissions
- air pollution
- heat island effect

- water quality and quantity
- recharge & replenishment
- conservation & reuse
- non-hazardous materials locally available

- vertical & horizontal structure
- microclimates & niches
- food/nest/rest sites & materials
- connectivity/corridors

**Programming**

- Emphasize and celebrate hydrological processes
- Treat, store, and reuse stormwater and greywater
- Improve local biodiversity and mitigate climate change
- Create comfortable microclimates

- Reveal the underground with lighting, glass and water
- Emphasize historic materials, details and textures
- Highlight local artists and galleries
- Integrate and provide opportunities for the homeless community

* Gehl Architects
The alley between Pioneer Square and Occidental Park is currently uninviting by day and dangerous by night. However, given the proximity to two public open spaces and the adjacent nightlife venues, the potential for this alley is great.

The proposed design entices pedestrians to use the alley throughout the day. As someone walks through, all senses engage in a pattern analogous to a musical composition. This experience provides an exploration of the alley (including an adjacent green roof) that would otherwise be limited to the sight at the end of the alley.

The design also offers an intriguing place for restaurant, cafe, art gallery and dance club patrons to linger throughout the evening and night. Auxiliary entrances to adjacent nightlife venues in the alley and spilling of these uses into the alley increase the number of people occupying the space at night. Also accessed from the alley is an adjacent underground sub-alley proposed for use as an additional dance club/bar. Exciting features of water, light and fire frame history and ecology and create a place worthy of staying.
A glass roof intensifies dissonance area, covers users, permits views and creates sheet walls of water during a rain event.

People gather here at night.

Both walls of the alley are covered in fire-resistant echevaria plants interspersed with light bulbs that softly twinkle at night.

A tall fire feature set into a wall marks the beginning of dissonance, references the Great Fire, welcomes those coming from the underground sub-alley and keeps users warm.

Light from the adjacent underground dance club emitted through red, orange and yellow acrylic blocks in a steel frame that functions as a bench during the day.

Dance to dissonance.

Step to the coda.

Move to the melody.

Turn to a harmony.
The alleys of Pioneer Square hold great potential for the development of unique public spaces. As they are now, the alleys of this neighborhood are uninviting for pedestrian use. The design of these alleys seeks to utilize light and transparency to create intriguing passageways and stopping places for pedestrians, while still accommodating for typical alley services like trash collection and building access:

- At ground level, the existing facades are retrofitted with windows to reveal the internal functions of the building and to make the space feel more open and accessible. Live-in artist studios and galleries are proposed on site, as well as new mixed-use retail and office spaces.
- Various lighting features throughout the alley highlight historic site features and create a safe and inviting atmosphere for visitors.
- Stormwater is collected and reused on site as irrigation for green roofs, while grey water is cleaned then channeled through exposed pathways before leaving the site.
- Green roofs and vegetated walls clean the greywater collected on site and improve local biodiversity.
- These elements could be applied to other alleys within the neighborhood to create a network of safe and pleasant pedestrian corridors.
ALLEYS: The Radiance Within

East alley showing ground-level windows and entrances to artist studios, retail, and offices

South alley showing glass-bottomed vegetated awnings

North alley showing glass-covered water channel and lit pavers

Circulation and Movement Diagram

Public Spaces | Public Life for Seattle’s South Downtown
Alleys: A New Main Street

Main Street acts as a spine for the pedestrian network, connecting alleyways and vibrant public spaces including a youth center, green roof park, outdoor theater space, and café plaza. The street car connects visitors from adjacent neighborhoods to this special pedestrian center. Main Street is also the primary site for stormwater and greywater treatment, featuring a series of bioswales and a living machine that cleanse water before it reaches the Puget Sound, and a living sidewalk system that allows for infiltration and flood control.

A Green Infrastructure: stormwater management
- Reveal and celebrate hydrological processes
- Collect, cleanse and reuse street and roof runoff
- Incorporate green roofs and walls into stormwater infrastructure

An Urban Open Space: green spaces
- Create habitat for urban wildlife, pollinators and plants
- Utilize horizontal and vertical layers for ecological functions
- Mitigate heat island effects and respond to climate change issues
- Provide comfortable microclimates for pedestrians

An Alternative Transit Corridor: walkable streets
- Establish primary east/west connection to waterfront
- Link pedestrians to network of north/south allies
- Reduce automobile use in the neighborhood

A Pedestrian Experience: vibrant public life
- Convert adjacent open spaces and brownfields into new destinations
- Create spaces for outdoor entertainment and dining
- Invite a diversity of users to use public spaces in the neighborhood
- Incorporate materials that highlight the site’s history

1. Post Alley Plaza at Sunset
Remnants of the viaduct freeway frame a view of the Puget Sound and Olympic Mountains at sunset. A pocket plaza edged with vegetated green walls provides fresh herbs and a comfortable outdoor dining and entertainment space. The living sidewalk connects Post Alley as it bridges the vegetated swale on Main Street.

2. Urban Hillside Roof Park
An angular extensive green roof on a modern building touches down on Main Street, creating a sunny, sloping park and a strong edge for Occidental Square. Rainwater zigzags down the rooftop over a series of cascades, providing irrigation for vegetation, habitat for birds and invertebrates, and opportunities for water play and exploration.
3. Second Avenue Living Machine
Water passing through a series of swales on Main Street spills into shallow runnels that calm auto traffic on Second Avenue. These runnels transform into linear planters in the center of the intersection, further slowing traffic, defining pedestrian crossings, and cleansing stormwater as it infiltrates into an underground cistern. Vertical pipes emerge from the planters, re-circulating water through the living machine and celebrating the cleansing process.

4. Living Sidewalk
The living sidewalk provides ADA access while allowing water to permeate and vegetation to grow underfoot, creating a space for soil invertebrates and root structures. The panels can be manufactured locally from common construction waste products with minimal technical equipment or expertise. Each panel is manufactured and installed individually, allowing for custom panels and easy replacement or access to the space below the walkway.

5. Nightlife at Skid Alley Skate Park and Youth Center
Stormwater entering Main Street passes through a concrete wetland adjacent to a new skate park. Warm light shines up from the wetland and the historic underground, projecting upon a translucent fabric canopy. The canopy is stretched over an informal seating area, offering a shelter where pedestrians can relax, watch skaters, or view an outdoor movie.
Alleys: Metabolize
the process of changing energy sources into energy

Encourage Ecological Processes
- Improve local biodiversity and mitigate climate change
- Establish green vertical and horizontal layers
- Collect, direct and filter stormwater
- Emphasize and celebrate hydrological processes

Celebrate Public Life
- Provide a variety of pedestrian spaces both active and passive
- Create a fun, joyful, safe space
- Accommodate the growing downtown residential population
- Encourage multifunctional use of spaces
- Reveal the underground with lighting, glass and water
- Emphasize historic materials, details and textures
Concrete Wetland

Wetland plants appear to break through pieces of recycled concrete creating an urban nature area. This concrete wetland collects and filters stormwater and with a tilted ground plane it slows down the pedestrian experience catering to exploration and peaking curiosity.

Greenhouse Sidewalk

Glass panels interspersed between concrete sidewalk slabs offer a view down to an underground greenhouse.

Skatepark / Outdoor Movie Theater / Water Feature

The skid alley skatepark is connected to the new youth arts and community center. During summer evenings the skatepark functions as an outdoor movie theater, offering seating on the green roof above the youth center, stacked slabs adjacent the sidewalk, and in the skate bowl. On rainy days water is highlighted by creating pools in the skate forms as it is aerated though the park flowing into the concrete wetland and main street swale.

Covered Walkway

An illuminated orange glowing glass covered walkway invites pedestrians to enter. The series of tilted glass panels lead stormwater to rain cables, directing water flow to vegetated walls.
Alleys: Built Apparition
A new haunt for an old space

This alley functions as a vibrant gateway into the alley network. It is primarily for budding artists and young adults to socialize in and around studios, cafes, clubs, and shops. Built Apparition resurrects the intimacy of the alleyway, while providing a vertical infill park structure. It is a space where urban form, natural function, and artistic expression mix in a youthful environment unique to the city. Site obstacles have been framed as opportunities for an adaptive and changing canvas of urban form and function.

- The introduction of lighting and ground floor windows invite users and provide safety.
- Art installations of glass, water, light, and steel unify the space and frame the presentation of progressive art.
- Built Apparition functions as a park space and provides a vertical framework for vegetation.
- Greenroofs, downspouts, and rain gardens treat runoff and greywater.

Urban Tree, also shown on the left side of section BB, functions as a self contained green wall. The trees are confined within the steel frame to reference the tight urban space and link to the form of the Built Apparition.
Viewing East from the waterfront entrance. Built Apparition functions as a public park and private terrace. The Art Walk, on the left with its Light Trellis and Sound Spouts, creates a rhythm of light, sound, and texture. The space is flanked by retail and artist studios. The structures create a variety of spaces to walk, sit, lean, and interact.

Though the space is catered to a particular user group, this core will attract a variety of visitors and curious users. Focus has been made on creating intimate spaces, and an interesting vertical plane for discovery.

Section AA: Separate paths for public and private use. The public is invited to explore the scaffold structure and discover views. Residents can access the building and greenroof through a separate path system. The framing references the previous building and creates a vertical structure for vegetation.

Alley entrance from Yesler. Fire Escape art installation functions as resident balconies, and creates an intimate entrance and gateway.

Looking West from the Built Apparition toward Elliot Bay.

Section BB looking North. The ground, wall, and canopy planes create a rhythm for the senses. The experience is unified by light, water, glass, and steel. The Soundspouts, during storms produce an audio experience of splashing and pulsing. The Raingardens capture runoff from the Art Walks Light Trellis and the surrounding hardscape. Steel fire escapes play off historical reference and frame views. The Artcade provides studio space. The greenroof is a private retreat for residents of the north and south buildings.
Alleys: Live Art Studio

Drawing in the energy of Post Alley...

...to re-discover Pioneer Square

Site Proposal
The proposal for this site is to create a small public park in the space now occupied by a parking lot, and to open a view from First Ave to the waterfront by a restructuring of the current warehouse building.

To enhance the safety and vitality of the site and of Pioneer Square, the intent of the design elements and the site program are to draw street performers and artists into the area. The flexibility of the design will allow the space to be used on a daily basis by local residents and visitors, as well as facilitating intimate public events, concerts, and outdoor movie screenings.

Materials + Forms
Dramatic Elements
- unexpected vegetated forms
- unique lighting elements
- “stages” for meeting and performance
- water flow and cleansing
- topographic shifts

Historic Materiality
- wooden planks
- bricks
- rough hewn granite
- [immediate past] reclaimed asphalt

That parking lot really hurts businesses on this side of First. Do you know the foot traffic ratio? It must be 5 to 1.”

“The city likes performers in the streets. We are free security for them, in a way. A performer changes a space, changes the way people feel in it.”

---

Scan|Design Master Studio 2008
SECTION AA' [looking from the street into the space]

SECTION BB' [looking from the center of the space to the street]

SECTION CC' [looking from the center of the space to the water]

SECTION DD' [a walk in the alley]

SECTION EE' [post alley section, facing west to water]

OVERVIEW PLAN: MOVEMENTS AND CONCENTRATIONS

water, vegetation, people
Alleys: The Urban Hillside

1. Public space providing access to the sun and habitat

2. Create active edges

3. Utilize green infrastructure for stormwater filtration, control and reuse

4. Create an active family destination

5. Develop a hierarchy of public spaces

6. Reveal the underground
The Urban Hillside building provides an activated edge and a sunny outdoor counterpoint to Occidental Square. Water is captured and recycled in the building and fountains.
Alleys: The Urban Hillside

B
Aerial perspective looking west showing courtyard and through way to Occidental Square.

C
Ground level perspective looking north/east toward the exposed underground layer.

Ground Level Programming and Circulation Diagram

- Commercial w/ Residential Above
- Washington St.
- Revealed Underground Below
- Office/Residential Lobby & Offices
- Commercial w/ Residential Above
- Occidental Square
- Bicycle Shop & Rental
- Night Club
- Water Playground
- Existing Residential
- Waterfall Park

Aerial perspective looking west showing courtyard and through way to Occidental Square.

Ground level perspective looking north/east toward the exposed underground layer.
Families and children are an important user group to create a more vibrant pedestrian district for Pioneer Square. A water playground can function as a family destination year round. During the winter ample stormwater is filtered through wetlands, stored in a large cistern, reused for toilets in the building, and recirculated during summer months.
Alleys: Carving Public Space

**Problem**
The alleys in Pioneer Square are unsafe and unpleasant to use as a pedestrian. Many existing windows are boarded up and impair public interaction at the ground level. Standing water disrupts pedestrian movement through the alley. Furthermore, the ravine-like nature of the alley walls to the alley floor is without regard to human scale.

**Opportunity**
Use the alleys to create a vibrant pedestrian atmosphere. Express and respect the historical character of Pioneer Square, and denote new layers of development in the alleys with glazing and green space.

**Pilot Site**
The intersection of Yesler Way and Post Alley is a favorable site to enhance alleys. The alley at this intersection will be referred to as Lower Post Alley. As a crossroads between Pioneer Square to the East and the Waterfront to the West, this intersection will serve as a neighborhood connector through pedestrian and bicycle routes.

**Concept**
Lower Post Alley is a significant entry point into the neighborhood and, importantly, into the alley network. Due to the historical nature of the neighborhood, the streetwall should be left physically unaltered. However, the alley wall can be seen as an adaptable entity so that the alleys foster their own identity as a vital component of urban life in Pioneer Square.

The alley wall can be a malleable entity. Subtractions will be done with respect to the structural bays of the buildings. To distinguish these carved spaces as a new layer of development, glazing and green space will be integrated into the existing built fabric. The specific carved areas enhance the public realm in several significant ways. The colonnade at the street level creates needed shelter from the rain and provides places to sit, stay, and stand, essentially places to meet. Furthermore, the colonnade is especially strategic because of its relationship with the open space to the south. The southern open lot creates visible daylight at the end of the colonnade.

With the colonnade at the ground level and the setbacks at the sky level, the intimate nature of the alley is maintained and built upon with both vertical and lateral layering. Inserting green roofs and storing grey water to use for building systems will significantly reduce the amount of stormwater in the alley. Permeable alley paving will absorb additional water. The setbacks of the wall are proportioned in respect to not only human scale, but to the maximum allotment for vegetated walls according to the Green Factor.

**Conclusions**
Strategically carving space from the alleys creates a safe and sustainable public environment. Controlling stormwater and greening the city with vegetated walls and roofs, and adding first floor glazing allows a historic neighborhood to adapt to changing urban demands. This strategy could be applied to other areas of the neighborhood as well, where opportunities to create better public space exist.
Materiality

Seattle Green Factor Data

<table>
<thead>
<tr>
<th>Parcel Size</th>
<th>Max Green Roof</th>
<th>Max Vegetated Wall</th>
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<td>7000 sq. ft.</td>
<td>1200 sq. ft.</td>
<td>5400 sq. ft.</td>
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<td>14,000 sq. ft.</td>
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Green Factor

1.1

0.38
ALLEYWAYS
Connecting the Dots

Students: Jonathan Bahe | Benn Engelhard | Jason Medeiros | Michael Pickford | Josho Somine
“Public Spaces in Pioneer Square - the streets, parks and alleys - serve many functions. They are places for pedestrians to walk and linger, places for visitors to sit and watch the world go by, routes for sports fans, places for festivals and events, even the front porches and backyards of residents. The City’s designation of Pioneer Square as a pedestrian-oriented urban village is already a real and apt description.”

“The network of alleys is critical to Pioneer Square’s urban identity and provides routes for pedestrians and service vehicles. Brick and granite paving in the alleys shall be maintained and, where feasible, restored. In specified locations, alleys shall be graded and repaved to improve drainage and maintainability.”

Pioneer Square Neighborhood Plan, 1998

These words are more true now than ever with residential development of the North Lot and Yesler Terrace expected to greatly increase the density and pressure in the public spaces of Pioneer Square. Improved and enhanced alley spaces will be needed as a secondary pedestrian network, and can provide a unique array of services and functions. They also represent a distinctive way to explore the historical architectural character of the district. As the neighborhood becomes saturated with new residents and tourists, the alleyways will become saturated with life!

Pioneer Square Alley Conditions
**GUIDING METRIC: LEED for Neighborhood Development**

As a LEED for Neighborhood Development community, Pioneer Square will become a compact and liveable neighborhood model. Using LEED-ND as a metric, our goals included healthy living, protecting biodiversity and promoting alternative transportation.

Our design proposals alone will generate at least the 40 points required to certify Pioneer Square as Certified LEED-ND. The most significant contributions will be in the categories of Reduced Automobile Dependence, Walkable Streets, Access to Public Space, Certified Green Buildings and Stormwater Management.

Alleyway by alleyway, our proposals work from in between the buildings in underutilized spaces to meet LEED-ND standards and make Pioneer Square a more vibrant, liveable and sustainable place.

### Program Elements

- Create inviting and exciting spaces for exploration by visitors
- Create secondary and tertiary paths of travel for neighborhood residents
- Enrich Pioneer Square through the creation of places and spaces for 24 hour activity
- Capture and treat stormwater runoff
- Repave alleyways with traditional brick pavers on pervious base

### Future Functions

All alleyways will be programed for pedestrian activity while preserving priority for service and ecological function (habitat and hydrology) where necessary.

### Future Bicycle Movement

New bicycle opportunities including recreation, delivery service and trash collection

### Future Pedestrian Activity

Nodes of increased pedestrian counts given new development and increased train, light rail and ferry ridership

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**Public Spaces | Public Life for Seattle’s South Downtown**
The alleyways of Pioneer Square present a unique opportunity to create public spaces within a neighborhood which is once again becoming appreciated for its walkability, sustainability, and the beauty of its historic fabric. These alleyways are currently drastically underutilized as public spaces, and in most cases actually detract from the potential of Pioneer Square. As highlighted in orange on the diagram to the left, there are opportunities for intervention at specific nodes throughout the alleyway system. These points are created when the existing alleys, which are sixteen feet across, widen to create spaces which are twenty-five to thirty feet across. While in most cases, it is unrealistic for entire block-long alleyways to be reclaimed for public use, the nodes hold tremendous potential for fostering unique public spaces within the alleyway system. By utilizing the additional width of the alleyway for cafe spaces, outdoor gallery/sculpture space or gathering space, the neighborhood will become renewed with spaces which draw residents and visitors into the alleyway.

In some areas of Pioneer Square, building lots remain which are currently open parking space or otherwise abandoned space. These parcels allow for the insertion of new infill development which will compliment the beauty of the Richardsonian Romanesque architecture which exists through much of the neighborhood, in addition to the other historic buildings. By drawing inspiration from points on the existing facades, the new infill projects establish contextual relationship within the historic fabric. In many areas, the infill projects also coincide with opportunities to create nodes within the alleyways. Utilizing these infill and alleyway node spaces creates a dense, mixed-use neighborhood which blends modern use and interventions with the historic beauty which defines Pioneer Square.
Pioneer Square is today home to many social services, which serve Seattle’s homeless population. This project proposes the creation of a modern architectural intervention within the historic fabric of the Pioneer Square neighborhood to serve this community. Programmatically, the project builds on the success of FareStart (www.farestart.org), an organization which provides job training in the food service industry to homeless and disadvantaged individuals, and operates a highly successful restaurant which allows the public to interface with the program as the participants prepare and serve their meal. This building is envisioned as an expansion of the FareStart program, while also providing additional services to the program’s students. Most importantly, the building creates housing for the program’s students to allow them to rebuild their lives in a clean, safe, and highly sustainable setting.

The proposed infill project is the first of several projects within the neighborhood which utilizes an open lot adjoining an alley to create both a unique streetfront and alleyway node. This node serves as an example of the opportunity within the alleys to create new public spaces from forgotten ones, as shown in the upper left section. Additionally, the project proposes a new street condition for 1st Avenue South through the elimination of street parking, which allows for dedicated bike lanes to be installed in each direction as well as the widening of the sidewalks. These wider sidewalks allow for dedicated cafe or commercial space, pedestrian walking space, and spaces for seating, lighting, street trees and bike parking. This renewed streetscape is shown in the upper right.
Alleyways: Bicycle Village

Vision
An urban bicycle alley village that invites and engages the public, expands the role bikes play in city utility services and advances a more sustainable Seattle.

Mission
To expose bike infrastructure and grow a diverse population of bike users.

Goals
- Provide bike trash and alley services
- Reduce auto traffic
- Maintain clean and safe alleys
- Create precedent for others
- Increase bike presence
- Decrease accidents
- Create active public space

Activities/Facilities
- Bike parking & storage
- City tours & rentals
- Community workshop
- Afterschool mentorship
- “Green collar” training
- Offices, Cafe & Info kiosk
- Restrooms & lockers
- Demo & Gathering space

Why Here?
Topography
- Flat neighborhood, site and waterfront
Connectivity
- Easy access to alleys, bike routes, transit hubs and waterfront
Location
- In the heart of historic Pioneer Square
- A live/learn/work/play neighborhood
- Waterfront views
- Diverse and growing population of commuters, tourists, residents, workforce, volunteers

Site Context

Why Here?

What's Here?

Future

Why Here?

Bike Park

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Map|Design Master Studio 2008

Scan|Design Master Studio 2008

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Why Now?

Culture
- Vibrant and growing cycling population

City
- Leading model of Sustainability
- Commitment to being bike-friendly

Infrastructure
- Firmly rooted bike services, businesses and workforce
- Capacity and energy to expand

Why This?

Sustainability
- Support Seattle’s commitment to sustainable development
- Provide carbon neutral and energy-efficient alternatives
- Shift away from an auto-dominated culture
- Build on city’s national and International standing
- Capitalize on citizen support and energy
- Expand and bolster bike infrastructure and advocacy
- Grow a local economy
Potlatch Alley sits upon the former tidelands that separated Puget Sound from original Seattle. Here, the beach once welcomed the tides twice a day, as it welcomed the canoes of the coastal Salish and eventually the Dennys, Yeslers and other white settlers to the region. Always a gateway, the mudflats and sandbars allowed the flow and exchange of salt water from the sea and fresh water from the land. This alleyway now has the potential to form the southern gateway for the new Pioneer Square, welcoming neighbors from the North Lot Development and all visitors entering the city from the south.

This proposal extends the Occidental walking mall to King Street, limiting car access and opening swales and rain gardens between street trees all the way to Occidental Square. Twice as wide as other alleys, Potlatch Alley has space for dancing, for shopping at an open air market, sitting at cafe tables and perusing outdoor artwork. Underground you will find a much needed general store and overhead, suspended ‘Lantern Canoes’ light the way, casting patterns and shadows reminiscent of watery landscapes.
**Concept:**
Art Walk Alley is designed to transform an alleyway currently devoted to cars and refuse into an appealing place for people, without displacing service functions or altering the historic character of adjacent buildings.

**Alley Entrance Elements.** Welcoming gestures, including lighting, special paving and canopies draw attention and link alley segments together.

**Greenroof break-area for abutting offices.** The small bridge across the alley creates tension between public and private space, adding to the sense of liveliness in the alley.

**Stormwater runoff.** Rain water is slowed by the lightweight greenroofs, before travelling to the ground via a series of planter boxes filled with native ferns.
Increased density of function. Artworks would be designed to accommodate the service functions of the alley.

Precedents:

Kerouac Alley, San Francisco
Source: About.com contributor, hallamon7

Laneway, Melbourne, Australia
Source: Flickr user, coloursofbohemia
Currently, runoff water from streets combines with sewer effluent during storm events and overflows into Puget Sound under Pier 44. This rare shallow location would serve much better for salmon habitat and public access were it not subject to such pollution. This plan proposes to remove district stormwater from sewer pipes and treat it in a network of planted runnels within the pedestrian alley spaces.

**Precedents:**
Seattle has a rich vocabulary of urban greening, but most of it serves no ecological function. With a few adjustments, and inspiration from some European cities, our greened alleys could also clean and store runoff water and provide native habitat.

Specific alleys will have differing intensities of pedestrian, vehicular, and ecological functions. A varied and flexible palette of green infrastructure techniques will be required to comprehensively address the district’s stormwater issues. In return, this water can enrich the pedestrian experience of the Northwest’s unique biodiversity and vitality.
Rainwater cycling works better at a city-block scale, where rooftop water tanks can collect the water cleaned by adjoining green roofs. This water can then be used in toilets, sinks, or even for drinking. Graywater from sinks and showers can then be returned to lower green roofs or green walls. The roofs also provide native habitat islands and semi-private open spaces for building residents and workers.

Walking north from Jackson St.
Stormwater capacity: 50,000+ Gallons

Walking south from Pioneer Square Park
Stormwater capacity: 11,000+ Gallons

**Alley 1:**
- primary pedestrian throughfare
- full service vehicle access
- dramatic but low-impact greening

**Alley 2:**
- primary stormwater passage
- partial service access
- unique pedestrian amenities

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**Public Spaces | Public Life for Seattle’s South Downtown**
Connections
Alleys
Alleyways

Stations
Lidded
STATIONS
Connecting the Dots

Students: Erica Huang | Rie Shintani | Chilan Ta | Bo Zhang
Stations: Next Stop! Seattle

**Micro-Ecology**

- **Metrics:**
  - In addition to using Gehl’s Quality Criteria, we strove to design a site that could win Living Site certification.
  
  Ultimately, this site could be certified in five of the six Living Site Challenge “petals”: Site Selection, Water, Energy, Beauty & Inspiration, and Culture.

While we were unable to satisfy the Materials petal, our site would gain nearly maximum credit for material use under the Sustainable Sites Initiative guidelines.

- **Source.** Blue: stormwater
- **Sink.** Orange: electricity
- **Brown:** wastewater
- **Lavender:** carbon dioxide
- **Green:** material reuse
- **Basin / site I.D. number**

We strove for net-zero water run-off over the extent of the Stations site, i.e. 2nd Ave S to the West, S Weller St to the South, 5th Ave S to the East, and S. Jackson St to the North. To achieve our goal a combination of bioswales, fountain amenities, cisterns, and wetland habitat create the on-site water management system.

Removed structures from the International District/Chinatown Bus Station will be re-used in new design.

Carbon reduction strategies take the form of local energy generation from pedestrian and bike activities combined with the capturing and conversion of non-traditional forms of energy (e.g. the rolling of bicycle tires, heel clicks, cascading water falls).
Pedestrian Eventscape

Transit hubs are like Rube Goldberg machines. A train pulls in; people spill out like pinballs onto the sidewalk, responding to environmental cues to stop, go, and turn.

- **Pedestrians**: fast movement
- **Windy location**
- **Noisy location**
- **Heavily trafficked edge**
- **Pedestrians**: meandering movement
- **Pedestrians**: stopped
- **Sunny location**
- **Meeting / rest point**

Existing Opportunities & Constraints:

Vehicular protection and human-scale delight: Scale of roads and forms must be more human-friendly.

Pedestrian Amenities:

- Upper and lower KSS disconnected (Basin #1a)
- Lack of awnings, Human-scale
- Changes in environment (e.g. seasonal, weather related, time of day)
- No resting opportunities (Basin #1b)
- Lack meaning in structures
- (International District/ Chinatown Bus Station)
King Street Station: Connecting

Introduction

King Street Station is a historical building built in 1906; it is identified as one of three important downtown transportation hubs. For years, the station has been poorly maintained and greatly deteriorated during a period of declining rail travel. It has been unable to accommodate the demands of a growing number of commuters and travelers. Along with the King Street Station Renovation Plan, this project aims to regenerate the space by enhancing the pedestrian environment, rearranging the stormwater system, and emphasizing the aesthetic value of the historical building and its surrounding environment.

Main Goals

Transit
- Connecting two levels
- Providing clear way finding/ time/ information/ services
- Concentrating traffic lane, leaving space for pedestrian and bikes

Ecology
- Permeable paving
- Stormwater system
- Vegetation

Program

Problems

- Lack of connection between upper and lower levels
- No inviting point
- Dominated by vehicles
- Looks plain with a huge concrete wall on west side

Pedestrian Environment

- Protection against vehicular traffic
- Invitation for sitting/ amenable waiting area
- Providing bike lane/ bike parking

Aesthetic

- Rich sensory experiences- lighting/ water/ plants’ season change
- Invitation for visual contact- tower/ direction to waterfront

Ecology

Scan|Design Master Studio 2008
This site is integrated with a stormwater system. The water on the site is collected in a pond on the north part of upper level, and goes down to the planters on the lower level. Also the whole lower level is covered with permeable paving. The water will permeate through the paving and then go down to the south. The train tracks are covered with wooden decks that function as pathways at grade and provide drain underneath. It also directs water for the use of each planter.
The Challenge

The existing International Bus Station Plaza is not a friendly environment for the public. Oversized openings to the tunnel level blocks circulation, and too many existing structures are underutilized. As a result, most people use the sidewalks instead of the center area. There is also a missed opportunity to connect to the International District.
The Proposal

The design proposal is to improve circulation by removing all of underutilized structures except for the four main staircase/elevator canopy structures. The proposal is to also lid over the oversized openings and cover them with drought tolerant native plants. Connection to the tunnel level is maintained by new skylights that offers daylighting to the level below. Connection to the International District is emphasized by continuous pavement to the Chinatown Gate on the King Street.
4th Ave S. & S. Jackson St: Flows, Fluidity

Evidence for high intensity transit hub development:

Seattle Comprehensive Plan
• 2010: 42% increase of non-SOV commute trips and 55% of all trips are non-SOV
• 2020: 60% of all trips are non-SOV

PSRC Vision 2040
• 6 million people, 3 million jobs
• Seattle Central City identified to accommodate 32% population growth, 42% employment growth

Washington State Legislature 2050
• Desire 50% below 1990 GHG levels, where 50% GHG emissions are transportation-related

Roundabout design integrates East-West pedestrian and bicycle movements, while facilitating smooth traffic flows at safe speeds (15mph). Projected numbers are calculated based on 60% reduction in auto use, assuming a 60% increase in transit use and pedestrian activities.

Existing Condition
• Lacks human scale & visual interest
• Missed opportunity to highlight variety of transit and transportation modes (e.g. trains)
• 4th Ave S. intersection extremely wide
• High traffic volumes

4th Ave S. inhibit E-W pedestrian flows

Pedestrian Movements Across Site

Landscape supports free movement.
Everchanging space.
Still water pools activated by train vibrations.
Organic grating pattern over surplus-water-triggered vertical fountains.

Scan|Design Master Studio 2008
Net-Zero Water Run-off Concept

The net-zero water run-off scheme utilizes ‘surprise’ fountains in the roundabout pedestrian plaza. Only when there is surplus water are the fountains activated, thus adding spontaneity and supporting the feel of an everchanging space. Under worst-case scenario conditions of a ‘100 year’ storm, one hour yields 1 and 1/3 inch of rain.

Recycled materials from the International District station area will be used to create a visual focal point at the South edge of the roundabout and for those entering the CBD via 4th Ave S.

An interactive gantry crane sculpture (Schouwburgplein, Rotterdam, Netherlands) that harkens to Seattle’s industrial waterfront and industrial past will frame a small will generator, a symbol for non-traditional energy sources and sustainability.

Recycled Materials Inventory for 4th Ave S. Sculpture Focal Point - Small Wind & Interactive Gantry Crane

Buses
Autos
12’

Pedestrians
Plantings
12’-18’

Roundabout Pedestrian Plaza
120’

Buses
Autos
12’

Pedestrians
Plantings
12’-18’

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An interactive gantry crane sculpture (Schouwburgplein, Rotterdam, Netherlands) that harkens to Seattle’s industrial waterfront and industrial past will frame a small will generator, a symbol for non-traditional energy sources and sustainability.
Station Ecology: Microbes at Work

Adroit Algae

South of King Street Station was once tideland. Water reappears here in the form of a wetland and a glass-encased algae pond. The algae takes nutrients from train emissions and wastewater. Trains carry dried algae off site for processing into biodiesel.

The wetland is sited outside of frequent pedestrian traffic, allowing it to remain productive while easily adapting into a neighborhood park for eventual North Lot residents. A permeable “petri dish” in the wetland creates a warmer microclimate underneath, allowing the wetland’s planting palette to evolve in the face of climate change.

**Section B-B’**

Fiber optic thread in permeable edging breaks up the Qwest Field parking lot’s otherwise impermeable asphalt. Strips of parking spaces are embellished into fish skeletons to remind us these once were tidal sands.

**Section A-A’**

Bike ramp generates 1kW electricity needs

Reclaimed water to North Lot

Interceptor provides C:N:P ratio of 50:8:1

Stormwater cools exhaust, enters bioreactor

**Haematococcus pluvialis** bioreactor requires C:N:P ratio of 20:8:1

Green and clear recycled glass facade allows in the light spectrum necessary for photosynthesis

**Sewage**

**Carbon Dioxide**

**Algae Ponds & High Density Vertical Bioreactor**

**Bicycle Kinetic Energy Capture**

**Biodiesel**

**Reclaimed Water**

Greyhound Station

Metro bus stop

North Lot

South of King Street Station was once tideland.
Active Amoebae

Without soil microbes, bioswales wouldn’t function. Our streets highlight that fact with supersized microbes that span the street. Stormwater is processed within these microbes via permeable pavers, bioswales, and finally a fountain.

The edges of the giant microbes light up at night for 24-hour unified pedestrian spaces. These edges are also extended speed bumps: streets ramp up to sidewalk level within each microbe. Retractable bollards allow the streets to be narrowed for events, easily adapting to a future with fewer cars. Streets maintain unity with the International District through details such as suikinkutsu rain bells, drawn below.
LIDDED
From Void Space to Green Place

Students: Julia Lindgren | Rachel Miller | Amanda Reed | Katy Saunders | Katherine Wimble
Lidded: From Void Space to Green Place

Site Identity and Character Guiding Design
- currently under-utilized, poor quality public space
- site of interaction with trains (sensorial experience)
- gateway to the city/ views of the city
- connection to history (site as palimpsest)

Activities Supported by the Site
- eat/drink/shop/attend cultural event
- meet/gather in large and small groups
- learn about ecological processes
- play/perform/watch people
- pause or pass through
- relax

Metrics:
The City of Seattle’s Green Factor is a system for rating the quantity and quality of landscaping in new developments. A score of .3 is required in applicable zones and is determined by planting information such as the number of trees and shrubs and the square feet of permeable paving, green roofs, and rain gardens.

<table>
<thead>
<tr>
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<th>Green Factor Score</th>
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<td>South Block 3</td>
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**Design Goals**

- promote economic, social, and environmental sustainability  
- provide ecological services through ecorvealatory, green infrastructure  
- prioritize pedestrians, bicyclists, and public transportation over private motor vehicles  
- create a multi-layered, multi-functioning, multi-textured site  
- activate/energize and calm/quiet for different functions in different areas  
- integrate buildings and landscape as functioning whole  
- meet all 12 Gehl quality criteria
Lidded: Growing Grid

Lidding of Tracks: A Transit Focus

Due to its adjacency to King Street Station this design proposal caters to the traveler. ‘Growing Grid’ provides the necessary amenities needed for comfortable transit while establishing connections between the station and its surrounding neighborhoods. The site is divided up into three sections:

1 - landscape (southernmost portion): gathering space suitable for both large and intimate gatherings
2 - exposure to tracks (middle portion): public viewing area/ main pedestrian walkway
3 - building (northernmost portion): mixed-use commercial

Below: Before and after perspectives of site looking north from 4th Avenue

Circulation
- Main circulation path: pedestrian ‘alleyway’ connection between Station, North Lid, Downtown, Pioneer Square
- Secondary circulation path: site perimeter
- Informal path through site

Activity Zones
- High activity: site entrances, ‘alley’
- Medium activity: larger gathering areas
- Low activity: intimate places to sit, gather

Water Circulation
- Roof collection: storm water funnels into gutters
- Gutters: water is distributed through grid for use by vegetation
- Cistern: excess water is stored for building uses

Site Plan
Site Connections

The site’s three sections are unified aesthetically and functionally by a boardwalk and an overhead grid system.

- The boardwalk functions as a pedestrian alleyway providing direct access from King Street Station to Seattle’s city center. The boardwalk is a highly activated place with outdoor restaurants, artists, and frequent train watching opportunities.

- The grid functions as a water collector, an armature for plant growth, and a structural system used to support the building’s south-facing wall of garage doors. Storm water is captured off the building’s roof, funneled into a gutter system (integrated with the grid), and released into planters on the southern portion of the site where the water is theatrically released and then either filtered or funneled into a cistern.
This proposal bolsters the newly lidded area as a lively urban transit hub. Little, quick cafés and shops activate the space surrounding the train platform entry. Quieter outdoor rooms provide “settling in” places and allow children and elderly to interact. Residences on the upper floors extend the hours of life in the space. Landscaping, buildings, and a water fountain buffer the traffic noise and enclose the space. All stormwater flows through a series of retention ponds, directed to the fountain or the cistern for onsite use, while plants phytoremediate train smoke. Peephole mounds, a water fountain, and ground lighting playfully expose the passing trains and the history of the site.
Private roof gardens for residents.

Slits in the boardwalk allow natural light to the service road below and glimmer at night.

Flexible gym floor is used by daycares during the day and dance or fitness classes in the evening.

Prime afternoon sun seating.

A lively market provides the sounds, smells, and colors of a true transit hub.

Glass blocks suggest the train tracks below and playfully glow as train passes.

Prime roof gardens for residents.

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Prime roof gardens for residents.
FACILITATING TRANSITION AND CELEBRATING MOVEMENT IN A GREEN TRANSIT SQUARE

Drawing on the site’s location next to two transit hubs, Transpose facilitates circulation via pathways that visually evoke the rhythm of a train. A central fountain, activated by the rails below, further reveals the site’s industrial context. Dance and yoga classes offered at the Transpose Center continue the celebration of movement into the interior space.

The closure of 3rd Ave. S. to car traffic offers a protected pedestrian area, with options for shopping and dining. The relocation of Bike Station to a larger space on the central square provides essential services for bike commuters. Transitional housing center provides services and stability for low-income population.

The vegetation and water systems integrate to channel and store water on-site. Moving from tall marsh grasses in the south to upland plantings in the north, the plants illustrate the site’s history as a salt marsh and create a visual juxtaposition against the Seattle skyline.

Meeting the Gehl Criteria

The vegetation and water systems integrate to channel and store water on-site. Moving from tall marsh grasses in the south to upland plantings in the north, the plants illustrate the site’s history as a salt marsh and create a visual juxtaposition against the Seattle skyline.

Roof with open southern exposure offers an opportunity for on-site solar power generation

Street run-off is cleansed by tree planters

Upland Rain Gardens

Upland Rain Garden

Bike Station

Marsh Grasses

Marsh Grasses

Paving connects central plaza to pedestrian street

Rhythm of paving and planters evokes the sound of the train

1" = 40'
Section B-B: Central Plaza and Fountain

Fountain is fed by water collected on site

Cisterns store water for central fountain and use in adjacent buildings

Trench drain network filters water through planters and into swales

water and vegetation

- Surface flow
- Trench drain
- Subsurface flow
- Building catchment
- Cistern
- Catch basin
- Rain garden/Detention zone

Amenities placed near transportation hubs increase the appeal of public transit

Vines climb up steel structure, providing buffer from the busy street

Openings through to the tracks below vent train exhaust through the planted structures

View south of proposed 3rd Avenue pedestrian street

Section A-A: Sounder Access and Planted Filter Features

GRASSES historic salt marsh

RAIN GARDENS upland forest

URBAN COLLAGE built landscape
North Lid: SOFTCITY

Conceptual Framework

Cities are inherently theatrical, functioning as lit stages on which people, spaces, buildings, water, and plants perform meaningful acts. In SOFTCITY, the north lid becomes a stage for a performative network of human interaction—the soft infrastructure that maximizes the flow of ideas, connects people to place, and keeps the city alive.

SOFTCITY provides ecological services, safety, comfort, and choice with distinct-but-connected “stages” for watching people, viewing films, gathering in groups, observing the city, playing, and witnessing natural processes.
Views of train tunnel and city maintained

Varied surface invites play, discovery, and architectural interest.

Translucent outdoor roof provides protection from the rain and filtered shade.

Green roof provides habitat and captures stormwater. Cafe activates corner and plaza with food and drink.

Outdoor cafe seating allows all weather gathering and recreation.

Multi-use building populates the public space with people at all hours of the day and night.

Seating placed on the edges of plaza invites rest and people watching.

Open plaza invites large gathering and provides seating for an outdoor cinema.

Channels clean and collect stormwater throughout site. Planters contain trees and grasses.

Water feature invites play. Water feature collects and recycles stormwater.

Increased tree canopy provides both environmental remediation and a physical buffer between cars and pedestrians.

12 QUALITY CRITERIA

Protection

Comfort

Enjoyment

Ecology
Life

- The ‘life’ of the new lidded space inspired the design of three distinct plaza areas as well as two new buildings that accommodate year-round, all-weather activities.
- The buildings provide boundaries to the public spaces, and programmatically support continual activity outside.
- Each public plaza is uniquely designed to facilitate different activities: the flat large space is best for large gatherings, the mostly sheltered brick plaza is best for small gatherings, and the smallest plaza has a varied surface that invites play.
Above: A birds-eye view of the main public plaza on a summer night with people gathered to enjoy the outdoor cinema on the new theater building.

Left: Looking southeast towards the new cafe from the edge of the bridge over the water. People are sheltered from the rain under the overhang and the cafe glows warmly.
“To be able to move about easily and confidently, to be able to linger in cities and residential areas, to be able to take pleasure in spaces, buildings, and city life, and to be able to meet and get together with other people - informally or in more organized fashion - these are fundamental to good cities and good building projects today, as in the past.”

-Jan Gehl, Life Between Buildings