The challenge to the students was to determine how the community could benefit from these catalysts.

The studio’s 22 students were divided into three groups: the National Park; the commercial area; the residential streets. Their products and recommendations are contained in their report. We wish to thank the Mayors of Homestead, Munhall and West Homestead, the Borough Councils, the Borough Managers, the Chamber of Commerce, and the citizens who gave us unstintingly of their time and ideas. We hope that some of our ideas will be useful as the community moves forward with plans for its grass roots revitalization.

When Pittsburgh’s steel industry collapsed in the early 1980’s, 17,000 jobs in the Mon Valley were lost, and the mill towns went into steep decline. Homestead was one of these. The Homestead mill was the largest in the world and occupied 300 acres of river front. Unemployment soared. Young families migrated to other parts of the region or to other cities to seek employment and careers. Homestead's commercial main street lost most of its businesses. Its residential streets became blighted.

Today the 300 river front acres have been cleared. A new regional/entertainment/office/apartment development is under construction. A National Park to commemorate the nation’s steel heritage has been proposed.
A letter from the Editors:

On behalf of all of the students in the Urban Lab: Fall 1999, we give a sincere “Thank You” to the residents of Homestead and all those who helped to benefit and enrich our work. Homestead provided an interesting and variable context in which to study and learn urban design, from the historic industrialized zones along the Monongahela River to the Eighth Avenue commercial and housing districts. It is our hope that the ideas presented in this book continue and strengthen the Homestead revitalization initiative, such that in the future Homestead may once again regain the glory that it once possessed when the ovens of Carrie were red with the energy of an industrial nation.

We’d like to thank the following individuals and groups on the following page for their support. Without their help, understanding, and patience, our work and this book would not have been possible. To those we forgot to mention or who aided us anonymously we thank you and hope you’ll forgive us for our lapse in mentioning you specifically. All in all, we appreciated the community effort that was part of this project, as it is the one most essential asset to design in an urban context.

Sincerely,

Kurt Beres

Christina Neumann
PROJECT POSSIBLE
Thanks to:

- Borough officials of Homestead, Munhall and West Homestead

- The council Mayors of Homestead and West Homestead: Betty Espar and John Dindak

- The Homestead Police for not arresting any of us as we made our way through the community taking photographs

- The Carnegie Library of Homestead for all of the wonderful historical resource they provided

- All citizens (especially the children) of Homestead and West Homestead for sharing their thoughts and stories

- Ronald A. Baraff: Archivist of Steel Industry Heritage Corporation

- Augie Carlino, Executive Director of Steel Industry Heritage Corporation

- Liza Cavalier of Pittsburgh History and Landmarks

- Tim Collins: independent artist

- Barry Ford

- Jen Gallagher of LaQuatra Bonci Landscape Architects

- Chuck Garrett of the Enterprize Zone

- John Kline of Urban Design Associates

- Mike Solomon of H.E.R.C (Homestead Economic Revitalization Corporation)

- All members of our juries who donated their time and thoughts
STUDIO PROFILE
URBAN LAB HOMESTEAD: FALL 1999

ADVISORS

- Prof. David Lewis
- Luis Rico-Gutierrez

NATIONAL PARKS

- Eli Green
- S.J. Lee
- Todd "skinny" McEntire
- Helena Broad
- Brett Lambert
- Julian Kinal
- Kelsi Montgomery
- Whitney Brooks
- Laura Barnes

LOVES Orlando Rockwell
STUDIO PROFILE
URBAN LAB HOMESTEAD: FALL 1999

COMMERCIAL

Mrs. Young Joon Chang-Miki
Mr. John Miki

Sara Wade
Julie Spinnato
Eric Malo
Wendy Wan
Hugo Chang
Calvin Quek

HOUSING

Kristen Wilson
Christina Neumann
Kurt Beres
Clint "Daddy" Luikart
Michael "Elf Lord" Rankin
Michael Krotscheck
Section 1: The People
Pages 1-6
Excerpts and photos from Charlee Brodsky and Judith Modell’s photojournalism project, *A Town Without Steel: Envisioning Homestead*.

Section 2: The Place
Pages 7-18
Analytical information about Homestead’s present, past, and future

Section 3: The Problems
Pages 19-28
“Think Pieces” or initial conceptual ideas targeting Homestead’s current problems and ways of change
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Pages</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>The Proposals - National Park</td>
<td>29-64</td>
<td>renewal focused around Homestead's historic industrial zone to bring new life to this community where the steel mills perished</td>
</tr>
<tr>
<td>5</td>
<td>The Proposals - The Commercial District</td>
<td>65-80</td>
<td>new views of Homestead's historic commercial district and its ties to large current riverfront development</td>
</tr>
<tr>
<td>6</td>
<td>The Proposals - The Residential District</td>
<td>81-103</td>
<td>suggestions for a friendlier neighborhood that begin in the home and are extended to community gathering points</td>
</tr>
</tbody>
</table>
Section 1 : The People

Excerpts and photos from Charlee Brodsky and Judith Modell's 1990's photojournalism project, A Town Without Steel: Envisioning Homestead.
"Even the details of family life depend upon whether "the mister" is working day or night turn; and the long shifts determine the part the steel worker plays in his household and also in his community. Financially, all time is marked off by the fortnightly "pay Friday." On that night stores are open all the evening. The streets are filled with music."

Margaret Byington, *Homestead: The Households of a Mill Town*
"The sons may work a little further up than their fathers; a man told me with pride that his son, who was a foreman, had secured for him a job in the mill, and a mother eager to relate how her boy had taught the new assistant superintendent the way to do his work. Only rarely, however, do they secure an education that fits them for an entirely different kind of labor. The mothers, too, expect that their daughters will eventually marry mill workers."

Margaret Byington, Homestead: The Households of a Mill Town
“White I met established and communicated the official text about race relations in Homestead. Mark, the tavern owner, narrated perfectly the white myth of good relationships “below the tracks.” He relished his role as spokesperson for the history of Homestead from the Great Depression to the equally great deindustrialization. His reminiscence about the “golden days” before the Second World War did not omit race. As far as blacks were concerned, he said, “They were no different from us...We went to school together. We fought together, we played together. They used to come to our house and eat, (we’d go to) their house and eat.” Then to impress me how close a family the neighborhood really was, Mark told a classic anecdote: “IF there was a tragedy struck your house, on your street, the whole street came and helped. We had a colored family, matter of fact, he owns the funeral home here, Mr. Frederick. He had a brother who was in the hospital, who needed blood. And at that time blood transfusions were-things were shaky, they didn’t process the blood, I think they gave it to you directly. I’m not sure, I don’t know, I was just a youngster. This was about 1934 or ‘35. But all the kids on the street went to give blood for him. And he was a colored fella, we were all white.”

Judith Modell’s interview of Homestead citizen, A Town Without Steel, Envisioning Homestead
"When asked what they learned growing up in Homestead, almost everyone I interviewed, regardless of age, gender, ethnicity, or race emphasized rules at home. Home meant family, including extended kin, and it also meant religious training—the values transferred from church to domestic hearth. While at home, children of a mill town learned to labor and to live right. Inside the mill, the techniques and the content of learning did not differ. The withdrawal of USX from the town left a big gap and few strategies for filling it. A few schools revised their curriculums and some programs arrived with promises of new skills. These changes, however, barely altered the dominant way in which individuals learned: through close, personal absorption of old values.

Judith Modell’s interviews of Homestead citizens, A Town Without Steel, Envisioning Homestead
“Through children, more than through insurance, or savings, or even through home owning, does a workman’s household lay claim upon the future. Here, both the oldest instincts and new half-formulated ambitions find expression...Here the community has set before itself what it feels to be high standards.”

Margaret Byington, Homestead: The Households of a Mill Town
Section 2 : The Place

Analytical information about Homestead's past, present, and future.

Time Line: Pages 8-11

Waterfront Development: Pages 12-13

Census Data: Pages 14-15

Topographic Map: Pages 16-17

Precedent Study: Pages 18
Before Mid-1700's

The Delaware Indians used the area as hunting grounds.

1770

The first known settler, Sebastian Federick, bought a tract of land extending from the Monongahela River to the present-day Homestead Cemetery.

Early 1800's

The city of Pittsburgh was quickly becoming an industrial city.

1872

The Virginia and Charleston Railroad built a railway line through the district.

1881

With the rapid growth in the area, the town of Homestead became the borough of Homestead in the city of Pittsburgh.

1880-90's

During this period, there was a shift in the origins of immigrants. Previously, most immigrants were of English and Irish descent, but the immigrants of this era were mostly from Southern and Eastern Europe, i.e. Slavs, Russians, Poles and Italians.

1886

Andrew Carnegie opened the first open hearth furnace in the U.S. in the town of Munnell.

1888

The population of Homestead reached 7000, which was mostly composed of immigrant workers who lived between the river and the railway lines on Sixth Avenue.

1891

On April 2, the Morewood Massacre transpired and thirteen workers died in a struggle with agents employed by Henry Clay Frick Mines. A mass funeral was attended by 10,000 men and women from the coke regions later that week.
1892
On July 6, the Pinkerton militiamen and strikers took part in the Battle of Homestead. This battle was the culmination of the labor disputes between the rich industrialists and the poor workers.
Also on July 23, a Russian-born anarchist, Alexander Berkman, attempted to assassinate Henry Clay Frick in his downtown offices. This assassination attempt did more damage than good for the strikers' cause.

1909
The McKees Rocks' Strike was among the largest of early century conflicts by ethnic workers. Pressed Steel Car Co. labor-pool practices resulted in a two-month strike with more than 4,700 workers out on strike. The strike was failure, but demonstrated that unity was possible among diverse ethnic groups.

1914
The Westinghouse Strike involved over 11,000 workers in Swissvale and the Turtle Creek Valley in a struggle for a county-wide industrial union. A march of electrical to the Braddock Edgar Thompson Works resulted in a confrontation where two workers died.

1919
The Great Steel Strike was lead by William Z. Foster and the National Committee Leaders. Although the strike had 365,000 workers, it had failed in the end.

1936
On St. Patrick's Day, the worst flood ever, in combination with the Great Depression, further destroyed the economic life of the communities.

1937
The High-Level Bridge was built to connect Homestead with Squirrel Hill.
With the onslayt of WWII, the productivity of the mills rebounded and subsequently, so did the life in the communities. The steel worker population grows from 254,939 in 1940 to 340,498 in 1943. During the war years, there are significant increases in the amount of steel production as labor and productivity grow. In addition, research and development result in new steel products, such as the razor blade, steel helmets (which accounted for 90% of all army helmets), tin cans and perforated landing pads.

There are also significant increases in the the average wage, growing from $29.30 to $56.93 in 1944.

A group of 750,000 strike, and with conjunction to other strikes from the coal, electrical equipment, meat packing, trucking and maritime industries, they demand for higher wages and benefits. A mutual agreement settles the disputes.

The Post War Era was a time of great economic progress and is considered to be the Boom years of Homestead as well as the steel industry. Since much of the steel industry in other countries have been ravaged by war, the U.S. reigns as the top maker and exporter of steel. Homestead population reaches its all time high as the standard of living increases. Steel production drops because the war is over, but mills remain productive.

Steel research and development started to lag behind other countries and finally ceased to exist. From 1957 to 1962, almost 100,000 jobs are lost without much notice. The aluminum can replaces the steel can as the preferred drink container. Steel mill technologies start to grow old and fall behind others.

Another strike for greater benefits.
### 1960's
Homestead remains one of the great steel making towns in the U.S., but growing troubles in the industry persists as management fails to initiate upgrade programs. The domestic steel market is flooded by imports.

### 1974
Congress passed the new Anti-Pollution Act, while foreign imports continue to flood the market.

### 1977
The Philadelphia-based Alan Wood Steel Corporation closed down, and Bethlehem laid off 3,500 workers. Also, Amoco Steel and U.S. Steel Corp laid off several thousand.

### 1978
The steel industry earned $242 million.

### 1979
Youngstown and 14 other steel mills close down, and the industry loses $293 million.
1980
Steel industries 4th quarter losses amount to $561.7 million, while in August, Homestead celebrates a 100 years.

1986
Homestead Works closed.
The Homestead waterfront is facing a new development. The steel mills are cleared and the land is ready. Only remnant from the steel industry are several smoke stacks on eastern side of waterfront. Pittsburgh as whole is going through revitalization, homestead waterfront has become another site to build a new outdoor shopping mall. Currently, four or five waterfront site are under construction in and around Pittsburgh. With the new stadiums and the new waterfront developments activity on the rivers will increase.

Bike Paths are sprouting up from the old remnants of railroad lines. These paths will eventually connect to Washington D.C.

The efforts of the city to re-invent itself into a High technology City have spurred on growth in the job market bringing the demand for housing up. Homestead current stock of housing if revitalized could be integral to this new growth. A short 15 minute drive from Downtown or 10 minutes to Oakland make Homestead’s placement perfect. The pictures below are aerial views of Homestead flood plain showing area of proposed developments. Evident is the Homestead High Level Bridge, smokestacks (at far left), and lower terraces of commercial and residential zones.
1. Racial Distributions -
a good black/white racial balance, much better than state and national percentages

2. Age Distributions -
high youth and elderly population. Baby boomer generation numbers low.

3. Change in Population -
dramatic drop over the last 60 years, due to steel industry decline and suburban sprawl

4. Marital Status -
large percentage unmarried or divorced
5. Housing Data

high numbers of single family units, high numbers of vacant units, low property values (roughly 25% of regional average), low amounts of home ownership due to prevalence of landlords.

Value of Housing Units

Duration Of Vacancy

Persons per Housing Unit

Housing Units in a Structure

Breakdown of Occupancy

Occupancy Status

Vacancy Status
The topography of Homestead is typical of a Pennsylvania river valley. The southern side of the site (Homestead proper) is an alluvial flood plane, now raised from the river’s edge by a 20-30 foot tall floodwall. The opposite side, the Carrie Furnace site has been carve out of the hill side and is therefore of steeper terrain. The northern edge also has a high river wall built for the same industrial purpose. The main area of Homestead is between two ravines that drain into the Monongahela River to the East and West of the city. A topographical map (shown) was used to construct the 3d site model on Form Z. Some helpful views are shown to grasp the landscape from a large perspective, necessary for urban design.
ANALYSIS
TOPOGRAPHIC MODELS

HOME STEAD
REVITALIZATION INITIATIVE
CARNegie MELLON SCHOOL OF ARCHITECTURE URBAN LABORATORY FALL 1999

17
The urban laboratory in Homestead combines a variety of design and planning issues and areas to tackle the problems of the community comprehensively. Each part involves a distinct set of issues and solutions. An integral part of the urban design process is the initial investigation of precedents and examples. Due to the complexity of the urban design laboratory in Homestead, the precedent analysis was divided into four separate categories: industrial, riverfront, parks, commercial, and residential. Each subdivision examines a range of precedents listed below. The integration of the separate urban design areas becomes an issue of connection that provides a comprehensive plan for Homestead. While there are many examples of each of the subdivisions, the connection of individual pieces presents a challenge with few precedents to go from and relies heavily of the innovative communication of the different groups.

Industrial:
- Sloss Furnaces, Alabama
- Emscher Landschaftspark, Duisburg-Nord
- Kueppersmuehle, Duisburg
- Design Center, Essen
- Voelklingen Iron Works, Voelklingen
- Lowell, Massachusetts

River Front:
- Baltimore Harbor, Baltimore
- River Walk, San Antonio
- Gas Works Park, Seattle
- Battery Park City, New York

Park:
- Munich Olympic Park, Munich
- West Park, Munich
- Central Park, New York
- Parc de la Villette, Paris

Commercial:
- South Side, Pittsburgh
- Newcastle upon Tyne
- Fussgaengerzone, (pedestrian zones) Germany

Residential:
- Six Chimneys, Cleveland
- Plantage Middenlaan, Delft
- Randolph Neighborhood, Richmond, VA
- Crawford Square, Pittsburgh
Section 3: Think Pieces

Conceptual "Think Pieces" aimed at targeting Homestead's current problems and turning them around.

Redirecting Energies: Page 20
Scavenged History Revisited: Page 21
Linking the Homestead Community: Page 22
Glimpses of Homestead: Page 23
Realizing Connections: Page 24
Effort Overflowed: Page 25
Layers of Potential: Page 26
Creating Unity: Page 27
Revitalize From the Outside In: Page 28
Redirecting Energies

"One day, a young boy became bored. For entertainment, he decided to start trouble by thinking he could prove an elder sage wrong. Seeing a helpless sparrow with a broken leg, the boy picked it up and squeezed it tight between his palms. Then, he ran to the elder man and posed the question, "Sir, is the creature in hand dead or alive." Well, the boy believed he had him tricked for sure. In the event that the elder would say, "alive" he planned to just squeeze the bird and break its neck but if he would say "dead" then the boy would simply open his hands and let it go free. The elder paused for a few moments and looking deeply into the eyes of the boy, he whispered, "It is as you wish, my son, it is as you wish."

Homestead’s potential energy is tremendous. While the daily flux of man and machine that drove the steel industry in the twentieth century no longer continues, the physical fabric that set the stage for the activity remains as a historic testament. As we investigate Homestead, we feel that the energy that once drove the mills still exists but has taken a negative turn due to economic hardship. Neighborly relations seem to be hindered by suspicion, tensions caused by the presence of illegal activities such as drug trafficking, broken families, and the deteriorating physical condition of the neighborhood due to lack of maintenance and fire damage. The energies currently producing these negative effects need to be reversed and focused towards the building of a more socially, politically, and economically sustainable community. Our think piece seeks to demonstrate the power of energy, and how it can either be a very creative of destructive force. We begin with our old Steeler’s lamp, a true Pittsburgh artifact which probably sat on some kid’s bedroom desk since the “Stellers” glory days in the 1970’s. The lamp was discovered for five dollars at the thrift store, St. Vincent de Paul, found on East Eighth Avenue in the commercial district. As we see it, this object can work in both positive and negative ways, depending upon how it is used. Without the bulb (see figure 1, the lamp is electrified but dangerous (just try sticking your finger in the socket.) This situation is analogous to the way we currently see Homestead, full of social energy but dangerous because of its lack of direction. It is our hope that by utilizing the existing resources (manpower and materials), we can reverse this trend. Essentially, we see this project as a way to divert energies, essentially becoming the light bulb which helps the user by converting electrical energy to light, a guide in the dark. (see figure 2.).

The third figure shows brightly lit lamp with a new shade. We replaced the existing shade and covered it in color transparencies of the positive aspects of Homestead, such as the intimate homes with their flower gardens, smiling faces of neighbors who spent time chatting with us, and the monumental buildings (the smokestacks on the floodplain, Carrie Furnace, and the churches.) These valuable existing resources of Homestead are key to a successful redevelopment and hopefully a source of pride not only for Pittsburgh, but for the entire nation, as a symbol of our industrial past.
Scavenged History Revisited

The ageing artifacts of the all but forgotten heroic age of steel in Homestead need recognition. However, providing an appropriate foil to these anachronistic artifacts was the most important topic of debate for us. We felt that simple restoration or recreation was wrong, as it betrays the sense of 'manifest destiny' that originally created and fueled this region.

The construction of this think piece involved several elements. Most striking is the workman’s wrench, an artifact scavenged from the site of the Carrie Furnaces. This tightens the plates of steel, each signifying Homestead’s attributes. The base, is the water. Homestead, and indeed this region, was maintained and grew through the network of waterways available to it. Its influence is far reaching, and value indeterminable. The next piece, a more oxidized piece of steel represents Homestead at its zenith, its dominance over the region and nation was complete at the beginning of this century. This was symbolized in its geographic hunger. Finally, on top is Homestead today, by far the nadir of its history. Crime and fear have replaced productivity and pride. Holding all these elements together are new bolts. These new bolts allow the old wrench to find new use. Allowing these ageing artifacts to ‘come back to life’ through a new use is the most enriching preservative.
Linking The Homestead Community

This piece represents a connection between the community of Homestead and the Carrie Furnace by bridging the wall of the new waterfront development. The waterfront development is a physical link, yet it does not provide the desired interaction between the community and a place of the historic steel industry. “Linking” the Homestead community to the sites is an important issue to be addressed. Many people no longer realize what was once there or just do not think about it now that it is gone, but those who have lived in Homestead for practically any extended period of time will never forget. Homestead and the steel industry evolved together, never one without the other, and now that has changed, however we must not forget about their linkage to the past. Now is Homestead’s opportunity to share the great history (with the help of the National Park service site designation) that supplied the building and organized labor structure for the nation as we know it today. Our think piece manipulated the new development to provide more direct access to and from the historic Carrie Furnace site, where the history of the steel industry could be taught in creative ways. The connection would be beneficial to the Homestead community, the waterfront development, and the history of steel.
Glimpses of Homestead

This think piece focuses on the history of Homestead—How it got to where it is today, What groups of people were significant in this history and How the geography and natural resources influenced Homestead. This multi-layer history is apparent in the layers of this poster. At the top is the mighty steel mill owner who had a primary role in Homestead’s economy during the era of steel. Below this are the workers who were controlled by these mill owners. The Steeples upon the hill relate to the diverse ethnicity of the area and the need for a church for each religion. The homes represent the families, many of whom have fleded after the fall of the steel industry. Below this is the Carrey Furnace and the Hot metal Bridge, still looming over Homestead today as an icon in an important historical event in American history. At the bottom is the river to signify its importance in the steel industry.
Realizing Connections

Within the first few moments of being in Homestead, we noticed a large disconnect between the people, the place, and its function. The present community has lost itself, not knowing whether it is still devastated by the lost of the mills or by the loss of life. The community remains shattered in three pieces; a new commercial waterfront zone, an old prototypical American main street, and an uninhabited residential zone. There are several key issues that are at play here, both physical and spiritual. First, the new development ignores the old because it is considered to be dismissed and unwanted. Second, the old does not want to incorporate the new because it cannot bring back the past. Both these points are further exacerbated by the railway lines which separates the old and new. Without the success of the commercial district, the residential stands idly by until another boom happens.

Our "think piece" represents all of the above disconnects. The image of the separated nut and bolt, trapped within the grids of the new and old, demonstrates that even when pieces should fit together, they may not always meet. The old, glory-filled past is completely discrete and is not able to offer guidance into the future. Consequently, the future is an unknown with borders on the present. The community of Homestead is in a state of anticipation for the disconnects to reconnect, but nothing can happen until an intervention is made.
Effort Overflowed

Although economic revitalization is an essential part of the solution, it should not be done in a way that risks destroying the very things that make Homestead what it is. Too often in the past, architects have been justifiably accused for acting arrogantly in proposing solutions that do not respect the context of the architecture. We must not make this mistake again. Instead we should encourage the citizens of Homestead not just the community of architects, urban planners, economic planners, policy makers to take part in this great effort. Together, we can hopefully bring Homestead back to the oasis of community spirit and pride that she once knew.

In our think piece, we represented Homestead’s yearning for its past glory and spirit in the form of a stack of 4 empty glasses. The input that the architects and other members of the solution team is represented as the water that flows from the glass jar into the empty glasses. As more water flows in, it begins to over flow into the glasses below. This is intended to model the idea that as more and more people get involved in this effort, a vital community of action will begin to take shape in Homestead. This Homestead spirit will start to “overflow” into the surrounding boroughs of West Homestead and Munhall.
Layers of Potential

This piece represents Homestead’s current problems and the potential that still exists to turn it all around. The foundation for a wonderful neighborhood is still strong beneath the buildup of layer upon layer of rundown phases. However, within these layers are beautiful “gems” just waiting to be released. The entire site, in fact, is full of natural beauty with the river and the hills. The light shining through the layers represents this natural splendor in this piece. Next is the strong grid, which simply needs to be plugged into. And finally, all of the extraneous, rundown aspects need to be cleared away to reveal the “gems”, which the origami creations hidden with the filth symbolize. In other words, this piece represents a process that must take place to renew this once thriving hub of industrialization.
Creating Unity

Homestead was once a unified town held together by the unions of steelworkers that made steel, that build most of this nation. The citizens share its geographical heritage, cultural traditions, and hopes for the future of Homestead.

Meanwhile, there are number of divisions inherent among the citizens of Homestead. Ethnic heritage, geographical barriers, economic status, and age divide them.

The goal of this think piece is to illustrate the importance of uniting Homestead while allowing the different groups to retain their unique characteristics. We strongly believe their differences to be of great value in enriching the place as we rebuild their home.

The threads linking the beads together in the picture signify the common attributes of our site, Homestead. Namely, they are Pittsburgh steel heritage, geographical location, and hopes for the future of Homestead to be revitalized.

On the other hand, the beads represent the different individuals in the community. They represent different age groups, economic status, and ethnic heritages.

The arrangement generated by putting them in sequence of specific order implies the process of making a new and comprehensive whole, while still retaining the unique elements within.
Revitalize From the Outside In

Homestead has an amazing history that many people know, even the residents. Yet, the history of Homestead is hidden under Pittsburgh’s history. Pittsburgh is known for steel, Carnegie, Heinz and bridges. Some know of the labor movement beginning there but mainly Homestead is known to people through the rich owners and the products from their factories. And that is how Pittsburgh known globally. Today, the sport teams, Steelers, Penguins, and Pirates spread the name, Pittsburgh.

As a working class town, Homestead has heritage that is related to workers. One big thing is Homestead strike in 1912. It is historically important because the homestead strike lead to labor movement in the States. Also, the steels that is the

In order to Homestead to revitalize, Homestead needs help from outside. With the rich history and great geographic characteristic that Homestead has, it will be enough to initial spark to the homestead revitalization. The connections should be made between outside of Pittsburgh and all the elements of Homestead. Homestead is the town that initialized the Homestead strike in 1912, the strike that led the labor movement in the States. Also, the steel that Homestead workers made were used to build the Empire State building, the most famous skyscraper in the century, Panama Canal, Brooklyn bridge and many more. So Homestead literally built this nation in early 20th century. Homestead should reveal these connections. In doing so Homestead will gain its name and that will bring historical interests as well as investors, visitors and good neighbors.
Section 4 : National Park

Renewal focused around Homestead's historic industrial zone to bring new life to the community on the site of the perished steel mills.

Steel Heritage National Park: Page 29

The Steel River: Page 38

Homestead National Park: Page 46

Homestead National Park: Page 54

Rankin Entrance / Pinkerton Memorial / Carrie Furnace
The revitalization of Homestead has provided EST with the opportunity to ask the question “What if?” We have been given the chance to take an entire community and experiment with the possibility and potential for revitalizing and bringing new life to a now barren landscape. Because this is not a brand new site, our primary concern is to create something new that functions with and adds to what still remains today. To do this it is vital to understand the history of Homestead and the people therein.

We have treated the Steel Heritage Foundation as our client with these interests, as well as holding the steel industry responsible for the present state of affairs. Our greater interests and goals can be understood in the think piece developed by Eli Green and Todd McEntire, or by SJ Lee and his partner Sara Wade (please see this section if you haven’t already).

In short, we intend to utilize the existing infrastructure, as well as natural beauty, in Homestead in order to bring out the gems that exist, and to work with the new development proposed. We plan to play upon the value of existing attributes by adding new elements to unify the area.

Our first move was to divide the possible sites into areas that we felt would be beneficial to work with to achieve our goals. The development that is already being built was a major consideration, and we felt that instead of ignoring it (which would make this project entirely unrealistic) we would work with it, as an economic center. Presently this development ignores Homestead, and will not contribute to the economy of Homestead at all. Our aim is to
somehow bring this economic center into the community it has invaded. The siting of the development on the waterfront continues an old tradition of cutting the people of Homestead off from the river, something we desire to change. This presence clarified our objectives, and has applied constraints as well as definition to the possibilities we could propose.

The high level bridge, traffic along the riverfront and people within Homestead all utilize 8th Avenue as a major corridor for travel as well as commerce. Other groups in our studio focused their efforts on this corridor, in an attempt to revitalize the commercial heart of Homestead; it is our chief concern to accommodate these efforts at all costs in our own project. This is especially important due to the conflict created by the new development oriented outside the community.

Homestead is rich with history pertinent on a local, national, and worldwide level. Pinkerton’s Landing, Carrie Furnace, the Bost building, Smokestack Monument, the Pump House, and many other significant architectural and geographic sites gather along the steel valley. Because Homestead was one of the most important industrial sites there is a particular density of historical importance. Uniting the past with the people and landscape of Homestead has the potential to bring wealth and history back to the region.

In order to link the geographically divided zones of the national park one of our first moves was to install a trolley loop with stops at the Bost building, along 6th ave., in Smokestack Park, the new development, the Museum and Marina (proposed), and on the Carrie Furnace site. This loop will utilize the existing rail road bridge and the hot metal bridge. In addition the LRV line will be continued through Homestead to Kennywood and beyond, with a stop at the historical Homestead Train Station, and the Steel Workers Plaza, linking Homestead to Pittsburgh directly.
Smoke Stack Monument Park

When one comes from the High Level Bridge, the ramp can be found on either side, right before the road hits Eighth Ave. On the right is the way to the Smoke Stack Monument, which can be approached through the Parking Garages that would keep the excessive traffic out from the proposed development of a park on this historic site.

Three Parking Garages:

Three parking garages are located right in between the road that comes down from the ramp and the on-going commercial development currently being made by the city. With three times three levels of parking- underground, on-grade, and roof-top, there would be enough space for the traffic that are coming across the High Level Bridge onto the on-going commercial development area on the east, and the Mound area where the park begins to the west.

Monuments:

The monuments symbolize the activities that were happening in the industrial era of Pittsburgh. Right now it stands as a physical entity that could attract local habitants into the park. With the new shelters that are integrated with the old structure, the places beneath the coverings can be utilized as an extension of the Market Place, where more of the permanent activities, such as exhibits from the local artisans, can be held, in addition to other commercially oriented community activities.

Market Place:

The modular platforms extending from the monuments to the trolley stop at the corner across from the Lowe’s theatre, are where the temporal tensile shelters can be constructed for commercial use. These are the tabernacles that can be easily mounted to the grids that the module provides, and accommodate weekend fairs or flea markets during the special occasions. The market-place also behaves as a transitional space that interacts with Lowe’s Theatre at the on-going commercial development area on the east, and the Mound area where the park begins to the west.

The Mound:

With the source of water at its peak, the path would graciously spiral down the mound as it unveils the countless views around its body. This place is the hearth of the park, with the boat docks at north, the Market Place at east, the Smoke Stack Monuments at south, and the Community Center at west. The mound ties all of the elements together in a setting of understanding the industrial history, as well as the present human use.

Community Center:

The stream from the mound continues through in between the green houses that face the mound on their east. They are the part of a Community Center, where most of the in-door athletic activities occur, in addition to the numerous recreational sports field around the outside. The stream continues through the garden pool that lies in between the two green houses and is added to by the run off from the roofs.

Lake Common Garden:

The stream continues down to the garden in the midst of the housing community that is developed on the western side of the park. This common is the hearth of the local residences, with the plenty of vegetation and enough water to make a place for the pedal boats in the summer and the ice skates in the winter. The water continues through the culvert under the road and down the river-wall on north, making the perpetual motion of the water wheel as it is dropped to set a background for the double-front housings that face the River Front trail.

The Houses:

Taking advantage of the river-wall that exists on the northern side of Lake Common Garden, these houses are transformed from the Pattern Book Houses to the forms that accommodate the double front façade on each side. The southern façade are confronted with the urban environment where the social interactions can be manifested, while the northern façade are utilized to possess the precious vista across the plantation that makes up the River Front Trails.

River Front Trail:

The natural walking trail along the river comes underneath the ramps that descend down the river-wall by the northern facades of Houses. It splits into two at the corner of the continuing river-wall. One of them comes along the walks that were made for the boats docks, and the other comes up the zigzag ramp to go underneath the existing crane, across the promenade and joins on the other side where the Market Place area begins. Since it is really close to the river itself, the space between the trail and the river are preserved to serve the fishermen and other contemplative wanderers.
Plan of "Mound" Area

Perspective Looking West

Site Cross Section
New Historic Zone

This area is intended to provide the commercial and entertainment aspects for this national park. In this way, it should be able to draw in large numbers of people that will then aid in populating the rest of the park. In many ways, this area also serves as the primary entrance to the entire park. The Bost building along Eighth Avenue is a perfect landmark to define this entrance. It is in between the other two zones and contains major hubs for both the trolley line and the LRV linking not only the local area but the greater Pittsburgh area as well. Thus from here, one can easily go to anywhere in the park.

Programmatically, this site offers a wide variety of entertainment. There is a first class restaurant in a shared plaza with the Bost building. Basically two corridors are established within this plaza, separated by a walk of monumental trees. Along the east is a commercial corridor attached to the parking garage behind the storefronts. This will service tourist shopping as well as local goods and merchants for the community. Along the west is the historical museum experience, beginning with the Bost building, continuing to the historic settlers village, and steelworkers statue park, onto the trolley station providing quick and easy access to the museum center plaza. In the area between the tracks sits the “Homestead Gray’s Memorial Park” a minor league baseball stadium dedicated to the history of the steel industry and the workers on the original Grays team. Hopefully, this will draw large crowds and spark interest in the entire park.

The northern plaza or Museum Plaza is the threshold to the bridge that leads to the Carrie Furnace. Surrounding this rear plaza are the museum, marina (with a memorial to Pinkerton’s Landing), a research center/steel heritage archives, and a first class hotel. The aim of this more contained area is to provide a simulated and controlled experience to tourists and museum goers. The aesthetic of this area is along the lines of Homestead in her boom years, with traditional construction and technologies. We are attempting to create a linear experience for people wishing to understand the steel heritage of the Mon Valley. By entering through the Bost building, and the settler’s village, people of the steel valley are introduced, continuing to the river museum the process and industry are explained. The next step is to the furnace itself where the experience of both the people and the process can be understood on a personal level for every visitor.

In an attempt to bring life to this wasteland on a permanent and 24 hour level, a housing development adjacent to the park is proposed. This simply adds potential to the site and also to the real-estate value overall. We feel that to totally integrate Homestead with the river and her heritage people must occupy the site on all levels, including housing.
Plan of "Steel Workers Plaza"

View of main complex from point A showing housing and main tree-lined avenue.
CARRIE FURNACE NATIONAL PARK

Carrie Furnace is one of the few remaining blast furnaces still in existence. Although it was shut down many years ago, the structure is still in good shape, and has taken on a new mystique as nature gradually begins to reclaim the grounds and objects. Throughout the Mon River Valley, many great icons of the industrial era remain, however few in as prominent a place, and in as good shape.

Carrie Furnace

Our plan is to turn the furnace into a hands-on museum object/activity as the final phase in the steel production tour. To present the furnace a large-scale glass enclosure will be built around the actual furnace, covering up to the top of the blast furnaces. This will be environmentally controlled to allow for both preservation and growth of the trees already taking over the site. Lighting at night will mark Carrie Furnace as an icon for all of Homestead to see.

The large existing building to the West that serviced the furnace during production will be revamped to host museum services and programs. Through this a handicapped entrance to the furnace elevator (again, an existing structure that will be revamped [a theme is arising!]) as well as marking the official museum experience. The other large building (East) will become a gallery space for installations of local and international artists, generally of the industrial art nature. Many of these artists will be working and installing from the artisan housing and studios on site.

The courtyard formed by the two buildings will be paved with porous pavers and is covered on the southern end. There will be activities such as fairs, concerts, exhibits and displays within this courtyard, and will become the focus of the furnace area.

Amphitheater

A medium sized amphitheater in a garden setting is located on the western edge of the site. This is oriented such that from every seat the backdrop of the stage is Carrie Furnace. A fountain that marks the beginning of the water path backs up the stage. Surrounding the theater on the trolley level are vendors and restrooms making this spot viable for community productions as well as medium size concerts. This has been modeled after the Washington Park Amphitheater in Portland, Oregon.

Walking Trails and Water Path

Beginning from the fountain in the amphitheater walking paths branch out across the land. This land will be of a natural and indigenous nature, and registered as a wildlife sanctuary. The Water Path begins at the fountain and follows a small creek that is fed periodically by fountains. Each fountain consists of an artifact and an inscription denoting historical significance of said artifact. In addition each fountain acts as a viewing location for the furnace, providing a specific view in accordance with information provided in situ. Other than these spots, the furnace will be obscured for the duration of the walk.

Artisan Housing and Studio Space

A community will be established on the eastern side of the site. This will provide housing and studio space for artists interested in producing and displaying art on the site. Hopefully the dramatic setting of Carrie Furnace will inspire some of the art. This housing will be provided at as low a cost as possible for the advancement of the arts. The studio spaces behind the housing have river access and courtyards between each space. This entire area (except for the houses) has the potential to be public space for the experience of art as a process, similar to the steel production process shown in the museum.

Environmental Study Center

On the northeast corner of the site is an earth based environmental study center to study the impact of large-scale industry on the environment. This is to funded by the Steel Heritage Foundation, or by a conglomerate of steel manufacturers. There will be an additional building on the water's edge, next to the lawn to study environmental effects on rivers and river life.

Landscaping

Along the entire edge of the river exists an environmentally devastating river wall. This wall is to be destroyed for approximately half of the length on the wall to the east. The transformation from wall to no-wall will be gradual displaying the deconstruction and ruinous character of an artifact. At this transition is the garden terrace that domes down to the dock area. Once grace is reached the land will slope up to the furnace gradually in the form of a monumental lawn for various activities. Farther along is the artist housing and sculpture forest. On the Western side of the river's edge are two layers of gardens utilizing ruins and existing structure of the site. These gardens will be maze like and interactive. The Ore Yard installation area is for a permanent sculpture of recycled steel industry materials claimed from other Mon Valley sites.
Trolley Stops

There will be three trolley stops on the Carrie Furnace site. The first is at the Western entrance of the site by the amphitheater. This will service the walking trails, gardens, and amphitheater activities, and will act as the park entrance to the site. The second stop is the museum stop, at the courtyard of the furnace. This will be for the museum experience and gallery space, as well as for any activities in the courtyard. This is also the most accessible entrance to the furnace. The third stop is at the artisan housing community and will be primarily for the use of the artists and visitors. A fourth stop is necessary only with the inclusion of the environmental study center and would be exclusively for that purpose.

Plans of Riverfront Development.
Location
Monongahela River in Allegheny County

Objectives
to honor Allegheny county’s industrial steel heritage, specifically the people who established families in southwestern Pennsylvania and dedicated their lives to the industry which helped to “build” America, and to help build Allegheny County’s future through tourism and new economic opportunities

Proposal
a Steel Valley biking and walking trail and boat tour along the Monongahela River from Station Square, through significant river landings, with a focal point at the Homestead site, to the Clairton Works.

1. Steel valley trail will connect with other trails in area, which will eventually connect Pittsburgh to Washington D.C.
2. Tour boats with guided stops, people have option to get on/off at any point along tour
3. Boat with theater and dining (owned by National Park); start at Station Square, dinner served, view of steel valley while eating dinner, when boat turns around at Clairton Works, people go downstairs to theater to watch movie about the industrial heritage along the Monongahela and about the steel making process

Significance
For over a century, the Pittsburgh region has been the center of iron and steel production in the United States and has played a major role in the country’s industrial development. Recently, the market for American-made steel declined dramatically; many plants were shut down and slated for demolition, therefore putting many people out of jobs. Major changes were instituted for production equipment plant size.

-1790 iron industry came to Pittsburgh; small scale until the 19th century
  -Allegheny and Ohio Rivers provided access to Midwest and South
-1811 steam navigation introduced
  -as iron and steel industries grew, river increased in importance because water was needed for quenching and other operations
  -in modern times, 1 ton of semi-finished steel has required 35,000 gallons of water
  -originally, coal located along valley provided heat source for engine-operated industrial plant
  -in time, coke replaced charcoal as a blast furnace fuel
-1812 first steam-powered rolling mill in Pittsburgh
-1817 National Road from Cumberland reached Monongahela River
-1820 Pennsylvania Turnpike reached Monongahela River
-1834 Pennsylvania Public Works systems of canals and railways opened from Philadelphia to Pittsburgh
-1852 Pennsylvania Railroad, also from Philadelphia to Pittsburgh, was leading customer for steel rail as well as leading shipping route
  -others arrived later, bringing in raw materials and shipping out finished products
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1856</td>
<td>First solution to produce cheap, high-volume steel; the Bessemer converter was invented by Henry Bessemer. The Bessemer converter is an egg-shaped vessel, open at the top, into which molten iron from the blast furnace is placed. In 1920, the American Bessemer converter could heat 10 to 20 tons in 10 minutes.</td>
</tr>
<tr>
<td>1857</td>
<td>The Pittsburgh region had 25 rolling mills and 16 foundries. This was before iron was made in Pittsburgh.</td>
</tr>
<tr>
<td>1859</td>
<td>The second blast furnace in the Pittsburgh city limits was attempted; Clinton Furnace was located in Shadyside. Because the blast furnace was not located on water, the pig iron had to be transported to coal-fired plants located near water, which could have been more efficient if the heat from the blast furnace had been available. In 1889, a large number of charcoal furnaces were still in operation in Eastern and Central Pennsylvania.</td>
</tr>
<tr>
<td>1861</td>
<td>The open-hearth process was invented; this process had a greater tolerance of impurities than the Bessemer converter.</td>
</tr>
<tr>
<td>1868-74</td>
<td>The introduction of structural steel in the United States: Eads Bridge in St. Louis, Brooklyn Bridge.</td>
</tr>
<tr>
<td>1879</td>
<td>The open-hearth process was introduced to Pittsburgh at Juanita Iron and Steel Works, Linden Steel Co.</td>
</tr>
<tr>
<td>1889</td>
<td>Locally, 15 Bessemer converters were used and 60 plants had open-hearth processes.</td>
</tr>
<tr>
<td>1899</td>
<td>Electric steel was invented.</td>
</tr>
<tr>
<td>1901</td>
<td>Foundation of U.S. Steel Company.</td>
</tr>
<tr>
<td>1905</td>
<td>Electric steel production appeared in the United States.</td>
</tr>
<tr>
<td>1920</td>
<td>Locally, 10 Bessemer converters, 48 plants had open-hearth processes, and 14 plants had electric steel.</td>
</tr>
<tr>
<td>1935</td>
<td>Crucible steel came to Pittsburgh, yet only in 3 plants.</td>
</tr>
<tr>
<td>1935</td>
<td>Probably the worst part of the Depression for the steel industry; only 32 iron or steel plants in the Pittsburgh region. World War II brought an end to the Depression and stimulated the steel industry.</td>
</tr>
<tr>
<td>1948</td>
<td>End of World War II. Crucible steel entirely disappeared from local industry. Jones and Laughlin at Aliquippa still had 240 beehive ovens that release the gaseous wastes of distillation to the open air. The four decades since World War II has presented a decline in the steel industry because of the following: underpriced foreign steel (due to cheap foreign labor), exorbitant American labor costs, the refusal of steelmakers to modernize, the expense and space demands of pollution-control equipment, plastics have replaced steel for many purposes. The disappearance of beehive coke ovens and Bessemer convertors.</td>
</tr>
<tr>
<td>1954</td>
<td>Basic oxygen process introduced to the United States. Innovations: the strand caster, the mini-plant for specialty steel. In past 20 years, large-scale pollution control equipment. Equipment traps dust and gases, purifies and cools water to be returned to the river.</td>
</tr>
<tr>
<td>1984</td>
<td></td>
</tr>
</tbody>
</table>
The Journey

1. Station Square
2. High Tecnology Center
3. Hazelwood - LTV Steel
4. Carrie Furnace/Home stead Works
5. Edgar Thompson Works
6. Duquesne Works
7. McKeesport Works
8. Clairton Works
Station Square

**location:**
South Side, Pittsburgh; where the Allegheny and Monongahela Rivers join to form the Ohio River, at the point

**significance:**
- Central tourist point in Pittsburgh - gateway clipperhip docks, offices in historic P and LE concourse building, shops, restaurants
- Inexhaustible amounts of coal along the Monongahela River are found in “Coal Hill,” now known as Mount Washington, which can be accessed by the Monongahela Incline from across the street
- Coal is the raw material used to make coke in steel process
- The 1930 Bessemer converter on display is said to be the only one remaining in the United States

**proposed uses:**
A. Board with map of steel valley trail and presentation of “The Steel River”
B. Boat dock with benches and small building where tickets for the boat tours will be sold
   - Tickets for tour guide boats are sold at each stop for minimum cost
   - Dinner and movie boat for additional cost

High Tech Center

**location:**
South side of 2nd Avenue

**significance:**
- Shows reclaimed brownfield site - offices and research
- Steel-framed modern architecture, featuring communications and other high technology research, as well as other technology-based businesses

**proposed use:**
- Possible location for river taxi business, providing transportation to and from work as well as means for having lunch at a restaurant
- Accessed by the river; provides service throughout National Park area, downtown Pittsburgh, point, strip, stadiums etc.
THE STEEL RIVER
Whitney Brooks and Kelsi Montgomery

LTV Steel
location: Hazelwood
significance:
-1859 Benjamin F. Jones, who was to be partner of Jones and Laughlin Co., patented the cold rolling process that gave iron and steel plate a smooth, textureless finish
-1889 (Laughlin and Company) equipment: 3 blast furnaces (including Eliza Furnace) products: pig iron/hot metal
-1920 (Jones and Laughlin Steel Company) equipment: 7 blast furnaces, 4 Bessemer converters, 26 open-hearth furnaces, 6 foundry equip., 1820 beehive coke ovens, 300 by product coke ovens; products: pig iron/ hot metal, carbon steel, miscellaneous alloys, steel castings, blooms, billets, slabs, bars, shapes, rail, plate, misc. steel products, coke, sinter
-1935 (Jones and Laughlin Steel Company) equipment: 6 blast furnaces, 2 Bessemer converters, 26 open-hearth furnaces, 1 electric arc furnace, 22 rolling equip., 360 coke ovens; products: cast iron, steel castings, billets, bars, shapes, rails
-1948 (Jones and Laughlin Steel Company) equipment: 6 blast furnaces, 2 Bessemer converters, 20 open-hearth furnaces, 1 electric arc furnace, 360 by product coke ovens; products: pig iron/hot metal, cast iron, carbon steel, blooms, billets, bars, shapes
-1964 (LTV Steel) equipment: 2 electric arc furnaces, 5 rolling equipment, 315 by product coke ovens; products: blooms, bars, coke

proposed use:
to teach how coal is turned into coke
1. "coking-quality" coal is brought in on barge and into building on barge unloader
   A. walkway providing access from boat into museum/restaurant
2. coal mixed to get blended consistency in "coal blending bins" and crushed into powder in "coal pulverization building"
   B. museum with the history of Hazelwood and the coke production process; restaurant with view of Jones and Laughlin site across the river; store that sells byproducts, or art using byproducts, of the coke-making process (such as art with red, yellow, or violet dyes; perfumes; buttons; and disc records); beehive and rectangular coke ovens reconstructed in museum
3. coal is then transported to "coal storage bunker" above coke ovens, where coal is carbonized; in this process, coal is heated in low oxygen atmosphere until most of volatile matter is removed through evaporation; the leftover residue, composed of 83-90% carbon, is known as coke
   C. a pathway taking people to the coke ovens brought on site, with illustrated explanations along the path, walking people through the coke-production process; a river lookout with a brief history at the "transfer tower," which is where the coal-carrying cars make a 90 degree turn as they incline to the "coal storage bunker"
4. coke is used for 3 major roles:
   - producing and regenerating gases for the reduction of iron oxide
   - providing an open, permeable bed through which slag and metal pass
   - as a fuel, which provides heat for the blast furnace
reuse land and large buildings as sports complex, which coordinates with the UPMC sports complex across river

3
THE STEEL RIVER
Whitney Brooks and Kelsi Montgomery

Homestead Steel Works
location: Munhall, Homestead, West Homestead
significance:
-1880-81 beginning of Homestead Steel Works
-1892 location of showdown between union, townspeople, and Carnegie Steel Company and its hired Pinkerton guards; ten died and scores were injured
-1920 (Carnegie Steel Company) equipment: 65 open-hearth furnaces, 19 forging equipment, 18 rolling equipment, foundry equipment; products: cast iron, carbon steel, steel castings, blooms, billets, slabs, bars, shapes, plates, forgings, miscellaneous steel products
-1933 (Carnegie Steel Company) equipment: 65 open-hearth furnaces, 10 forging equipment, 15 rolling equipment; products: carbon steel, miscellaneous alloys, blooms, billets, shapes, plates, strips, sheets
-1940 entire residential ward cleared for plant expansion, due to stimulus to steel industry brought by World War II
-1948 (Carnegie-Illinois Steel Company) equipment and products: same
-1984 (U.S. Steel Company) equipment: 3 forging equipment, 7 rolling equipment; products: blooms, slabs, shapes, plates
proposed use:
A. restaurant and boat dock for tour boats
B. hotel with narrative path between Bost building and water (restaurant, boats, etc.)

Bost Building
location: 8th Avenue
significance: headquarters of the Amalgamated Association of Iron and Steel Workers during the 1892 Homestead Lockout and Strike
proposed use:
visitor center and interpretive displays describing the role of the community and organized labor in 1892 events. links riverside, historic steel sites with commercial and residential areas

Carrie Furnace
location: Swissvale and Rankin
significance:
-1884 first Carrie Furnace opened
-1889 equipment: 2 blast furnaces; products: pig iron/hot metal, bars
-1920 (Carnegie Brothers) equipment and products: same
-1935 (Carnegie Steel Company) equipment: 6 blast furnaces; products: same
-1948 (Carnegie-Illinois Steel Company) equipment and products: same
-presently: last remaining iron furnace site in Monongahela Valley
60% of all domestic steel is produced from pig iron proposed use:
to teach about how coke, iron ore, and limestone are transformed into pig iron
1. in a countercurrent shaft furnace, prepared iron ore (in the pellet or sinter form) is combined with coke and limestone
A. enter from river into "stock house," which has a museum about Carrie Furnace and a restaurant with a view of the site that in 1935 was the cross river department of Homestead Works
2. a continuous blast of hot air, sometimes accompanied by by-products at the bottom of the furnace; as coke burns, carbon monoxide is produced and reacts with the iron oxides creating molten metallic pig iron and carbon dioxide; the limestone, or "slag," on top of the molten iron, reduces concentration of silicon and phosphorous within the iron
B. large open area with concrete base and large walls on two sides; the wall closest to Carrie Furnace will have large engraved writing accommodated with pictures; wall used as illustrated display of iron-making process; area used for presentations or events
C. tent-like structure with trail information and view of Edgar Thompson, where pig iron is currently made into steel
-opportunity for research center at this site

proposed use:
A. restaurant and boat dock for tour boats
B. hotel with narrative path between Bost building and water (restaurant, boats, etc.)

revitalization initiative: Carnegie Mellon School of Architecture Urban Laboratory Fall 1999
Edgar Thompson Works

location: Braddock

-1875 Andrew Carnegie opened his first steel plant to make Bessemer steel; Carnegie Brothers and Company is now known as Edgar Thompson

-1889 (Carnegie Brothers and Company) equipment: 7 blast furnaces, 4 Bessemer converters, forging equipment, 3 rolling equipment, 10 foundry equipment; products: pig iron/hot metal, miscellaneous alloys, blooms, billets, rail

-1935 (Carnegie Steel Company) equipment: 9 blast furnaces, 4 Bessemer converters, 16 open-hearth furnaces, 6 rolling equipment; products: pig iron/hot metal, blooms, bars, shapes, rail

-1948 (Carnegie-Illinois Steel) equipment: 7 blast furnaces, 16 open-hearth furnaces, 5 rolling equipment; products: pig iron/hot metal, carbon steel, slabs

-1984 (U.S. Steel) equipment: 3 blast furnaces, 1 rolling equipment; products: pig iron/hot metal, carbon steel, slabs

-presently, Edgar Thompson is the last remaining iron furnace site in Monongahela Valley; equipment: 2 operational blast furnaces, basic oxygen process shop, dual strand slab caster, power plant, and oxygen plant; products: steel slabs, primarily for processing and finishing at the Irvin plant facility

proposed use

to teach the transformation of pig iron into steel
-iron ore, lime, and coke loaded into larry cars and then into skip cars to carry materials into five-story high blast furnace
-the "burden," or order and composition of raw materials is overseen by computers
-hot air blasted at high speed into mixture, which heats materials to over 3300 degrees F and melts iron and slag as they slide to bottom of furnace and into hearth
-workers, dressed like spacemen, drill hole through clay plug at base to allow slag to stream from top
-molten iron flows into submarine looking railroad cars used to keep iron hot and transport it to next process
-at BOP (basic oxygen process) shop, iron combined with scrap and burnt lime and heated to burn out carbon in the iron to form steel
-every 40 minutes, 500,000 pound heat of high quality steel (enough for 3000 refrigerators or 5000 washing machines) leaves BOP shop
-Edgar Thompson makes a large percent of electricity and purifies own water; in fact, water is cleaner when returned to river than when piped in

iron ore is pelletized and sintered

1. pelletizing
-finely ground iron ore is transformed into rigid, round pellets
-"green," or wet pellets, are formed and fired to cause them to fuse

significance:
Iron ore is pelletized to improve the efficiency of the blast furnace by ensuring a porous enough atmosphere that "reducing gases" will pass evenly and uniformly through the blast furnace
-pellets represent 70% of domestic ore production

2. sintering
-another ore agglomeration process in which loose iron ore is transformed into rough, porous, coherent "lumps"
-coarse iron is mixed with a small amount of finely powdered solid fuel (typically coke products like coal fines or coke breeze), slagging material such as limestone may also be added
-mixture is fired, causing the ore and slag to fuse into a porous, solid "sheet," which is broken into lumps for blast furnaces pr direct reduced iron (DRI) furnaces

significance:
Sintered iron ore also ensures good air flow through a packed bed usually used for by-product materials such as coal and coke powders and blast furnace fines
Duquesne Works

**location:** Duquesne

**significance:**
- 1896 Duquesne Works opened
- 1935 (Carnegie Steel Company) equipment: 6 blast furnaces, 32 open-hearth furnaces, 1 electric arc furnace, 20 rolling equipment; products: pig iron/hot metal, miscellaneous alloys, blooms, billets, rounds, bars, shapes, sheet, sinter
- 1948 (U.S. Steel) equipment: 4 electric arc furnaces, 4 rolling equipment; products: carbon steel, blooms, billets, bars

-proposed use:
- to teach the transformation of pig iron into steel through the addition of charged steel scrap and desired alloying elements using three processes:
  1. open-hearth process (OH)
     - scrap, limestone, and iron ore are added to hearth and partially melted when molten pig iron is added along with hot fuel gases
     - oxidation occurs of unwanted carbon, silicon, manganese, and phosphorous
     - in OH process, it takes 5-6 hours to heat 100-600 tons
     - because of the long time required to charge initial raw materials, the OH is steadily being replaced by the BOP and the EA
  2. basic oxygen process (BOP)
     - the same raw materials used in OH are added to a closed-bottom furnace
     - a supersonic stream of oxygen is combined with molten materials
     - the BOP is attributed to improved productivity and energy management over OH because it requires no fuels to combust the charge, as long as scrap additions are kept below 30%
     - in 1981, 60.6% of domestic steel production used the BOP
  3. electric arc process (EA)
     - starts with scrap; graphite electrodes extending through the roof to a point near the top of the scrap, then an electric arc passes between them and melts the scrap
     - iron ore, limestone, and alloying elements are added then refined
     - in EA process, it takes 2-7 hours to produce a few hundred pounds to 400 tons
     - usually produces specialty steels, stainless steel, high alloy, and tool steels
     - continues to grow because the EA process is more controllable than the BOP; as long as scrap is cheap (1/2 the price of pig iron), it has a cost advantage

A. museum dedicated to the history of Duquesne and the steel making processes; restaurant with view of McKeesport bridge; the artists can choose to teach workshops or to be available for questions about working with steel for the people passing by

B. old buildings will be used by artists with access to steel, molding, and altering equipment; they would live in renovated train cars and display "steel" art in field next to McKeesport bridge; the artists can choose to teach workshops or to be available for questions about working with steel for the people passing by

C. sculpture garden for "steel heritage" artists in open field by McKeesport Bridge
McKeesport Works

location:
McKeesport

significance:
- 1869 National Tube Works began operation and was a direct outgrowth of the Pennsylvania oil industry because the iron and steel tubing piped the crude oil directly to the refineries, eliminating hauling costs
- Many iron and steel came to area, due to Connellsville Railroad (1855), which connected Connellsville to Pittsburgh to Washington D.C.
Clairton Works

location: Clairton

significance:
-1901 St. Clair furnaces opened
-1920 (Carnegie Brothers and Company) equipment: 3 blast furnaces, 16 open-hearth furnaces, 9 rolling equipment; products: pig iron/hot metal, cast iron, carbon steel, blooms, billets, slabs, bars, rail
-1935 (Carnegie Steel Company) equipment: 3 blast furnaces, 16 open-hearth furnaces, 6 rolling equipment; products: pig iron/hot metal, carbon steel, miscellaneous alloys, blooms, billets, rounds, bars, shapes
-1948 (Carnegie-Illinois Steel Company) equipment: 3 blast furnaces, 12 open-hearth furnaces, 6 rolling equipment; products: pig iron/hot metal, carbon steel, miscellaneous alloys, blooms, billets, bars, shapes

-presently, Clairton Works is a working coke producing plant owned by U.S. Steel

proposed use:
to teach about coke-making process through tour of working plant
Carrie and Beyond

The Homestead national park scheme is much more than just the national park itself, and the national park itself is more than just the Carrie Furnace.

The national park should consist of the entirety of elements that make up Pittsburgh's steel heritage. First, Carrie Furnace is the obvious node of national park activity. However, the Pinkerton landing and the Bost Building are two very important elements in the history of Pittsburgh steel and workers' unions that deserve equal attention. The national park scheme therefore organizes itself to connect all three elements. Furthermore, the national park should not only reap from the benefits that Homestead has to offer, but it should also give back to the community. That is why this scheme incorporates service organizations that tie in with the national park experience and begin to make the connection into Homestead's commercial and residential districts. Amenity nodes are also provided that help to make these connections.

Arrival and approach are of utmost importance to this scheme, and this is why we have incorporated a boat tour and travel scheme into the project. A typical way of entering Carrie Furnace will be to come from 376 via Squirrel Hill and park at the boat dock there, then take a Steel Heritage boat tour that culminates at Carrie Furnace. Boat docks are located at various places to make use of the river and allow easy transportation back and forth.

Amenities and accommodations included in this scheme are the following: child entertainment vendors, club meeting spaces, coffee shops (2-5), restaurants serving dinner (5-15), Educational facilities, hotels (one major hotel, not a chain, in a park setting with a lodge feel to it, maybe other accommodations in Homestead elsewhere), ice cream shops, restaurants serving lunch (5-15), movie theatres (in the current riverfront development project), night life (10-20 establishments), a major park, Pinkerton landing, playgrounds, a river walk, service activities (food shelter and construction organization), shopping (20-40 establishments), snack places, sport facilities, theme shops, water sports, and a youth center.
Carrie Furnace Site
Homestead Axonometric
Perspective looking East
Amenities Perspective
The Homestead entrance to the park is located at the former site of the hole in the wall (the original entrance to the Homestead Works). The entrance passes under the railroad and the new light rail line through a series of new arches that are reminiscent of the original hole in the wall. A courtyard is created at the entrance, and is flanked by a new community center, a new labor movement museum (reusing the Bost Building), and a memorial to the workers of the mills. The memorial is located on a wall built on axis with the original hole in the wall.

The park entrance also serves as a connection to the community, providing a necessary link between 8th avenue and the new riverfront development. The entrance area is intended to act as a public piazza. The intent is to draw the community together in a shared public space and revitalize and extend the businesses along 8th avenue.
Homestead National Park: Rankin Entrance

Brett Lambert

Plans and Sections

Conceptual Sketch

Perspective

Area Section

Area Plan

Site Diagram
The new towers are built of an exposed steel structure and serve a multitude of functions. The towers also act as abstract clock towers. Twelve bands of light, wrapped around the tower structure, tell the time in hours. They also house a series of lights that can be used to light up the plazas at times of night events or meetings.

The Rankin entrance provides a second entry point at the opposite end of the park. Marked by a similar tower, the entrance again has a light rail station and an observation deck from which visitors have the opportunity to view the entire park. These towers also provide a visual connection between the two ends of the park and mark the two train stations. The new light rail line uses the existing hot metal bridge to cross the river. However, new tracks are placed to one side of the bridge and the other side is covered with a metal grate allowing for pedestrian traffic.
The Carrie side is punctuated by building 'grave stones', which represent the outlines of the former Carrie furnaces. Within these outlines the ground is left in its decay, to portray the ghost of the past and the passage of time. Each of the trails reacts to this. The history trail recedes into the earth to uncover a historical display on the individual building. The sculpture trail remains on grade to pass by the decaying 'grave stone'.

The National Park provides for exploration of the site, in which the journey is a memorable as the exhibition destinations. The trail system is composed of three distinctive paths: the history trail, the sculpture trail, and the recreational trail (riverfront walkway).

From the homestead entrance, the visitor is guided through the Structural Mill Park in one of two ways. From the light rail platform, the sculpture trail leads directly to the pump house, serving as a bridge to oversee the park. The history trail takes the visitor from the homestead entrance, following the slight slope of the Structural Mill Park to the Battle of Homestead Memorial.
The Battle of Homestead Memorial is located along the Monongahela River, bordered by the Railroad Bridge and the pump house. The homestead side culminates in the memorial, which becomes a gathering and distribution point. From here, the park visitor walks across a new pedestrian bridge to the Carrie furnace. The memorial itself is a stern reminder of the passions that fueled the homestead strike. It demonstrates the collision of forces as well as the gradual escalation of passion.
The site is rich with history. We need to release this history into the minds of the young, who do not remember these once mighty creations. Carrie remains as one of this region's last 'time machine' or open door to the past. Homestead's other steel-heritage 'doors' have been firmly shut; the same fate must not befall Carrie. The most realistic and effective method of conservation is reuse. We propose a steel heritage museum and craft studios.

However, in creating these new uses, one mustn't romanticize about this past. These were frightful times. Conditions were poor and workers suffered. In response, these spaces are devoted to two very different feelings. One is the underground crypt, the memory of this space and these times of great production. The mood is subdued if not macabre. In front, representing the new image of this site are the resident or invited artists' studios. Movement upwards and over the heritage delivers the visitor to the crafts museum. This is devoted to movement of air. Blast furnaces and steel production, due to the extremes of heat required to work with steel necessitated temperatures of over 3000 degrees. Thus, Carrie is a massive air blower. The craft museum is a moving display of art. This display moves in order to recreate noise. Noise is important in trying to understand steel production in a sensory manner.
Plans and Section of Carrie Furnace Restoration
Section 5 : Commercial District

New views of Homestead's historic commercial district and its ties to large current riverfront development.

New Plan for Riverfront Development:  Page 66

Bridging the Rails, Connecting the Park:  Page 72

Revitalize 8th Avenue:  Page 77
Regional Plans

MAP LEGEND

1. Vegetate and refurbish “church walk” featuring historic ethnic churches.
2. LRV station to access National Park.
3. 7th and 8th Avenue connected at intersection. 7th Avenue to take more local traffic.
4. Vacant lots on 7th and 8th become garden courtyards, parking garages and infill buildings.
5. Pedestrian greenspace created between tracks and connecting to courtyard.
7. Ferry stop.
8. Possible future residential expansion.
9. Proposed bridge as alternative traffic route from I-376 to 7th avenue.
11. Private marina for residents.
12. Bike and pedestrian trails.
13. Playing, park area.
COMMERCIAL DISTRICT
ERIC MALO, JULIE SPINNATO, SARAH WADE

Main Building Section

Main Building Section
Ground and First Level Plans: Main Building
COMMERCIAL DISTRICT
ERIC MALO, JULIE SPINNATO, SARAH WADE

Sections of Riverfront

Perspective of LRV Station

Perspective of Riverwalk
The Homestead Plan

Homestead has in place major steps towards revitalizing its neighborhood. The facade renovation program and the work being done on 8th Ave have brought new life to the street. Our efforts have been to connect these developments with those of the river front development. Our main focus was on the National Park as the Eastern entrance to Homestead and on a corridor connecting 8th Ave with the river front.
The National Park

As the eastern entrance to Homestead we felt that the National Park should be the transition from the open fields to Main Street.

An observation tower pierces through the trees. The trees peel away to reveal a pedestrian bridge. A sign welcomes you to the National Park and Homestead. The Bost building encased in glass juts out of the information center.
The Marina 8th Ave Corridor

The connection from Homestead to the river front was severed years ago, now with the development of the river front the opportunity to reconnect is possible.

A pier stretches out into the water as the ferry turns the corner. You disembark from the ferry and meander in the tree shaded river walk. The river walk opens up on to a plaza filled with cafe tables and vendors. A band is playing off in one corner. You cross the street to a tree lined walk way. A flight of stairs welcomes you, a man selling lemonade sits under a canopy. You cross over the railroad tracks to the new community and modern art museum.
8th Ave. Elevation

Section through the Art Museum

Plan of and Section through the River Front Plaza
THE HOMESTEAD ECONOMIC
JOHN MIKI + YOUNG-JOON CHANG

Pedestrian Bridge to Marina

View of East Carson Street
Pedestrian Bridge to National Park

View of East Carson Street
The troubles that Homestead faces are due to many factors. Although the departure of the steel industries is commonly blamed for her decline, other factors like the demise of supporting industries, the lack of investment and research capital, improper urban and socio-economic planning and the lack of citizen participation are also responsible. Returning Homestead to where it once was, one of the most vibrant towns in Pennsylvania, requires effort from all sides including the legislative branches of the county and investment from local companies. However, the most important ingredient in reawakening this town is perhaps the direct input from Homestead citizens. Without their participation in this effort to revive Homestead's to her past glory, any effort to do so would be futile and would only lead to the continuation of the present disconnects of the community.

Our proposal for this community comes simply in the form of ten architectural points. Each point identifies an opportunity to connect the discrete parts of the community. Although some points require drastic change, all are quite feasible and applicable in the revitalization of Homestead. The following pages present the ten points in words and images.
1. Interchange with the Mon-Fayette Valley Expressway
A proposed interchange with the Mon-Fayette Expressway would become the exit for the National Park, and thus draw a substantial number of tourists through the commercial district. In addition, the Expressway would serve to lessen the truck load on Eighth Avenue, which mitigates the congestion and vehicular traffic.

2. Extending Fifth Avenue
The extension of the ramp off of the High-Level Bridge forms a street behind the Waterfront development that would service the new area and the Eighth Avenue district. The new road will further lessen traffic on Eighth Avenue and change the character of the Waterfront shops since their backs cannot face this road.

3. LRV Station
An LRV stop in Homestead would encourage visitors from other Pittsburgh communities, such as the South Side, by providing another means of public transportation which is already in use within the city. Moreover, the stop would enhance the residential potential of the area due to an easy commute to downtown. The newly renovated train station offers an attractive location for this stop.

4. Eighth Avenue and West Street
The intersection of Eighth Avenue and West Street forms the primary entrance to Homestead, and provides many visitors with their first impression of the community. A proposed building at the eastern corner of the intersection would house a bus stop, a small cafe and ample office space while at the same time strongly reinforcing the building fabric of the commercial district of Eighth Avenue.

5. Amity and Ann Streets
These two streets will become the primary access ways into the Waterfront development from Eighth Avenue and beyond. They will serve both pedestrian and vehicular traffic, however vehicular traffic will be constrained to opposing one-way streets. The expanded sidewalks for pedestrians will run from Waterfront Drive to Frick Park.
Ten Points for Homestead
HUGO CHAN, CALVIN QUEK, WENDY WAN

6. Waterfront Development
First, the riverfront will house a series of multi-use buildings which will incorporate residences with commercial functions, such as shops and offices. Also, a riverfront boardwalk will run along side these buildings, providing views and green space to the residences. Car parking is located between buildings and remains hidden from the river and Waterfront Drive.

Second, the main areas of shops will be reconfigured in order to address the pedestrian scale. With smaller side streets and shops, the new shopping area will begin to recall the Eighth Avenue commercial district. The layout of the buildings for the brand name businesses, i.e. Giant Eagle and Target, will be transformed and modified in order to complement the other shops.

7. McClure Street
Unlike Amity and Ann Streets, this street will be predominantly vehicular access for the Waterfront development. In order to cross the railroad lines, a bridge will be built starting from Eighth Avenue leading into the Waterfront development. The bridge will be constructed from steel as a reminder to Homestead’s heritage.

8. Seventh Avenue Pedestrian Way
Starting from Ann Street, Seventh Avenue will be closed off to vehicular traffic in order to create a pedestrian way. The street will run behind the senior apartments and end at the Bost Building. There will be a small park at McClure Street, while the pedestrian way runs underneath the bridge. In addition, there will be a community center facing the park.
10. Eighth Avenue Revitalization
To initiate a wholistic solution for Homestead, the Eighth Avenue commercial district must be revitalized. There is not a single solution to the problems of Eighth Avenue, however with the support of the Waterfront development, Homestead can begin to refocus its strengths towards the future. Eighth Avenue commercial district can house e-business as well as small specialty shops; the infrastructure is already in place and the community is ready.

9. Bost Building
In order to celebrate Homestead’s steel heritage, the Bost Building will be renovated into a small historical museum for the labor strikes in the 1890’s. A plaza surrounding the building will provide an outdoor experience for the museum as well as an access point for the National Park. Other amenities for the park, i.e. youth hostel, information and gift shop, will be housed in the building across the street from the Bost Building. A row of flex offices, with similar streetfront facades, will continue along Eighth Avenue after the Bost Building. They will complement the existing buildings on the other side of the road and further provide commercial opportunities for the community.
Section 6: Residential District

Suggestions for a friendlier neighborhood that begin in the home and are extended to community gathering points

Pattern Book Housing Types: Page 82

Street Analysis and New House Proposals: Page 84

Vacant Lot Reuse: Page 90

Community Centers: Page 96

Trolley System: Page 100
Pattern Book style #4

Pattern Book style #5

Pattern Book style #6
West 11th Street: Block Plan

Typical of the residential streets of Homestead, West Eleventh Street is built on a terraced slope and is running parallel to Eighth Avenue. The street itself is 37 feet wide, enough for two way traffic and parking on both sides. Each side is lined with a concrete sidewalk varying in width, but generally 7 feet wide on the south side, and 4 feet wide on the north. Each lot is typically 120 feet deep and ranges in width between 20' and 55', most of which are between 25'-30'. Some of the lots are terraced within, creating space for gardens in the backyards. Others are simply left with their natural contours sloping to the alley at the rear of the lots.
West 11th Street Typical Lot Plan

SCALE: 1/16" = 1'-0"
West 11th Street Sections and Elevations
West 11th Street New Proposal: Elevation and Plans

- Enclosed Patio
- Back Porch
- Kitchen
- Dining Room
- Family Room
- Front Porch
- 1/2 Bath
- Master Bath
- Master Bedroom
- Bdrm #1
- Bdrm #2
- Full Bath
Myrtle Avenue Street and Lot Dimensions

The analyzed portion of Myrtle Avenue lies between 13th and 14th street. The block is entirely original residential pattern book houses, save for the later addition of a mechanic's garage (G). Three lots have been left entirely vacant due to blight (X). The lot dimensions vary widely on Myrtle Avenue. The largest lots were 75 feet wide and 120' deep, and usually contained a double-house. The smaller lots were 24' by 120', and came in sets with identical patterns. A typical lot (shown below) was 26' by 120'.

Most lots on Myrtle Avenue have only enough room for a building and a walkway in width. This is not atypical for Homestead lots. Overall, the majority of the pattern has been left in place, but a few groupings of lots have been rendered vacant by decay.

While some of the lots have been filled, such as the new garage, the solutions are not enough of a boon to the community's status. The lots need to be filled via elements which are part of the fabric, and serve the residential area, rather than trying to bring commercial structures in where inappropriate.
Myrtle Avenue  Elevations and Section
Physical Relaxation

The play space should provide a number of opportunities for fun and exploration, important to childhood development. Upon visiting this particular section of Homestead, there seemed to be a high number of young families whose children were playing in the streets. The problem seemed to be that the only park in the area with a playground was Frick Park, in general a good three to six blocks from this location. Therefore, use of a vacant lot is proposed in order to provide a more local place for children to play and be supervised. Amenities have been made for both adult and child congregation. One particular advantage of this site is that due to its location on the upper terraces in West Homestead, it has a unique view to Homestead’s flood plain with the Homestead High Level Bridge, the smokestacks, and the Monongahela River in view. In addition, another advantage of the site is that although it is currently vacant, it contains a number of fully grown trees and seedlings which are incorporated into the park as a way to reuse the existing resources.

-Suggested Vegetation character-butterfly /bird
A. Trees
- Flowering Dogwood, “Cornus florida”
- Buckeye
- Sugar Maple, “Acer saccharum”

B. Shrubs
- Beautybush, “Kolkwitzia amabilis”
- Spicebush, “Lindera Benzoin”
- Mock Orange, “Philadelphus coronarius”

C. Flowers and ground cover
- Scarlet Trumpet Honeysuckle, “Lonicera brownii”
- Kentucky Bluegrass, long growth
Vacant Lot Reuse: Playspace Garden for children

CHRISTINA NEUMANN

1. Parti:

the parti is intended to be the essence of a set of basically shaped and playful spaces. The square, circle, and triangle provide unique space shapes for exploration.

2. Features:

- "Viewpoints:" viewing deck of Homestead’s flood plain with a pergola added for shade
- Water curtain fountain which flows from the pergola overhead structure to the child’s area for a pleasant seating environment and summer play fountain.
- Play spaces including swings, slides, forts, etc. made of industrially oriented materials (rail road ties, steel piping, steel beams, etc.)
- Sand box and informal seating area. May be converted into a small stage for plays and lectures.
- "Homestead’s History Trail," pathway for children to learn about Homestead’s role in the development of America. May be constructed
Mental Relaxation

The peace space of the home represents the location of solitude and contemplation. These spaces are often reserved for quiet activities such as reading and meditation and are essential to the mental health and well being of individuals. This park/garden is intended to provide intimate spaces or small pockets containing benches tucked off of a wandering path. One suggestion is that the garden could be dedicated to the memory of the mothers of Homestead who were the stabilizers of family life while the men worked in the mills daily. Since the garden is intended to be a quiet space of contemplation, perhaps content about Homestead’s women (text and artifacts) could be displayed as one passes along the pathway. The area is intended to be oriented in design style towards a natural or romantic park. This romantic theme is in direct response to the mid-nineteenth century style of housing in the proximity, reminiscent of the Andrew Jackson Downing Pattern Book homes.

-Suggested Vegetation character: delicate

A. Trees
   - Eastern Redbud, “Cercis canadensis”
   - River/Red Birch, “Betula nigra”
   - Sugar Maple, “Acer saccharum”

B. Shrubs
   - Common Lilac, “Syringa vulgaris”
   - Catawba Rhododendron, “Rhododendron catawbiense”
   - Flame Azalea, “Rhododendron Calendulaceum”

C. Flowers
   - Rose, “Rosa varieties”
   - Bearded Iris, “Iris Germanica”

Water Lily
Rose
Rhododendron
Forget-me-nots
Cherry tree
Koi gold fish
Vacant Lot Reuse: Peace Garden for Reflection
CHRISTINA NEUMANN

1. Parti:
the parti is intended to be the essence of a romantic composition in that it is primarily composed of a meandering path that leads to intimate spaces.

Features:
2. Meandering pathway intertwined with a small running stream connected by two small ponds.
3. The site slopes slightly facilitating movement of water from a pond in the southwest corner to the more formal pond in the northeast corner. A waterfall built into the pond on higher ground will facilitate movement as well.
4. The site is intended to be highly vegetated, in order to provide private niches for rest.
5. Victorian-style site furniture, signage, and lamp posts.

* Pond, gold fish, and bridge pictures from http://www.watergarden.com
Physical and Social Nourishment

The hearth space of the home represents the universal gathering place for the family. From Neolithic times to the present, families have huddled around their “fires” sharing meals, stories, and protection in each other’s presence. If the community of Homestead is to build strong ties, then a space of this type is essential in the formation of a family identity. The garden is intended to supplement the meals prepared for community members. Gardening is an important and positive group activity as it promotes the ritual and becomes an analogy to our own being encouraging festivals in celebration of time from new life in the spring to harvest in the fall. The strong patriotic, ethnic, and religious beliefs of Homestead’s people also mean that celebration space is essential for such festivals as the Fourth of July, Labor Day, Oktoberfest, Samhain, Ramadan, Roman and Orthodox Christmas, Passover, and Easter. The hope of this proposal is that while community members come from many diverse backgrounds, they will all be able to sit down and share a meal at one place; at one table. The space chosen is located within the same block as the proposed Steel Valley Community Center thus providing an outdoor extension to the functions within the building (group meals with the barbeque pit and herb/veggie gardening).

-Suggested Vegetation character-edible
A. Various fruits and vegetables
- Summer Squash, “Curcurbita pepo”
- Sweet Corn, “Zea mays”
- Watermelon, “Citrullus lanatus”
B. Various herbs
- Chive, “Allium schoenoprasum”
- Dill, “Anetum graveolens”
- Coriander, “Coriandrum sativum”
1. **Parti:**

   the parti is intended to be the essence of a formal/classical composition in that the hearth is placed in a central location to become the dominant element of the garden.

2. **Features:**

   - Large brick barbeque hearth as a gathering point for community festivals
   - Community garden spaces including wooden herb planting beds and tilled ground for vegetable-bearing plants.
   - Additional picnic tables for informal and formal lunches and dinners. These spaces are intended for use by the public although they currently are maintained by Steel Valley Adult Training Facility.
Community Centers

The role of the community center can be vital to the perceived value and pride of a community. As part of our proposal we looked at the adaptive reuse of old school buildings to promote community involvement and pride. The reuse of existing buildings is considered important as they have communal value, and history. These buildings already exist as part of the fabric of the community and at some point played an important role in the shared memory that makes up the lives of those living in Homestead.

The community centers were divided into three primary functions and distributed to be well spaced throughout Homestead. They consist of:

- The Carnegie Library: Athletics and Sports
- Old School Center: Continuing Education
- Steel Valley Center: Gathering and Meeting

The functions were divided amongst the different centers to facilitate encounters from all parts of Homestead. The community centers are all connected by the proposed trolley system which links Homestead with its commercial centers.

The buildings were chosen for both their community value and their prime locations. The Steel Valley Center (Pictured at left) was chosen to clearly illustrate the adaptive reuse of these spaces and illustrate their potential.
Front elevation photo of Steel Valley Highschool Gymnasium.

Redesigned front elevation.
Community Centers

Section through the redesigned Steel Valley Center.

Photograph depicting the current condition of the Steel Valley Center gymnasium.
The Steel Valley Center was designed to play the central role of gathering in a highly adaptive and malleable space which can be expanded or shrunk to allow for one large event or several smaller events. The design adds a second floor space to the portion of the gymnasium creating a multifunctional space which can be visually divided or connected depending on the event. A kitchen was incorporated for the use of catering and snacks for community functions. The central tube is used both for navigation and to create an interior identifiable locale for meeting. The tube in addition contains interactive video screens and artifacts which detail the history of Homestead.

The Design for the Steel Valley Center can adapt to house a wide variety of functions such as:

- Lectures
- Art Shows
- Craft Fairs
- Dances
- Bingo
- Dance recitals
- Theatrical productions
- Meeting
- Dinners
Rooms and Spaces:

1. **Dinning - Multiuse space for dinning**
2. **Entry -** Contains displays on Homestead and events spanning all three community centers
3. **Primary Multiuse Space -** Used for lectures, fairs, presentations, gathering
4. **Stage**
5. **Storage**
6. **Kitchen -** For dinning during events and small catering jobs
7. **History Tube -** A multimedia presentation of Homestead history wrapped around this orientation piece
8. **Secondary Multiuse Space -** Used for lectures, fairs, presentations, gathering
9. **Overlook A -** For overflow seating from other functions, out of the way eating, or continued fair space
10. **Overlook B -** For overflow seating from other functions, out of the way eating, or continued fair space
Possible Furniture Plans:
The Local Line

In order to really bring all aspects of Homestead together, they need to be physically joined. All the proposals for each of the areas of Homestead: the National Park, the Waterfront, the Commercial Corridor and the Residential area, are strong on their own. However, Homestead needs a physical connection between all of its pieces in order to truly function as a complete community.

A Trolley system would provide that link by physically bringing the people of Homestead and the surrounding communities together.

There would be two routes. The first route, the Community Tour, would focus on the community of Homestead, bringing the people down from the residential areas into the commercial districts along 8th Avenue and the Waterfront. This route would also be convenient for visitors to Homestead who could park in the parking areas along the Waterfront and take the Trolley around the Waterfront Development and up to the 8th Avenue shops.

The second route, the Cultural Tour, would focus on sharing the history and culture of Homestead. Starting at the historic train station, the tour would visit the 8th Avenue shops as well as some residential streets, various churches off of 10th Avenue, the Carnegie Library, the Bost Building, the Waterfront shops and the Carrie Furnace. This route is for visitors and residents of Homestead who are interested in learning more about the rich culture that is and was Homestead.
Possible Views from the Homestead Trolley

- Homestead Train Station
- Frick Park
- Carnegie Library
- 8th Avenue
- Historic Churches
- Historical Housing
- Carrie Furnace
- View of the River
The Trolley Circuit

The Trolley would be a rubber tire system. This would not only be more economical in terms of first cost but it would also ensure the opportunity for variation in the routes. The Historic Train Station would serve as the Hub for Homestead Trolley. Located near the Waterfront Shops and ample parking, the Train Station would be the center of information. Here you could catch the Trolley and obtain information about Homestead and the Trolley Tours.

<table>
<thead>
<tr>
<th>Community Tour</th>
<th>Cultural Tour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homestead Train Station</td>
<td>Homestead Train Station</td>
</tr>
<tr>
<td>6th Ave. and Amity St.</td>
<td>8th Ave. and 6th Ave.</td>
</tr>
<tr>
<td>8th Ave. and 8th Ave.</td>
<td>8th Ave. and West St.</td>
</tr>
<tr>
<td>8th Ave. and Hay’s St.</td>
<td>8th Ave. and Neele St.</td>
</tr>
<tr>
<td>8th Ave. and Sarah St.</td>
<td>10th Ave. and Sarah St.</td>
</tr>
<tr>
<td>10th Ave. and 8th Ave.</td>
<td>10th Ave. and Amity St.</td>
</tr>
<tr>
<td>10th Ave. and Ann St.</td>
<td>10th Ave. and McClure St.</td>
</tr>
<tr>
<td>10th Ave. and Margaret St.</td>
<td>10th Ave. and Andrew St.</td>
</tr>
<tr>
<td>10th Ave. and Amundt St.</td>
<td>6th Ave. and Martha St.</td>
</tr>
<tr>
<td>6th Ave. and Scotia Pl.</td>
<td>8th Ave. and Neele St.</td>
</tr>
<tr>
<td>8th Ave. and Dickson St.</td>
<td>8th Ave. and McClure St.</td>
</tr>
<tr>
<td>8th Ave. and Ann St.</td>
<td>8th Ave. and Amity St.</td>
</tr>
<tr>
<td>Homestead Train Station</td>
<td>Homestead Train Station</td>
</tr>
<tr>
<td>Retail</td>
<td>Giant Eagle</td>
</tr>
<tr>
<td>Lowes</td>
<td>Lowes Home Improvement</td>
</tr>
<tr>
<td>Smokey Stacks</td>
<td>Office Park</td>
</tr>
<tr>
<td>Retail</td>
<td></td>
</tr>
<tr>
<td>Lowes Home Improvement</td>
<td></td>
</tr>
<tr>
<td>Target and Giant Eagle</td>
<td></td>
</tr>
</tbody>
</table>

Historic Homestead

A Town Built on Steel

In a bend of the south bank of the Monongahela River, eight miles from Pittsburgh, nestled the thriving town of Homestead, built up by the wealth and enterprise of the Carnegie Steel Company and the thrift of the artisans employed by that great manufacturing corporation. Without the Carnegie Mills there would be no Homestead. Like the mushroom towns that sprang up along the Northern Pacific Railroad while the line was in process of construction and that died out as fast as the base of operations was shifted, so Homestead sprang into being when the site now occupied by the town was picked out by Andrew Carnegie as a producing center. The interdependence of the works and the town was absolute. The mill property covered 600 acres, bordering on the river, and included thirty-seven acres under the mill roof. The products produced by the mills comprised of boiler and armor plates, beams and structural iron of various kinds. The manufacture of armor-plate for the United States Navy was conducted on a scale of unparalleled magnitude. From the huge hydraulic cranes lifting and carrying from place to place a weight of 200 tons, operated easily by one man, down to the delicate machinery in the finishing department, the equipment of the armor-plate mill was a marvel of mechanical perfection, in comparison, the operations of other American steel mills were insignificant. Railroad tracks gridiron the yards and nineteen locomotives were required for the transportation of material. The repair shops cut an important figure and an army of blacksmiths, roll-turners, carpenters, tanners and other mechanics were employed to keep every detail of the working equipment in perfect order. The plant was lit throughout with electricity. Within easy reach of the mills were the offices of the mill superintendent and his corps of clerks, draughtsmen and engineers. There was also a club house for the use of guests and officers. The foundation of this immense concern, representing a capital of many millions of dollars, and employing nearly 4,000 men, was laid in 1880, when, according to the census report, Homestead had a population of less than 600. Because of the efforts of Andrew Carnegie and Henry Clay Frick, Homestead is now a full-fledged American town, with schools, churches, prosperous mercantile establishments, independent minor industries and a municipal government.
Trolley Routes

Cultural Tour
- Homestead Train Station
- Amity St. and 8th Ave.
- 6th Ave. and West St.
- 8th Ave. and Hayes St.
- 6th Ave. and Neil St.
- 8th Ave. and Sarah St.
- Sarah St. and 10th Ave.
- 10th Ave. and West St.
- 10th Ave. and Amity St.
- 10th Ave. and Ann St.
- 10th Ave. and McClure St.
- 10th Ave. and Margaret St.
- 10th Ave. and Andrew St.
- 10th Ave. and Martha St.
- 8th Ave. and Martha St.
- 8th Ave. and Scott St.
- Homestead Train Station
- Giant Eagle
- Lowes Home Improvement
- Retail
- Office Park
- Carrie Furnace

Community Tour
- Homestead Train Station
- Amity St. and 8th Ave.
- West St. and 10th Ave.
- West St. and 12th Ave.
- West St. and 14th Ave.
- West St. and 16th Ave.
- West St. and 18th Ave.
- West St. and 20th Ave.
- West St. and 22nd Ave.
- 22nd Ave. and Maple St.
- 22nd Ave. and McClure St.
- McClure St. and 21st Ave.
- McClure St. and 17th Ave.
- McClure St. and 15th Ave.
- McClure St. and 13th Ave.
- McClure St. and 12th Ave.
- McClure St. and 10th Ave.
- McClure St. and 8th Ave.
- 8th Ave. and Ann St.
- Homestead Train Station
- Retail
- Loew's Theater
- Smoketree
- Retail
- Lowes Home Improvement