Carnegie Mellon University
Department of Architecture

Urban Design Laboratory: Lawrenceville
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   By David Lewis

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This publication was published and edited by the fifth year architecture students of Carnegie Mellon University for the people of Lawrenceville.

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Carnegie Mellon University • Urban Design Laboratory
Introduction:

Pittsburgh is a metropolitan area of hills, rivers and winding valleys. With abundant coal and rivers for barge traffic, its valleys were ideal for the rapid growth of the various aspects of the steel and glass industries of the nineteenth century, from blast furnaces to fabrication shops. Immigrants poured into Pittsburgh from every country of Europe and from deep south to work in the mills, the shops and railroads which occupied the valleys and the riverfronts.

Around these industries small dense settlements grew up to house the immigrant working families. Knowing no English, the immigrants tended to cluster in ethnic and religious groups. Quickly these settlements became small towns, each with its own commercial main street, churches and schools. Pittsburgh is perhaps unique among American cities in being a collection of small towns rather than one city.
Lawrenceville is one of these small towns. Its ethnic base is German, Polish, and Irish, each with its own neighborhood and churches, and with Butler Street as its commercial spine. Indeed, the map reveals clearly how the town functioned in the late nineteenth century as a series of east-west “layers”; first the industrial riverfront, then a residential area of worker housing, then the Butler commercial street, and then a residential area of middle income housing built up the slopes above the industrial smog. And one can see how the pattern of residential streets, running north-south, echoes pedestrian movement to the riverfront industries and to Butler Street.

Today the heavy industries are gone. Some warehouses and fabrication shops remain, and some buildings have been recycled for other uses or stand empty. The population of Lawrenceville, which was over 30,000 fifty years ago, is now less than 12,000. Many of the younger people have left in search of education and employment, and the median age is high. The number of residents who work in Lawrenceville has dropped dramatically, and commuting to jobs in Pittsburgh’s downtown, Oakland, or the suburbs is common. Butler Street has become an east-west corridor, and many of the businesses are barely hanging on.
But the fierce pride remains. The citizens are determined to turn the corner. The rows of brick houses on quiet streets are a real estate secret waiting to be discovered. With the demolition of heavy industry on the river, the community has the opportunity for public recreational uses and park land along the riverbank for the first time. If ways can be found to reduce the heavy traffic flows along the Butler Street corridor, a new life could be breathed into the old commercial main street. And Allegheny Cemetery, virtually unknown and unexplored behind its monumental gates, is one of the great monumental cemeteries in the United States.

The citizens of Lawrenceville have participated with the Fifth Year students of the Department of Architecture at Carnegie Mellon University in articulating the issues as well as their dreams, and it is to them this report is gratefully dedicated. If in whatever way our material helps to move Lawrenceville along the path to a new and brighter future, the privilege of doing whatever we can is ours.

The student program was designed to occupy the full academic year 1994/5. It is divided into two parts. Each part has three studios. Part One, devoted to the comprehensive urban designs covering all of Lawrenceville, occupied the Fall Semester 1994, and is the subject of this report. Part Two, devoted to the individual architectural designs detailing parts of the comprehensive urban designs, occupies the Spring Semester 1995, and it will be the subject of a report published in May.

In the Fall Semester, one of the three studios, under the direction of Stefani Ledewitz, tackles the theme of the evolution of the public realm under alternative scenarios.

Another of the three studios, under the direction of Jacek Dominiczak, made an analysis of the infrastructural codes which govern the form of Lawrenceville, and then made large scale urban design interventions in terms of those codes.

The third of the three studios, under the direction of Karen Brean and myself simulated the steps an urban design consultancy would follow. It moved through three stages: analysis, exploratory urban designs, and comprehensive urban design recommendations. Students from the Heinz School of Public Policy and the History department at Carnegie Mellon worked side by side with the architectural students. Four groups of students were asked to work in teams and to envision their teams as "consultant firms". With the participation of the citizens, each firm was asked to respond to a Request for Proposal, to detail out their response, and then perform the work under "contract". The result of these three major studios comprises this report.

-David Lewis
In recent years in the architectural field, it has become increasingly clear that designing individual buildings is not enough. A city composed of nothing but individual buildings designed "as art," and without connection to one another, would be intolerable. The more one thinks about it, the more one sees that it is the linkages that make cities coherent. Buildings belong to people and they belong to places; they belong to history and they belong to the future; they belong to economics and to public policy as well as to private intention.

In an effort to overcome some of these barriers, and to provide an educational basis for interdisciplinary understanding, the Department of Architecture at Carnegie-Mellon has embarked on a program called the Urban Laboratory.

LEWIS/BREAN STUDIO

Database Studies

Professor David Lewis & Professor Karen Brean
Building Typologies

The following study of the buildings and their typologies as they exist in Lawrenceville begins to reveal the character and nature of the different parts of the burrough. The study is divided into three basic categories: residential, commercial, and institutional buildings. These categories do not take into account the possibility of mixed use buildings nor do they include the industrial buildings stretching the length of Lawrenceville's riverfront.

The residential study includes examples from upper, middle, and lower Lawrenceville. The objective of the comprehensive study is to give a direction to future residential design. This is accomplished through the generation of basic building typologies that give not only historical reference, but also simplify and categorize styles.

The commercial Butler Street lends many insights to the future design of Lawrenceville. The buildings reveal the history of a great shopping center while currently reflecting the economic decline of the region. Studies include both viable businesses and unused buildings along the length of Butler Street in Lawrenceville.

A study of the institutional buildings throughout Lawrenceville includes churches, schools, community centers, the hospital, and the brewery. Again, evidence points to a history of prosperity in Lawrenceville; in opposition, the lack of use or abandonment of some churches and schools reflects the decline in Lawrenceville's population over the last several decades.
St. Augustine's stands as a proud example of the history of prosperity in Lawrenceville.
RESIDENTIAL TYPOLOGIES

A steep variation of housing types exists in Lawrenceville. Overall, the residential neighborhoods provide a strong housing stock capable of supporting the working class and middle income families. The photograph above shows a typical street in the sloped area of middle Lawrenceville. In this area, houses are generally well maintained including front yards and street vegetation. The photograph on the right gives another clear picture of this neighborhood which is often quiet and pedestrian friendly.
Much of the housing stock in Lawrenceville was created for working class citizens with good jobs in the steel industry. As steel jobs have left the region over the last few decades, the houses which once held traditional families have deteriorated. Now they hold low property values and a predominantly older population. These residents are not willing to abandon Lawrenceville and the heritage that it provides. The houses are continuing to deteriorate, but provide an adequate backdrop for the sense of community which seems to remain strong in all areas of Lawrenceville.
COMMERCIAL & INSTITUTIONAL TYPOLOGIES

Lawrenceville contains many public institutions such as the Allegheny County Health Department shown to the right. This building and the many community buildings in the area indicate a period of prosperity in Lawrenceville. The buildings now stand as strong architectural pieces that can anchor the neighborhoods and draw any community together.

The architectural significance of buildings of this type can not be overlooked. Any new projects in Lawrenceville must respond to these fixtures, as they are certainly permanent.
Butler Street presents many problems as well as many opportunities in Lawrenceville. Portions of the street, such as the area between 43rd and 48th have viable businesses and a noticeable street life. Buildings in these sections are usually well maintained and occupied. Conversely, other sections have few businesses, many vacancies, and deserted streets. Butler, like many pieces of Lawrenceville, shows a past of economic boom and a current decline.
Religious Buildings in Lawrenceville will hold significant importance in any future development. Many communities look to the church as a central point where people can come together as a united group. The church represents one important way through which many communities can hold themselves together.

The churches in Lawrenceville show a beautiful history. Many of them illustrate European styles adapted to American materials. In Lawrenceville's strong developing period many of the religious structures were built using detailed brick patterns as seen in the photograph on the right. More contemporary buildings have been simpler in construction and more economic in materials. There is no indication that new churches are needed in Lawrenceville, but existing the existing historical buildings will demand respect from any development.
The most heavily traveled pedestrian area is along Butler Street between 40th and 46th street. Ironically, this is also the most dangerous area for pedestrians. A study conducted between 1983 and 1992 showed that of the 79 pedestrian/vehicular accidents that occurred in Lawrenceville, 71% took place between 37th street and 62 street on Butler Street. Much of this pedestrian circulation on Butler Street is directly related to the on street retail parking. Other major pedestrian areas that are only somewhat dangerous, and somewhat less traveled by vehicles, are the remaining areas along Butler street, the areas around Arsenal park, and the areas of 44th street above and below Butler street.
**VEHICULAR TRAFFIC**

Most of the traffic volume in Lawrenceville is directed along Butler street, Liberty avenue, and the 40th street and 62nd street bridges. Congestion along Butler street and industrial truck traffic on neighborhood side streets, both amplified by outdated roadway standards are major problems. Trucks account for up to 53% of the volume on residential streets and up to 25% of peak hourly (5-10% is average). Additionally, accident rates at 30 intersections in Lawrenceville exceed the statewide average and 11 of those are over twice the state average. These statistics can be directly related to the fact that most of the roadways do not meet current standard for travel lane widths and very few intersections have an acceptable turning radius.

**Peak Hourly Traffic Volumes in cars/hour**

*(Butler Street intersection)*

34th street (470)
37th street (275)
40th street (2860)
43rd street (120)
46th street (325)
51st street (815)
54th street (175)
57th street (310)
62nd street (1765)
Butler street (2990 at 40th)
(3515 at 48th)
(3265 at 62nd)
Liberty avenue (3545)
McCandless (380)
Penn Avenue (575)
Plummer avenue (350)
**Parking Areas**

Public Areas
- 42nd street and Butler - 22 total metered spaces, 2 of which are handicapped.
- 52nd street (off Butler) - 18 total metered spaces, peak = 9 spaces occupied between 2:30 and 3:00 pm.
- North and south sides of Butler street - 940 legal spaces, of which 19.6% are metered, 14.9% are free with one hour time limit, and 65.5% are free with no time limit. Peak occupancy is at 12:30 pm, when 50.4% of the spaces are utilized. Average usage on a typical weekday is only 37% of all available areas.
- Side streets - both metered and free spaces. Occupancy on side streets off of Butler represents 66.7% of total vehicular occupancy.

Private Areas
- Saint Francis hospital - two facilities exist, a large parking structure which contains 1,210 spaces, and an individual lot behind the hospital which contains 100 spaces. There is also an area along the river near 52nd where employees may park and be shuttled to the hospital, containing approximately 200 spaces.
- Other parking areas exist near retail facilities, larger ones being the lot in front of Rite Aid on Butler and 47th, and the lot near the Giant Eagle on Plummer Street. Estimated number of available parking spaces is between 40 and 50 for each of these. Some smaller parking areas exist, some of which are vacant lots which have been taken over by cars.

Five quadrants along Butler street

<table>
<thead>
<tr>
<th>Quadrant</th>
<th># of available spaces</th>
<th>% of occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>155</td>
<td>67.0</td>
</tr>
<tr>
<td>II</td>
<td>93</td>
<td>71.8</td>
</tr>
<tr>
<td>III</td>
<td>51</td>
<td>52.6</td>
</tr>
<tr>
<td>IV</td>
<td>96</td>
<td>57.7</td>
</tr>
</tbody>
</table>
Vegetation

The Allegheny Cemetery is primarily forested with planted sycamores, oaks, and locusts as well as having areas of relatively wild forest. Aside from the untended woodland areas there are 3,800 trees in the cemetery. Sycamores seem to be the most common of these due to size, strength, and ease of maintenance. The problems with the other types of trees are: locusts, being fast growth trees, are weak and susceptible to damage; oaks are good except they gradually shed their leaves over a period of months, causing a high degree of clean up. The grounds are maintained by a crew of between thirteen and thirty employees, depending upon the season. In the fall, eight men are devoted solely to leaf removal. Thinning of the tightly spaced trees remains the greatest maintenance problem.

In its past the Allegheny Cemetery was a well-known arboretum, and the current management has expressed interest in reviving that function in an effort to draw more attention to the cemetery as a resource. They are beginning to reintroduce maintained flower beds and flowering plants throughout the grounds. The cemetery remains a popular site for walking, jogging, and bird watching.

Typical street trees in Lawrenceville are sycamores, northern and red maples and locusts. They are planted several in a block and have not been well cared for. As a result, tree spacing is irregular and sporadic. Many of the trees that remain are stunted and dying. Removed trees have generally not been replaced.
Vegetation
TOPOGRAPHY
Topography
As one of the oldest neighborhoods in Pittsburgh, Lawrenceville has always been a representative microcosm of the city, socially and economically. It’s residents and their history closely follow the same patterns of the settlement and development of the industry which for so many years was the story of Pittsburgh as a whole. Today, we can look back at the story of Lawrenceville in order to help us understand the development of Pittsburgh.

Situated as it is along the Allegheny River, Lawrenceville served as a crossroads for the trails of the Native American travellers even before European colonists reached Western Pennsylvania. Evidence of early settlements by the Delaware tribes have been discovered in and around Lawrenceville, including a burial ground near the site of the present day Carnegie Library. In the early 1700’s, Lawrenceville was first inhabited by the residents of “Shannopin’s Town”, a Native American village that lay along that which is now Butler Street. The village was visited by many early colonists, including George Washington and Christopher Gist at the time of their historic crossing of the Allegheny River. The area was "purchased" by the European settlers in the mid-1700’s with the signing of the Logtown Purchase Treaty in Ambridge, Pennsylvania. The area which composes Lawrenceville was then called "Croghan'sville" and "Bayardstown" because of ownership by the Masters Croghan and Bayard. Mr. Croghan served as the chief representative of the colonial government in the region until the time of the Revolutionary War.

The region’s industrial role began soon after its initial settlement with the founding of manufacturing facilities in the area between Eleventh and Thirty-Third Streets. During the War of 1812, the region served as a center for the manufacture of munitions and supplies, a role that later defined much of the industry that would come to the neighborhood. It was in 1814, the same year that the Town of Lawrenceville was founded, that the Allegheny Arsenal lands were purchased by the government of the United States of America and the true industrial history of the town began. In just four years, the Arsenal had a stand of twelve thousand arms and incontinued to supply ammunition to the United States government up through the early part of the twentieth century.

In 1824, the first Pittsburgh ironworks were constructed by Peter Schoenberger in the Strip District, between Fourteenth and Sixteenth Streets. From there, the iron, and later the steel, industry stretched into the heart of Lawrenceville. The population of the town increased steadily with the rise in manufacturing jobs and the immigration of European settlers looking for a new life. With the growth came the founding of a paper mill near the Allegheny Arsenal, the Allegheny Steamboat and Sawmill, as well as the Fort Pitt Cannon Foundry. The area became well known for its steamboat production, which included riverboat "The Lawrence".

The Allegheny Cemetery was established in 1844 as the fourth rural cemetery in the country, with over three hundred acres of grounds. Its gates, which still stand today as part of the landmark, were designed by the architect John Chislett. Its grounds are marked by dramatic slopes and vistas, as well as large scale monuments and memorials. Still revered as one of the most beautiful and historic cemeteries in the country, the Allegheny Cemetery serves as the final resting place for many historical Pittsburgh and international figures, including the native Lawrenceville composer Stephen Foster, born in 1826.
The Foster home, the "White Cottage", was designed for Foster’s father, William, by the well-known American architect Benjamin Latrobe. The home has since been demolished and replaced by the Second Empire mansion, built by Andrew Kloman. Today, this house serves as a lodging for members of the American Wind Symphony.

Benjamin Latrobe was also responsible for the design of the Allegheny Arsenal buildings, most of which have been demolished as well. The complex was the largest of the early factory sites in Pittsburgh and employed over four hundred workers in 1861. This major employer spawned much of the growth of the built environment of Lawrenceville, including the boom of workers homes that appeared through the 1830’s and 1840’s. The Arsenal continued production throughout the Civil War, though it was disrupted by severe rioting when the army attempted to transport cannons and small arms on the Allegheny in 1860. Two years later, the Arsenal was damaged and seventy-five lives lost in a tragic explosion on the site. There stands today a memorial in the Allegheny Cemetery to the victims of the tragedy, most of whom were women working in the production line.

The Civil War greatly affected Lawrenceville through both industrial and social change. In 1861, Camp Williams was founded near Two Mile Run and served as an initial destination for the Union Army recruits. The original Saint Francis Hospital, another Lawrenceville native, served as a federal hospital throughout the war and saw two thousand six hundred ninety-three soldiers pass through its doors. Within the period of the Civil War, there were many additions to the industrial growth of the town, including the opening of the Fort Pitt Iron and Steel Works. Kloman and Phipps consolidated their works with
1814 • The town of Lawrenceville established on June 1st • Arsenal lands purchased • Foster donates land for community cemetery (located at the site of current community center and library)

1818 • First Pittsburgh "mass transit" in the form of "an elegant horse drawn couch" • Arsenal has 12,000 stand of arms

1819 • "Western Engineer" steam ship launched on the Allegheny • Masonic Lodge organized

1824 • Peter Schoenberger builds 1st Pittsburgh ironworks at 14th & 16th streets

1826 • Stephen Foster born • Paper mill constructed near the Arsenal by George Hirt

1828 • Population of Lawrenceville reaches 200

1834 • Lawrenceville becomes a borough

1837 • Allegheny Steamboat & Sawmill founded above the Arsenal

1838 • Documentation of 2 steamboats running on the Allegheny, the "New Castle" and the "Pulaski"

1839 • Arsenal staff consists of 3 officers, 35 enlisted men & 68 hired hands

1841 • Fort Pitt cannon Foundry established

Plan of Pittsburgh circa 1826

The Garrison in Lawrenceville; artist unknown

During the Civil War, Lawrenceville produced munitions supplies for the Union.
1844 • Allegheny Cemetery established, the 4th rural cemetery in the United States

1845 • "The Lawrence" steamboat constructed and launched

1848 • Chislett designs the gate at the Allegheny Cemetery

1850 • Population of Lawrenceville reaches 1,700

1853 • Coach service to Downtown is running every 5 minutes

1859 • The Citizen's Passenger Railway is founded

1860 • Major protests and rioting sparked by the movement of cannons and small arms from the Arsenal to be shipped down river
• Union Ironworks founded

1861 • Arsenal employees number 400 • Camp Williams founded for Civil War recruits

1862 • Arsenal Explosion kills 75 • Fort Pitt Iron & Steel Works founded

1865 • Flood destroys Mechanics Street Bridge
• Saint Francis Rehabilitation Hospital opens
• Kloman & Phipps consolidates with Cyclops (Andrew Carnegie)

1866 • Iron City Beer founded • First mills open at HK Porter Locomotive Works • St. Francis Hospital moves to 44th Street; served as federal hospital

1844 The Allegheny Arsenal

1853 The Lucy Furnace

1866 The destruction of the railyards during the labor riots of 1877
Andrew Carnegie's Cyclops during the final year of the war and were destined to emerge as the "bright star" of Lawrenceville's industrial era. Soon to follow this move was the opening of the first of the colossal steel mills at the HK Porter Locomotive Works, which would forever alter the face of Lawrenceville and Pittsburgh.

In 1871, Carnegie, Kloman and Company opened the landmark Lucy blast furnace at Forty-seventh and Fifty-second streets. The furnace raced into production and reached an output of fourteen-hundred tons of steel per week while racing against her competitor, the Isabella works. Lucy continued production for over fifty years, when she was demolished in the 1930's.

The Industrial Age continued to roar within Lawrenceville. The vast growth further was fueled by the incredible population explosion that came with the increase in immigration from Eastern Europe, due in part to disturbances in the political and economic systems of their home countries. The worker ethic became dominant in the community. In 1877, labor riots rocked the city with particularly devastating results in Lawrenceville. Several people were killed in the fighting and destruction that ensued. The railroad yards went up in flames and the tracks were pulled up and twisted by the protestors.

This failed to deter the growth of the industrial work base, however, and firms that joined the community in years to come included the Samuel Tretheway Company Ltd. (later known as Heppenstall) and the Pittsburgh Reduction Company (ALCOA), which produced the first commercial aluminum in its Lawrenceville plant in 1888. Ten years later, Lawrenceville again made another historical first with the founding of the Carnegie Library, America's first public book lending institution.

Lawrenceville continued to prosper throughout the turn of the century and beyond, its commercial district thriving and comparable to that of the South Side's Carson Street. It led the region in medical research as well as industry with a series of prominent hospitals and clinics established within its borders. These included Saint Francis, and the Western Pennsylvania Medical College, which later became the medical school for the University of Pittsburgh. Also during this time, the region's banking facilities flourished with the ever-increasing wealth of its citizens who took part in the industrial heyday. The continuation of the expansion of the country by rail and bridge led to increasing demands in steel production, as did the advent of the World Wars. This, in turn, allowed the population to grow to a peak of thirty thousand in 1940. Many people felt that the steel industry giant was invincible and that its presence in the community would continue to carry Lawrenceville and Pittsburgh into the future.

By 1950, however, the situation had changed and the population had begun to decline, affected by both the move to suburbia and the increase in foreign steel production. The price of foreign steel coming from Germany and Japan was significantly less than the locally
manufactured product and the United States fell behind in the steel market. One of the key issues in this change of power was the United States' refusal to update their technologies and recognize the competitive forces of these foreign resources. Lawrenceville and Pittsburgh felt the brunt of this error of judgement as the domestic steel prices rose over the imports and even American buyers turned elsewhere. This was the beginning of the end of the Steel Age for the region. Mills began to close and workers were forced to look elsewhere for their income. Lawrenceville began to lose its population.

From 1940 to 1950, there was an eleven percent decrease in residency in Lawrenceville. The community never recovered from this loss and the trend continued downwards at an average loss of twenty percentage every ten years until 1990. According to 1990 census data, the population hit a low of eleven thousand eight hundred, a total loss of sixty-one percent over the course of fifty years. There has also been a steady decrease in the number of housing units available since 1950, representing a total of twenty percent of the housing stock in that time period. When Pittsburgh reached its historic "Renaissance" in the late 1980's, Lawrenceville did not find a role for itself, unable to compete with the technological advances of the new Information Society and the blossoming medical community that were able to power other neighborhoods of the city onto a brighter course. Rather, it has been sitting, waiting, as if in hibernation, for the chance to regain its former glory.

Today, Lawrenceville is at a crossroads, trying to determine its course into the future and what it might make of its history. The region and the city must, as a whole, recognize the power of the lessons that it has learned. Lawrenceville has the ability to make the history of its future today.
during Civil War; 2,693 soldiers treated

1868 • Lawrenceville annexed to Pittsburgh on June 6th • Westinghouse Airbrake opens • Arsenal becomes a national arms center

1869 • McConway & Torley foundry business founded

1870 • Ewalt Street Bridge opened (43rd Street)

1871 • Lucy Blast Furnace #1 opens at 51st Street on April 30th • Carnegie Brothers consolidates

1872 • Blacklead Crucible Works founded at 36th Street below railroad • Arsenal Bank of Pittsburgh founded

1875 • Metropolitan National Bank established at 41st & Butler

1877 • Labor riots rock neighborhood

1883 • Western Pennsylvania Medical College charter established

1885 • Samuel Tretheway Company Ltd. established (later Heppenstall) • Westinghouse Electric opens laboratory

1888 • First commercially produced ingot of aluminum produced at the Pittsburgh reduction Co. (ALCOA) on Thanksgiving Day

1896 • Passenger railroad electrified & becomes part of Pittsburgh Railways & the Port Authority
1898 • First Carnegie Library opens in May

1902 • Pennsylvania National Bank at Doughboy Square opened • Western Pennsylvania Medical College becomes University of Pittsburgh Medical School. Later moves to Magee Hospital

1909 • Arsenal lands and buildings given to the city

1914 • Bloomfield Bridge opens

1917 • Old Arsenal buildings razed

1918 • World War One memorial dedicated at Leslie Park

1919 • War memorial at Doughboy Square dedicated

1924 • Washington Crossing Bridge opened

1925 • Charles Kline of Lawrenceville elected mayor of Pittsburgh

1928 • Monument to 1862 Arsenal victims dedicated at Allegheny Cemetery

1930 • Tretheway Co. changes to Heppenstall

1933 • Unemployed residents demonstrate against low benefits

1936 • Pittsburgh Banana Company suffers major explosion • Flood waters ravage Lawrenceville area

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### Figure 1a: Lower Lawrenceville Population 1940-1990

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Change</th>
<th>Percent Change</th>
<th>Total Under 18 Yrs.</th>
<th>Percent Under 18 Yrs.</th>
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<tbody>
<tr>
<td>1940</td>
<td>9,036</td>
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<td>1950</td>
<td>7,899</td>
<td>-1,137</td>
<td>-12.6</td>
<td>2,208</td>
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<td>1960</td>
<td>5,338</td>
<td>-2,561</td>
<td>-32.4</td>
<td>1,605</td>
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<td>4,536</td>
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<tr>
<td>1980</td>
<td>3,602</td>
<td>-934</td>
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<td>702</td>
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<tr>
<td>1990</td>
<td>2,650</td>
<td>-952</td>
<td>-26.4</td>
<td>521</td>
<td>19.7</td>
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### Figure 2a: Lower Lawrenceville Changes in Housing Units 1940-1990

<table>
<thead>
<tr>
<th>Year</th>
<th>Total HUs</th>
<th>Change in HUs</th>
<th>Percent Change in HUs</th>
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<tbody>
<tr>
<td>1940</td>
<td>2,278</td>
<td>--</td>
<td>--</td>
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<tr>
<td>1950</td>
<td>2,222</td>
<td>-56</td>
<td>-2.5</td>
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<tr>
<td>1960</td>
<td>1,773</td>
<td>-449</td>
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<td>1970</td>
<td>1,674</td>
<td>-9</td>
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<tr>
<td>1980</td>
<td>1,691</td>
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<td>1990</td>
<td>1,415</td>
<td>-276</td>
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### Figure 3a: Lower Lawrenceville Income Distribution

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<thead>
<tr>
<th>Income Distribution</th>
<th>Neighborhood Number</th>
<th>City Percent</th>
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<tbody>
<tr>
<td>Under $10,000</td>
<td>431</td>
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<td>$10,000 - $14,999</td>
<td>149</td>
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<td>$50,000 - $59,999</td>
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<td>$60,000 - $99,999</td>
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</tr>
<tr>
<td>$150,000 and over</td>
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</tr>
<tr>
<td>Total</td>
<td>1,170</td>
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</table>

---

**DATABASE STUDIES**
Figure 1b: Central Lawrenceville Population 1940-1990

<table>
<thead>
<tr>
<th>Year</th>
<th>Total HUs</th>
<th>Change in HUs</th>
<th>Percent Change in HUs</th>
</tr>
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<tbody>
<tr>
<td>1940</td>
<td>3,331</td>
<td>---</td>
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</tr>
<tr>
<td>1950</td>
<td>3,323</td>
<td>99</td>
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<tr>
<td>1960</td>
<td>2,974</td>
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<tr>
<td>1970</td>
<td>2,778</td>
<td>-196</td>
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<tr>
<td>1980</td>
<td>2,879</td>
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<tr>
<td>1990</td>
<td>2,903</td>
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Figure 2b: Central Lawrenceville Changes in Housing Units 1940-1990

<table>
<thead>
<tr>
<th>Income Distribution</th>
<th>Neighborhood Number</th>
<th>Percent</th>
<th>City</th>
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<tbody>
<tr>
<td>Under $10,000</td>
<td>916</td>
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<tr>
<td>$10,000 - $14,999</td>
<td>298</td>
<td>11.3</td>
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<td>$15,000 - $19,999</td>
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<tr>
<td>$40,000 - $44,999</td>
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<td>8.4</td>
<td>7.7</td>
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<tr>
<td>$45,000 - $49,999</td>
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<td>4.8</td>
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<tr>
<td>$50,000 - $54,999</td>
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<td>4.4</td>
<td>6.7</td>
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<tr>
<td>$60,000 - $64,999</td>
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<td>0.7</td>
<td>1.6</td>
</tr>
<tr>
<td>$100,000 and over</td>
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<td>1.3</td>
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<tr>
<td>Total</td>
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</table>

Figure 3b: Central Lawrenceville Income Distribution

<table>
<thead>
<tr>
<th>Year</th>
<th>Total HUs</th>
<th>Change in HUs</th>
<th>Percent Change in HUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>1,653</td>
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<td>---</td>
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<tr>
<td>1950</td>
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<tr>
<td>1960</td>
<td>1,568</td>
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<td>1970</td>
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<tr>
<td>1980</td>
<td>1,438</td>
<td>-51</td>
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<tr>
<td>1990</td>
<td>1,547</td>
<td>109</td>
<td>7.6</td>
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</table>

Figure 2c: Lower Lawrenceville Changes in Housing Units 1940-1990

<table>
<thead>
<tr>
<th>Income Distribution</th>
<th>Neighborhood Number</th>
<th>Percent</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $10,000</td>
<td>370</td>
<td>28.1</td>
<td>26.8</td>
</tr>
<tr>
<td>$10,000 - $14,999</td>
<td>145</td>
<td>11.0</td>
<td>11.5</td>
</tr>
<tr>
<td>$15,000 - $19,999</td>
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<td>4.9</td>
<td>6.8</td>
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<tr>
<td>$35,000 - $39,999</td>
<td>104</td>
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<tr>
<td>$40,000 - $44,999</td>
<td>131</td>
<td>9.9</td>
<td>7.7</td>
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<tr>
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<td>0.3</td>
<td>1.6</td>
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<tr>
<td>$100,000 and over</td>
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<td>0.5</td>
<td>1.3</td>
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<tr>
<td>Total</td>
<td>1,318</td>
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</table>

Figure 3c: Upper Lawrenceville Income Distribution
By breaking down Lawrenceville into its individual components of Lower, Central and Upper, we were able to look at the significant trends in growth and changes in settlement patterns since the first half of the twentieth century. We utilized the telephone directories from 1940 through to 1975 to look at the significant changes that were experienced with the closing of the mills during that period of time.

In Lower Lawrenceville, we used the Doughboy Square area along Penn Avenue from Thirty-Fourth Street to Thirty-Fifth Street as our case study. In the period from 1940 to 1975, there was a decline from sixty households to fifteen, representing a total loss of seventy-five percent, with the greatest loss between the years 1960 and 1970. The change in businesses sampled went from six to two, a loss of sixty-six percent, with the greatest loss occurring between the years 1970 and 1975. Many of the households in that area appeared to have been Single Room Occupancy (SRO's) in the form of rental units. The prime occupant of these living situation were single men, perhaps in part relating to the active trucking industry in the Strip District. Today, Doughboy Square is considered to be one of the “worst” districts of Lawrenceville, with a perceived crime and vandalism rate higher than other neighborhoods.

The area which we sampled in Central Lawrenceville extended along Forty-Fourth Street from just beyond Hatfield to Penn Avenue. The section by Hatfield Street had a much higher retention of households, with ninety-six in 1940 and fifty-nine in 1975. This represented a loss of thirty-eight percent. In the upper area of Forty-Fourth Street, the loss of households in the same period was sixty-four percent. This may in part be due to the proximity of the upper area to the com-

* Source of Demographic Data: 1990 Census of Population and Housing Reports, prepared by the Department of City Planning
For our last case study, we examined the area of Upper Lawrenceville along McCandless and Carnegie Streets. Here, the household retention was much higher than in the other areas we looked at, with losses in population totalling only thirteen percent. Furthermore, upon visiting the neighborhood as it stands today, the homes appear to be better cared for and the street spaces clean and heavily trafficked by pedestrians.

By working in this way, we were able to get a clearer understanding of the losses that were felt with the closing of the industrial workbase and the longerterm effects that it has had on the community as a whole. Furthermore, we were able to provide hard data to support our theories of which areas were hardest hit by the loss of the job market.
Lawrenceville Three-Dimensional Computer Model

A supportive portion of the Lawrenceville studies is a computer base model of the site constructed during the Fall Semester by Assistant Professor Decker and a portion of the studio participants. The model consists of base geometries and a selection of the buildings (associated with the two core areas of the district) which are represented in simplified form to serve as sources for perspective views and various types of urban analysis. The model geometries were created in Autocad such that they will convert into Form Z, 3D Studio, and any number of other graphic environments. Rendered examples of the model shown here were produced in 3D Studio, and Line Art examples were generated in Form Z.

The model elements were placed at real elevations above sea level in the computer space and were grid-coordinated with Pittsburgh Area GIS maps from which they were derived. Graphical "tiles" are placed in the model along with control grids at 0 elevation which graphically show the relationship to these maps in plan view. Accuracy of the model is estimated to be within 3%, adequate for urban scale analysis.

Some analytical stratification of model elements is built in, such that related elements can be switched on and off to observe isolated sets of relationships. These stratified groupings are as follows:

1. Buildings
   a. Commercial Buildings
   b. Industrial Buildings
2. Movement
   a. Major North-South Roads
   b. Major East-West Roads
   c. North-South Streets
   d. East-West Streets
   e. Railroad Grades (as voids in Land)

3. Environmental
   a. Urban Land meshes
   b. Open Land meshes
   c. The river

4. Controls
   a. Map Tiles
   b. Control Grid

Student usage may range from base map generation of perspective views through advanced inclusion of architectural proposals including visual and sequential analysis. Students may use the model as a whole or break appropriately scaled pieces out of it for individualized modeling studies.

The intention of this research is to observe somewhat unstructured usage of this resource. Students who use the model to explore their designs are expected to produce a graphically supported record of use and some attempt of documentation of what impact, if any, the use of the model has on their method of designing.

Use of the model is optional and, in fact, those students who make no use of it will serve as a control group for judgement of computer impact on design outcomes.
In recent years in the architectural field, it has become increasingly clear that designing individual buildings is not enough. A city composed of nothing but individual buildings designed as "art", and without connection to one another, would be intolerable. The more one thinks about it, the more one sees that it is the linkages that make cities coherent. Buildings belong to people and they belong to places; they belong to history and they belong to the future; they belong to economics and to public policy as well as to private intention.

In an effort to overcome some of these barriers, and to provide an educational basis for interdisciplinary understanding, the Department of Architecture at Carnegie-Mellon has embarked on a program called the Urban Laboratory.

**LEWIS/BREAN STUDIO**

*Designs and Proposals*

Professor David Lewis &
Professor Karen Brean
**Response to RFP:**

**Analysis:**

As one of a number of towns and villages that together we call Pittsburgh, Lawrenceville grew and flourished throughout the steel age. As the steel industry developed along the Allegheny river front, its presence came to shape the lives of the inhabitants much as the mills themselves came to dominate the landscape along the Allegheny and the Monongahela. Now with the disappearance of the steel industry, Lawrenceville, like many industrial towns, is without a social and economic center and has lost the critical balance between the inhabitants and their means of existence. The future of Lawrenceville is tied very closely to this proud history in that it lies with the re-establishment of this forgotten center. It is through an evolution of this earlier relationship between business and community interests that Lawrenceville may regain both its own sense of community as well as its place of importance within the greater Pittsburgh community.

When first examining Lawrenceville it is not difficult to see that the greater portion of the community is in relatively good physical condition. From further analysis it is clear that the most important area in terms of new development is the strip of land between the Allegheny River and Butler Street. Contained within this broad stretch is the former booming industrial zone, several distinct residential zones, and the commercial zone on Butler Street. The large portion of the buildings and property in this strip are vacant or abandoned, which has led to their current state of deterioration. This strip is the most valuable piece of land in the community because its future represents the future of all Lawrenceville—its course of development will either spearhead Lawrenceville’s return to prosperity or silently witness the community’s continuing demise.

Another aspect of Lawrenceville that must be examined in determining the future of the community is the division of Lawrenceville into three distinct districts: Lower, Middle, and Upper. These divisions originated from political wards based upon ethnic settlement patterns. They represent an important aspect of Lawrenceville’s history and each neighborhood was sustained through a number of social, political, and economic ties. Unfortunately, as evidenced by the abandonment of churches, the high median age of the population, and the deteriorating condition of many of the buildings, these earlier ties are no longer of concern to today’s generation and only the divisions between the neighborhoods remain. The three districts have deteriorated to different degrees and are even further separated by income, race, and new patterns of circulation. In order for Lawrenceville to regain its community cohesion and to again become a productive part of Pittsburgh, these three districts must be unified. We must find and develop the means for the three districts to interact as a whole while allowing each to maintain its distinctive qualities.

By examining Lawrenceville, one can see that the majority of the problems do not call for drastic change but rather a solution that looks at the existing positive qualities and amenities of Lawrenceville and builds upon these strengths to further stimulate the resurgence of the community. These main attributes include: the RIVER FRONT, BUTLER STREET, ALLEGHENY CEMETERY, THE PITTSBURGH BREWERY, ST. FRANCIS HOSPITAL, and HISTORICAL HERITAGE. These must remain an integral part of the new urban design for Lawrenceville.
Approach:

The problems of Lawrenceville must be addressed in order to provide for a viable and sustainable future. However, the future of Lawrenceville is not isolated in itself but tied very closely to the future of the entire Pittsburgh region. So in addressing the future of Lawrenceville, we must work at a macro as well as a micro level and tailor each of our decisions to favorably affect the entire Pittsburgh region as well as Lawrenceville itself.
First, the renaissance of the river front will provide Lawrenceville with the amenities it needs to attract new investment and new inhabitants into the community. In reshaping the Allegheny water front we must examine its use in the physical and historical context to remedy the limitations imposed by the existing, outdated zoning policy. During the industrial revolution the rivers became the life blood of the Pittsburgh region, and they remain even today its greatest physical asset. However, the river must now be viewed in ways that the former industrial based zoning ignored. It must be seen as a public realm belonging to community and business interests, and therefore it must become an integral part of life for all of Lawrenceville, just as it was an integral part of the steel industry in years past. The use of the river can attract new business and people to the area, and the new urban plan must look to provide enticements to draw people toward the river. The adaptive reuse of vacant buildings and of the railroad line as a corridor to alleviate the existing traffic problems, can maintain the industrial heritage of the community while also opening the river to new industries or businesses. This multi-use zone will also allow for more interaction between community, business, and industrial interests.

Secondly, Butler Street is presently too large for the community of Lawrenceville to support. A new plan must involve the centralizing of critical businesses within the commercial district into new smaller districts. This will create a healthy commercial area which can be supported by the community, but will also allow for the possible growth of specialty and destination business attracting people from outside of Lawrenceville. This expansion will be aided by the growth of new industry along the water front.

Thirdly, the residential character of Lawrenceville must be maintained. We must build upon the existing strengths of the residential areas so that they may become more attractive to young potential home buyers. This includes the maintenance and remodeling of existing structures, the enhancement of larger community facilities; specifically, schools, businesses, churches, and recreation areas, as well as the introduction of smaller neighborhood parks and facilities to supplement central community facilities such as Arsenal Park.
Lastly, the Allegheny Cemetery must become more of an integral part of Lawrenceville. Presently it is dividing rather than unifying the community. It must be used to the advantage of the entire Lawrenceville community by capitalizing on its unique aspects and making a central focus rather than a barrier. In this sense the cemetery is important for its historic architectural features as well as its potential as a large usable green space. Accompanying this evolution of the cemetery, a new space will reach down to the waterfront creating a public open space for passive and active recreation.

Description of Firm:

The firm of HE MA WOHAT has been active in urban design for several years. The principal architect, Mr. Tien, has worked in four firms prior to the formation of HE MA WOHAT. He was removed from all four firms before a fortune cookie told him to join forces with the “brotherhood of five” firm to establish HE MA WOHAT.

The sobering up of the six to “real world policies” has been reflected in the enormous success of HE MA WOHAT in the urban design field. Ranked number two in the AIA architectural firm listing, HE MA WOHAT credits priceless experience in architectural and non-architectural fields, rare West German Hops, and a special “good guy” ingredient, for their success.

World-Renowned Projects include:
- Design firm for Walt Disney’s Euro Disney
- The Pet Rock
- Design of world class Lionel Train layouts
- The Berlin Wall (W. Tien)
- Iron City Beer hot air balloon
- Chain of Hooters restaurants

Current World-Renowned Projects include:
- Design and production of air guitars
- Timber frame skyscraper of recycled barns
Personnel:

Principal: Walter 'Wet-ko' Tien
Partners: Fred 'peg boy' Belledin
        Hyun 'Bubba' Jung
        Jon 'Ice' Price
        Rick 'Q-tip' Sabeh
        Jody 'Sanford' Schuman

Walter 'Wet-ko' Tien: Lead guitarist for a world-renowned acoustic folk rock band. He received his B. Arch. degree from Carnegie Mellon University and his M. Arch. from Triangle Tech. He is currently an adjunct professor at the Pittsburgh Diesel Institute as a driving instructor. He has prior work experience at four architectural firms. Please don't call for references.

Fred 'peg boy' Belledin: Previously unemployed. Prior work experience as migrant farm worker in Chilean grape vineyards. He was exiled by the Chilean government for reactionary ideas on women in the workplace. Started grass roots firm in the New York area called “Brotherhood of Five”.

Hyun 'Bubba' Jung: Spent several years wandering the streets of Brooklyn with his pet tatanka, Raif, peddling his own hand-crafted buffalo scat creations to unsuspecting victims. He was saved from deportation after attempting to sell a not-quite-dry creation to Ivana Trump when he married his tatanka to gain his green card. He became the official rice cooker for the "Brotherhood of Five" in 1987.

Jonathan 'Ice' Price: After passing out in a bucket of wings at CJ Barneys in 1994, Jon woke up in Central Park with a Cuban cigar, a pair of orange socks, and part of John Wayne Bobbit. Although he has yet to regain his speech or lose the puzzled expression on his face, his motor skills are improving almost daily.
Rick 'Q-tip' Sabeh: Although Rick has been in one ear and out the other, around the block, down some rivers, he still can't understand a shear diagram.

Jody 'Sanford' Schurman: After undergoing a special operation to get into the "Brotherhood of Five," Brother Schurman has adapted well to trousers and is a brand new man. He has donated his old clothes to fellow brother Fred 'peg boy' Belledin.

Cost of Services:

$60,000 for each member's salaries (per year)
$60,000 * 6 = $360,000

$360,000 * 25% = $90,000
($15,000 for each member)

Overhead
$90,000 * 3.4 = $306,000

Type of payment
Work completed, incremental method:
The firm will be paid according to the amount of work completed over a specific time period
40% - 1st month
30% - 2nd month
30% - 3rd month

Special thanks to National Geographic Society for their outstanding photography and to Mitsuaki Iwago for the macaque.
**Lawrenceville Urban Design Concept:**

**Background:**

As one of a number of towns and villages that together make up the city of Pittsburgh and the surrounding region, Lawrenceville flourished throughout the steel age. As the steel industry developed along the Allegheny riverfront, its presence came to shape the rhythms of the inhabitants' lives much as the mills themselves came to dominate the landscape along the Allegheny and Monongahela. Lawrenceville is a reflection of this relationship between industry and community. The daily patterns in the workers' lives are seen in the layout of the town—the industry along the waterfront, Butler Street, a swatch through Lawrenceville of bars and small businesses, and housing, a short walk up the hill away from the smoke and dust of industry.

Lawrenceville today, like many post-industrial towns is without its social and economic center. Many of the companies who employed the population of Lawrenceville have failed, leaving the community without a means of livelihood. The elimination of this single unifying element has led to the decline of Lawrenceville, both as an integral piece within the region, and as an independent, self-sustaining community. Today, Lawrenceville like many other urban communities is suffering from urban decay caused by a combination of scenarios including suburbanization, crime, drugs, and juvenile delinquency; evident from the aging population and lack of growth along Butler Street.¹

**Intention:**

The future of Lawrenceville is tied closely to its proud history and can be secured in the framework that initially created a unique, coherent community within the region. Sustainability lies in the balance between the economy, the environment, and the characteristics that play a critical role in building a healthy community.² In Lawrenceville, we must provide the structure for a strong future economy within the Pittsburgh region while strengthening the many existing community assets.

New industry on the riverfront will take the first step toward sustainability. Clean technology and research based industrial ecosystems of the future will replace immense polluting factories of the past. In our proposal, an interrelationship between neighborhood and workplace will create numerous urban open spaces di-

¹ Crawford, Melisa, Heinz and History Final report.
² Crawford, Melisa, Heinz and History Final report.
verse in public activity which industry can provide as well as profit from. This symbiotic relation touches the very definition of sustainability and begins to flesh out the perfect frame that a historical Lawrenceville provides.

Tied closely to the first step of industrial development is the rebirth of Lawrenceville as a cultural and commercial center serving not only residents, but surrounding areas as well. As Butler Street compresses and returns to a pedestrian scale, it will sew itself back into the fabric of the community; a community held together through Arsenal Park, Allegheny Cemetery, and from hillside to riverfront. As all of these pieces react to and build upon one another, Lawrenceville will again understand its beginning as it takes from the past and invests in the future.
**MASTERPLAN:**

*Riverfront Industrial:*

Because of the sensitive issues at work on the Lawrenceville riverfront, it is necessary to clearly define and enforce objectives to generate development that will follow a plan common to the entire strip. The uses will be limited to industrial types that are currently indigenous to and are expected to continue prospering in Pittsburgh and the surrounding region. With careful planning, industries can benefit from clustering, a closed loop system, positive interaction with residents, and a prime location within the greater Pittsburgh community.

Targeted industries include metal working and alloys research, plastic and chemical development, environmental technologies and research, and data communications. These industries will be capable of interacting with one another, and, between them, will be expected to maintain a series of public open spaces. A continuous, city-owned public trail space will flow through Lawrenceville linking many of the community’s public amenities and tying both the river and the industry to the residential portions of the community. The intention of this action is to insure a positive relationship between the residents and businesses of Lawrenceville.

Industry will be required to maintain a certain amount of greenspace or public urban open space adjacent to and, at times, inclusive of both the riverfront and public trails. Additionally, it will be necessary for companies to maintain an attractive face directly off these spaces. All projects will be subject to the approval of the city using the process outlined in section 959.04 of the Pittsburgh Zoning Ordinance. In brief, members of any committee considering projects in this area must consider the following list of critical criteria for project approval:

- Daylight to public urban spaces
- Concealment of unattractive industrial necessities
- Quality of building facades facing public spaces
- Use of appropriate sound and emissions buffers
- Provision of amenities within public spaces
- Any additional issues

Industry’s support of public spaces is absolutely essential to the masterplan of Lawrenceville; they must not be overlooked under any circumstance.
The care with which industrial and community relations have been considered is carried over to the industrial operations. Lawrenceville is standing at the threshold of a possible industrial and technological revolution. In an age when we are witnessing a reduction in the use of material resources, an ever-increasing emphasis on recycling, waste management and environmental sensitivity, and fundamental changes within the logistical and organizational structure of business, current industrial models have proved inadequate. The industry planned for Lawrenceville is intended to be incorporated as a group into an industrial ecosystem. The advantages of such a system are numerous. For one, any of the initial financial sacrifices incurred by the industrial concerns in satisfying the provisions stated above can be offset through savings in transportation, storage, waste management, and other logistical costs. The direct interaction between industries in the reuse of waste material and energy transfer and in cost sharing greatly reduces operational expenses. Additionally, a successful ecosystem promises both an economic and public relations windfall. The collective organization and sharing of business, information, services, and technology between the industries themselves and with the existing universities and proposed technical training programs ensures a continual source of labor, business opportunities, and contacts. Additionally, the collective identity and resources of the industries greatly enhances their value regionally, nationally, and internationally.

The spine of the industrial ecosystem and its most direct connection to the community and public at large lies in Kalundborg Street, named after the sole precedent for such a system. Kalundborg Street will be the new definition of the urban industrial park. Its character will be active, diverse, and captivating. Utilized for industry and recreation, shared by young and old, white collar and blue collar alike, Kalundborg Street will be a true community space. Lined with new and old industrial architectural forms and broken by public buildings, parks, and activity spaces it will support vehicles and a public transit loop, encourage pedestrians and offer to all an unending panorama of life in Lawrenceville.
Butler and 43rd Street Commercial:

The plans for the commercial future of Lawrenceville include two goals and will occur in two phases. The first phase will involve the consolidation of the sporadic businesses spread out along the length of Butler Street into a smaller, but healthier, section between 40th Street and 48th Street. This area is intended to serve primarily the residents of Lawrenceville but will continue to incorporate the existing successful destination businesses. The pedestrian character of the commercial district will also be enhanced to better fit the overall character of the community. Through traffic will be discouraged through the use of constricted intersections, lower speed limits, and increased, non-staggered, signalization. At the same time, pedestrians will enjoy the improved character of narrow intersections, street trees and lights, benches, and the continuation of the facade improvements.

The second phase is the addition of another section of commercial businesses along the end of 43rd street targeting many of the new employees in the industrial zone as well as visitors to Lawrenceville. Visitors can arrive on foot from Butler Street, by automobile (a parking garage is conveniently located), by public transit, or by the water taxi at the end of 43rd Street. The addition of small retail, restaurants, and night clubs, and small retail stores will fill a niche and attract a cli-
entele that is currently largely absent. Also included at the end of 43rd street will be a warehouse-type building housing farmers' markets and small scale merchants' and craftsmen's booths. An ampitheater will be situated in the park adjacent to 43rd street where community events will be held such as concerts, lectures and games.
Residential:

The plans for Lawrenceville's residential needs include components of preservation and new construction. The preservation and remodeling of much of the existing housing stock will be further enhanced by the addition of street trees and lights and a program of linked pedestrian alleys and neighborhood parks tying into the larger green spaces including the cemetery, Arsenal Park, and the public greenway. New housing is concentrated primarily in Upper Lawrenceville in new blocks adjacent to Butler Street and in the vacant property between 55th and 56th Street. Limited additional housing is planned in the reuse of buildings fronting Butler Street outside of the new commercial zone and in a few blocks down by Doughboy Square. New housing targets primarily the employees of the industrial sector. Many of the design issues concerning green space and pedestrian quality that have been addressed at a large scale are to be incorporated into these new residential areas.
Residential Conservation

Axonometric showing new squeezed corners on Butler Street
The improvements in the spatial, organizational, and economic framework of the built environment would not be complete without a healthy relationship with the natural environment. The goal of our green spaces program is to return the element of nature to the urban world. The two governing issues in the design of these spaces are the question of scale and the notion of links. In terms of scale, it is our wish to provide for as many activities as possible without creating spaces too large or expensive to be maintained or to retain a sense of intimacy. With regards to links, it is our opinion that a number of distributed spaces or a large central space are both inadequate as they fail to serve a maximum number of people. Therefore, our solution is to create a series of pathways connecting a number of existing and new passive and active activity spaces. This allows the pedestrian access to any activity with minimal effort as well as humanizing the urban layout of Lawrenceville.

Urban Open Green Spaces:

The improvements in the spatial, organizational, and economic framework of the built environment would not be complete without a healthy relationship with the natural environment. The goal of our green spaces program is to return the element of nature to the urban world. The two governing issues in the design of these spaces are the question of scale and the notion of links. In terms of scale, it is our wish to provide for as many activities as possible without creating spaces too large or expensive to be maintained or to retain a sense of intimacy. With regards to links, it is our opinion that a number of distributed spaces or a large central space are both inadequate as they fail to serve a maximum number of people. Therefore, our solution is to create a series of pathways connecting a number of existing and new passive and active activity spaces. This allows the pedestrian access to any activity with minimal effort as well as humanizing the urban layout of Lawrenceville.
GROUNDWORK:

Several steps are essential to beginning of the revitalization process in Lawrenceville. These preliminary steps are organizational in character and are mostly of no cost to Lawrenceville.

• Establishment of a Community Development Corporation (CDC).
  Although several existing groups are already in the process of improving Lawrenceville, they work off of dissimilar agendas. A CDC will consolidate these agendas and allow greater determination through combined effort. The CDC will regulate funding and other determining factors that will further the Master Plan.

• Rezoning of Lawrenceville to accommodate Master Plan.
  Establish new riverfront zoning laws that will adhere to the Master Plan guidelines.

• Finalized plans and funding for industrial road.
  PennDOT is currently considering the funding of a new road in Lawrenceville to be used by industrial traffic in order to relieve Butler Street of its congestion. The construction of an access road is a critical attraction for new industrial interests.

• Carnegie Mellon Research Facility
  The new facility will take the first step in establishing a new industrial sector in Lawrenceville for high technology industries. Additionally, it is the first step to providing a university presence within Lawrenceville.

• Recruitment of select industry.
  Metal working, Plastics & Technology, Environmental Technology, and Data Communications have been targeted industries for Southwestern Pennsylvania. Factories of these types will have greater incentive to locate here and will be encouraged to do so.

• Establishment of Environmental Technology
  The immediate tasks of site remediation, and monitoring and assessment of used and vacant lots in Lawrenceville necessitates the initial establishment of an environmental firm. In addition to clean-up and preparation of contaminated sites for new industries, these firms will play a critical role in guiding the development of environmentally friendly and energy conscious industrial structures. Additionally, the environmental firms will play a role in maintaining the health of the landscape, from planting seedling nurseries for future use as street trees to the establishment of a wetlands preservation area and the continuous improvement of the Allegheny River corridor.

• Planning for Butler Street Consolidation.
  The consolidation of Butler Street commercial industries into a more compact and pedestrian friendly environment between 40th - 48th Street will contribute to commercial health in the long run. This can be done using incentives determined by the CDC and continuation of the facade improvement program.
Typical South Western Pennsylvania

Manufacturer Profile:
• Privately held, family owned business
• $10-30 million sales; dependent on relatively few customers
• 45-130 employees
• Antiquated and difficult to change work organization structure in terms of job classifications, work rules, training, employee involvement, etc
• Wants to improve but isn't sure how

Recommendations For Future:
• Development of new and innovative ways of structuring, managing, and organizing work, based on concepts of Total Quality Management
• Application of just-in-time and lean production techniques to the manufacturing process
• Commitment to continuous upgrading of skills and capabilities for all workers
• Development of improved relationships with customers, suppliers, and employees
• Increased investment in technology

Source: "Thinking Differently About the Region: Southwestern Pennsylvania's Manufacturing and Technology Assets", Pittsburgh High Technology Council, p. 11
**Phase 1**

Phase one deals with industrial establishment in Lawrenceville. Once industry is in place and capital begins accumulating, improvements and amenities for the public can be implemented. These improvements will in turn lure more industries including cottage and service industries which feed off of the larger corporations.

- **Re-claim tax delinquent lots.**
  Reclaimed lots can be offered to new industries at low prices to reduce a need for high initial investment in the area. In the residential area, deteriorated or vacant lots will be cleared and planted as small parklets to improve the sense of community and to mark the beginning of the final phase of green alleyways.

- **Continuation of environmental remediation**
  After groundwork is complete, environmental technology will have completed much of the remediation of new industrial sites. This will continue as well as the establishment of a wetlands area.

- **Begin establishment of industrial ecosystem.**
  Through the help of the environmental technologies sector, new industry will be encouraged to begin development of an industrial ecosystem that will be energy efficient and profitable for new industries locating within the area.

- **Butler Street consolidation implementation**
  As businesses start to accept the new zoning laws for consolidation, improvements in the street will be made with the addition of street trees, continued facade improvement, re-paving, etc.

- **Re-use of buildings.**
  The re-use of the arsenal Terminal Warehouse as a vocational training facility and community craftsmen’s guild will allow continued education of the residents in order to provide a well-trained work force for the burgeoning industrial sector. Additionally, the re-use of buildings in the doughboy square area as offices, service spaces and the reuse of buildings for new commercial and industrial development will preserve the heritage of Lawrenceville.
Phase two will begin the addition of public amenities. The improving industrial economy will spur increased commercial and civic investment. This new funding will be put towards civic improvements that will encourage more industries to locate in Lawrenceville.
• Riverwalk.
The riverwalk, funded primarily by the city of Pittsburgh, will pass through Lawrenceville and play a large part in beautifying the riverfront for public use.

• Development of Cemetery/Riverfront Park.
A new park will connect the riverwalk to Allegheny Cemetery, greatly increasing public access to existing park spaces.

• Public Transit Loop
A bus loop will be added that links the industrial road to Butler Street, serving both public and industry needs.

• Industrial/University Joint Research Center
Industry will consolidate with the vocational school and area universities to form a cooperative research and development center.

• Industrial Ecosystem Headquarters
Situated in the old Heppenstall building, this 'virtual corporation' will oversee the operation of the closed loop industrial ecosystem, building upon the Master Plan of Lawrenceville.

• Re-organization of Environmental Technology
The Environmental Technology center will expand its existing remediation and control facilities to include research and development capabilities. Studies will begin examining future industrial technologies.

• Secondary Industrial Construction
Building upon existing industrial clusters, smaller, secondary industries will begin to enter into the closed loop system strengthening the base of operations. Also, expansion of the primary industries will continue.

• Industrial/Commercial Distribution Center
The McConley Torey Building will be re-used to serve as a cooperative warehouse and distribution center for the small commercial businesses as well as industries that lack sufficient warehouse space for their goods and materials.
Phase three will begin the conclusion of the comprehensive Master Plan of Lawrenceville. As the industrial ecosystem is completed, improving economic conditions will spur the completion of several public amenities:

• Arboretum
  The Cemetery will be opened to greater use by the public as an arboretum. It will also be connected to the river through a series of greenspaces used for playgrounds and other recreation.

• Doughboy
  A museum and an adjoining park will be added at Doughboy to serve both as a stop along the river of green as well as an entrance to Lawrenceville from downtown.

• 43rd Street
  43rd street will be re-used for commercial activity near the river, including restaurants, night clubs, an amphitheater, and a large warehouse for weekend retailers and farmers markets.

• Virtual completion of industrial ecosystem
  As the ecosystem becomes a closed loop with the help of secondary subsidiary businesses, highly developed recycling, and significant changes in products and packaging will occur.

• Recycling system and center
  This facility will serve both industry and community needs.

• Infill Housing
  As the population increases, additional housing will be necessary to accommodate the workers in the industries and new residents who live in Lawrenceville and work elsewhere.

• Community Amenities
  As town funds increase as a result of industrial capital, more community amenities will become available including a community center, boat slips, and improved pedestrian circulation through green alleyways.

• Town Hall/Public square
  Placed at the intersection of 43rd and Butler, the town hall will serve as the backbone of the community, consolidating all the bureaucratic agencies into one central location: LDC, LBA, LCC, post office, library, etc.
**PROJECTIONS**

The completion of the comprehensive Master Plan: A cohesive closed loop system of high-tech clean industries will reduce waste and improve efficiency, the commercial district will be a compact, pedestrian environment, and new infill housing and neighborhood green spaces will improve the quality of residential life.

- **Synergistic Industrial Ecosystem**
  A complete cycle of reuse and redistribution will have been implemented in which all the industries in Lawrenceville work with each other in order to save money by reusing waste products, energy transfers, and through collective management of markets and resources.

- **Localized Waste Management System**
  This system will work into the closed loop theory by utilizing the waste of Lawrenceville to produce methane to run the public transit system as well as fuel for some industries.

- **Environmental Technology becomes base for Allegheny River Corridor**
  After analyzing and solving the problems within Lawrenceville, Environmental Technology will turn its attention towards the surrounding region, specifically the Allegheny river corridor, to develop new methods to improve its water quality and coastline.

- **Water Taxi**
  A water taxi will complement the existing public transit system by connecting Lawrenceville to the surrounding region.

- **Alternative Energy Generation**
  With diminishing resources, there is a need to find alternative energy sources. The industries of Lawrenceville will research and develop methods of alternative energy. The community will serve as a testing ground for the implementation of alternative energy generation including wind, solar, hydroelectric, and methane fuel.

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<tr>
<th>ENVIRONMENTAL TECHNOLOGY</th>
<th>DATA &amp; COMMUNICATION</th>
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<tr>
<td>□ Monitoring and Assessment, Control, Remediation and Restoration, Avoidance</td>
<td>□ Software, Engineering Tools (CAD/CAM), Data Processing Services, and Communication Equipment</td>
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<td>□ Industrial processing and filtration</td>
<td>□ Client Server and Distributed Computing Systems</td>
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<td>□ Hazardous materials clean-up and treatment</td>
<td>□ Networking and Connectivity</td>
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<td>□ Remediation technologies, including protocols and standards</td>
<td>□ Systems Design and Integration</td>
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<td>□ Analytical testing and measuring equipment</td>
<td>□ Robotics and Industrial Automation</td>
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<th>METAL WORKING</th>
<th>CHEMICALS &amp; PLASTICS</th>
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<tr>
<td>□ Primary Steel, Specialty Steel, Fabricated Products, Tungsten Carbide</td>
<td>□ Chemical Production, Resins, Rubber Products, Foam Products, and Plastics</td>
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<tr>
<td>□ Industrial organic chemicals for coatings and surface treatment</td>
<td>□ Products used mainly in the electronics, healthcare, construction, transportation, automotive and food packaging industries</td>
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<td>□ New technologies in flat rolled products</td>
<td>□ Strong corporate research strength through Aristaech, PPG, Alcoa and others</td>
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<tr>
<td>□ Equipment Design and Process Design</td>
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Source: "Thinking Differently About the Region: Southwestern Pennsylvania's Manufacturing and Technology Assets", Pittsburgh High Technology Council

"53% OR $15 BILLION OF THE VALUE OF PRODUCTS AND SERVICES EXPORTED FROM THE REGION COMES FROM MANUFACTURERS."

"AVERAGE MANUFACTURING WAGES RANGE BETWEEN 120% TO 230% OF WAGES IN OTHER INDUSTRIES."
**Industry Clusters: A New Framework**

A cluster is a "group of companies in a particular geographic area that are linked through vertical (customer/supplier) or horizontal (common customers, technology or distribution channel) relationships. Most companies in a cluster will belong to the same industry; but the members of a cluster go beyond that industry to include suppliers, customers, and support service firms in a variety of other interdependent sectors."

"Once a cluster forms, the whole group of industries becomes mutually supporting. Benefits flow forward, backward, and horizontally. Aggressive rivalry in one industry tends to spread to the others in the cluster through the exercise of bargaining power, spin-offs, and related diversification by established firms."

"The cluster becomes a vehicle for maintaining diversity and overcoming the inward focus, inertia, inflexibility, and accommodation among rivals that slows or blocks competitive upgrading and new entry. The presence of the cluster helps increase information flow, the likelihood of new approaches, and new entry from spin-offs, downstream upstream, and related industries."

"Firms from an entire group of interconnected industries all invest in specialized but related technologies, information, infrastructure, and human resources, and numerous spillovers occur. The scale of the entire cluster encourages greater investment and specialization. Joint projects by trade associations involving firms from different industries are common. Government and university attention is heightened. The pull of size and prestige in attracting talent to the cluster becomes stronger."

"As clusters develop, resources in the economy flow toward them and away from isolated industries that cannot deploy the resources as productively."

---

**Industrial Ecology**

- Full Industrial Ecology
- Synergistic Industrial Ecosystems Developing
- Changes in Products and Packaging
- Highly Developed Closed-Loop Recycling
- Development of Management Tools
- Partial Recycling Initiatives
- Compliance

**100 Manufacturing Jobs**

- 124 Secondary Jobs Created
- 7 New Retail Firms
- $1.6 Million Increase Retail Sales
- $2.1 Million Increase in Aggregate Personal Income

Source: "Thinking Differently About the Region: Southwestern Pennsylvania’s Manufacturing and Technology Assets", Pittsburgh High Technology Council
IMPLEMENTATION:

The Cooperative:

The city will oversee the transition of the river front into a cooperative industrial ecosystem. Beginning with vacant or easily acquired parcels of land, the city will spearhead the remediation process. Once land has become fit for new industry, the city will lease the property to companies buying into the cooperative. This will begin a cyclical process in which new properties will be able to be acquired.

Many of the current land owners in the area are suffering from high capital investments combined with low land values. They lack the capital to relocate or to expand their businesses. Many of these people who already specialize in some of the targeted industries for the region will benefit from the implementation of the ecosystem. In return for their lands, so that the city can acquire larger parcels capable of supporting new industries, these individuals can earn a place within the new ecosystem either as a direct employee or as part of a feeder industry.

After acquiring a sufficient base from which to regulate themselves, the city will turn over the land to the companies to uphold the contracts of the cooperative on their own. Within the cooperative the industries will possess the capability to adapt the masterplan to accommodate changes within their industry and the economy. For instance, one industry may wish to lease portions of its property to business interests directly related to their products or their processes. In this case, the primary industry can benefit from supplemental income and a direct market, while the secondary industry may enjoy reduced production and shipping costs.

Data Communications and Industrial Headquarters:

The entire Data communications system for the closed loop industry situated along the riverfront in Lawrenceville will be housed in the existing Heppenstall Steel buildings.

Data communications will act as the hub of the entire closed loop system in terms of the complete synchronization and coordination of all information processing. All records for each industry will be stored here in order to create a central data library for all of the industries to access.

This complex will also serve as the public relations center in which public awareness about the benefits of the closed loop system will be heightened. This location will serve as the beginning of the walking tour through the closed loop industry along the river of green.

Major Areas of Interest:
- Offices for the majority of white collar business people working for all of the industries along the riverfront.
- Data storage, collection and transfer facilities.
- In-house area open to the public containing a large display for the basic understanding of the entire closed loop system as found here, along the Lawrenceville riverfront.

- All amenities for the offices including food service, leisure rooms, conference rooms, library, etc.

**The Steel Industrial Complex:**

The river front steel complex is a consolidation of high end steel production and research in the Pittsburgh region. The function of the consolidation is to provide the region and the nation with a central facility for the production and research of specialized parts and materials. The consolidation will allow manufacturers to work together to minimize costs. The facility will feed off of the present low and high end steel manufacturing in the region. The products will mainly be intended for the growing robotics field, medical instrumentation, or anything that requires highly machined parts or materials.

As part of the river front industrial consortium, the Steel complex will be contained in the closed loop system. As part of the system, the steel complex will share...
facilities with the other manufacturers. The byproducts of the manufacturing process, which may include steam, heat, slag, metal, chemicals, etc. will be circulated and reused by the steel complex and the other industries. The complex will also be connected to the recycling center, and be active in the reuse of post-consumer metals.

Major Areas of Interest:
- Production Area: Shipping and Receiving, Milling, Molding, Finishing
- Research Area: Labs, Test facilities
- Public Display Area: Demonstrations, Information, Exhibitions

**Plastic and Chemical Research:**

As one of the industries targeted for the region and an industry capable of contributing to a closed loop system, a plastics and chemical research and production facility will fit well into the masterplan. The development of this project along the river front will easily coexist with the pedestrian scale greenspaces which will weave through and around the sites.

The site may include more than one business allowing research companies to support production industries in close proximity. The plastics complex will operate cooperatively while serving the entire waterfront as part of the closed loop ecology. Further integration will be required as the industry faces housing or pedestrian spaces.

Major Areas of Interest:
- Research and Development of plastics and chemicals
- Production of plastics or chemicals for use in various industries.
- Pedestrian integration and surrounding pedestrian scale spaces
Environmental Technologies and Research:

With Lawrenceville's industrial history along the riverfront, many potential sites in the future have been contaminated. The environmental technologies and research center will be a new industry to address this problem. This will be the first industry to be introduced that will clean and prepare future sites along the riverfront.

The initial facilities will be housed in the existing warehouses by the 62nd Street Bridge. As the responsibilities of the industry grow, new buildings will be introduced. The site will be converted into a wetlands area for research. As other industries move onto the riverfront, Environmental Tech will be responsible for researching and monitoring the closed looped system.

Major Areas of Interest:
- Research and Development facilities
- Service and Support Spaces
- Wetlands area with a river inlet
- Fish hatchery

Community Educational and Training Facility:

The goal of this facility is to bring together community, industrial, and educational interests. First, this facility is intended to supplement and expand the role of the George Washington Vocational School in providing specialized training in areas pertinent to emerging industries. This program can be beneficial to those currently in the labor pool who may need to increase or expand their skills as well as to prepare students for an industrial career.

Secondly, the facility is intended to bring together the strengths of Pittsburgh's industrial and institutional communities, similar to the NASA/Carnegie Mellon robotics institute. This venture promises to better prepare students for their careers while providing industries with fresh ideas and potential employees. The pooling of resources can also save money for both parties.

Third, this facility is intended to benefit the community at large by drawing from the expertise and experience of professionals in industry and education. The creation of a craftsmen guild can provide a valuable cultural and educational resource while providing a foundation upon which to build the local artisan population.

Lastly, the future growth of Lawrenceville will ultimately result in an expanding population and the need for additional primary and secondary educational facilities. It is planned to allow the flexibility to introduce these facilities as the need arises.

Major Areas of Interest:
- Vocational Training Facilities
  - Classrooms
  - Shop spaces
  - Support
- Industrial/Institutional Cooperative
  - Classrooms and Seminar Spaces
  - Lecture Hall
  - Offices
  - Support
- Craftsmen's Guild
  - Classrooms and Seminar Spaces
  - Studios and Shops
  - Support
- Public Spaces
  - Galleries and Exhibition Spaces
43rd Street Commercial & Cultural District:

43rd Street is unique for its strategic location and physicality. It is located in the center of Lawrenceville and broad enough to serve as a commercial and cultural center for the community and the city as well. It also connects the riverfront and Butler Street. The riverfront, which will be furnished with newly developed industries, represents the new aspect of the community. Butler Street, however, is to be preserved and renovated for its historical values. Therefore 43rd Street is a transition between old and new, and the proper development as a link between the two is crucial.

New 43rd Street is to be a commercial focal point that extends from the old commercial center of the community. It is also to reflect the future of the community and its past as well. It must be pedestrian friendly and communal to allow everyone to feel welcome and experience the rich historical heritage and the hopeful visions of the future. To be so a number of revisions is necessary:

1) Creation of a destination: A major destination point that leads the public from Butler Street is needed. The new destination is to be located on the riverfront along with the new industries. It will be a part of the closed loop system.

2) Creation of a gateway: A gateway that can attract the public is needed. It will provide the district with a sense of boundary and allow a smoother transition between old and new. It is most likely to be located at the intersection of Butler and 43rd Street.

3) Multi-functional use of buildings: The existing buildings will be renovated to accommodate various functions such as residential, commercial and passive industrial. This will give the place more sense of urbanism, and thus attract young people.

Major areas of interest:
- Commercial Complex
- Cultural Complex
- Recreational Strip
INTERVENTION
Samantha M. Ciotti • Vanessa Murphy
Bryan Bowen • Maureen O. McClelland
James Albert • Patrick McKiernan
I grew up in Lawrenceville...We left because we wanted her to go to a good school.

---A Dad

The bakery which was in that building there closed down within 4 months. The Pittsburgh Custom Manufacturing Company occupied that building for a while. The Pittsburgh Piping Company, which was in that building, shut down in 1982. Samson Buick moved in, but I think it's vacant now. Down the river a ways, the McConway and Torley Company, which manufactures railroad couplings and does some foundry work, is still in operation. The Heppenstall building was vacant for about 20 years, but Tippens Company moved in. Boehm Chocolates is still in operation also.

---Bob Yesky, manager of the 43rd Street
Concrete Supply Company

It's a safe neighborhood...We've lived our whole lives here. There's nothing here that we really don't like. Crime happens, but we don't really see it. When it does happen, it's nothing really bad. All of the bad stuff happens on Butler Street.

---Three Generations of Women,
a grandmother, a mother, and a daughter

There's some cool grafitti down by the bridge...I know the guy that does the grafitti......it's not about a gang or being a rebel...he just likes to do it.

---Mark & Jay

The new Robotics Lab is a good thing and will help the economy of Lawrenceville. The designers are supposedly going to try and be sensitive in their restorations of the buildings.

Many artists and crafts people are moving into the neighborhood...A woman just bought the house there...the duplex...she's a weaver. A painter's moved in down the street.

All of us make an effort to meet our neighbors. Everybody knows their neighbors.

---Carol Perterson, an architectural historian
who runs an office from her home
FORCES OF CHANGE

Lawrenceville is one of several communities in the Pittsburgh area which has witnessed the disappearance of the steel industry in the last few decades. As a result, it has suffered from a lack of economic opportunity and a declining population. Yet, the area is unique in the rich and varied history it retains and the sense of the community which has carried on throughout the years. Ultimately, there is a great opportunity within the community to utilize the forces of change to propel Lawrenceville into the next century.
Changing Economic Patterns

One of the most pressing issues in Lawrenceville is the changing pattern of economic development over the last 20-30 years. In 1969, the citizens of Lawrenceville refused federal economic aid because they believed that their neighborhood offered economic and educational opportunities as good as any suburb. However, industrial and commercial investment has declined in recent years, reducing the number of neighborhood jobs. The decline of local job opportunities has led to a restructuring of the population within the neighborhood. There has been a decline in the number of young adults, aged 18-24, within the neighborhood. Many high-school graduates leave the neighborhood when looking for employment and educational opportunities. The neighborhood must adapt itself to the needs of this age group, and develop incentives for the younger people to remain within the neighborhood.

Just as the economic patterns of the neighborhood have affected the population of the area, changes in population have greatly affected the commercial district of Butler Street. At the end of World War II, there were more than twice the number of inhabitants of Lawrenceville as they are today. As a result, the citizens cannot support an economic district the size of what has traditionally run along Butler Street. Thus, many businesses have been forced to close, resulting in increasing turnover and vacancy rates since the 1950's. Additionally, many of the businesses along Butler Street are destination businesses, such as doctors' and lawyers' offices which individuals only occasionally visit, which reduces the continuity of the pedestrian circulation in the commercial district.
Changing Neighborhood Relationships

Lawrenceville as a neighborhood retains much of its small town character through its boundaries with surrounding areas. Unfortunately, these boundaries also isolate the area and inhibit interaction with the adjacent boroughs of Pittsburgh. The Strip, Bloomfield, and Stanton Heights all border Lawrenceville, but there is no comprehensive transit system and only limited bus service to connect the neighborhoods beyond these areas. Just as physical boundaries isolate Lawrenceville from the surrounding area, similar boundaries exist within the neighborhood itself. One area which illustrates this is the breakdown of continuity along Butler Street by large parking lots near the intersection with 40th Street. This enormous open space is a visual barrier between central and lower Lawrenceville. Despite the fact that it is located directly across the street from the school, the space currently serves to divide the neighborhoods, when it could be used to bring the community together. Additionally, the people are unable to enjoy the river which borders Lawrenceville on the North side. For centuries the riverfront property was occupied by large, monolithic mills which prevented any other use by the citizens. But, the function of the river has changed, and the resources of this new riverfront have yet to be tapped. This most beautiful and influential of Lawrenceville's amenities continues to be unused even today, except by the occasional fisherman. However, since
the industry has left Lawrenceville, the opportunity for change is at hand, and the riverfront may be reclaimed by the citizens themselves. Ultimately, all of these issues are intertwined; the relationship between the people of Lawrenceville and the surrounding neighborhoods is equally important, and directly related to the population and economic development of the region. Thus, a proposal must be developed which can satisfy the needs of the residents and be sensitive to the unique issues of Lawrenceville. INTERVENTION is prepared to take on this challenge.
INTERVENTION believes that forces of change have provided extraordinary opportunities for growth, which we propose to develop in cooperation with the citizens of Lawrenceville. First, INTERVENTION will focus on creating a centralized community by providing amenities at both the local and neighborhood level. Additionally, INTERVENTION will focus on revitalizing the riverfront, by bringing in a variety of uses both public and private. Finally, INTERVENTION will investigate policies which would provide more economic opportunity within the neighborhood of Lawrenceville, so that the area would have a viable, sustainable economic future for generations to come.
Ultimately, the neighborhood of Lawrenceville will need to deal with new economic opportunities and social changes within the next 20 years. The community will need a comprehensive plan capable of dealing with all of those issues, if the neighborhood is to become economically competitive and sustainable within the region once more.

INTERVENTION is prepared to create just such a proposal. We will provide a multi-phase plan to allow for a rapid economic catalyst, which will translate into long-term growth for the community. INTERVENTION believes Lawrenceville has great potential for the future, and we want to help you explore that potential to benefit your community.
A Beautiful Riverfront

INTERVENTION would support the enhancement of community by revitalizing the riverfront with a variety of uses, both public and private. The riverfront has always served as a landmark for the industry throughout Pittsburgh, and continues today as one of the defining characteristics of the city. However, the industry in Lawrenceville no longer continues to dominate the riverfront. INTERVENTION proposes to return much of it to the citizens of the neighborhood through the creation of a central park. This would allow for public connections for the river, as well as a riverfront walk to allow individual access at many points. However, the entire riverfront will not only be used as park spaces, but private investors could also be allowed to introduce industry and commerce within the area.

Enhancement of Community

INTERVENTION believes that one of the most important aspects to revitalizing the neighborhood is to strengthen the community at a variety of scales which relate to the individual as well as the region. Individual relationships within the blocks would be enhanced by improving the residential fabric and utilizing vacant lots for community functions. INTERVENTION will focus on contacting individuals and organizations to build upon their experiences and visions for their community. On a larger scale, local and regional demographics will be investigated to determine where such a commercial district could or could not be maintained with the current number of people. Finally, the sense of community would be supported on a large scale through the creation of central gathering places, including a park with sports fields and other active recreation. We propose to accomplish this last goal by extending the landscaping of the cemetery across Butler Street to the Allegheny River.

Economic Growth

Additionally, by allowing and encouraging industrial investment as well as small businesses, INTERVENTION plans to stimulate the local economy. The industrial sector will be developed along two lines: first, existing buildings should be reused or renovated, to retain the character of the neighborhood and limit the intrusion of new construction. Secondly, INTERVENTION will carefully consider those industries which would be attractive to the people of Lawrenceville and stimulate economic growth. This will provide jobs for the current citizens of Lawrenceville, while encouraging new people to move into the neighborhood or commute into the neighborhood to work.
PHASE 1

• Create new zoning and other policies
• Obtain sites for development
• Construction of Industrial Access Road
• Marketing analysis
• Marketing of Lawrenceville to large core industries
• Site cleanup and reconnaissance along river sites and for park construction
• Begin construction of new Riverfront Park
• Establish arboretum in Allegheny Cemetery
• Replace existing civic functions which will be removed to create the River Park, such as the Giant Eagle
• Renovation of Heppenstall Plant for Community Center and Ecological Museum and Research Center
• Evaluation of existing structures to determine reusable buildings and ones which should be demolished
• Refurbish and renovate existing industrial buildings for reuse
• Develop incentives and encourage local entrepreneurship on Butler Street
• Plant new street trees on Butler Street and within residential areas
• Hold neighborhood meetings to determine functions for vacant lots
• Develop existing vacant lots for block use
• Development of Lawrenceville Gateways
• Fundraising throughout all phases
PHASE 2
- Demolition of block to create River Park Commons
- Construction of Botanical Gardens and Gardening Center and other Riverfront Park structures
- Develop plan for River Walk
- Create incentives for industries to develop/sponsor individual sections of the River Walk
- Occupation and development of functions for Heppenstall Community Center
- Establish core industries and develop "cluster" industries for support
- Analyze new parking patterns and requirements throughout Lawrenceville
- Repair and renovation of residential street connections to River Walk
- Concentration of the commercial district
- Construction of Artist's Cooperative
- Construct Ecological Center

PHASE 3
- Construction of remaining new proposals
- New housing developed as necessary
- Construction of Lawrenceville Museum of Industry in Heppenstall Community Center
- Continue ecological development
Comprehensive Urban Plan for Lawrenceville
The Doughboy Square in its improved state would become a place, not just a monument. The sitting park, shown here, extends into the massive intersection, giving the square a more pedestrian scale and helping to emphasize the Doughboy Bank Building, one of the most memorable buildings in Lawrenceville.

THE LAWRENCEVILLE GATEWAYS

Lawrenceville, as it exists now, lacks "gateways". The only landmark which allows one to know that they are in Lawrenceville is Doughboy Square. As it stands now, it isn't a welcoming place; it is a sea of macadam and traffic lights. Even around the statue, there is no place to stand and read the plaques to learn the purpose of the Doughboy and the history which put him there.

We propose to create a new Doughboy Square: one which welcomes people to Lawrenceville and its history. The former Bank Building now serves as the headquarters for the Lawrenceville Development Corporation, the Lawrenceville Business Association and the Lawrenceville Citizen's Council, and an architect's office. This building will be transformed into a branch of the public library system. This library would be a complement the existing branch of the Carnegie Library, and would house a special history room to celebrate Pittsburgh's historic involvement in the wars. The LDC, LBA, and the LCB would be moved into the new Heppenstall Community Center.

Outside of the library, the existing Doughboy Square would be transformed into a small pedestrian park by extending the existing "square" to accommodate a few benches and some green space. This park would serve as a place to observe the Doughboy and what it stands for, and allow for the patrons of the library to sit and read out of doors.

The lots across the street would also be reclaimed and turned into an extension of the mini-park surrounding the Doughboy.

The next gateway would be at the intersection of Main Street and Penn Avenue. This entrance would be far less dramatic, but would serve as a welcoming for people visiting from Bloomfield and Oakland. After the building at this intersection is renovated, the angled corner of it would be transformed into a "billboard", displaying an artist's representation of Lawrenceville. The gas station on the corner would be converted into a small sitting park to offer green space to this urban intersection.
The final gateway occurs at the northeast end of Lawrenceville, and is called the Industrial Park. The lot, now vacant, was originally slated to be used for an emissions testing center, which the residents of Lawrenceville protested. We feel that this Park would serve the neighborhoods well and provide a unique play area for Pittsburgh's children. The park would be filled with rehabilitated factory machines, made safe for children to play on and around. Behind the park, a field of Pennsylvania wild flowers would be planted to add a colorful touch to the area. As it's marker, the Industrial Park would welcome guests from across the river on their way to Downtown with a clock made from industrial machinery, serving as a marker of Lawrenceville and of the city's past industrial dependence.
A new adventure land for the children of Lawrenceville and of Pittsburgh, the Industrial Park also serves as a "gateway" into the neighborhood. Visitors are welcomed by a clock constructed out of old factory machinery. This park would also symbolize nature regaining control of the land which was once industrial, namely the Allegheny River shoreline.

At the intersection of Main Street and Penn Avenue, visitors from Bloomfield, Oakland and other southeastern regions are welcomed to Lawrenceville.
COMMERCIAL DEVELOPMENT

INTERVENTION believes that the existing Butler Street Commercial District is stable enough to thrive in many areas of the neighborhood. While initial phases of our plan will only deal with specific areas of the commercial district, we believe that all areas will eventually be revitalized, due to projected rises in population. Several general recommendations have been provided to enhance the pedestrian environment, and are listed in the commercial criteria section in this document. Two major interventions have been proposed: the development of cottage industry and a new Giant Eagle.

First, a new type of industry, known as cottage industry, will be added to Butler Street. The units will consist of one or more apartments situated above a commercial space, which may be used by the tenant for small businesses, studio spaces, galleries, or other such commercial tasks. These new units will be located across from the Arsenal Middle School, as a buffer between the school and the new Arsenal Housing Development.
Cottage Industry Elevations

Typical Cottage Industry Plan

McCandless Street at Butler Street
The second major change to the commercial district would be to replace the existing Giant Eagle, which will be removed in the construction of the park and botanical gardens. In its place, a new "complex" will be sited on Butler Street, in upper Lawrenceville, on a lot which is currently used for truck parking. The new Giant Eagle will help to increase the critical mass of patrons along Butler Street, and ensure the success of the remainder of the commercial district. Much of the additional parking will be "hidden" behind the building to eliminate large stretches of paving along Butler. The facade of the building will maintain the character of the typical commercial buildings along the street.
People used to be trapped in Pittsburgh. . . They used to be contained by a river and tunnels. . . . Transportation was bad. . . . Then they built 279. This gave people a pipeline out of the city. There was no longer any need to stay in the city and invest.

---Richard Florida
COMMERCIAL CRITERIA:
• Commercial buildings on Butler Street should have shop windows on the first floor.
• The facades of the commercial buildings on Butler Street should consist of pedestrian scale elements.
• Individual businesses should be encouraged to enhance the sidewalk areas adjacent to their building by means of benches, chairs, tables, garbage cans, etc.
• Owners will be responsible for the upkeep of their buildings.
• Parking lots, when required, shall only occupy the areas behind or next to the building that it will support.
• Empty lots and/or parking lots shall have trees or shrubbery serving as a buffer zone between the lots and adjacent pedestrian sidewalks.
• New additions and renovations to the buildings on Butler Street will be sensitive to the character of surrounding buildings, through the use of traditional facades and materials such as brick, stone and wood.
• National chain franchises should be limited, if allowed at all. Local ownership and small entrepreneurs should be encouraged.
• Currently vacant buildings can be converted into cottage industries, with studios, offices, and apartments above the first floor.

The Commercial District

Central Commercial District
INDUSTRIAL DEVELOPMENT

For Lawrenceville to remain successful throughout the coming years, it must maintain a strong industrial base. To achieve this, INTERVENTION proposes to encourage the area to develop high-technology industries which already have strong roots throughout the Pittsburgh region. Currently a large stock of existing usable buildings exists within the neighborhood for industrial occupation. Additionally, large parcels of suitable land exist for new industrial developments. We believe that it is essential for industries to move into Lawrenceville to provide jobs for residents and enhance the neighborhood communities.
To assist the industrial development, we propose the construction of a new industrial access road to link Lawrenceville industries to the Strip district as well as to the two major bridges in the neighborhood. The access road will also help to remove the majority of the oversized vehicle traffic on Butler Street, and create a safer pedestrian environment. In order to accommodate the new industry while maintaining the quality of living in the neighborhood, we have developed a variety of criteria to be used in new industrial constructions.

**INDUSTRIAL CRITERIA:**

- Truck and other deliveries to or from the industries shall utilize the new Industrial Access Roads.

- Only clean, "green" industries will be permitted in the Lawrenceville industrial zones. These new industries must meet Environmental Protection Agency standards.

- All new industries will be responsible for the upkeep of a portion of the riverwalk, and shall comply with the Riverwalk Criteria.

- The paved, impermeable area of the site shall not exceed 40% of the total area of the site.

- There will be no vehicular access between the river and the industries along the river.
". . . A successful housing project not only provides comfortable living quarters, but beckons people out doors, to interact and establish a sense of community."

---William Rawn

BUILDING CONSERVATION

Lawrenceville contains a wonderful stock of town homes and buildings, most of which are in good condition. Some, however are in need of renovations and/or repairs. Those which are dilapidated beyond repair, should be demolished. In demolishing these structures, the vacant lots can be used for new residential units, or can be transformed into a variety of shared spaces, to be used by the surrounding townhome residents. These lots could serve a number of community uses, such as mini-parks, playgrounds, basketball courts for neighborhood children, and garden plots, among others.

Vacant and run-down commercial and industrial buildings are abundant throughout Lawrenceville. In choosing buildings to save, the following criteria should be observed:
CONSERVATION CRITERIA:

WHAT TO SAVE:
- Useful buildings within reasonable walking distance of residential areas
- Buildings with historical value
- Buildings of architectural significance
- Educational facilities
- Buildings retaining their structural integrity

TO CONSIDER FOR DEVELOPMENT:
- Vacant, run-down lots
- Buildings with little or no historic value
- Tax delinquent properties
- Existing buildings in prime locations with little or no present beneficial functions
- Barriers or breaks in the continuity of the urban fabric
- Run-down educational facilities
- Buildings constructed with an intended short lifespan
RESIDENTIAL DEVELOPMENT

In renovating the existing homes, a few criteria should be observed to preserve the integrity of the buildings. Simple things may be done to improve the pedestrian quality along the residential streets. The installation of street trees, front "yard" gardens, brick pavers, awnings, and window boxes are just a few examples.

In our design, we are proposing to develop two areas for new residential units. These lots will be developed as needed as the population of Lawrenceville grows. The two areas will be referred to as The Arsenal Residential Development and the Riverfront Residential Development.

All new residential buildings shall be sustainable and be considerate to environmental concerns.

The neighborhoods that will be created will contain a mix of income levels and residential types. Each block will contain three different types of units: single units, double units, and single-multi units. Vacant lots between units can be utilized for shared block functions, as previously mentioned. This mix of various types of housing is extremely important, especially in the Riverfront Residential Development. In the river housing case, it is important to allow all income ranges to have access to riverfront property to prevent social class conflicts from arising, while promoting social interaction. The river belongs to the people of Lawrenceville—all of them, not just the wealthy.

Also unique to the Riverfront Development is the addition of an in-house garage on the first floor. This is to prevent major damage to homes in the case of a flood. This occurrence could be a reality, due to the development's position in relation to the flood plain of the Allegheny.

Playgrounds

CRITERIA FOR SUSTAINABLE RESIDENTIAL

- Use of environmentally safe construction materials
- Use of energy efficient appliances
- Use of passive solar heating and cooling where applicable
- Building setback between 10 and 15 feet
- Maximum height of 4 stories
- Use of indigenous building materials
- Flexibility of individual unit spaces
  - Use of low-emissions glass and adequate insulation in wall assemblies
  - Rental units to be available for future ownership

Existing Housing Renovations
"...and you really live by the river? What a jolly life!"

'By it and with it and on it and in it,' said the rat. 'It's brother and sister to me, and aunts and company, and food and drink, and (natural) washing. It's my world, and I don't want any other. What it hasn't got it's not worth having, and what it doesn't know is not worth knowing. Lord! the times we've had together! Whether in winter or summer, spring or autumn, it's always got its fun and excitements..."

---Kenneth Grahame
Wind in the Willows
Arsenal Residential Development

Single Unit    Single-Multi Unit    Double Unit
"The role of special waterfront features is to help each waterfront preserve its unique character. Without these special features, we simply have "malled" the waterfront in the same way that we have "malled" or "strip-developed" much of the suburban land in our country. Our waterfronts deserve better and the publics who ultimately own them deserve to experience the specialness which is, after all, what draws us to the waterfront in the first place."

---Peter Brink
THE RIVERFRONT PARK

The recreation and park areas of Lawrenceville have been designed around a number of considerations. On one level, they will serve as a link to Allegheny River, for individual neighborhoods as well as for the community as a whole. In this design, the river is now accessible and can become a part of everyday life of Lawrenceville residents. Not only does this park link the people to the river, the Lawrenceville Riverfront Park represents a centralization of more formal, or active recreational activities to bring the community together through exposure and association. It also decentralizes passive recreation to provide outdoor living space at a smaller scale through its parklets along the Riverwalk. A sense of place and community is achieved through the use of shared spaces, in addition to visual connections to the river and to the other functions taking place in the park. The result is an area in the center of the community which everyone in Lawrenceville can relate to and enjoy.

The main park is associated with many other proposed functions: a new high school, an amphitheater, the botanical gardens, the artist's cooperative, an industrial museum, the ecological research center, a small marina, the community center, a non-denominational chapel and a procession leading to the Allegheny Cemetery.
The location of this primary intervention was chosen on the basis of several factors. The cemetery extends from the northeastern edge of Lawrenceville to Butler Street, interrupting the commercial buildings on one side of the street and suffocating the other. This break in the street's continuity reduces the critical mass of pedestrian traffic, but is also the point at which Butler Street comes closest to the river's edge. Part of the result of this break is the obvious neglect which many of the buildings here suffer. Unfortunately, a few important buildings, such as the Teamster's Union and the existing Giant Eagle, will need to be removed to make the connection. These functions will, however, be replaced within the new community center and throughout other new developments.

Along this "green promenade", the Botanical Gardens showcase various types of Western Pennsylvanian trees and plants, as well as some exotic species. Greenhouses and formal gardens are home to the various species, and are connected by pathways and crosswalks to the arboretum which will be located in the Allegheny Cemetery.
"If there is magic on this planet, it is contained in water."

---Loren Eiseley

"There's no telling what the power of the people and the river can do."

---Pete Seeger
"A waterfront is a significant resource and a challenging opportunity for a city: a chance to be an escape valve for the pressure-cooker of crowded city life, a chance to be a bright, breathing edge of city living."

—A. C. Moore

The Marina is the most direct effort to link the community of Lawrenceville to the Allegheny River. There is a strong need for a marina of this type, as Allegheny County has the highest percentage of boat ownership for an inland county in the United States.

Next door to the Marina is the community amphitheater. This mid-sized outdoor theater is intended to be used by the community for festivals and events; by the high school for theater productions and assemblies; and sporadically by the museums and community center. It is sited to take full advantage of the river, and gives the audience a visual connection to Downtown Pittsburgh.
By eliminating the block of residential and commercial buildings, the Riverfront Park creates a link between the Allegheny Cemetery and the River. A direct connection is made through the non-denominational chapel at the end of the path from the cemetery. This chapel will allow for water-borne funeral ceremonies, weddings, and other special events to take place on the river’s edge.

The chapel sits upon a hill of the park and overlooks the River, with a view of Pittsburgh’s Downtown. This chapel helps to reinstate the importance of the Allegheny Cemetery to Lawrenceville and the City of Pittsburgh’s History.
RIVERWALK CRITERIA:

- New industrial areas must leave a graded open space, a minimum of fifty feet long, along the river's edge, for the development of the Riverwalk.

- Industries are also responsible for providing a buffer zone between their buildings and the Riverwalk, if their building is adjacent to it.

- Industries are responsible for the upkeep of their portion of the Riverwalk at all times.
Section Perspective Along Riverfront Walk

- Private signage and advertisements shall be regulated and kept to a minimum.
- Built objects shall not be placed between the Riverwalk and the river's edge.
- The Riverwalk path shall be a minimum of eight feet in width and shall be continuously paved. The path may not exceed a maximum of 1:20 slope to comply with the American's with Disabilities Act requirements.
- A maximum of 25% of land may be paved between the river and the Industrial boundaries.
- Seating and water fountains should be placed periodically along the Riverwalk.
RIVERFRONT PARKLETS

One of the most pressing issues INTERVENTION has faced in redeveloping industry along the riverfront is how to create an environment which will encourage public use of the river. While the Riverwalk and Riverfront Park will create recreational opportunities for all of the residents of Lawrenceville, we believe that there should also be easy access to the riverfront walk for all of the neighborhoods, not just those areas adjacent to the Riverfront Park.

To achieve this, three streets in Lawrenceville will be transformed into direct pedestrian links to the river from the residential zones of the neighborhood. These streets, 38th, 44th, and McCandless, will undergo a series of phases to arrive at completion. First, street trees, lights, and new sidewalks will be installed to reduce the industrial scale of the area to the pedestrian level. Second, standard macadam roads will be repaved with brick pavers to add texture and discourage high speed automobile travel between the Industrial Access Road and the river. Finally, at the ends of the streets where they meet the river, small park nodes will be added. These nodes will serve as resting points along the Riverwalk, as well as areas for relaxing and picnicking in a smaller setting than the Riverfront Park. A monument or piece of industrial machinery will serve as a marker to remind visitors of the heritage of the riverfront.
The new Lawrenceville Artist's Cooperative, located adjacent to the Lawrenceville River Park, would serve a number of functions. First and foremost, the Coop would serve as a shared facility for Lawrenceville residents who are interested in the arts. It could offer children's weekend and after school programs and classes, as well as adult educational programs. The shared facilities could include foundry equipment, kilns, and other large expensive pieces of equipment, that in other cases, small artists and hobbyists would not otherwise be able to afford. The building would also house art studio spaces, craft rooms, wood and metal shops, photography darkrooms, and practice rooms, among others.
The Artist's Cooperative

Also on this site would be a small performance space, in the form of a black box theater. This theater space could be used for performance art installations or small productions.

The site itself also becomes a gallery in the form of a sculpture garden and an extension of the Park itself. A public gallery would occupy most of the first floor of the Coop building and would be a place to display "artist in residence" work, as well as work done by the members of the Coop.
The Heppenstall Community Center would be a resource for the entire town of Lawrenceville and surrounding areas. The entire complex including the Riverfront Park will be a pleasant place for people to meet and interact. It can serve as a "safe spot" for children to go after school. The Center may offer classes in self defense, computer education, and literacy, among others. In general, the Lawrenceville Community Center would offer what the people need at any particular time, and can be adapted as times change. It is a place for everyday use to bring the people of Lawrenceville together and celebrate their sense of community.

Adjacent to the Community Center is the Public Market and Gardens. The Market would be transformed from week to week to serve various craft shows, farmer's markets and festivals according to seasons and important events. The Gardens would offer those residents of Lawrenceville without large back or front yards a place to grow their own flowers, fruits and vegetables.

The Center will also house the Ecological Research Center and Museum. The facilities include an outdoor Wetlands Preserve and Fish Hatchery as part of the Riverfront Park. The main building would be home to the Lawrenceville Museum of Industry, to celebrate Pittsburgh's Industrial heritage.

"We used to go dancing every night. There was always a dance. . . .

. . . There was a time when a guy was looking for a job, he could start at one edge of Lawrenceville, and if he couldn't get a job before Doughboy Square, there was a problem. Now all of the industry's left."

——Three men on The Bench across from Isaly’s
INTERVENTION was founded on the principle of transforming a client's needs into exciting and memorable spaces which support and enhance the lives of those who inhabit them. Throughout its rich 22 year history, the architects of INTERVENTION have designed projects ranging from successful housing for the homeless, to the redevelopment of major inner cities. INTERVENTION prides itself on going beyond a merely architectural solution to truly consider the economic and social impact of the proposals which are made. INTERVENTION has full cooperation from consultants in the fields of history and public policy, to ensure that any proposals we make are not merely architectural whims, but truly solve the problems for an area. Finally, INTERVENTION believes that the people are the most important considerations in all of our designs.
One such design proposal was for the economically depressed Baltimore Inner Harbor. INTERVENTION served as one of several consultants throughout the early and mid-1980's when the city was attempting to bring new economic life back into the downtown region of the city. By providing economic, industrial, and recreational opportunities, along with a new mass-transit system, the city was able to revitalize a severely slumping area within 10 years. People travel from around the city, state, and region to visit the new amenities. Thus the problems of a vacant industrial district and a bankrupt downtown were solved on a very large scale.

INTERVENTION also has experience working on smaller scales. In 1986, when Cincinnati was grappling with the growing problem of homelessness, INTERVENTION stepped in. Temporary housing was built within a matter of weeks to provide shelter and heat while further design continued. After two years an entire low-income housing section was built in the southeast section of the city. Now, eight years later, the complex remains one of the most successful urban-housing projects, and is still one of the lowest crime areas within the city.

The architects and planners of INTERVENTION believe in finding a unique solution, in cooperation with the local residents, for each urban design challenge. INTERVENTION has successfully worked with communities across the country to shape their community for the future. From large-scale projects such as low-income housing in Cincinnati, to revitalizing small towns in Virginia, INTERVENTION has succeeded in bringing about a design solution in which people enjoy living. While the forces of change act differently upon each community, the process of working with the citizens, discovering your needs, and building for you, remains the same. INTERVENTION has proudly assisted many communities in adapting to changing times, we would like the opportunity to ensure that your future will be as bright as theirs.
MOBIUS 8 URBAN DESIGNERS

Lisa D'Andrea
Sandrine Danielson
Patrick Jacobs
Jukay Kwek
Edward Ruland
Gareth Tseng
Yi-Wen Wang
Justin Zier
Lawrenceville's Assets and the Problem:

The Lawrenceville as we see it today is an unpolished gem. It is a community on the threshold of change. Economic, technological and developmental forces have produced exciting new opportunities. These forces have come together in Lawrenceville in a volatile mix, yet very little has been done so far to take advantage of this. Lawrenceville possesses a number of valuable assets that we must recognize and use towards its evolution. These are qualities that make Lawrenceville a unique opportunity:

- Geographic location relative to the city center
- Valuable housing stock
- Development potential of the river front
- Existing institutions
- Established commercial base
- Deeply rooted industrial framework
- Diverse population

The existence of these resources give rise to many opportunities and directions for development. In the past however, such assets were not fully exploited. They were either not recognized as assets, or given little consideration, therefore full use was not made of them. In addition, recent trends have shifted emphasis away from much of Lawrenceville's potential, like the disappearance of steel from Pittsburgh. The result is the gradual decline in population and general condition of the neighborhood.

Listed below are some of the primary concerns
that we see in Lawrenceville:

* **Loss of a strong economic base:**
  - Death of the steel industry
  - Few attractions for new industries

* **Neglect of the river front:**
  - Lack of access to the river
  - Riverside industrial zone is barren

* **Declining and aging population:**
  - Fewer opportunities for younger people
  - Inability to be self-sustaining

* **Lack of focus and identity:**
  - Abandoned buildings, churches & empty lots
  - Existing commercial district, spread along Butler St, is too large to support itself
  - Overwhelming vehicular traffic, especially truck traffic on Butler St.
  - Absence of public green spaces and a pedestrian-friendly environment

These factors have contributed to the perceived decline in Lawrenceville. It is important to understand the events leading to the present situation in order to develop a set of strategies that address these needs. The problems facing Lawrenceville today have emerged through evolving social and economic situations that until now Lawrenceville has not been a part of.

Lawrenceville stands today as a perfect example of a Pittsburgh steel town. It developed out of necessity; forged from the forces of the steel industry. Located on the river, Lawrenceville was a natural site for Pittsburgh’s first steel mill and residential community. The river served as the artery through which materials and products flowed. At its peak, Lawrenceville employed thousands of workers, mostly immigrants, creating a mosaic of ethnic communities.

The death of the steel industry has left Lawrenceville without a focus. With the steel industry’s decline the community has inevitably suffered due to the lack of other means of support. The community and local economy depended heavily on the existence of steel manufacturing. Abandoned buildings, weakened commerce and empty lots are the physical evidence of the vacuum that needs to be filled. Lawrenceville today has half the population that it did at its peak. Over fifty percent of its present residents are over fifty-five. The once thriving river front is now empty and neglected.

This need not be the case. The potential for reviving Lawrenceville lies within its river front. As with all other areas in Pittsburgh, Lawrenceville has not yet taken advantage of the river’s strength. Because of the large buildings and factories that occupied the riverfront, the residential areas of Lawrenceville have never had access to the river. This is no longer true. The waterways that once exclusively served industry are now free to be used for new transportation and leisure activities. The river can now be used as a trans-
port link that can tie Lawrenceville to downtown attractions, other industrial areas and other important riverfront communities. This untapped opportunity is one of the keys to a successful urban renewal.

Improving Lawrenceville's weakened economy is crucial in order for it to be a sustainable community within Pittsburgh. We believe that this can be accomplished by developing a broader job base in Lawrenceville. The industrial area that once prospered must be redefined to create a new economic base. Indeed, the exit of the steel mills and heavy industry has freed up valuable riverfront land for modern industries and other uses. Carefully selected new growth industries can be attracted through tax incentives and favorable housing and commercial options that will be a catalyst for growth and redevelopment of existing industries and commerce. With careful planning, it is possible for Lawrenceville to be increasingly financially independent of the City. Income generated might help provide for further necessary rehabilitation. We can learn from the past and ensure that the decline that occurred in Lawrenceville will not be repeated. Lawrenceville can once again be one of Pittsburgh's most stable and important communities.

Strategies:

Listed below are some general strategies for the urban renaissance of Lawrenceville:

Redevelopment of the riverfront:
• Redevelopment of the river front with public green space and recreational facilities
• Pedestrian and vehicular access to the waterfront
• Use of the river to interconnect Lawrenceville with other areas and neighborhoods in the city.

Improvement of Butler Street:
• Concentrate the sprawl of commercial activity along Butler St. into three main nodes
• Reduction of heavy truck traffic on Butler St.
• Improve public transportation and traffic management

Diversifying the job base:
• Attract new growth industries to Lawrenceville
• Recycling of characteristic buildings (churches and warehouses) for new functions

Base redevelopment on the existing heritage/identity of Lawrenceville:
• Renovation of physically run-down residential areas, addition of shared green spaces
• Promotion of the mixed living and working habitat

The strategies listed are only initial proposals based on preliminary analysis. These concepts are com-
plimentary parts of an overall scheme for Lawrenceville. Our goal is to retain the original makeup and identity of Lawrenceville. We aim to provide an environment that preserves heritage and tradition, yet positions residents and their families to launch into a prosperous and dynamic future, playing an important role in Pittsburgh's future development.
There are specific industries in Lawrenceville which are currently in use and healthy. These are all large sites which are currently along the river that may be highly contaminated. There is no sense in attempting to relocate these facilities as they are doing well, and the added cost of cleaning up their sites does not call for their complete relocation/removal from sites along the river. There are however other industrial sites along the river that are equally contaminated, however they are no longer in use, and therefore are not creating the jobs crucial to revitalizing Lawrenceville.

Next to these larger sites, instead of placing housing or commerce, medium-impact new industries are proposed. Some of those encouraged are along the lines of steel manufacturing and machining. Industries that could tie in to these services would be a bio-medical facility with links to St. Francis, West Penn and University of Pittsburgh Medical Center. Such a facility has enough land potential to contain several services such as instrument, manufacturing, research, development and training for students. These facilities would become a core market within Pittsburgh to help a Bio-Medical facility in Lawrenceville to get started.

Other facilities that could occupy sites adjacent to heavier industries would be a waste management facility. The facility could house research contain recycling functions and related research concerning recycling.

Adjacent to medium impact industry will be
lighter, smaller industries that can easily exist side by side with housing. The buildings that contain these industries will be highly malleable, containing large spaces that can be rented out, and changed according to the needs of new industries in the future. They're non-specific in nature, but very practical towards businesses that are starting up, and don't have the capital to buy a large site.
Many of the industries that should be kept are currently located on contaminated lands along the river. Several are still in business like Exxon, Penzoil, and Atlantic Tank and should be kept in their entirety since they are still creating jobs.

Several sites along side these contain large usable buildings that are currently being used as warehouses. Although they’re being used, they aren’t necessarily creating the jobs for Lawrenceville. These warehouses can be kept, and readapted for lighter new industries.

Many of the sites that are outside of the three industrial zones are cheaper (new) or dilapidated (old) buildings. They for the most part are used as long term and short term storage. Although these facilities are necessary, they don’t create enough jobs and their sites tend to be quiet and deserted, not conducive to the residential neighborhoods which surround them. There are a substantial number of warehouses in the Strip District that can replace the displaced warehouses.

Several of the older buildings can also be renovated to house new nonindustrial facilities. They can be offices alone, or they can be combined with loft apartments on upper levels. The site of Heppenstall will also be renovated to contain new commercial, fitness center and housing facilities.
New industries will be lured into Lawrenceville with incentives such as: large lots, a large choice of housing, safe neighborhoods, tax breaks, and low prices on land to be redeveloped.
Industrial Rehab

Riverwalk At Waste Management

Hanlon Gregory Complex
RESIDENTIAL

Much of the housing stock East of Butler street is in good condition as well as being healthy communities with strong links to Lawrenceville's past. These neighborhoods need only minor interventions, for example new street paving, sidewalks and trees. There are several streets west of Butler that are similar, however due to the proximity to large industrial sites they aren't as sizable nor as strong. As more businesses slowly come to Lawrenceville, so must new housing be introduced to accommodate the higher demand.

Currently none of the residential communities have any substantial access to the river front. There are some small roads that end at the river and are used for fishing and other social activities, but they are strongly bordered by industry which limits their uses accessibility.

In lower, middle and upper Lawrenceville new residential housing is proposed. They will compliment existing building typologies (where it serves), add more styles of accommodations to fill the need for rental, higher income, and smaller families. There is currently very little river front housing that is either attractive or affordable, both of which are very marketable to many groups, such as families, the young, professionals, and anyone who uses the water for leisure.

The new residential communities would have treelined avenues connecting residential communities on either side of Butler to the Allegheny. The land alongside the river and the new housing will be de-
voted to small parks, paths and boating facilities specifically oriented towards Lawrenceville's residents. These walkways are to promote more pedestrian traffic between the housing and the river, Butler, and their job sites.

The floors above the offices and stores along Butler can either be sold or rented out as apartments. With the addition of apartments along Butler, more residents will be traveling the streets at night which will create a heightened sense of community. It will also lessen the "wall" effect that Butler currently is creating separating residents on either side from one another.

The new areas of housing will be mixtures of apartments, townhouses (multi-family), lofts, and single-family housing. The placement of these styles will depend on whether the residential abuts industry so that similar scale buildings will abut one another. The stepping formed by nonuniform building heights will also be evident at the river front so that more buildings will be able to have views onto the river front as the land also slopes up and away from the river.
The length of Butler currently contains most of the commercial district serving Lawrenceville. Currently the businesses are becoming more disjointed due to businesses closing down and being replaced by businesses that don't require storefronts such as used car dealerships and bars.

The Heppenstall site is being proposed as a new site for commerce. The site will house activities that will be directed towards boating activities and visitors to Lawrenceville. It will contain the relocated Giant Eagle, a sporting facility, movie theater, apartments, delis, a farmer's market, and galleries to present creations from Lawrenceville's currently expanding art community. Heppenstall isn't going to compete with businesses along Butler because they won't offer the same services.

The businesses along Butler will do better to consolidate rather than stretch the full length of Butler. In time the businesses along Butler can group itself into three sections of Butler serving the surrounding residential communities. They can typically have restaurants, Banks, pharmacies, hardware stores, a meat market, Laundromats, shoe repair, a fish market, pizza places, hair salons, barber shops and community centers. These are businesses that can be family run and groups currently in place such as Lawrenceville's Business Association can watch over to discourage chains from entering. Between these three commercial strips along Butler, the ground floors of building can con-
tain law offices, real estate offices, insurance agencies, 
independent medical practices, architectural firms and 
contractors. Some of the buildings along Butler are in 
such a dilapidated state that they should be torn down 
entirely because they are no longer safe. In their place 
can be miniature gardens with benches to encourage 
people on their lunch breaks to sit outside on Butler 
much as they now do in front of Isaly's.

The areas along Butler zoned for commerce 
would be limited in order to promote the "corner stores" 
present in every neighborhoods. These stores and 
gathering spaces don't take a significant amount of busi-
ness away from stores on Butler, however if there are 
too many stores on Butler, they could be put out of 
business. These stores have been, and continue to be 
an integral part of the character of these neighbor-
hoods.
The river walk in conjunction with the improved spines connecting the interior of Lawrenceville has the potential to be an important link between several key areas, new and old.

There is a museum that will be located next to the bridge and proposed high school. We will convert one of the old steel mill buildings that is currently not in use. The museum will display and explain specific objects used in steel manufacturing, and the people who used them. It will also offer tours of still existing Lawrenceville steel manufacturers, and the sites of those no longer being used such that they can better explain the sites and smells of a mill. The museum is meant for school tours and residents and anyone interested in learning the history of Pittsburgh through the eyes of Lawrenceville.

Directly adjacent to the museum will be a new High School which will feed off of the existing Arsenal middle school just across Butler. Although there aren't currently enough students to warrant a new school as yet, new businesses and housing will undoubtedly bring new children to the area. The school will have several sporting facilities and indoor meeting rooms that can be rented out to the community when the school's not in session. This will allow an for an easier commute for students, bring in jobs, and allow for parents to keep in touch with what's going on in their children's school. The school can also be available for evening classes to serve Lawrenceville's older population.
The site of the new High School would have several baseball fields, basketball and tennis courts, a track, and most importantly a formal football stadium. The stadium would also host soccer and track events. The football games especially would be the center for social gatherings to bring together the community to cheer on their children. All the outdoor facilities would be available to the surrounding communities and is directly accessible with the river walk.

There are many churches who's parishes have been joined with others and lost due to a lower population. These buildings were elegantly designed and constructed, for the most part they need only minor renovations for them to reopen their doors. These buildings can reopen as community cultural centers that offer social activities for the elderly and young. They could also be reopened as the population of Lawrenceville grows. The buildings could be converted into theaters for either movies (similar to the ones shown at the Play House), or formal performances by area grade schools, high schools, and colleges.

The Heppenstall area provides a huge array of functions desirable for residents and visitors alike. There is a year-round farmer's market that will be for local farmers to sell their seasonal goods, whether they be fruits and vegetables, cheese, plants, pumpkins, or Christmas trees. There will be exhibition space for local artists, and more specifically those from Lawrenceville. Along the water are sculpted grounds to form an amphitheater with the marina as a backdrop. This would invite people from all around to enjoy both formal and impromptu gatherings to listen to music, or watch a show.

There are many historically significant areas such as Doughboy, the Cemetery main entrance, and the Arsenal in Lawrenceville that should be visually strengthened with improvements to their surroundings (usually parks). Many of the churches can be treated the same way.
There are several parks in Lawrenceville that are currently well used and in relatively good condition, such as Arsenal Park and any given ball field. The cemetery is used for its walking trails and the such. Unfortunately there aren’t enough convenient links into the cemetery, and the sidewalks and lighting surrounding it have been neglected. Between the cemetery gate on Butler and the entrance to Heppenstall and the marina a wide tree lined avenue can be added to link Lawrenceville’s two greatest resources that are currently being underused.

The Heppenstall site will face a large green space looking onto a Marina that will host a river taxi service that is currently in place, Clipperships, and independently owned boats. The park can be used for impromptu volleyball games and picnics, or as a place to rest and eat some lunch along the river walk. Certain portions will be landscaped as an amphitheater facing onto the marina. It’s size will be small as it is primarily meant to attract Lawrenceville residents. Since the theater is on the river, people can enjoy music from their boats in the marina and the river.

With a mandatory setback of 50 feet for all new buildings along the river a jogging and bike path can be placed. The paths can link Lawrenceville to the city and towns up the Allegheny and across via the bridges. The river walk will lead people past new and old industries, a school, the Heppenstall marina, and several smaller ones, picnic grounds, residential communities and the Lawrenceville Heritage Museum. In areas the
path will open onto large and small parks, and other times it will pass right alongside huge industrial sites.

Along Butler and certain other important links, more trees, wider sidewalks, and the conversion of neglected lots into community gardens will enhance pedestrian traffic, and neighborhoods. These small gardens can be given to the people in the surrounding neighborhood to be used and kept up by them. These parks would be gathering spaces for residents to meet other people in their own neighborhood, and parks such as those surrounding the schools, Heppenstall, and the cemetery itself to people outside the immediate area.
The introduction of a riverside road running parallel to Butler will help to ease the large number of trucks, buses and cars that use it at all times of the day. There will also be more of a need for it as new jobs and housing are introduced along the water. There will need to be a road to access the new residential, commercial and industrial areas along the river. The riverside road will be u shaped with both ends linking up to Butler at either end of Lawrenceville. This proves more desirable than a road that isn't directly running off of Butler which could possibly take business away from Butler's stores.

This road as well as Butler will have a fair amount of traffic lights to slow down vehicular traffic and encourage pedestrian traffic. They will be tree lined, and continue to have parking on either side as well as wider sidewalks whenever possible.

There will be secondary spines that run through residential neighborhoods both perpendicular and parallel to Butler to encourage pedestrian traffic to specific points of interest. These walks will be given special treatment such as wider side walks, trees, lights, benches and repaved roads to further promote the use of the cemetery, river and Butler by residents and to lessen the need for cars.

Although this will work for those willing and able to walk, others can use the proposed expanded shuttle service that is currently in use. The new shuttle service would be more accessible to residents of Lawrenceville which would be in even greater demand.
over the winter months and on rainy days. Businesses within Lawrenceville could help fund the service since it would bring residents to their businesses on the off season. The shuttle would primarily be used to ease traffic between the home and work within Lawrenceville. However it will also be available for anyone wanting to visit specific points of interest, such as Heppenstahl, library, and museum.

The river walk, water ferry and boat docks will bring people into the area via water paths which will further ease up land traffic. They will also create attractive links between the North Side, downtown, and the strip district; all very good reasons to live in Lawrenceville.
CONSERVATION

I. HOUSING

Most of Lawrenceville's current housing stock is either in reasonable condition, or are architecturally unique and representative of Lawrenceville's rich past and should be renovated. If they aren't structurally sound, many of the lots can be converted into small community gardens, or replaced with similar building types but with some new characteristics to add the collection of building types. We too can add to the history Lawrenceville without having to copy it, which will be how all the additions to Lawrenceville will be treated. The additions in housing will be treated as an extension of the current housing slowly being built up as the need for them arises. It is very important to link all the new housing directly to the old so that the current residents can more easily accept the new additions into their, very successful close knit neighborhoods. The buildings are only the objects we can conserve in Lawrenceville, it is also important to conserve the existing neighborhood spirit that exists.

II. COMMERCIAL

Within these neighborhoods small corner stores have popped up, and add a new dimension for social gathering in the neighborhoods. They are on a level more private to the residents of Lawrenceville than even those on Butler, and are essential for keeping residents close and mindful of one another. Along the same lines, community gathering places should be considered for many abandoned churches that have fallen to disre-
Areas such as Dough Boy and the entrance to the Cemetery on Butler can be improved to restore their original significance to the area. Dough Boy has only begun its renovations, it is the gateway between Lawrenceville downtown, and points beyond. Both gates should be treated with the respect that they deserve.

III. INDUSTRIAL

Many of the industrial buildings are already being used for businesses other than they were intended for. However some are still being used and will not be touched, other than with incentives for them to clean up their open spaces to make them more attractive to the surrounding residences. The buildings that are still sound and not being used, or being used solely for storage will be renovated to make room for a large variety of new industrial and office space. In the past Lawrenceville was dependent on but a few industries, that could not be conserved and so a larger job base should replace it for Lawrenceville to regain its stability.
REGION

Lawrenceville is in a prime location with connections to downtown attractions via the river and roads, as well as other areas like Bloomfield and Oakland, Homewood and the North Side. The area has good public transportation and connections with other riverside communities and social destinations make it a unique center.

It has the potential to be a self sustainable community, with new industries both based in Lawrenceville, and others that feed off of currently thriving industries in the area. The steel manufacturing, and bio-medical facilities are only a few examples. The waste management facility as well as Alcoa can work in conjunction with other similar facilities further down the river. Businesses proposed for Lawrenceville such as the metal working can easily purchase steel from Pittsburgh mills, as well as use skilled workers from the immediate area.

There are several strong community organizations already in place with lots of motivation towards improving Lawrenceville. It has the potential to be a destination for work, shopping, entertainment, living and as a cultural center. Through the addition of new businesses, Lawrenceville itself can play a larger role in Pittsburgh's development.
Phase 1:

Shuttle Service:
A local shuttle service will be established that caters to the residents of Lawrenceville. It will build on the existing shuttle service for the elderly. A regular, dependable service, the shuttle will cover all major destinations and major thoroughfares in Lawrenceville. Such a transportation service would promote increased pedestrian activity and discourage unnecessary car use.

New Housing:
New housing development continues, contingent on the success of phase 1. More new housing with increased amenities and direct river access, more appealing to higher income workers, will be added along the riverfront to encourage these workers to reside in Lawrenceville.

Riverwalk:
A 50 foot building setback is established to ensure public accessibility to the riverfront. The entire riverfront will be cleaned up and landscaped, providing a continuous green belt that varies in width and supports different activities at different points.

Residential Spines:
The creation of central spines within the interior residential neighborhoods better facilitates pedestrian accessibility to the riverfront. The sidewalks are widened, trees are planted and street furniture is introduced.
New Housing:
New housing will be developed along McCandles Street and in front of Heppenstall. Similar in density the new housing will feature modern townhouses and apartments that would appeal to younger home owners. Introducing a new housing typology targeting a different lifestyle and market niche will not conflict with the market for existing housing.

Hanlon Gregory Gallery:
This old warehouse will be restored for its architectural significance and reused as a center for the display of specialized steel work and crafts. In addition it will offer flexible studio/work spaces and will provide an instructive environment to visitors on the more unique aspects of steel products.

Environmental Assessment and Clean Up:
The large tracts of industrial land fronting the river will be assessed for contamination. Public/private partnerships will provide a means of financing to convert these sites into safe usable land.

Marina Initiated:
Although a large extent of the work will be carried out in the second phase, sitework and land preparation will be initiated in the first phase. Most of the surrounding parkland can be realized before actual marina construction.

Neighborhood Improvements:
The majority of the housing stock is intact and in reasonable condition. Although slightly run-down, minor renovations, a new coat of paint and general street improvements can dramatically improve the overall appearance of the neighborhoods.

Access Road:
To ease traffic congestion on Butler Street an access road will be introduced closer to the river. It will provide direct access for traffic heading straight for industries and riverfront destinations. Similar in width and scale to the other main streets, it is by no means an industrial freeway.
Phase 2:

Heppenstall:
The buildings that once housed the Heppenstall steel mill will be rehabilitated and recycled. These large buildings lend themselves easily to the concept of 'flex-space'. Within its expansive floor area will be a multi-use complex, featuring shopping, entertainment and offices, with areas for studio apartment housing. Heppenstall's past prominence is acknowledged and reinterpreted. It will remain a focus point and symbol of Lawrenceville, being both a local and regional destination.

Industry:
Heavy industry has given way to modern, clean research and light manufacturing facilities. Lawrenceville should target new industries that are complementary to regional growth industries, such as the University of Pittsburgh's biomedical research center in Oakland and the Carnegie Mellon/NASA research development center in Lawrenceville, and other such industries that are establishing themselves in the region. The introduction of growth industries, attracted by public/private partnerships and tax-subsidies, will bring a new source of wealth to the local economy.

- Biomedical instrument research and manufacturing:
This facility complements the numerous biomedical institutions in Pittsburgh. It will include high-level instrument research and development, instrument manufacturing, and provide on-site training programs. Instrument manufacturing will make use of the existing specialized steel production in Lawrenceville.

- High-end Steel Production:
This existing industry providing milling work and parts machining will be well utilized by the abovementioned industries and by metalworks artisans. It will take advantage of the abundance of skilled workers in Lawrenceville already trained in metal production.

- Waste Management Facility:
Environmental impact and waste recycling research will be conducted and new processes explored at this facility. It will contribute to the ongoing cleanup and green initiative that is being promoted in the Pittsburgh industrial region.

Marina:
A focal point on the riverfront that will redefine the way in which Lawrenceville makes use of the river, it will establish transport and recreational links to downtown and other riverfront communities. The present ferry service will be expanded to accommodate commuter services and leisure craft ranging from small private boats to Clipper-sized vessels. Together with Heppenstall, the Marina creates a gateway to Lawrenceville and a physical link from the historic Allegheny Cemetery to the river.
The Marina and Heppenstall will be situated in a park-like, pedestrian-oriented setting. They will be linked via pedestrian paths and bicycle trails to the riverwalk and the residential spines.

**Consolidation of Commercial Areas:**
The length of Butler Street makes it difficult to sustain commercial activity along its entire length. A more viable solution would be to concentrate commercial activity in relation to residential density, allowing shorter walking distances. Commercial density will work positively by locating businesses in central nodes. Businesses along Butler Street will focus more towards the local community and to everyday needs. Specialized and higher-end stores will be located within Heppenstall.
Phase 3:

New High School:
A high school will be founded to cater to Lawrenceville's rising population. It will have shared public-access sports facilities, athletic fields and host civic activities. In addition to augmenting the existing middle school it will offer adult education courses. Instead of attending outside schools Lawrenceville's students will have the opportunity to go to school within their community. The school will also offer special technical and vocational courses focused on local industrial applications. It will train new generations of skilled workers who will be well prepared for current technological operations.

New Housing:
New housing development that was initiated in the first phase has continued through to the third phase. The completion of this phase of housing will cater to the increased housing demands in a vibrant community.
Lower Lawrenceville:

New Residential linked to the waterfront
New Steel Museum
New High School opposite Arsenal
Middle School
New Playing Fields
New River-Walk
Middle Lawrenceville:

- Marina
- Ferry Terminal
- Park
- Amphitheater
- Mixed Use Center for Lawrenceville
- Link to Cemetery
- New Residential
Upper Lawrenceville:

Medical Research and Manufacturing

New Residential

Riverwalk
My Lawrenceville

I grew up in Lawrenceville.
Hung out at the Boys Club.
Watched fireworks at Arsenal Park.
I've been kicked out of Allegheny Cemetery
more times than I can remember.
My mother said, “Don’t swim in the river!”
But I did.
Every three or four years someone drowned.
All the more appealing. Danger.
But not really, I never tried to swim across,
let alone back.
Just swinging from the rope under the 40th Street bridge
was enough.
We didn’t sit on decks behind our houses.
We sat on stoops after dinner;
Played on the street;
Talked with the neighbors,
whether we liked them or not.
This was the city-my neighborhood.
Everybody’s dad worked in the mills.
Heppenstall. American Bridge.
They always stopped in one of the bars after work.
Everybody knew what everyone else was doing.
Dad...mom, they always knew.
I drove into Lawrenceville the other day and all those
feelings I’d forgotten came back.
Christmas decorations-”Lawrenceville” it said
strung across the street
We’re still here.
No twinkle lights in fancy trees.
Green and red on steel poles, looks like Christmas.
New kids with new memories.
This was my neighborhood. Same as ever.
We’re still here. We still like it.
Our Isley’s is still open.
Everybody still knows their neighbor.
Oh, God, thank you for my wonderful childhood.

- Stanley Anthony “Sluggo” Frankowski
Urbanism Begins With U
A project by:

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Urban Design Laboratory
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Over the course of the past decade, we have witnessed the death of the Industrial Era and the birth of a new Information Society. We are entering a new Age and, as with any major transition, there is great turmoil. Life-styles are interrupted and those who cannot keep pace with the times fall behind. The demise of the industrial workbase in a community such as Lawrenceville has been devastating both economically and psychologically.

Lawrenceville existed as a vibrant city during the Steel Age, as did all of Pittsburgh. With the breakdown of the steel industry that accompanied this transition between eras came the breakdown of the region's economic structures, which in turn affected Lawrenceville's vitality. It is struggling to regain the internal cohesion that once existed. The absence of an economic base has left not only financial problems within the community, but has also emotionally scarred the citizens. Many residents have left the City of Pittsburgh in search of a more stable living. The lack of community cohesiveness that evolves from the mass exodus from the city as a whole brought about a decline in respect for the neighborhood and the activities within it. The built environment of Lawrenceville has begun to deteriorate.

The first step in the deterioration of the built environment, however, occurred for another reason: the large industries moved out and their immense warehouses were left empty. Since then, both the residential and commercial districts have begun to follow suit, affected not only by the economic loss of industry, but also by its physical departure and its effects on morale within
the community. Lawrenceville's commercial district has particularly suffered from the lack of community involvement, as well as from the rise of the regional shopping mall, which encourages the residents to leave their neighborhoods in search of retail conveniences. As a result, the once burgeoning and extensive shopping district that formerly stretched the length of Butler Street, from Doughboy Square to the 62nd Street Bridge, is scattered and sparse, broken up by vacant storefronts, empty lots and long distances. There is an air of exhaustion that hangs above the street and above the heads of the citizens. The young people are leaving, looking elsewhere to fulfill their ambitions and hopes. Without that critical mass, the neighborhoods suffer from same wear and disuse as the commercial storefronts.

New development has begun to progress in the commercial area around 44th Street however, and changes in policy are encouraging its growth in the community. Renewed interest in the affordable housing stock has cropped up and investors are beginning to realize the value of Lawrenceville's proximity to the other areas of the city. But there is a question in the mind of the residents as to whose best interests are being met.

The people who remain there have done so because of their commitment and dedication to the place that they call Home, and because they believe in the ideals of hard work and determination that made Lawrenceville what it was and what it can be again. Already present in the community is the ability to become a self-sustaining part of the city again in the future-all that is lacking is a clear vision of what that future might encompass.
In order to solve a problem, you must understand the problem. You must comprehend the different layers at which the problem exists and the different ways in which each layer affects the others. Without this type understanding, you result in creating more problems rather than solutions.

We at UBWU approach a problem as a series of layers, each of which affects the others in the series. In order to gain an understanding of the conditions of the problems, we analyze the layers in juxtaposition with each other, looking for the points where conflicts occur and harmonies result. The city is also composed of a series of layers—of commercial, residential, transportation, industry, boundary, and natural elements all juxtaposed with one another to create the chaotic patterns that we call the urban environment. Together, they are meshed to form networks between each other and between related physical regions. Conflicts do occur within these layers and they surface as a problem within the network, a discontinuity in the fabric. Industry displaces residence; transportation systems eliminate natural elements; boundaries are fought over, lost and won. And so we treat the city's fabric with the idea that each of these layers and their related networks can be fully understood and identified, and that by pulling them apart, we are more able to understand how to put them back together.

Lawrenceville consists of these same layers that compose every urban environment, and there are conflicts existing between them that need to be understood and resolved. Therefore, we approach the problem with the idea of analyzing through "x-ray", the process of peeling back the layers and revealing their networks. We
divide the task according to our expertise, with some focusing on issues of transportation, some on the comprehension of the residential typologies and systems, others looking at the boundaries around Lawrenceville and its neighborhoods. As individuals, we explore the causal relationships, and together as a team, we reestablish the networks through which the urban traffic will once again pass. It is our intention that with this approach we will have a more focused outlook to each step of our understanding and of our resolution.

Ideally, in the end, we arrive at a comprehensive understanding of the way in which each layer affects the others and how we, as designers, might compensate for that and calculate the affects of each move we make. Realistically, we will have established within ourselves a clearer way of seeing the relationships between the systems which we are designing. We will be able to quickly estimate the farther reaching affects of a design decision as it influences the other layers in its network. We will have a basic knowledge of the links that exist in the physical and the perceived environments as they pertain to the human scale. We will be able to design using these understandings to create a more cohesive plan for Lawrenceville.

"...and once the smoke and smog had gone--and the streets, rivers and hills of the city emerged--Pittsburgh presented itself as one of the most beautiful places in the land."

-Pittsburgh, The Story of an American City

Lewis/ Brean Studio
In establishing a vision for Lawrenceville, we looked at both the community and the city and their various links and networks in order to determine which ones needed the most strengthening and which ones worked well. We decided which ones to preserve, which ones created more harm than good and which ones to create anew. From there, we made the design decisions that would shape a brighter future for Lawrenceville.

To the residents of the community, the greatest weakness is the lack of an economy and the missing job market. Though for many years Lawrenceville has depended upon its industrial resources, we must accept the simple fact that times have changed and that heavy industry will not be the major factor the community's future. Instead, it must join the driving forces behind today's society and take part in the new Information Society. It is a difficult transition to make, as many have discovered in the past decades, but it is not an unfeasible one. What Lawrenceville needs is a strategic plan for joining this society, however. It can not allow development to happen; it must make it happen. Physically, the community contains more strengths than weaknesses, occupying an ideal location in relationship to the Downtown, yet enjoying the low cost of housing and commercial space. It is conceivable that Lawrenceville can attract a variety of investors who can appreciate these aspects through active self-promotion in the business world. Furthermore, the new development of the NASA and Carnegie Mellon Robotics Center will help to draw attention to the community. But the residents too need to become competitive in the Information Society. They need the benefit of education that can prepare them to take part in the changes that they are witnessing from afar. Through a combination of new jobs and new education, this door will be opened up to the community.

Physical changes must be made in order to attract new businesses, new residents and new opportunities, as well as in order to preserve the existing ones. The most obvious physical weakness in the "chain" is the user's link of movement from place to place. On the pedestrian scale, there is virtually no connection between Lawrenceville and the urban environment, and on the vehicular scale, the transition is confusing at best. Therefore, several new plans are instituted that involve reconnecting Lawrenceville, both internally and externally, to the urban fabric. They include the introduction of a new access route through Lawrenceville, expanded bus transit from Downtown and the east, bicycle lanes in partnership with the road, and the development of an "emerald necklace" along the edge of the water front which contains a pedestrian and bicycle link throughout Lawrenceville and the Allegheny River communities.

On the commercial level, Lawrenceville suffers from poor planning, with an overextended shopping district which can no longer meet the needs of its consumers. The stores are there, but they are spread apart and difficult to decipher. Due to this, the commercial district loses the majority of its potential business to the regional shopping mall that has seen growing popularity in recent years. Butler Street needs to become a concentrated development of quality shops which can benefit from shared support systems such as parking, public transportation services and a higher degree of public maintenance than what is currently exhibited. This will allow it to improve service to the existing residents as well as spark an interest in others who may come in contact with it.

The residential qualities of Lawrenceville's neighborhoods are enjoyed by those who come in contact with them, due to their scale and character, as well as the close knit nature of their inhabitants. However, it is frequently difficult to put people in contact with the neighborhoods. Outwardly, they are considered low income areas by many professionals who would not consider looking there for a home. Lawrenceville needs to break those stereotypes with an active housing program that will increase the diversity among its residents and bring with it a flood of new ideas and increased economic dollars. This is not a call for gentrification, but rather one for diversification.

Together, the people and businesses of Lawrenceville possess both the resources and the will to institute far reaching change in their community. By setting out a plan of action, they are taking control of where they are headed and with these goals in mind, Lawrenceville can step safely into the future rather than continuing to depend upon its past.
Phase One Interventions
5-10 Years

• Railroad Street is built, continuing from the Strip District to the 62nd Street Bridge

• The River Front Zone is designated as a greenway (50' minimum setback) and zoning codes regarding riverfront facades are put in place

• New bus shelters are built and integrated within Butler Street

• Cemetery improvements are made

• Commercial renovation program begins

• Acceptable design standards set & review committee established
Phase Two Interventions
15 Years

• Arsenal Market & the Industrial Exposition Center are built

• Lawrenceville Vocational High School opens

• First riverfront housing built

• 62nd Street Marina and Sports Center open

• River Front Walk & Bicycle Path completed

• Commercial districts concentrated into designated areas

• Former industrial buildings are tagged for reuse or demolition

• New technological and research based industries take root
Phase Three Interventions
25 Years

• Former commercial buildings on Butler Street reused for residential

• Former tank farms are converted to clean energy usages

• New large scale development to house technological and research based industries are built

• Remaining riverfront housing is completed
Figure 1: The existing transportation system for Lawrenceville: bus routes run along Butler and Penn. There is no water access and heavy congestion in the neighborhoods bordering Butler Street due to the burden of truck traffic heading to the industries on the water’s edge.

Figure 2: With the addition of Railroad Street, the system of parallel access is strengthened and the congestion on Butler Street is relieved. This allows for greater safety in both the neighborhoods and the commercial district.
Lawrenceville occupies an excellent location adjacent to both the Strip District and the Golden Triangle of Pittsburgh. It has links across the Allegheny River, direct routes to both Bloomfield and Stanton Heights, and is situated along a major corridor running beside the river. In its current state, some of the transport systems in Lawrenceville are being used above capacity, such as Butler Street, while other systems are underutilized. Bus routes are indirect and often repetitive, while connections to the rest of the Pittsburgh region are unresolved from both the pedestrian and commuter scales. Public transit disregards the opportunities of the river front access to industrial sites, and the historic locales that exist within the boundaries of the neighborhood. Improving routes through Lawrenceville, providing docks for water taxis, barges and private boats, and making public transit more attractive to the community will help to prepare Lawrenceville for the future, strengthen its links to the urban network of Pittsburgh, and make it a more attractive place in which to live and work.

The addition of an alternate vehicular route to Butler Street is necessary in order to improve circulation in and through Lawrenceville. Railroad Street (figure 2) is a two lane road parallel to Butler that provides improved access to industrial and energy sites, as well as allows for the redevelopment of Central Lawrenceville. Heavy traffic is limited to the eastern and western extremities of Lawrenceville, while Butler Street thru traffic is regulated by a combination of on-street parking, traffic signals and narrowed street widths.
Industries are called upon to once again utilize the water for the transport of heavy shipments, while multiple marinas and public docks allow for greater access by private crafts, and a water taxi running along the rivers provides for relaxing cruises, alternate transport and a link to Downtown. A bicycle and walking trail is adjacent to the water's edge and runs through to Downtown, providing for both enjoyment and an alternative commuter system.
The concept of alternate transit is explored and emphasized in the new plan for Lawrenceville, in an effort to recognize the importance of energy efficiency in the Pittsburgh community and worldwide. A new system of bicycle lanes runs perpendicular to the river, connecting Penn, Butler, Railroad Street, and the neighborhoods on the hillside to the new River Walk and Bicycle Path. They then merge with the "commuter" lanes which run alongside the Allegheny River (figure 3) in the direction of both Downtown and the Allegheny River communities adjacent to Lawrenceville. The new lanes are regulated by signals and painted traffic lanes on the street and provide both recreational and commuter services.
The Doughboy Square region is the major entry point into Lawrenceville and, as such, is treated with care in order to retain its original integrity and character. Historic sites are retained and renovated, with conversions such as the new Fire House Theater, a small combination play and movie house.

Figure 4: The Doughboy Square area is strengthened by a combination of infill & reuse. The street edge is preserved & historical sites designated.
Figure 5: Axonometric View at Butler Street

Figure 6: Sheltered Bus Stops
Rather than implementing a brand new transit system, the existing one is enhanced. Bus systems are the most cost effective form of public transportation and as such should be strengthened rather than abandoned in light of rail access. In Lawrenceville, we have cleaned up the routes, clarified connections between major destination points and helped to inform the rider with new systems of maps and guidelines located in the bus shelters. It is our desire to see not only the residents of Lawrenceville "reconnected" to the urban fabric of Pittsburgh, but also to see that Pittsburgh is reintroduced to Lawrenceville.

Figure 5: An axonometric of the proposed changes in street configuration illustrates the integration of the pedestrian & transit systems. The scale is kinder to the user and helps to reduce the risks of the Butler Street crossing.

Figure 6: Corners with bus stops integrate a shelter and a stop in the widened sidewalk. Riding the bus is made more comfortable and convenient with the improved bus shelters and an additional bus route on Railroad Street.

Figure 7: Street corners with crosswalks that traverse Butler Street are built out eight feet from the existing curb in order to shorten the distance of crossing the street. This helps to define curbside parking and makes crossing the street safer, as well as restricts large truck access down Butler Street.
Figure 1: The area along Butler Street is renovated with the addition of new parking and shade trees, both of which make the shopping district more attractive to the pedestrian and the driver.

Figure 2: The existing facades in the Butler Street commercial district suffer from abuse and neglect, with otherwise vibrant surfaces covered with synthetic materials and excess signage.
Lawrenceville's commercial district is primarily focused on Butler Street and is currently served by the Neighborhood Business District Revitalization Program, Lawrenceville Business Association (LBA) and the Urban Redevelopment Authority (URA). The LBA has been responsible in large part for the commercial facade renovation project, while the URA is beginning to fund the development of residences over the commercial enterprises along Butler Street.

At current proportions, Butler Street far exceeds the commercial requirements of the residents of Lawrenceville. It suffers from a lack of community involvement, which, in combination with the rise of the regional shopping mall in the Pittsburgh area, encourages people to leave their neighborhoods in search of amenities. Through the institution of a revitalization program, including the renovation, restoration and redesign of the buildings in the more successful areas of Lawrenceville, we create a series of smaller, more vigorous business districts.
The inclusion of on-street parking as well as other available parking areas will allow consumers to find two hour parking that is convenient and free of charge, which is part of the appeal of the shopping malls. The increase in on-street parking will lend itself to slow down the traffic on Butler Street and also reinforce the use of Railroad Street by thru traffic and delivery trucks. Further improvements include sidewalk renovation with the addition of shade trees, benches, street lamps, and new signage.
Figure 3: Improvements are made to the facades with the simple regulation of signage and facade preservation. Much of the required maintenance boils down to a simple coat of paint. (Information adapted from Planning And Design for Commercial Facade Improvements, Ministry of Municipal Affairs, Ontario, Canada.)

Figure 4: New setbacks, curb cuts and plantings improve the overall appearance and comfort of the streetscape.
With the advent of the new Information Age comes the phasing out of the Industrial Age and its facilities. In Lawrenceville, this is of particular concern due to the large number of former heavy industrial sites, as well as the departure of the tax base and economic wealth of the community. The vast majority of the industrial sites are now unused and the few remaining ones are under-utilized. We are faced with the question of what will become of these facilities and whether or not it is possible to reintroduce industry back into Lawrenceville at the same magnitude that once existed. Obviously, with the changes that have occurred worldwide in the past ten years, this will not be the case. Rather, Lawrenceville must actively seek out a new economic base which fully exploits its physical resources and its human potentials.

Because Lawrenceville is so closely situated to Downtown, it offers a wealth of possibilities to firms which might be looking to settle closer to the conveniences of the city yet without suffering from the exorbitant real estate costs which exist within the Golden Triangle. Many of the former warehouses offer the possibility of "flex space" which can be easily adapted to anything from light industrial uses to research facilities to drafting rooms. We recommend that Lawrenceville actively promote this availability in order to attract firms that might otherwise locate in the direction of the suburbs.
and airport. Firms which would be of prime importance in the regeneration of economic growth for the region include those involved in computer and medical research and light industry such as software manufacture. With the new NASA and Carnegie Mellon Robotics facilities moving into the area, there will be a new demand for support facilities and a renewed interest by related firms. This may, in turn, be exactly the stimulus that Lawrenceville requires in order to make the transition from an industrial base to an information age.

In looking at the physical environment of the industrial shells that remain in Lawrenceville, we encounter the issue of design guidelines for any adaptive reuse and new construction. New codes must be specified which work to preserve the integrity of the neighborhood scale as well as protect the physical and mental health of the inhabitants of the buildings and of the streets. Part of the goal of the new code is to create flexible structures that lend themselves to a range of uses, from manufacturing and storage to office to residential reuse. With this in mind, the issues of daylighting and environmental response are incorporated into the code to ensure maximum benefits and minimum losses in each of the structures. Furthermore, each of these buildings must be responsive to the makeup of the neighborhoods in which they are situated. No longer can we allow industry to dominate over the individual’s needs for safe housing. The buildings must respond to both the urban fabric and the neighborhood pattern, in scale and in typology.
As it stands today, the Arsenal Terminal Building occupies one of the most prominent positions in Lawrenceville, sitting as it does at the Washington Crossing Bridge and Butler Street. The site extends both up the hill towards Bloomfield and down across the "flats" to the Allegheny River, suggesting a way of interrelating the different geographical areas of the neighborhood. The buildings of the site also offer a fine opportunity for reuse as a new public facility.
The Arsenal Terminal site is developed with the new adjacent NASA and Carnegie Mellon University Robotics Center in mind, as well as the links with the surrounding community functions. At the water's edge, the "Arsenal Terminal" is a medium scale wharf that provides public transportation via the Three Rivers Water Shuttle, connecting the newly developed technology and research facilities to the different areas of the Pittsburgh community. The Arsenal Terminal includes space for ticket sales, waiting area and restaurant, as well as central management offices. Further up from the water, sites are designated for medium density development in the form of support services such as copy & print centers, office space, and dining opportunities. A water oriented community center serves as a link to the residential community and offers boating, swimming and educational opportunities which work to create a much needed link to the river through the community. Additional public transportation connections can be made at the intersection with Railroad Street or further up at Butler Street, where regular PAT bus services passes. Parking for commuters coming from Lawrenceville and the surrounding areas is provided to between the Washington Crossing Bridge and 41st Street.
The existing buildings on the Arsenal Terminal site are developed into an "Industrial Exposition Center" and the Arsenal Market, a market house style commercial development. The Industrial Exposition Center will host exhibitions and conferences dealing with goods and resources produced in the Pittsburgh region, as well as serve as a historical museum of the Industrial Heritage of the city and of Lawrenceville. The Arsenal Market will provide a new "home" for small scale sale of foods and goods that are locally produced. The stalls of the market house could also be utilized by larger local vendors who desire to reach a greater clientele that their current locations allow for, yet without out the risk of over expansion. Many of the businesses currently located in the Strip District could easily operate an additional small scale shop in this location without being a financially unfeasible burden. Furthermore, as an "incubator" style venture, the small shops can share the heavier costs of equipment such as refrigeration units, copiers and even computer inventory systems, and can serve as a jumping off point for commercial ventures that may later expand beyond the confines of the site as they begin to maintain a steady community clientele.

With these two major development projects, there will be an increase of accessibility to the surrounding sites and hence an increased interest in the area as a cost effective alternative to locating offices and research in Downtown or the suburbs. This will generate both revenue and jobs in the community and help to sponsor further residential growth as people see Lawrenceville as a viable alternative to the suburbs, as it provides the positive amenities of both the urban and the suburban environments.

Figure 18: The interior of the proposed Industrial Exposition Center makes use of the existing shell of the warehouse building.

Figure 19: The section and elevation of the Arsenal Market illustrates the spatial qualities of the existing building that make it easily adaptable to new uses.
Figure 20: The plan for the 62nd Street Bridge area provides access to both the riverfront and the new sporting facilities. Surface parking is provided, as well as access to public transportation in the form of buses and the new water shuttle service. Changes in current traffic patterns ensure safety in crossing from residential areas.

Figure 20: Plan of 62nd Street Bridge area
The area immediately surrounding the 62nd Street Bridge serves as a key portal into Lawrenceville, yet is one of the least defined areas of the neighborhood. There is a distinct lack of visible clues as to the definition of boundary at this site and also a sense of abandonment in both the industrial and commercial buildings. There is very little indication that the area below to the east of the bridge is home to a small yet thriving industrial marina, and it lacks the links between the industrial traffic and the scale of the individual.

In order to increase the definition of this portal, as well as to enhance the existing features of the waterfront access, a new marina is added to include public access and a new indoor arena makes use of the existing warehouse buildings. These serve not only the Lawrenceville community, but the Pittsburgh region as a whole. With the strong emphasis on sports and recreation that exists in Pittsburgh, these new developments will be used by a large cross section of the region’s population and introduce new faces to Lawrenceville. Furthermore, the supporting businesses that accompany such a complex (i.e. laundry services, equipment rental and sale, marine suppliers) will provide local jobs, both full and part-time. The combination of these two public facilities brings a new type of economic base which can help to further the resources of the area and make it more attractive to both current and potential residents.
Urbanism Begins
Rich Hollibough • Sallyann Kluz • Julie Paul • Kristi Rogers

Figure 21: Marina Perspective

Figure 22: "New" Sports Facilities
The majority of the "new" development will be in the form of adaptive reuse of existing buildings. Parking will be provided, as will regular bus service connecting to the Greater Pittsburgh region. With the advent of the Three Rivers Water Shuttle, hassle free connections can be made with the South Side, North Side, Downtown, and Lower Lawrenceville. This will in turn promote the facilities' potential to host events that are not serviced by Three River Stadium, such as track & field and soccer, as well as water based events including sailing and crew. With the recent growth of interest in these sports, there is a high demand for the appropriate facilities which are not provided elsewhere in the city. Thus, this is a key opportunity to both address the needs of the larger community and the specific community of Lawrenceville.
Lawrenceville presents a unique situation in regards to urban green spaces. Due to its configuration along the river’s edge, it has a great deal of natural plant life in addition to the green spaces that have been designated by the city. However, up until recently, most of that space has been inaccessible due to the industrial development on the banks of the Allegheny.

By making the most of the reservoir of natural elements, Lawrenceville becomes a unique jewel in the city - an urban garden - providing the best of both worlds. It is not necessary to "construct" new green spaces in the area, but rather to manage and care for those which already exist. The River Front Walk & Bicycle Path runs along the Allegheny and is seeded with wildflowers native to Western Pennsylvania such as trillium and cornflower. Such planting programs are unique in the urban environment and are extremely low maintenance, as the plants will regenerate each year without care from City Parks crews. They also provide a learning experience to the residents of the urban environment who would otherwise rarely come in contact with the region’s native flora and fauna.

Figure 24: The River Front Walk & Bicycle Path

Figure 25: The new Community Education & Visitors’ Center at Allegheny Cemetery
By exploiting the richness of the existing natural conditions of the Cemetery, the green space of Lawrenceville is effectively expanded without huge demands on labor and new resources. This is achieved through the augmentation of the planting vision of the Cemetery to include botanical and arboretum facilities. The existing Conservatory is also enlarged in a later phase in order to service both the grounds and the community in the capacity of a nursery and greenhouse. The current Maintenance Complex is relocated to a site further into the Cemetery along the northeastern boundaries and the existing buildings along Butler Street are renovated for use as a Community Educational Center, which focuses on a combination of natural and local history, as well as a Visitor's Center. The Cemetery Archives are also relocated to this site to further enhance the "user friendly" atmosphere.

The Allegheny Cemetery represents one of the most under utilized resources in Lawrenceville. With over four hundred acres of land, it is the home to much of the locally indigenous wildlife and flora as well as area history, yet receives little to no attention from the community. The Cemetery is viewed as a pathway rather than as a destination. Its Butler Street gates are treated as exits rather than as entrances, with the Penn Avenue gate considered by most to be the "main" entry, thus removing the Cemetery from the surrounding context of Lawrenceville.

Figure 26: The Cemetery Edge at Butler Street

Figure 26: The plan of the Butler Street edge of the Cemetery indicates some of the changes in organization, including the location of the new Community Education & Visitors' Center, Cemetery Archives (A), renovated offices for a branch of the Western Pennsylvania Historical Society (B) and new parking located outside of the gates (C). Further improvements include the extension of the planting program to include both sides of Butler Street and the continuation of the iron fence in place of the existing stone wall along the Maintenance Complex boundary.
UBWU’s approach to housing in Lawrenceville is split up into three categories: low impact, medium impact, and high impact. It is our feeling that much of the housing in Lawrenceville is healthy and that the character of community is strong. There are certain areas and individual cases where renovation is needed, however, but a large scale intervention is not feasible. To address this, we encourage the use of government grants to individual homeowners who wish to renovate their homes, or to new owners who wish to invest in real estate in Lawrenceville. Such programs are currently in place, but citizens need to be guided as to how to take advantage of them. We recommend that an office be established to handle information networking that can be made available for home owners and renters throughout the Lawrenceville and Greater Pittsburgh region. This can be run in the form of a database available through the library system in order to maximize the awareness and availability of the programs.

In selected areas UBWU proposes street treatments such as tree lining the sidewalks and cobblestone or brick paving the crosswalks. This adds a variety of textures that help to define the different zones of the street. It is our intention that this program can be more widespread as further funding becomes available. Simple “medium impact” measures like these help to make the pedes-

UBWU Begins With Urbanism

Figure 27: Butler Street Housing

Figure 28: Housing Development at 43rd & 44th Streets

Figure 29: Section through New Housing
urban experience more pleasurable, thus encouraging people to walk through their neighborhoods more, which in turn increases safety and a feeling of community. These steps can be taken in the first phase of intervention and continue into the future.

In the second and third phases of our masterplan for Lawrenceville, UBWW proposes the construction of new homes extending in "pockets" from existing housing blocks towards the river. The housing ranges from low to upper-middle income levels in hopes to encourage both growth and diversity among the residents, which will in turn promote the opportunities of the commercial district and the necessary tax-base that is required to gain financial credibility within the city. The first wave of this housing grows from the two blocks between 43rd and 44th Streets, flanking the new Lawrenceville Vocational High School at the former Heppenstall Plant, which is also included in the second and third phases of planning. These homes maintain the proportions and characteristics of traditional Lawrenceville homes, with emphasis on street level entries and communication with the space of the public realm in the front of the homes.

Perhaps the largest intervention in the residential areas is the redevelopment of the Heppenstall Plant into the new Lawrenceville Vocational High School. The school contains all the amenities of the traditional high school with an added emphasis on vocational and technical skills which can aid the members of the community in the transition from an industrial society into an information society. Classes are run for both regular high school age students as well as adults, and will cover skills ranging from computer work to the working trades such as mechanics and repair. Furthermore, the school will house all local high school age students who are pursuing a more "traditional" high school diploma. Athletic facilities will host both school competitions and local teams, instilling a new sense of community in the residents of the area.
Lawrenceville, like many neighborhoods in American cities, experienced its greatest growth during the industrial era of the nineteenth century. The twentieth century has brought economic decline and social change that challenge us to "reinvent" the neighborhood—that is, to rethink its physical character and how it will contribute to the future viability of the neighborhood. The Ledewitz studio project focused on a comprehensive urban design plan for the entire neighborhood of Lawrenceville. The studio consisted of six design teams. Each team addressed the issues in their own way, formulating six separate visions for the future of the neighborhood. Recommendations for the community ranged from a marina to a regional entertainment center. Common parameters among all of the design teams were the issues of industrial development, service access, riverfront access, commercial activity, new housing, work/home relationships, education, regional links, and public space.
The pride and deep rooted tradition of manufacturing and crafting that the people of Lawrenceville possess guided this proposal. The new identity of the community will be based on connections between the old and the new, between work and home, between traditional craftsmanship and artistry, between the pedestrian and the public space. The proposed new amenities—the marina, school complex, neighborhood commercial center, and artist marketplace—are linked and balanced upon the idea of recycling as art and recycling as industry. The majority of the intervention area is dedicated to production, allowing the new community to sustain itself.
The scheme relies on tying the different places and activities of the community together. The areas of intervention carefully interweave the old with the new. While some new buildings have been created, in many instances existing structures were reused, and the spaces around the structures were redesigned.

**Neighborhood Proposal**

The area of intervention is concentrated in the heart of the urban fabric of Lawrenceville, both physically and historically. The proposed interventions will occupy a large amount of land, the majority of which will be dedicated to production uses. New industries will occupy unused land and vacant buildings along the waterfront. These industries will produce environmental building materials, recycle and disassemble products for reuse, and most importantly provide jobs for the community.

The rhythm of the existing buildings is maintained, and even accentuated, in most areas.
New factories and offices will produce wages and taxes which will fund a riverfront development. It will include a marina, a waterfront walkway, and a bike path extending the length of the neighborhood. In addition to creating some new commercial space on axis with the marina, we have relocated some of the existing services, such as the Giant Eagle and the Rite Aid, to a new building which incorporates some existing buildings. In the block between this commercial center and Butler Street, a public services building complex will include a post office, a bank, and professional offices.

A new road replaces the now infrequently used railroad tracks that once serviced the riverfront industrial sites. The road will offer easier truck access to the sites, encouraging new uses by the recycling industries.

Visual connections and pedestrian relationships were created throughout the neighborhood wherever possible, linking the activities of Butler Street and the residential areas to the waterfront.
RAFTING LAWRENCEVILLE

Urban Fabric
Diffusing the activities of everyday life into the neighborhood and interweaving the various types of activities—the marina, residential areas, offices, and commercial services strengthens the urban fabric and legibility of the neighborhood.

The Lawrenceville Marina will include docks, boat chartering services, winter boat storage, and support services. Restaurants, shops, a nightclub, and recreational green space will line the edge of the water, attracting people from the waterfront walking and bike paths. An amphitheater will end the trellised pedestrian walkway stretching from Butler Street to this entertainment area. Housing and office space will border the marina, creating 24-hour activities.
A new school complex will occupy the site of the Arsenal Warehouse, relating to the Arsenal Junior High across the street as well as the adjacent trade school. The schools will offer classes specializing in recycling arts or the recycling industry to help prepare students for jobs in the proposed new community industries. The spaces of the school complex have been planned in such a way as to form a small community for the students, which Lawrenceville currently lacks. A stadium complex will tie into the other recreational activities along the waterfront walk, and will be linked to the school complex by a pedestrian bridge over the new access road.

Proposed school community plan creating a relationship between the Arsenal Junior High and the waterfront recreational activities.
The introduction of these new uses into the neighborhood will stimulate growth and will encourage Lawrenceville to interact regionally in every respect: as an entertainment center, a revived residential community, a more professionally oriented business base, and a historical center in the city of Pittsburgh.

The Artist Marketplace will be located in a part of the old Heppensall Steel Plant near the waterfront. The many buildings on the site afford large open spaces and easy access. The spaces will be divided into studios, galleries, and studio apartments. The marketplace will be open to the public, allowing artists to easily sell their work from their studios. In addition to the studios and galleries, there will be some areas restricted to the public where the artists would go for solitude to work or to conduct their financial business. The marketplace will give preference to artists practicing traditional crafts of the Pittsburgh area, such as ornamental steel work or stained glass crafting, as well as artists working with found objects or recycled materials. In this sense, a connection between the industry and the artistry of the area will encourage these new uses to interact and support each other.
Lawrenceville: Regional and Local Changes

CONSERVATION and INTERVENTION
In Lawrenceville, there exists important blocks of residential housing, commercial sites, and large industrial sites. Therefore, any improvements must be sensitive to the urban fabric. In almost all cases the proposed changes are gradual and involve the use of existing buildings through remodeling and reuse. Only in areas where few structures exist are major pieces of intervention proposed.

Pittsburgh is a city created of small neighborhoods, each linked through an infrastructure that was established as they expanded. However, as the neighborhoods increased in size, the infrastructure did not. To improve Pittsburgh and help the small neighborhoods in the area, an expanded transportation infrastructure must be created.

This expanded transportation network will allow for the residents of small neighborhoods such as Lawrenceville to be able to travel throughout Pittsburgh easily for both business and pleasure.
Lawrenceville: Design Analysis

To begin to ease the congestion that has become expected in Pittsburgh, a series of additions to the existing mass transit system are recommended. First, the South Hills subway will be extended from downtown Pittsburgh to the end of Lawrenceville. This will allow riders to travel from the South Side to the North Side with relative ease. Also, the Con-Rail line that crosses over the Allegheny River at Thirty-third Street will serve as a perpendicular mass transit right of way that connects the North Hills to the South Side. This crossing of major transit ways will create a major hub of activity in lower Lawrenceville. A new road designed for automobile and pedestrian use will be built parallel to the grade level extension of the South Hills subway in Lawrenceville. By adding more crosswalks, stop lights, and stop signs on Butler Street, it will become more pedestrian friendly. With the implementation of these changes, trucks that use Butler Street heading south into the Strip District will be encouraged to instead use Route Twenty-eight across the river.

Within Lawrenceville, areas of both consumption and production are important. Although the industry that was once a dominant part of the community no longer exists, large tracts of industrial land still remain. This land is now available for use by new production facilities, to continue employing the residents of the area. Commercial and retail businesses are also needed in Lawrenceville to support the transit riders of the area, and the growing work force.
Lawrenceville: Regional Transportation Hub

Plan view of the regional transit facility, including intersecting railways and two storey transit station, bus terminal, and taxi stop, above.

Axonometric view of the regional transit facility, right.
The intersection of the existing Thirty-Third Street bridge rail line and the Con-Rail lines provide an ideal place for a transit intervention. The right of ways and the infrastructure for rail already exist. Also, much of the land in the immediate vicinity is not being used, providing ample space for a large development.

The intersection of the two new major regional transit ways in lower Lawrenceville will create a large hub of activity. This will improve the value of the land immediately adjacent to the transit development. The development will allow for rail transit, bus transit, automobile transit, and pedestrians to intermix and begin to streamline the routes of travel within the city. A two storey rail station serving the north-south route above, and the east-west route below, allows passengers to change modes of transportation and still remain protected from the outside elements. Short commutes from the rail station are served by busses and taxis found at the adjacent ground transportation stops located in the same structure.
Lower Lawrenceville is suited well as a focal point for the Pittsburgh region if the transportation intervention is successful. With an efficient way of transporting large volumes of people to and from the site in all directions, a regional attraction can be created.

Lawrenceville: Regional Production

A regional attraction proposed for lower Lawrenceville is a movie production center, composed of sound stages, office buildings, production facilities, and storage warehouses. This area would become a regional tourist attraction where people would come to receive tours of the facility, meet their favorite stars, and eat in the production area commissary. A large scale museum focusing on the history of the movie industry in Pittsburgh would be established. Other attractions that will draw regional tourists include a large scale theater, where sneak preview screenings of pictures can be seen, an amphitheater for live productions, and a hotel to host both the talent and out of town visitors.
Lawrenceville: Local Production / Consumption

At the local level, another proposed intervention will solidify the local image of the community. The local industries will be encouraged to expand and revitalize their properties between Forty-Sixth Street and Fiftieth Street. This area will be served by a stop on the express subway, with an at grade station in the heart of this industrial intervention. Along with the transit stop, the scale of the streets and open courtyards between the buildings will encourage pedestrians to travel through the area. The development of local commerce will support the employees of the businesses in the area at all hours of the day. These pedestrian friendly spaces will lead out to the waterfront where a trail will be created for the leisure and fitness of people in the area.
New residential housing built from Forty-Fourth Street to Forty-Sixth Street allows a strong residential community to extend to the Allegheny River.

In this scheme, Lawrenceville's residential community is given the opportunity to expand to the riverfront. The addition of a small amount of housing is proposed, which is served by both a nearby rail station and a riverfront walk. These amenities are important for the people who will live in the neighborhood, but also for the whole of Lawrenceville. With their backyards on the river, these people will more likely claim the riverfront as part of their community, and keep it aesthetically pleasing. This will create safe places on the river’s edge allowing for the success of the riverfront walk.
INTRODUCTION
As many of you already know, Lawrenceville has a large elderly population, a declining commercial strip, and remnants of an industrial park. Our goal for Lawrenceville is to make it come alive by introducing a variety of "recreational systems". Instead of being a remote community or a truck thoroughfare, we envision it to be an exciting area that will attract people from all over Pittsburgh. We also want to provide for environmental and economic improvements by attracting "green" business and a larger younger population.
Every year, more Americans have an increase in leisure time due to the changing nature of work. Why spend countless hours and hundreds of dollars to get to state parks that are overused and in constant need of repair? Instead, the Allegheny River bordering Lawrenceville can be transformed into a place where we can launch boats, fish, and play water sports. It will become an environment that brings people together.
Our first recreational system is the introduction of a marina with all the major amenities. It would be open for public use so that everyone could enjoy the water, the river walk, the docks, the ferry, and the various restaurants and shopping areas it would provide.

The new marina will contain many recreational facilities, including a comedy club, restaurant bars, free-lance entertainers, and an area for small musical concerts. There will also be outdoor cafes, candy stores, and a video arcade, designated for the children. These activities added to the marina will make Lawrenceville a prime location for new enterprises.
Some recreational facilities that will complement the Marina.

To accompany the marina, we would like to introduce a Water Research Center, an aquarium, office space, the possibility for a ferry and shopping. Restaurants, and other amenities will follow as the marina increases in popularity and starts generating revenue.

WATER RESEARCH CENTER
The shopping district will have easy pedestrian access. For aesthetic purposes, parking on the interior of the site will be beautified with flower gardens and trees, keeping uniform street fronts.

*Perspective of outside roller blading area.*

*Ice skating and roller blading rink plan and elevation.*
We are creating an ambience for the local community with the introduction of benches and trees. A place is created where people can linger, socialize, and rest from a long day of shopping; maybe even a place where two friends could meet for an outing.

We hope to disperse the traffic on Butler Street with the addition of a new road, Marina Drive. Large vehicles will be using Marina Drive the most because of its direct access to the industrial zone of Lawrenceville. The traffic speed will be reduced to increase pedestrian safety along Butler Street by introducing street lights, planters, and crosswalks. With the help of local subsidies, the storefronts will be renovated like those pictured above.
The new sidewalks will offer the local vendors and craftsmen the opportunity to sell their goods along Butler Street. By treating the other neighborhood streets similarly, we are inviting the people of Pittsburgh to take these paths to and throughout Lawrenceville. All in all, Butler Street will become an exemplary pedestrian shopping center.
A set of regulations were made for the industry, to ensure that they complement the neighboring buildings, their adjacent uses, and maintain a sensitivity to the scale of the neighborhood. Some examples of these regulations are setbacks, height limitations, the articulation of the "fronts" and "backs" of buildings, and the placement of parking facilities. In addition, regulations concerning pollution control include exhaust levels, noise reduction, and waste management.

We are introducing new housing by the river walk and the marina for the enjoyment of Lawrenceville inhabitants.

Section of the river walk at the end of a typical neighborhood street. Allows the opportunity for both a bike route and a walking path.

Housing with walkway to the river.
INDUSTRIAL PLANNING CODE
• 20' set back on all street fronts.
• 45'-55' height limitations (scaled to surrounding buildings).
• To ensure the character of the street will remain at a pedestrian scale, parking must be placed away from all major streets.
• Any potential investors must integrate their buildings into the existing urban fabric.
• Parking must comply to employee density by workspace.
Lawrenceville is currently facing hard times. Since the collapse of the steel industry, Lawrenceville has experienced a constant decline in population, along with an increase in its median age. Large areas of abandoned manufacturing plants and the absence of new visionary enterprises, has left many of the younger population with few choices but to search for employment outside of Lawrenceville; but Lawrenceville is not about past dreams.

This neighborhood's potential lies in its good housing stock, good commercial streets, industrial flat­land, and wonderful river edge. But most importantly its heritage, preserved by its multigenerational community. This is what has helped Lawrenceville survive tough times, and what made it possible for us to formulate the new Lawrenceville Area Network.

Key to the revival of Lawrenceville is the generation of employment. Current trends indicate that high technology industries, as well as material recycling and other green industries are growing in number, and already choosing to locate in the Pittsburgh region.
The question is, how are we to convince these new industries to choose to locate in Lawrenceville?

The way is to introduce a catalyst which will be appealing to these new high technology industries. It is a fact that almost all of these industries and research labs seek affiliations with higher education facilities. In order to keep up to date on the latest technology, and to share facilities and personnel.

This is why we propose that Lawrenceville be the site of a partnership between higher education employee retraining facilities, and the high technology industry market.

We envision this program starting as a small scale commitment between major high technology corporations, and several of the higher education institutions already located in Pittsburgh. Corporations would be offered favorable incentives to purchase land and locate their industries here in exchange for support for the development of the educational and retraining facilities on adjacent property in Lawrenceville. This will give these new enterprises access to technologically advanced information and a well trained labor force, with the capability to stay at the forefront of their field.
NEW STREET ("SPINE")
As more corporations start to see the advantages of having employee retraining, shared research facilities, ample industrial lots, an urban atmosphere, and many other opportunities, they will want to locate in Lawrenceville.

Our concept is to create a "spine" of interrelated educational facilities, which are interconnected with the high technology industries and throughout Lawrenceville. A central facility, located across the Arsenal Middle School, will be the heart of the educational facility network. It will house larger conference centers, a centralized facility management, and several basic services like cafeterias, supply stores, offices, and exercise facilities for the student body, and the new industries.

The cooperation between education and retraining facilities with Pittsburgh's local universities, world known corporations, and these new high technology industries will mend the network between local Lawrenceville and the Pittsburgh region, by offering its services as an employer, a work force pool, a retraining center, and as a recreational area for environmental awareness and enjoyment; but all of this doesn't stop here.
In order to alleviate most of the busy vehicular traffic as well as the heavier truck traffic from Butler St., we propose a new street which would connect to Smallman St. in lower Lawrenceville and join Butler St. in upper most Lawrenceville. This street will serve as the "spine" for most of the educational facilities and new industries. We also suggest a new bridge across the Allegheny River to route 28, starting at the intersection of the "spine" with 51st Street.

We propose the physical and visual extension of the current street network up to the rivers edge, where a pleasant river walk reclaims a natural asset of Lawrenceville. We propose to improve several of the streets perpendicular to the river by introducing feature areas at the river's edge. Adding greenery to the streets all the way to Butler St. creates clearer vistas and cognitive connections between Lawrenceville's community and the river.
A medium size marina between 49 and 51 streets next to a commercial and professional office area, would serve as another catalyst for the recreational aspects in the neighborhood. New housing units next to this area will serve a particular market composed of local workers, researchers, managers, and executives which will be eager to participate and venture into the new high technology industries.

In order to keep these new industrial, commercial, and residential areas as urban as possible we are extending the existing street network and created a set of building code guidelines. These guidelines will help preserve and extend a consistent facade and street-scape density through a set of building restrictions which will regulate their footprints, heights, and setbacks, to help create a stronger private and public space all the way up to the river’s edge. The space along the edge will be preserved by a 50 feet green buffer strip river walk along most of the new developed area.
Through all these proposed actions we hope to link Lawrenceville’s Area Network to:

...the whole of Pittsburgh
...its heritage
...its river
...its people

...as well as with...

...the high technology industries...
...and...
...the higher education facilities of Pittsburgh, the USA, and the rest of the world.

It is Lawrenceville Networking between the past, the present, and its future!
Lawrenceville is strengthened as a community by linking those areas which currently serve as social barriers by forming places. These new places are characterized by large gathering spaces which occur at the intersections of major pedestrian and vehicular traffic. They are flanked by areas of well maintained production facilities, pleasant residential neighborhoods, and commercial strips. Because of the interaction between these existing areas, these new public spaces will be abundant with activity and ideal for the development of programmed large scale gatherings.
The Recreational center in the eastern area would provide services such as a day care center, athletic facilities, playground space for young and old alike, trails for walking, jogging, or bicycling, as well as a myriad of self help classes. With all the activity that this center could offer, it seems an ideal magnet to draw the people of Lawrenceville to one location where they can interact and communicate with one another on a regular basis.

Along with the activity sparked by the community center, the newly added residential areas provide pleasant, tree-lined vistas to the Allegheny River. Whether it be for a casual stroll or to partake in aquatic sports, these streets contribute to a growing, more diverse, integrated Lawrenceville community.
The diagram of the east end intervention, which serves as a link between upper and central Lawrenceville, shows a main gathering space and a community center. It is linked to the river by vistas created by a new residential area.

*Perspective of community center in eastern development*
The Market Place in the western area not only offers a place for the community to purchase fresh produce, meat products, flower arrangements, and local arts and crafts, but it also provides an area for members of the community to wonder and observe. The pedestrian scale elements that are used to define the space give its users places to sit and relax and enjoy their purchases, or simply observe the abundance of activity. Within walking distance of the highly populated market is yet another link to the Allegheny River – a Marina. At the Marina you will find old men fishing off the pier, joggers running through the park, boats launching into the river, and fishing boats delivering their fresh catch to the market.

The diagram of the west end intervention, which acts as a link between Lower and Central Lawrenceville, shows the major intersection of Butler and 40th. This area of intervention contains a large scale gathering place and a Market which serves as the center of activity from the extension of the Strip District streets to the riverfront Marina.
By exploring both the pedestrian scale and the regional importance of a market and marina, a kit of parts is formed that will define the urban area of the market as well as break up the open outdoor spaces that can be used for local events. These parts will be combinations of small elements into larger islands. These elements are large enough to define places around them, and work together to define the urban area as a whole. Together they provide a richness of texture and experiential value. These parts will then extend away from the immediate area of the market down the new Smallman Street and also along Butler. This market area becomes the most important area within the master plan because of its local and regional significance.
Lawrenceville, characterized by the nature of the land and specific landmarks, is inherently divided into three sections: lower, central, and upper. The character of the Strip District mingles with the built landscape of lower Lawrenceville. The Arsenal and the 40th street bridge are both landmarks and boundaries between lower and central Lawrenceville. The cemetery strictly separates the central and upper regions of the neighborhood. These distinct boundaries disrupt the coherency of the neighborhood as a whole.

Therefore, it is necessary to strengthen the individual parts in order to strengthen Lawrenceville as a whole. Although the three sections are physically connected by the spine of the city and the river, our proposal is focused towards the creation of centers. The centers in turn will strengthen the mental links, unifying the three areas of Lawrenceville.
Lawrenceville has distinct topographical characteristics that shape the area: the river and the slopes. In the industrial era, the factories lined the river-front and the residences were either on the flats adjacent to the factories or on the slopes. Movement was perpendicular to the river. Now, in the absence of river dependent industry, the major movement runs parallel to the river, through the major commercial area, Butler Street.

In order to bring movement towards the river, we propose to conceptually link the three centers located on Butler Street to the riverfront. Reclaiming the river for leisure and recreational uses, the river walk will run through Lawrenceville and possibly to downtown. A new street near the river will ease the traffic flow on Butler Street.

The centers along Butler Street provide the residences with public gathering spaces as well as community services: educational, medical, and social services. Each of the centers has a satellite along the river catering to both the research development and manufacturing industries, as well as opportunities for neighborhood/community interaction.
Lower Lawrenceville-Butler Street / 37th Street (proposed)
As the pedestrian walks towards the river, with the Butler street activity left behind, the entertainment area begins to unfold. Areas of retrofitted buildings, dispersed within new construction, hold both offices and retail shops. A state of the art theater and movie house highlight the evening's activities. A sculpture garden and landscape invite the visitor down towards the river to find an amphitheater for outdoor performances. In addition, boat docks can allow for easy access to shuttle boats and sight-seeing cruises to the downtown area.

The industrial buildings in this area have been altered to fit educational satellites and teaching facilities. As universities and vo-tech schools begin to grow possible locations in Lower Lawrenceville will be available.

LOWER LAWRENCEVILLE

In greater detail, Lower Lawrenceville's community center is located near Doughboy Square on Butler Street, in attempts to define the entrance into the city. This community center will focus on academic and career services and counseling. The continuing building typology of the strip district, provides potential for larger facilities to inhabit this area. These facilities will relate to extracurricular vocational and technical programs and training spaces for specialized industries.
CENTRAL LAWRENCEVILLE

St. Francis Medical Center is a perceptual landmark on central Lawrenceville's landscape. It provides an excellent opportunity to create a conceptual link for a community medical center along the same axis—44th street. The community medical center located along Butler Street will provide counseling and intermediate medical care. Experimental testing spaces can also be located here for the medical related research and development industries by the riverfront. This center provides semi-public gathering spaces off of Butler Street allowing the pedestrians to remove themselves from the more vehicular areas. The generous sidewalk allows for pedestrians to wait for the central bus line along Butler Street.

Boardwalks, docks, community gardens, and mixed-use incubator building spaces will provide the people of Lawrenceville social, leisure, and economic interaction by the riverfront. The intent of the incubator/mixed use buildings is to provide the people of Lawrenceville with jobs supporting the highly specialized industries. These industries will relate to the medical research field and allow for easy expansion and change. The industries will be required to have privately maintained areas for public use.
Here, many new buildings are required to fill the void of used car lots and condemned buildings. The character will be similar to the rest of Butler Street, however, its use will be geared towards a social service type. The new buildings will house community run counselling programs, such as drug/alcohol abuse, personal safety, cooperative day care facilities or after school programs. The social setting requires both indoor and outdoor gathering spaces, meeting rooms, and information centers.

A refined McCandless Street towards the river will allow pedestrians and vehicles access to the mixed use development and to the new street paralleling Butler. The housing types will be higher end condominiums allowing individuality of facades, plantings, and styles. The emphasis will be on riverfront living with boat slips and landings for easy river access. The future expansion will be possible in both directions by limiting land uses to residential or light commercial only.

The industrial sites surrounding this area will be limited to environmental research and development facilities to promote green industries in this newer developing area. The industries along the river will be required to maintain the river walk and provide appropriate landscaping to soften the hard edges of the buildings around this naturally green area.

Lastly, Upper Lawrenceville has its center located at the corner of Butler Street and McCandless Street. Here, many new buildings are required to fill the void of used car lots and condemned buildings. The character will be similar to the rest of Butler Street, however, its use will be geared towards a social service type. The new buildings will house community run counselling programs, such as drug/alcohol abuse, personal safety, cooperative day care facilities or after school programs. The social setting requires both indoor and outdoor gathering spaces, meeting rooms, and information centers.
We believe there is a lack of interest, or perhaps, unawareness of the complex nature of cities. The layers of perception which create the fabric of life in a city we define in three particular levels: perceptual level, visual level, and the behavioral level. We believe the conflict of individual designers and the resulting compromise, juxtaposition and dialogue of interests begin the true process of sophisticated design. It was the mistake of past urbanists who ignored the fact that the perceptual fact enhanced and created by the visual sense is changed by the behavioral typology en existence. Thus, taking the existent typological layers and designing within, creating within them new layers, we believe is the key to sustainability.
Vision for Lawrenceville

Every city is made up of communities that work in a cohesive manner to function as a whole. Much like an organism, when certain particular parts begin to deteriorate, it suffers as a whole. There is an interactive network within the parts of the city which cannot subsist when a link is broken off.

In the history of the Pittsburgh area, indeed in the entire Southwestern region of Pennsylvania, Lawrenceville has been a vital node. The economic rise of Pittsburgh began with the steel industry centered around Lawrenceville. The town's formation was established around the industrial strip along the Allegheny river. Thus the residential area, characterized by the sloping hills, spawned the growth of commercial industries, which confirmed its status as a crucial community to Pittsburgh. However, with the wane of the steel manufacturing industry, this link began to show decay, inevitably showing the vulnerability of unsustainable economies.

Today, the remains of what was once a thriving community lies in economic despair. The people of the community are at a loss of direction. With the disappearance of the industries there is no foreseeable future for the town. The existing conditions become unacceptable for a viable part of the Pittsburgh community.

- Within the context of Pittsburgh, the housing situation in Lawrenceville is severely under-utilized. In its deteriorated state, it inadequately provides for future population influx.

- Suburbs which drain the city of its resources result in the downfall of inner cities like Lawrenceville. Therefore cities need to protect its core in order to retain its life.

- Lawrenceville lacks identity within the city, it is perceptually ignored in people's minds, as a result interaction with the city at large is lost.

- Nothing has been found to replace the huge industrial gap, which actually comprises 51% of the Enterprise Zone of Pittsburgh. Though a few industries remain, the vast majority of space is wasted.

- Historically, Lawrenceville has had a direct relationship with the residential hill and the industrial riverfront by way of a main artery, Butler St., and streets that are perpendicular to it. In the beginning, pedestrian movement heavily supported this pattern. However, today's defunct industry obviates this.

The role of Urban Design is the critical process of the generation of the quality of a human urban environment. The infrastructure of a sustainable city requires physical, economic, and social links within its varied parts. At the same time, the individual units must be independent to be able to be supportive of the whole. Revitalization is an urban investment if sustainability is the main goal. Its benefits include: reviving the urban core, community identity, enhancement of urban areas, growth of employment and a flexible economic infrastructure for the future. The following report compiled by this Urban Design Lab Studio will propose a vision of Lawrenceville as a thriv-
ing community and an independent link of Pittsburgh.

**Lawrenceville as part of city**

A reassessment of the existing conditions reveal that Lawrenceville is an isolated community. In the definition of a city in parts, this would entail the loss of the inter-relationship between microcosm and macrocosm. In order to redefine Lawrenceville's identity in this relationship as an integrated constituent of the city of Pittsburgh, there is need for physical, perceptual, and economic bonds to be restructured between the two adjuncts. These improvements will create a catalytic reaction, bringing about an evolution where both will develop a sustainable urban relationship. The following proposals can serve to strengthen the existing connections.

- **Mass Transit**: The new transit corridor connecting from downtown Pittsburgh to the outlying suburbs. A technologically advanced train system will allow flexibility of commute, local shifts and industrial transportation into the area located near the waterfront. The existing bus system (PAT) will be strengthened down Butler St. in order to connect the lower Lawrenceville residents to the train system. These two systems work in concert to support each other. This extension which will access the Strip, an already successful locale with its own character, can redirect the link from downtown to a new node of the city.

- **The RiverFront**: Redefining the natural edge of Lawrenceville as a new source of oppor-
Vision for Lawrenceville

tunities and incentives for creating a unique character of Pittsburgh such as housing, new industries, and places of recreation. Many of the proposals centers around this area to take advantage of this valuable resource, previously inaccessible.

- Housing: The potential use of the underutilized housing can be possible through the allocation of the URA funds. This could be perceived as highly attractive for an influx of new home investors in the community.

- The Perceptual System: The perceptual links between Lawrenceville and Pittsburgh include: Butler Street which connects to Penn Ave. starting the entrance and then the main artery of Lawrenceville; the street grid system overlapping the hidden codes of the city; the concept of the incubator and the enterprise zone; and the boundary conditions defined by Doughboy Square, 40th St Bridge, St Francis Hospital, the 61st St Bridge, and the new proposed bridge from Polish Hill to Lawrenceville.

Lawrenceville as an Independent Unit

To be a link which can be supportive, it is necessary to achieve independence in and of itself. Lawrenceville's history already implies that its character precludes a communal intimacy even within the different neighborhoods/wards.

Translating this as an inherent parameter for long-term development we can imply, then, that the challenge is to retain this cohesive nature of community and neighborhood by adapting a flexible attitude towards function and form. Remembering, always, that interdependence is still a crucial point in the justification of being independent; i.e., the presence of two identities denotes undeniable interdependence.

- Redefining the Ideas of Zoning: Clearly the failure of our present zoning system excludes itself from being considered valid in the design of the new environment. Lawrenceville can be the subject in the forefront of new designs for the, "New City." For this to be a valid prototype, it is necessary to redefine the idea of zoning. Our Studio argues for mixed-use: zoning sections inside of blocks in comparison to the concept of zoning by street. Zoning of sections imply that forms of the buildings, at the discretion of the architect, will determine use, rather than exclusion by function in a specific location. Zoning by street dictates the affordability of every lot to every function, implying also that all streets must have equal width and access. The zoning of blocks supports our vision of sustainable urban forms by allowing flexibility in a controlled manner for maximum growth environment.

- Foot Travel: Our goals for this system type includes a return to the idea of foot-travel. The increase of pedestrian circulation through access of work, daily needs, and commute to and from the home involves the overlapping of different environments into a synthesized behavior. This affords the incentive to the resident to be an active participant in the urban fabric. Which on the other hand creates reciprocal reactions from the support industries, like commercial and retail companies, to cater more to this new dynamic. Inherent in these goals is the concept of quality, the theory that craftsmanship in its execution of detail can instill an identity unique to that street, neighborhood, community, etc. This can physically define a place, while atmosphere, created as a byproduct of quality, brings with it the perceptual boundary of a place. Finally, the goal of atmosphere is realized through the behavior of people in such an environment.

- Responsibility of Industries: The abuse and neglect of previous industrial irresponsibility forces us to reckon with proposals that incorporate solutions to clean up the environment and to invite only those industries which are willing to take responsibility for its own actions. Our proposal of the incubator is an attempt to relieve the area of heavy industrial traffic. As the hub of industrial activity, it will consolidate truck traffic while providing a starting point for new industries to share common needs and facilities. In creating a sustainable urban environment, the new, Eco-Industries are the only options for heavy industries of the future here: industries which can utilize the waste from other industries; community effort recycling programs; renovating and reusing existing buildings; etc.. The biggest challenge, still, is for the people, themselves, to be more responsible and to care about the quality of their surroundings for the future generations.

The Vision continues...
Vision for Lawrenceville

In our role as urban designers in Lawrenceville, we have attempted to provide a vision. The lack of vision in the urban design of the past has resulted in the loss of communal identity and spirit. Our urban proposals will support dense built form and occupancy and the long-term management and maintenance of the public realm thereof. It was a mistake of the past to forget that in the life-cycle of a city we are merely temporary. Still, we can't ignore that our interventions today will program a sustainable history of the future. Our vision will continue.
"The dreams of a creative person are marked by a longing to construct an order that cannot be untaught - that is, an order of things that possesses a higher degree of reality than the tangible, visible reality around us. In order to fulfill this urge, the visionary has to embrace the world as he finds it and then reject it outright in his effort to fashion something new. He is at once a clear-sighted realist and a misty-eyed dreamer."

-k. r. eissler
Analysis

Butler Street

Butler Street is the most significant transportation spine within Lawrenceville. The historical context with monuments along the streets, and the streets significance as a border between residential and industry is kept with in the projects. New economic strength is concentrated in two areas of mixed-use development: from 40th St. to 47th St. and from Stanton to 52nd St., where we already can see economic stability. Monuments at the Arsenal and to the Allegheny Cemetery act as symbols for the entrance into these areas. These commercial areas are the primary support for the communities. From Stanton to 47th St., in the middle area of Butler, and between the two major commercial hubs, we find areas designed for the automobile, where the commercial foci concentrate on primarily vehicular uses.

Side streets are important to Butler Street. Certain perpendicular streets have been proposed to also serve certain commercial activities. These are not expected to detract from the commercial on Butler, but interact with Butler in creating more hidden and personal activities. These streets focus on activities of culture, education, and recreation. The commercial on the side streets immediately adjacent to Butler serve to support it, while as the street extends away the street serves the neighborhood. The analysis shows that 40th St. serves as an access road and bridge to the surrounding areas. 44th St., Main St.,
McCandless, and Stanton Avenue can also be used as access streets to the surrounding area.

Alan Mizuki

The Cemetery

Allegheny Cemetery is a significant element in the city of Pittsburgh. Its relationship to Schenley Park is defined in the city grid by a mirror effect.

The cemetery is the sixth oldest and third largest in the United States. Within the neighborhood, the cemetery serves as an urban park for residents. Unfortunately, the size of the cemetery separates the parts of Lawrenceville. This is due in part to the cemetery’s perceptual identity, which isn’t directly related to Lawrenceville. The area surrounding the cemetery should be developed with a clear focus on its relationship to the cemetery. Such a large and important object in the urban landscape should not be ignored. Also possible connections, particularly pedestrian, should be investigated in an attempt to better connect the cemetery with Lawrenceville and the river.

April Hsu
Connections to the City

This analysis exposes several issues. The proposal to reinforce the entry to Lawrenceville at Doughboy Square and the new connecting bridge from Polish Hill both point to the problem of boundary conditions in Lawrenceville. The ties that exist, aside from historical connections, become unclear when people recognize Allegheny Cemetery independently of Lawrenceville in which it is located. Similarly, St. Francis Hospital and the Pittsburgh Brewery are more symbolic of all of Pittsburgh. Butler Street's connection to Penn Avenue, the end of Smallman Street inside of Lawrenceville, and the visual entry into the downtown beneath the old railroad bridge before Doughboy Square are all recognized in the intimate relation between the Strip District, and further still to downtown, and Lawrenceville. Possible future links, including
a cable car between Polish hill and the river and a mass transit system, can perhaps obviate this by establishing an active link as well as a more recognizable visual memory.

Perhaps the strongest link can be generated by the idea of the Microcosm/Macrocosm. Historically, Lawrenceville was the microcosm of Pittsburgh. Pittsburgh's history is a reflection of the history of Lawrenceville. This process has now reversed. With the proposed renewal, Pittsburgh can follow the new history of Lawrenceville— in this event, Lawrenceville becomes the catalyst for the redevelopment of the whole of Pittsburgh.

Thomas Kim
**Areas of High Activity**

The primary areas of high activity are expected to include the Arsenal, Butler Street, and the open public spaces planned along the river. Activities such as shopping, eating, recreation, and gathering are proposed to occur in these areas. Night clubs, community service offices, residences, small industry, stores, restaurants, other activities have the potential for being located in these areas. Activity levels will fluctuate by time use and the events which occur in the spaces. Butler Street will likely maintain a relative amount of activity throughout the day with concentrations at Main St., 44th, and the Arsenal. In the evenings the use of Butler will wane, Whereas public spaces adjacent to the river will be most active in the afternoon and the weekends or during holiday festivities. Secondary areas of activity include the Revco on Butler Street, the area around the hospital, and the other small parks throughout the city.

**The Secondary Access Street**

This street will follow the existing rail corridor, and may include a mass transit system. The street will contain one of several typical characteristics. It is not intended as a replication of Butler street, as doing so would subvert the strength of its commercial uses. Any businesses on this street should be neighborhood specific and not a concentrated commercial area.

This street builds another connection to the city parallel to the river. It will serve new industrial areas with small truck traffic, supplementing a potential barge system. Non-local truck traffic will utilize the existing highway system. The existing bus system will be maintained on Butler Street. Additional mass transit can only be justified with extensive development of the riverfront and the overall community of Lawrenceville. The perpendicular crossings of the secondary street should be carefully considered as they are critical to the perceptual, visual, and behavioral access to the riverfront.
Industry

The position of industry within a concept of mixed-use urban form is critical. Its value is the potential for employment and income, the potential for a spirit of place which is infused with the vitality of production and the pride of making, and the potential for the economic stability of the place. Its traditional liabilities are disregard for ecological quality and the generation of nuisances for other users of public infrastructure, space, and amenities. These liabilities are the characteristics of industry which have led to the concept of zoning.

It is possible to overcome these liabilities; to require industrial development to adhere to common public standards of behavior and to curb consequent imposition on the rights of others, such that industrial use can coexist adjacent to and intermixed freely with any other use.

The consequences in specification of urban form are few. That urban form, which supports other uses within a mixed-use context can be expected also to support small and medium-sized industrial development; in addition, some larger corporations are currently tending to seek a campus-like urban workplace. Ordinary block sizes and typical access conditions are conducive to industrial development within mixed-use communities.
**Schools**

Education is vital in making an area sustainable. A quality education system will attract young families and larger businesses to a neighborhood. Companies carefully study the education system in prospective investment areas. Economist Tim McNulty pointed out that one major investor carefully analyzed the level of 3rd grade education before deciding to build research and development facilities in the Pittsburgh area.

In Lawrenceville, educational institutions are concentrated in areas near churches. Most of these institutions are community-oriented in the sense that they seem to have a well-defined sphere of local influence.

The ultimate goal of this strategic urban design intervention for the revitalization of Lawrenceville is sustainability. The successful integration of a quality educational systems plays a key role in attaining this goal. As shown by the proposed interventions there is a clear attempt to create new incentive to come to Lawrenceville. The projection of new residential neighborhoods, new industry, and new commercial districts to this community will not only increase its population, but also increase the demand for education. Any proposal for Lawrenceville should have a strategic plan for the integration of educational facilities. With the control and concentration of industrial access traffic the design of pedestrian oriented mixed-use neighborhoods can be possible. Educational facilities should be integrated into these at the user and dweller levels of Lawrenceville. In addition, they should have direct access to the proposed mass transit system and open spaces.

Joseph Kaps
Public/Mass Transportation: In and out of Lawrenceville

Currently the Pittsburgh region, and within it the district of Lawrenceville, is served by a number of mass transportation systems, all of which are linked to or come in overlapping contact with each other. It is our task, when planning an addition, to integrate the new system as completely as is warranted with the existing systems. A transit system would likely be dedicated mainly to work commuter traffic, but steps must be taken so that it serves the needs of shoppers, students, visitors, and social activities. A new system or a reworking of old systems for Lawrenceville has many possibilities of vehicles and pathways based on varieties of those presented below.

Airways: Greater Pittsburgh International—A 30 min. drive from downtown along west376, large airport handling passenger+freight traffic. The airport & 376 highway is also a major business node, spurring commercial and residential commuter traffic to the area as well as airport users.

Allegheny County Airport—A 20 min. drive from downtown, handling smaller passenger+ commercial freight traffic. Adjacent to major commercial center and residential communities. All surrounding counties also possess small airports, though most are not located in midst of such activity. Helicopter traffic is erratic but frequent between the region's major hospitals.

Railways: Pittsburgh Rail Terminal—located at the edge of downtown and strip districts, a 5 min. drive from Lawrenceville, serving interregional passenger + commercial freight traffic (Amtrak).

Relatedly, industrial freight runs usually directly to point of use (warehouse/ manufacturing) or to a point of transfer to another transit line such as truck or barge. Within Lawrenceville the industrial rail line runs parallel to the Allegheny, surrounded by warehouse/manufacturing establishments. Rail lines also run from here across the Allegheny and up 2 mile rim. A light rail transit is also in use in Pittsburgh which, although for the most part runs on its own dedicated path, is remarkably well integrated into the neighborhoods it serves.

Waterways: Heavily used for regional and interregional industrial transport, many industrial sites are linked to both rail and water systems. Underused for everyday commuter traffic, but well developed for specialized destination uses such as 3 rivers stadium traffic, sightseeing cruises and possibly future casinos. Small private leisure vessels comprise a large percentage of the traffic originating mainly from docks along the Allegheny.

Freeways: Aside from overcapacity of private commuter traffic, the Freeway system serves as trail for the freight trucking system and both regional (PAT) and interregional passen-
ger bus systems (Greyhound). The Greyhound station is located adjacent to the Amtrak terminal. The PAT busses use the Freeway system to get to and from suburbs, with the golden triangle Roadway system serving as a hub for this traffic. PAT buses also make use of the busways, which are stretches of freeway dedicated solely to public transit and allow the buses (and the light rail system) to avoid heavy traffic.

Roadway and Walkways: These two systems are tightly connected within Pittsburgh's urban and some nearby suburban areas. Like the freeways, they are overburdened with private commuter traffic even before considering public vehicles and truck freight traffic. For the most part, Pittsburgh's Roadway/walkway system is composed of two types of paths: the tenuous paths (Butler, Penn, Liberty) which connect neighborhood to neighborhood, most often following a river or streambed or on top of a ridge, and the net (Main, Plummer, 44th) of mostly residential streets that connect and form the neighborhoods themselves. PAT buses use the roadway system for most of their neighborhood traffic and occasionally the light rail line, complete with its support of overhead powerlines, runs on the city streets, an occurrence more common in the cities past than today.

Jesse Katrenic
The Riverfront

The current attitude towards the riverfront is the exploitation of the current enterprise zone. We believe this is too limited a view for Lawrenceville. Our recommendation is that, as in like other areas, the riverfront develop as mixed-use. Thus, industry, residential, and public spaces may be located at the river's edge.

We hope that this varied use at the river's edge will create a unique atmosphere in Lawrenceville that attracts people from throughout the city. Increased interaction at the riverfront and the improvement of the quality of the interaction with the river are the goals of our projects adjacent to the river. In order to create this friendlier riverfront, planners must diverge from the historic norm and not designate it for a singular use.

The proposed eco-industry located in Lawrenceville will be organized by a distribution center adjacent to the Robert Fleming Bridge. Industries may utilize barges for the transportation of materials and waste from the distribution center to and from the plant site. River traffic may also include water taxis which may link the different open spaces of Lawrenceville as well as connecting to downtown.

At a smaller scale, it is proposed that people will interact with the river through the river walk, docks, harbors, fishing areas, and a movie theatre. In these spaces people will come in closer contact with the river, a vital resource of Pittsburgh. The proposed walkway, stretching the length of the river in Lawrenceville, could be used for jogging, biking, walking, as well as a link to other
neighborhoods. The canal in Washington, D.C. is an example of this type of riverwalk. Open spaces which connect to the river serve as public green spaces, with undetermined functions. They are gathering spaces; event spaces which create the potential for a variety of activities.

Mauricio De Silva

*The Memory map - remembering the past*

Lawrenceville, and Pittsburgh in general, experienced the industrial revolution in America in the creation of a unique physical environment and culture which remains with the idea of Pittsburgh today, long after the disappearance of the iron and steel industries as a dominant societal element. A city is a similar to a collage of its past, present, and future which reinforces the vitality of the city. The memory map is a tool which can be used in attempts to recognize possibilities for remembering the past in the present and future. It is not intended to memorialize the past. Information was gathered from several different series of maps, including the Sanborn maps, between 1887 and 1910. It may not include every potential memory for the city, but it demands that the possibility exist.

Christopher Garvin
Housing areas should fit tightly into the existing urban fabric. Relationships must be maintained between the different areas of housing on both sides of Butler Street. Neighborhoods should be connected to nearby public spaces by both vehicular and more importantly, pedestrian traffic. Housing should be considered in combination with other functions; for instance commercial uses. These "mixed-use" developments must be connected to Butler St. and/or a large open green space either by vehicular or pedestrian path. The housing must be attractive economically, socially, and aesthetically.

Housing along the river's edge must relate to the river and enhance the beauty of both
the river and the housing. It must not interfere with the riverwalk pathways. Considerations for such river housing include: views, environmental impact, the space between the river and the housing, and the building materials as well as their aesthetic impact.

Christopher Nigro
The Main Public Spaces, Streets, and Buildings

A continuous public space along the river is proposed. Perpendicular to the river, spaces open into the neighborhoods. Their character will be influenced by their proximity to Butler Street. A common typology of the public buildings of those spaces can be observed—they all define a precise relationship with the river.

The Arsenal should redefine its function and reorient itself to the river. All places along Butler St. relate mainly to users and dwellers, except Arsenal and 51st St., which attract also visitors, and Leslie Park which is almost exclusively for dwellers. The triangular space at the west end of Butler should address visitors perceptually, visually, and behaviorally.

The places on 39th, Main, Liberty, and Hatfield Streets primarily address dwellers. Users probably would come from within the neighborhood, since religious and educational functions reside there.
Statement: the Urban Design Code

In April 1994, after two years of research, the Urban Design Code for Pittsburgh Inner-City was finalized, and presented to the public in the exhibition entitled *Uncovering Pittsburgh: Architectural Dialogues* (by Jacek Dominiczak and Laura Lee with the cooperation of Jason Alden and Alan Chu).

The idea of an Urban Design Code is based on research conducted by Jacek Dominiczak since 1995 in the program entitled *Hidden Compositional Codes in Cities*. However, for the first time the code presents comprehensive information about the entire Inner City, and therefore, may be used as a design tool in the process of a large scale design.

The origin of the methodology lies in the synthesis between the formula of a perception process, gestalt studies, and geometrical analysis. The intention of the resulting code is to recognize a potentially common perception of the city's spatial organization. It is presented in the form of a graphic cognitive map of the area. This map may be, consciously or unconsciously, shared by people who dwell, use, and visit a city. If so, the code will become an effective reference for a variety of spatial communications in the city.

The possible use of the code is the subject of the recent search. The urban design studio during this semester (Fall 1994) has extended the research program, shifting its focus from the development of the code towards its use as a design guidance tool for the city. The particular research problem tested the potential use of the code as a document that may control and preserve both a continuity of urban space and its spatial coherence in the situation, when the design process involves a variety of different parties, different ideas, and different architects.

*Jacek Dominiczak*
Nolli Map

The Nolli Map is the foundation of the studio's urban design strategy. These drawings represent a type of urban policy for the public space. Here we have delineated the exterior public space within Lawrenceville. The white represents this space. The black areas define the maximum buildable area, that is this area may be any form with the maximum being this rectangle. Therefore these are not forms but envelopes of buildable area. For example at the Arsenal we can see three areas of built form. At the top a large section may be taken into private use and built up to these limits. The Arsenal must remain in its present form, and a complex of structures are located within a large open space extending to the river’s edge.

On the model we can see the three dimensional implications of the Nolli Map as well as the primary elements of the Compositional code of Pittsburgh, the local triangle in (color) and part of the larger city triangle which unites the city in (color). The advantages of a Nolli map in three dimensions is that it is possible to understand some spatial relations with the model that are not the connection between this large open wedge shape and this Pittsburgh in general, experienced the Industrial Revolution in America in the creation of a unique physical environment and culture the idea of Pittsburgh today, disappearance of

industry as a dominant element within society.

A city is a collage of its past, present and future which reinforces the vitality of the city. A city must understand and maintain its past as it projects itself into the future. The memory map is a tool which can be used in attempts to recognize possibilities for remembering the past in the present and the future. It is not intended to memorialize the past. Nor is it a historical record which protects the objects that it has identified. Rather it is a starting point for understanding the richness of any urban site. It may not include every potential memory for the area but it demands that the possibility exist.

The memory map has two levels, the visitor level and the dweller level. The visitor level is based on icons which represent the city in themselves. The Iron City Brewery is a good example of this visitor accessibility to the history of the city. The dweller level is a more intimate level and is dependent on the actual memories of the people of the area. For example, citizens have told me of the pedestrian pattern of going to work at the river in the morning and returning home to the hillside in the evening. They recognized the impact this pattern had on Butler street. This pattern can be remembered by a new pattern of going to the river for work or leisure.
The visitor's map represents the buildings streets and spaces that a visitor would go, use and inhabit in Lawrenceville. In order to use the map correctly, it is best to define the visitor. The visitor is a person who visits these areas, thus the visitor can be considered a general tourist to Pittsburgh, or a local Pittsburgher outside of Lawrenceville, and even a Lawrenceville resident. In these cases, the resident is taken to a place or building during a special event, not daily occurrences, (such as festival, or exhibition,) thus making the person a visitor to that event. The metaphor of specific passports are used and exchanged as one goes and enters into certain areas - the locale exchanges his local identification for a visitor's identification. Thus we see that areas of buildings, such as Monuments, (Doughboy Square, The Arsenal, The Cemetary, St. Francis Hospital, and The Riverfront) are considered visitor areas when events take place. Streets of high activity, such as 44th St. McAndales Ave and Stanton Ave are also marked as visitor spaces for their special tourist attractions.
The User Map represents the pathways and destinations that a user, defined as any person who comes to a specific destination for a specific purpose, may take advantage of. The user can be a Lawrenceville native - once a person goes to a specific place, i.e. work, kindergarten, school, etc., he or she becomes a user. Therefore, a visitor who comes to Lawrenceville can at once be a visitor and a user - en verse, a dweller can also be a user. The concept of dweller can be recognized as the shortest path a user would use to arrive at his/her destination and the destination itself. The outdoor areas that a user may occupy, i.e. use, is also highlighted. If one may imagine a working parent dropping off a child at the kindergarten after which he/she must stop by the cleaners, we can begin to understand the pathways and the mentality of the so-called user. Looking at the map one must also remind oneself that this is a comprehensive map of the proposals involved - designs of urban environments via the typologies explored in terms of Visual, Perceptual, and the Behavioral - in the overall projections of Lawrenceville and the sustainable environment envisioned in it.
The following is an introduction of the Dweller map of Lawrenceville:

**Dweller**: A dweller is an inhabitant of Lawrenceville. An individual who spends his/her day to day life in Lawrenceville.

**Spaces**: The spaces marked in the map represent 'cracks' and secret connections which exist within the urban fabric. These are locations which would not be easily accessible to visitors and users. They are created through the day to day interaction of the permanent inhabitants with the urban structure.

**Buildings**: These are buildings which are used or occupied mainly by dwellers. This reflects their possibility for residential occupation/development.
Typology I: Visual

Street Sections:

These sections were developed to illustrate the envisioned formal quality of the street in terms of the proportions of its boundaries and features. Sections are categorized according to planimetric orientation (parallel or perpendicular to the river) and by designation of position in the formal hierarchy of the plan (primary or secondary street). Alternatives are included in order to illustrate the potential presence in the streetscape of a number of features which have a critical impact on its quality.

It is intended that each street or portion of street be designated as belonging to a particular typological section; "alternatives" are such only for the purpose of this categorical designation.
Visual Typologies

Building/Lot: as Primary Street Parallel to the Allegheny

Primary Street Parallel to the Allegheny
Alternative Type B: Mass Transit Over Infill Building

Primary Street Parallel to the Allegheny
Alternative Type A: Mass Transit Over Pathway
Primary Street Parallel to the Allegheny
Variations of Type: Mass Transit and Street Trees

Primary Street Perpendicular to the Allegheny
Variations of Type: Street Trees
These street sections represent the various visual fields apparent to the eye. This typology represents the layer which is most obvious - the perceptual field requires memory and recognition while the behavioral environment encompasses the two other, thus the visual field becomes the initial contact with an environment, a passing glance - possibly the reason why the subtleties of designing street sections becomes such a difficult task. The provocations of designers to set guidelines can become "zoning". What is presented here instead is the assurance of flexibility, the key ingredient in understanding the ramifications of designing for sustainability. The visual typology can significantly influence the first impressions of visitors. It can provide the dwellers the small influences and differences which can distinguish neighborhoods, blocks even streets which in turn can become the key ingredient in influencing the development of an identity and the sense of belonging. In all, this section becomes for
**Typology II: Perceptual**

The subject of Perceptual Typology is included in our investigation of studio project proposals as a critical point in Urban Design. We recognize the importance of human perception and its subsequent implication on our understanding of the built environment. Each project proposal is responsible for the two consequences of design in terms of how it would influence people's perception of Lawrenceville as a community in transition. One is the contrast and/or fusion between the Old and the New; the other one is the perceptual link between architectural events and the built environment.

A perceptual typology diagram (see appendix I) illustrates how an urban condition is understood mentally via the theory of Gestalt perception. This information becomes one of the basis of new proposed typologies for Lawrenceville. It is this that architects may recognize, because we cannot ignore, in our cities as something that is missing to create the much needed architectural events - something quite rare in today's metropolis. Perception is almost a result of the influence of the Visual field and the Behavioral setting and is therefore not constant except in the context of geometry and recognition via memory. But perhaps it is enough as a layer of meaning even if only in the Gestaltian sense in order to facilitate the **architectural event**.

**definitions:**

**Perception:**

The physical and mental capabilities to retain information and events.

**Perceptual Typology:**

The means of documenting the connection between events and the built environment via the tendency of Gestalt perception.
Typology III: Behavioral

The behavioral typology differs from the visual and perceptual typologies in that a wide array of information is grouped and classified under it. While the other typologies are concerned with precision and quantifiable information, the behavioral typology study attempts to provide a catalog of behaviors and hopefully some insight as to the whys and wherefores of their existence.

This catalog is not inaccurate in its breadth, however. It presents a variety of common and less common observed behaviors which are specific to Lawranceville. We as designers must remember that all behavior is a set of reactions to causative actions, settings, and circumstances. While some behaviors and attitudes must be encouraged, we must find the roots of others and do what we can to kill them.

As design-based research information for Lawranceville, the behavioral typologies can prove extremely helpful. Rather than being prescriptive as the visual and perceptual typologies are the behavioral typologies are descriptive. They also provide a wealth of visual information and an sense of place that is less achieved by the other two typologies. It is this kind of information which can be extremely helpful in trying to understand a people and a place.

Typologies to Save

*Human beings exist in space through behavior. When that behavior is positive we should try to understand what, if anything, the space had to do with it.*

Pride in Identity

A sense of belonging to a community and being proud of being associated with a place
Secret Spaces

Places that may only exist as residual space but have a special quality because they are secret.

Behavioral Typologies

Place Memory

Places that are special because of a device or memory directly linked to a location.
Certain thoughts may be recognized as being common to people of Lawranceville because of the kind of places they encounter.
Local Destinations

Local places become landmarks in people's understanding over time. A framework of such locales lends a desirable layer to the city and neighborhood.
Proposed Typologies

The role of any architect is to create spaces for certain behaviors and activities. Although one never knows what will happen in a proposed space - it is designed with a behavior in mind.

Street Life

Streets should be such that people want to use and occupy them. Certain areas of the street should be created specifically as a pedestrian environment.
Stage

Large gathering places exist and are used by people as a stage. In these areas people are on display and have a much different sensibility than say, the front porch.

Idleness

In certain areas people go for the sheer purpose of doing nothing. In these areas there is not program, they exist only for enjoyment.
Behavioral Typologies

Chris Nigro

Typologies - DOMINICZAK GROUP
**The Local Streetscape**

Areas exist where the street has a sense of familiarity. Not in the sense of thoroughfare, but in the feeling of identity one gets walking down one’s own street, or one very similar to it.

**Future and Technology**

Hope for the future and a desire for new ways life go hand and hand with the proposals set forth for Lawranceville. The drive to make plans into reality.

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*Chris Garvin*

*Jason Cassano*

*Thomas Kim*
Typologies to Eliminate

In Lawranceville there are certain conditions which exist which are not desirable. We would like to eliminate the behaviors which lead to these conditions.

**Filth**
Disregard for the presence and experience of others.

**Clutter**
A lack of a degree of concern when constructing the built environment.

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*Thomas Kim*  
*David Senft*  
*Ronny Hardiz*  
*Chris Nigro*
Personal Visions

Proposal for Area Between Penn Ave. and Bloomfield

Because of its recent rapid deterioration, lower Lawrenceville desperately needs a local catalyst to improve the quality of its neighborhoods. It not only needs to establish a relationship to the political district to which it belongs, but also its own identity and characteristics as the southern "gateway" into Lawrenceville.

The proposed catalyst works on exactly these two levels. The relationship to the riverfront development will serve to enhance its possibilities to the fullest extent. However, its most basic achievement will be to greatly improve the quality of living in the local area.

A. Specification of Objectives and Conditions

The premise behind this proposal (bridge + incline + research center + urban park + surrounding mix-use streets) is based on the following ideas:

1) Reinforcement of the Grand Grid.
   This proposal hopes to strengthen the perceptual link between Pittsburgh's North (Lawrenceville) and South (Oakland) centers. This connection will be achieved by the placing of the missing monument, a park (urban void). Therefore, creating the following relationships between monuments:
   • Arsenal — Flagstaff
   • The Reservoir - The Carnegie
   • Urban Park (proposed) — Phipps Conservatory

2) The Public Research Center of New Industry.
   Depending on the success of the industrial developments along the riverfront, this area would hopefully attract a base of professional and cultural based visitors/users/dwellers on a national or even international level. Therefore, giving rise to a boost in commercial/recreational activities within the neighborhood that which will support the new social composition without destroying the existing characteristics.

3) Introduction of a New Residence Group.
   With the introduction of a new residence group into this part of Lawrenceville, there will be a need to provide attractions (in terms of leisure/recreations) along the riverfront and furthermore, to create a new demand for easy access to "event-spaces". The problem of access would be solved in the following manner:
   • vehicular connection via 39th Street
   • incline connection bridging from Polish Hill to the River [stoping at strategic points of interests within Lawrenceville].

4) Regularization of the Deformations
   • Making the dichotomy clear by regularizing the deformations of juxtaposing grid systems at Penn Ave., right before it adjoins Butler St.
   • Reducing the dominance of Butler St., which serves mainly the northern Lawrenceville population. This would give the Lawrenceville section of Penn Ave. a chance to improve its appearance as well as function as a commercial street (as it is in Bloomfield—around St. Francis Hospital).
Significance of Connections

1) According to the guidelines of the Center Grand Grid, which organizes the whole inner-city of Pittsburgh, the area south of Penn Ave. and west of 40th St. is the southern gateway. In order to emphasize this area's part in the hidden ordering system of Lawrenceville, it should strengthen the connection between the Schenly/Oakland center, the Lawrenceville center (the Arsenal), and further into the Allegheny Riverfront:

- Lawrenceville Bridge is a proposal to strengthen the deformed N-S axis between Oakland and Lawrenceville that connects the two social centers (via Craig and Bigelow), which in turn clarify the understanding of the Grand Grid. The secondary connection to the North Side is also evident through the incorporation of the Washington Crossing Bridge into the deformation of the Grid.

- The proposed incline is an attempt to create a perpendicular linkage to the mass transit system (both existing and proposed by other projects) which connects the northern Pittsburgh areas. It would service people on all three levels: visitors, users, and dwellers. The connection is as follows: Polish Hill (the Reservoir) - East Busway - Lower Lawrenceville - The Arsenal (public events) - Train System - Riverfront (water access)

2) Identity Crisis of the Neighborhood — Bloomfield, Polish Hill, or Lawrenceville? The current status of the neighborhood nicknamed "the crack alleys" (south of Penn Ave., west of 40th St.) is rapidly deteriorating due to April Hsu

Personal Visions

I can't even think straight,
I guess it's better to have loved and lost then never to have loved at all.

Ed Ruland, the Father

PERSONAL VISIONS - DOMINICZAK GROUP
the general neglect by Lawrenceville populace to which it belongs. The proposal of the Research the area to allow its transformation from being a liability to an asset to the community, to make Lawrenceville proud to claim it as one of her own.

April Hsu

To know America is a major debtor economy with appalling social deprivations is not to deny the spectral hold it has on the cultural identifications and aspirations of a good deal of the rest of the world.

- John Roberts
Forty-Fourth Street

Perceptually, Forty-Fourth Street is a major link between the two topographical areas of Lawrenceville, the hill and the river plain. Within the code of Pittsburgh Forty-Fourth Street is an important element in the definition of the Lawrenceville triangle and its relation to Schenley Park, the Golden Triangle, as well as being centrally located in the city's fabric. I saw the potential in Forty-Fourth Street to establish a vital perpendicular to Butler Street strengthening the bond between the topographical areas of the city. In order to reinforce this street I have established three public spaces along the street, creating a civic atmosphere on the entire street, connecting the crest of the hill to the riverbank. Each space is for both the dweller, being located in proximity to a neighborhood, and the visitors and users of the city, being located close to both business and leisure activities.

At the river I saw a need for a formalized space offering affordances for leisure activities, including: fishing, boating, gathering, watching, and playing. Thus a small pier with multiple landings extends from the public space at the river’s edge.

Retention of the uniqueness of Lawrenceville is important for the quality of the city. The history of the city is an important aspect of this uniqueness. There exist three structures on my site, an old steel structure, the ice factory, and a rolling mill. These structures contain a piece of the history of the city and I wish to reuse them for the betterment of the neighborhood. Their new uses are not clear, but they should respond to the present and possible future of Lawrenceville. With the development at Forty-Fourth, the street will itself take on an unique atmosphere, which I encourage.

The second space is located at the intersection of Forty-Fourth Street and Butler Street. This public square addresses the need of spaces on Butler Street and attempts to recognize this intersection as having importance.

At the Hospital I have allowed for the expansion of the complex as well as attempted to provide an exterior space for both the hospital employees, it's patients, and the neighborhood. The health industry is an ever increasing service industry in our society and I see the possibility for small laboratories, doctor's offices, and extensive care hospices for long term illnesses. Presently, the cemetery offers a calm exterior green space but I feel it may have a negative effect psychologically on a recovering patient or stressed doctor. Therefore, this public space on Forty-Fourth Street can offer calm activity and interaction in a positive atmosphere of belonging.
McCandless St. Neighborhood

Typology: An area within the following exists:

+ mixed use industry (unobtrusive), housing (private), and commercial (equally enjoyable by all) existing either on the same lot or adjacent to each other.
+ a range of streets, with which to help delineate location, that consider the following questions (among many more):
  + width
  + trees? if so number?
  + parking both sides, one, or none?

Behavioral: The public spaces.
+ public spaces namely the park, commercial streets, tram station, and museum grounds must be accessible to all.
+ park
  + large open space for large gatherings
  + paths for walking
  + playing fields?
  + river “walk” for pedestrians, bikers, and rollers.
  + connection to the river through: view devoid of built obstructions, and the dock or pier extension.
+ commercial streets
  + sidewalks wide enough for healthy circulation.
  + unity of shop facades for sense of “place”
  + tram station

+ unobtrusive as possible (noise, visibility)
+ possible mixed use (underneath)
+ elegant structure

Perceptual
+ residential areas below Butler St. must relate to the housing above through: orientation, scale, typology, and atmosphere.

“...
What: To propose changes in urban structure which will revitalize Lawrenceville by attracting people back into the inner sections of the city, hence stopping the suburban sprawl.

How: I hope to increase commercial investment in the area, as well as create an improved residential living environment, which is more pedestrian based, and more people are likely to walk or bike rather than drive their automobiles. This is not an attempt to completely remove vehicles from Lawrenceville, just de-emphasize resident’s dependance on them. There will still exist a need for residents to commute to other areas, but this need for transportation will somewhat be satisfied by mass transit systems.

These changes will be brought about by two factors. The first is attracting new industry to the area. This area used to be the heart of the Pittsburgh steel industry. There are currently large amounts of land along the riverfront available for development. My views for the future development of this area are dependant on the concept of mixed use; the idea that industry may coexist alongside residential and small scale commercial areas. Large areas will no longer be subjected to strict zoning regulations. This vision proposes zoning at a much smaller scale. Within a large area of land (10-20 blocks) the possibilities will exist for the creation of residential, commercial, and industrial facilities. Because of this interrelation between home and...
industry/commercial, people will be able to work close to their homes, therefore creating a closer relationship with their work and families.

In order for this to work, the industry must be environmentally conscious industries, developing factories that do not harm or detract from their surroundings. This new cleaner industry will allow people to live closer, walk to work, eat lunch at home, and will force the industry to once again care about the surroundings in which it operates, not only because of laws, but because its employees will live in the surroundings.

This sets the atmosphere for my intervention. In order for these employees to live in the areas close to the factories, the residential area must be improved. Although there are areas of existing residential housing which are in an acceptable state, they are not the kinds of housing which will attract future residents. I believe it is necessary for the residential area to improve in order for Lawrenceville to improve. If they are not, it will not only detract from future investments, but contribute greatly to the rapid demise of Lawrenceville.

This improvements in the quality of the residential space could begin to be made with the existing urban infrastructure. Right now, there exist a system of alleyways throughout the town. These alleyways, are currently the closest for the neighborhoods. Along these narrow streets a common site to see are garages, trash cans, fences and all the miscellaneous items which residents desire to hide. I propose that these areas be improved. They contain the potential to be turned into a system of pedestrian pathways, which not only link neighborhoods, but also better relate and express the typology of these areas.

Secondly, I propose to reposition the garages. Parking can now be located under the houses, or in between them. The area previously occupied by these garages should then be stripped of their cheap metal fences, and developed into a back yard for the neighborhood. If divisions need to be created between one plot and another they are to be done utilizing terrain levels or vegetation. These actions will hopefully increase interaction between residents and in turn increase neighborhood unity, increasing residents attachment to an area, by establishing strong social ties to the area.

These future residential areas will incorporate not only family dwelling but also small scale commercial establishments, such as corner grocery stores, convenience store, coffee shops and bars. These will all be a part of this new mixed use community. Since of course, it is not economically feasible to create a corner grocery store at every corner, there will be areas of purely residential use.

Since these improvements could occur anywhere in the existing residential area, I have proposed a starting point or a small scale catalyst, which could serve as the test area for this new form of living. It is a proposal which could be implemented with in the first years of Lawrenceville’s revitalization. It proposes a strengthening of the connection between Main St. and Liberty Ave. This will be marked by a gateway structure (building, monument, sculpture) at the intersection between Main St., Penn Ave and Liberty Ave. This gateway will
Mark the entrance to Lawrenceville as well as a new axis of circulation. People will no longer utilize Penn Ave. as a thru way, but rather will be drawn down Main onto Butler. Since, unlike Penn or Butler, Main does not provide a direct access through Lawrenceville, upon reaching this intersection (Butler and Main) commuters will be faced with a decision. They can either turn right, left, or stop. Therefore, I recommend that at this intersection be built a commercial/governmental building which not only recognizes the importance of this connection, but also serves as a gateway to the residence behind it and to the commerce of Lawrenceville. There already exists somewhat of a commercial concentration in this area, so I propose to strengthen it by further concentrating the commerce onto this section of Butler.

Since this is a proposal which could take place with in the next few years, its designed objectives were to function as a catalyst, to force people to stop and experience Lawrenceville. Therefore, attracting more future residents, and investments which will help provide for the success of some of the longer term proposals.

Mauricio Silva

51st Street Area

51st Street is the continuation of Stanton Heights Avenue. It begins at a very critical point where the cemetery is closest to the river, where Butler Street bends and where the neighborhoods of Upper and Central Lawrenceville meet. Towards the river 51st Street is flanked by a large open space, then it crosses the railway track and finally hits an electricity tower right on the river front. This description of the place is valid before and after the intervention with the only difference that today its characteristic is separation, whereas in the project its main purpose is connecting, tying together, linking. The open space becomes a ample public place where people from all surrounding neighborhoods can meet, a place that links the cemetery to the river, a place that underlines the importance of the river as the main Pittsburgh axes that connects Lawrenceville to Pittsburgh, as well as a place that contains a public garden and public greenhouses being an attraction for the whole Pittsburgh area, and finally a place that is a valid response to the Arsenal and its plaza.

Ronny Hardliz

Water is the essence of life, the river is nature. Wine is the value of life, the park is culture. The traditional versus the new has to be re-evaluated, not abolished. A book is more book. Tradition is the cultural translation of site, site is nature, tradition is culture. This manifesto might be a lie.

- Ronny H.
La Transparence du Mal: les phenomenes extreme

induce system construction acts within contingency

3. dependent upon or conditioned by something else, an event (as an emergency) that is of possible but uncertain occurrence. Subterfuge: means of jump starting a metropolitan through articulation of city projection centers, bizarre acts of contributive performance as an appropriate outcome of temperament and needs.

"We are now governed not so much by growth but by growths. Our is a society founded on proliferation, on growth which continues even though it cannot be measured against any clear goals. Nothing, (not even God) now disappears by coming to an end, by dying. Instead, things (dis)appear because of extenuation or extermination, or as a result of the epidemic of simulation. Rather than a mortal code of disappearance, then, a fractal mode of dispersal. The fate of value.


Within a fractal system, there is no point of reference at all, and value radiates in all directions, occupying all interstices without reference to anything whatsoever, by virtue of pure contiguity." Jean Baudrillard, The Transparency of Evil

sighthe unwanted space of the voids, the otherness, artefacts of interference in violent copulation with the emptiness of the streets.

response due to the indeterminate nature of growth, a catalyst is required as a parasitic urban act.

Permeable stations collectively perform as city projection centers, quantifying and qualifying myths of the near future as metropolitan of hyperreality, acting within the transaesthetic world of simulation.

Permeable stations operate as a morphology to the sustainability of an urban form, filling the cracks as missing pieces to a puzzle like viscous jello into a porous mold.

Permeable stations produce a means of jump starting a metropolitan through the collectivity and succession of bizarre activities, providing a heterogeneous fabric as a basis for cultural change.

strategem primitive issues of social interference, constituent elements of political and economic systems with products of sustainable forms. Small and tactile in nature, these elements respond to situationisms of a narrative program, a given edifice resulting from an undisclosed society of building and destruction, geometrical relations of spaces upon themselves superimposed upon a rigid structure of an ur-

Fyodor Dostoevsky, Notes from the Underground

Adam Farmerie
40th and Butler

Using patterns of perceptual strangeness (some which cannot be described as urban) from the area surrounding 40th and Butler, I designed a plan of object/zone clusters which serve to perceptually connect this first intersection condition with others like it in Lawrenceville, Bloomfield and the Strip.

I designed a prototype multi-use cluster at this first intersection which affords the functions/events of: a middle school extension, retail of varying sizes, restaurant/nightclub, residences of varying configurations, and flexible offices.

In the second semester I plan to find more of these conditions throughout the river valleys surrounding Pittsburgh and connect them with a light railsystem extension of the existing "T" line. Where these conditions exist I will develop a similar prototype with the main function/events being a rail station and a medical clinic. School, residences, office space and retail will complete most programs.
Personal Visions

Jessie Katrensic

baroco (baroque): a 13th century mnemonic term describing the fourth mode of the second syllogism coined for the use of students of logic by Petrus Hispanus, who later became Pope John XXI
36th to 39th St From Butler to the River

Hi.

"...in the darkness of my mind i can fly the air through my hair the wind making my eyes water

there is no pain there is no decision there is only the way; the candle flickers, the void stirs and i am saddened by the new world where purpose is too many and choices do mislead.."

-G.G. Ryo

Sony: In the State of the Region Report, published by University Center for Social and Urban Research at the University of Pittsburgh, for the future redevelopment program for the Lawrenceville area, an interesting piece of information was introduced. The idea and the reality that large, international corporations are looking to build research and development facilities - facilities which operate on the key word ECO. A place where companies like Sony can develop environmentally friendly products - from step one to recycling. A factory which in itself would be an experiment. The idea for the site situated along the river between the Exxon refinery and the Arsenal open space is a vision of the above. The large warehouse situated along the Conrail line (future mass transit) is to be renovated and converted into a new Eco-factory for Sony (or another such company) which is to be surrounded by a new housing type -
environmentally sensitive and in view of the factory itself. If the workers can see that their houses are right next to where they work; if the waterfront is an accessible public space and if children playing are seen right across the street it is a reinforcement for the workers as to what they are trying to achieve. I believe the vision is possible.

The ultimate goal of this strategic urban design intervention for the revitalization of Lawrenceville is sustainability. Sustainability is a factor of the interdependent forces of economics and environmental consciousness. This design intervention creates an 'urban scenario' within which economics and environmental consciousness can optimally enhance and reinforce themselves by interacting with culture in order to enforce urban sustainability.

Proposed is a high tech environmental industry incubator for Lawrenceville. This incubator will create a healthy environmental industry business climate by encouraging the establishment of a critical mass of environmentally conscious industry. It will provide office space, research and development space, and business services for smaller industrial companies. By supplying an infrastructure for water and land transportation in the form of trucks, trains, and barges, (and allowing for technological invention and innovation to change the nature of truck, train, or barge transportation) the incubator will provide access to local, national, and international transportation systems for incoming and outgoing goods.

The incubator will allow Lawrenceville to develop into a self sustainable zero emissions industry zone. By concentrating and controlling all industrial access an infrastructure of pedestrian conscious, mixed use, residential areas can be developed. By providing a healthy climate for smaller environmental industry and mixed use neighborhood development, the incubator will also encourage larger environmentally conscious industries to move to Lawrenceville and start research and develop-
ment facilities of their own. This will establish a critical mass of environmental industry that will facilitate the creation of the closed loop 'environmental industry ecosystem'. A self sustainable system based on the idea of re-use of wastes from one industry as inputs for other industries that relies on efficient transportation.

This intervention will create a new community based work force infrastructure for Lawrenceville. It will bring new economic investment to this river front community. It will increase the communities standard of living. It will give incentive for new families to come to Lawrenceville. The intervention will revitalize the neighborhoods inherent industrial based infrastructure that made it so vital in the steel days. These new technological, economic, and cultural incentives will provide Lawrenceville with sustainability, self sustainability.

Josef Kaps

Butler St. Adjacent to the Cemetery

The chosen action in Lawrenceville occurs on a site critical to the nature and understanding of Butler St. as an axis- along the northern edge of the Allegheny Cemetery. Coincidentally the site is comparable to the Allegheny Cemetery Perceptual Circle and the Schenley Park Perceptual Circle cultural tangency. It is also between the two major neighborhoods of Middle and Upper Lawrenceville and is aware and self-facing in its betweenness. It thrives in the interim. The proposal is for an American Strip typology development. The kind that addresses the thoroughfare and needs of its users.

To deny "the latest fast-food outlet, the most banal suburb..." is to deny the existence of an American Culture. Rather than give in to (Eurocentric) visions of the purely "walkable city" without crime or pollution is to deny the ingenuity and history of a people who have never lived there, even though they could. Its
difference does not define its quality. But as enlightened design professionals we must find our mistakes, learn from them, and re-assimilate them. Unmanaged and unlimited Strip growth is bad. We learned our lesson. Careful application of what is good about the strip is to enhance the commercial experience and add variety of service and servicing.

The latest fast-food outlet, the most banal suburb, the blandest of giant American cars or the most insignificant of cartoon-strip majorettes is more at the centre of the world than any of the cultural manifestations of Old Europe.

-Jean Baudrillard
Butler St. between 44th street and Main st.

My project works off the premise that there will be development in Lawrenceville and that development will be somehow related, or adjacent to the river front. Because the primary axis of Lawrenceville (Butler Street) is not located on the river front, users who normally do not go down to the river front and people passing through may not be aware of the new development at the river. A connection from Butler Street to the new river front development has to be created. The goal of my intervention is to give people on Butler Street an indication that something important happens down at the river front; in a sense, a monument directing the user's attention to or giving clues to the new development.

A secondary axis of Forty Fourth Street was chosen based on my observation of its potential due to location and continuity from the top of the hill through Butler Street to the river. It was obvious to me that Forty Fourth Street should be the secondary axis. I discovered that the structural grid of Pittsburgh, developed by Jacek Dominiczak, accented Forty-Fourth street as an important street in Pittsburgh and thus in Lawrenceville. In fact Forty Fourth street is represented by a leg of one of the three triangles in Pittsburgh. In studying the intersection at Forty-Fourth and Butler Street, and the code, I became aware of other aspects of Butler Street and the city which needed to be accented. The intersection at Main Street and Butler Street is important because it is an entrance to Lawrenceville, and it is a moment where the direction of Butler Street shifts. Like my intervention at Forty-Fourth Street, I wanted to create a "monument" that would enforce and illustrate this important

"The world is a dangerous and uncertain place. A few odd moments of respect and affection is about as good as life gets."

Hal Hartley, Ambition

PERSONAL VISIONS - DOMINICZAK GROUP
aspect of Butler Street. By accenting the inter­sections at Butler and Forty-Fourth Street and Butler and Main Street, my intervention helps to support, clarify, and illustrate the structural code of Pittsburgh.

The Cultural Urban Park

The site is the Arsenal Field; the area of redevelopment of the lot in front of the Arsenal Middle School. The proposal is an urban park that includes all educational and cultural resources as well as commercial and a park for Lawrenceville. Presently, the building development in the area is not understanding the significance of the site in connection to its monument; namely the Arsenal building, its importance as a building on Butler street and the river front. It does not recognize its connection from the North Side with the Washington Street Bridge. The proposal creates a focus of the bridge as another potential entrance to Lawrenceville, and as an important axis within the general grid.

The new proposed urban park will be designed for all types of people: the people of Lawrenceville, visitors to Pittsburgh, and people who frequent the area for business and for recreation. The design provides for a library (a new video and computer library), a community center, a workshop studio that provides equipment and classes for all the arts (woodworking, glass, and metal), and an art gallery. Music will be the focus of the new concert hall that has a view to the river. The main open space close to Butler Street will provide space for an open market in which will be sold all types of marketable objects. The river front area will have an elevated boardwalk, and a descending step open space that opens to the river with an island stage that can be used for open air concerts and movie screenings. The new transportation system will have a stop on
this site as well. An underground parking lot that will provide fundamental needs to support the activities will be near the transportation stop.

The urban park represents a dynamic of events that should make Lawrenceville unique in Pittsburgh, and thus will attract a wide variety of people to the area, as well as support the community.

44th to 48th street, north of Butler street

Urban design is the critical process of the generation of the form of the human urban environment. An urban environment is specifically characterized by a limited area of relative density of built form and occupancy, by shared public environments, by shared social identity and communal sense of spatial identity, and by shared structures of government. These government structures are entrusted with the management and maintenance of public and shared services and amenities.

The role of the urban design is the identification and spatial definition of that form of the human environment which supports this phenomenological definition of the city; urban design supports dense built form and occupancy, supports communal identity and spirit, supports shared public environment, and supports management and maintenance of the public realm. The quality of urban design can be evaluated in terms of its success in supporting the city’s density, community, public spaces, and maintenance.

Contemporary discussion of the concept and issue of sustainability has been generated by the failure of the urban environment to adapt to influences of rapid social and economic change (as distinguished from physical change, such as wear or the decay of age). The discussion of sustainability is a discussion of the nature and quality of the form of the urban environment which supports the city in the face of abrupt societal and financial change. The question is not of the stability of the physical city, but of the stability of the interaction of the city-form with people through time. The urban designer’s mandate is to seek that city-support-
ive form which promises this specific constancy into the future; the burden is the prophesy of the evolution of society, and the prediction of the consequences in form.

With this attitude in mind, the intervention:

- introduces an extension to the existing streetgrid, dividing currently unused land (the switching yard) into a set of block areas of sizes consistent multiple-use lots

- reinforces Lawrenceville's unique character as defined by its particular topography (i.e. primary through paths run parallel to the Allegheny River, dominant local paths perpendicular to the river, up and down the hill)

- extends the streetgrid to the riverfront, providing obstructed public access at a discrete number of points, and preserving portions of the river's edge as undeveloped "wild" land, thereby allowing both formal and primal interactions with the water.

- formal completion of the perceived neighborhood bounded by the 40th street Bridge, Butler Street, the Allegheny, and the topographic "pinching" of the flood plain by the Allegheny Cemetery at 51st street, and provision for a public commons at the center and within walking distance from all points, and adjoining a public building and mass-transit station.

Bart Bohac

"Sisyphus is the absurd hero, as much through his passions as through his torture. At the very end of his long effort measured by skyless space and time without depth, the purpose is achieved. That hour is like a breathing space which returns as surely as his suffering, that is the hour of consciousness. At each of these moments, he is superior to his fate."

Albert Camus, Myth of Sisyphus

PERSONAL VISIONS - DOMINICZAK GROUP
Model View
Typological Maps
I. Street Types

Existing Grid Type

- Perceptual Grid Vs. Local Grid

Existing Deformations of Grid

Existing Variances of Deformations

Street Vs. Grids

Proposed Variances Following Existing Conditions

Proposed New Variances of Deformations

---

### Existing Deformations of Grid Type

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>Street Parallel to Both Grids</td>
</tr>
<tr>
<td>Type B</td>
<td>Street Parallel to Perceptual Grid</td>
</tr>
<tr>
<td>Type C</td>
<td>Street Parallel to Local Grid</td>
</tr>
</tbody>
</table>

### Existing Variances of Deformations

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>Street is Parallel to the Local Grid</td>
</tr>
<tr>
<td>Type B</td>
<td>Street is Parallel to the Perceptual Grid</td>
</tr>
<tr>
<td>Type C</td>
<td>Street is Not Parallel to Either Grid</td>
</tr>
</tbody>
</table>

### Proposed Variances

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>Street Follows Perceptual Grid/Existing Street</td>
</tr>
<tr>
<td>Type B</td>
<td>Street Follows Local Grid/Existing Street</td>
</tr>
</tbody>
</table>

### Proposed New Deformations

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>Geometric Deformation caused by the Arsenal</td>
</tr>
<tr>
<td>Type B</td>
<td>Geometric Deformation caused by the Cemetery</td>
</tr>
</tbody>
</table>

---

appendix 1: perceptual topologies

Appendices - Dominiczak Group
## II. Street Types Generated by Perpendicular Relationship to Butler Street

<table>
<thead>
<tr>
<th>Existing Street Type</th>
<th>Existing Deformations of Street Type</th>
<th>Proposed Variances Following Existing Conditions</th>
<th>Proposed New Deformations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cond: Existing Type: Type A</td>
<td>Description: Perpendicular Cross-Street At Butler.</td>
<td>Cond: Proposed Type: Variance A.0.0. Description: Street Follows Existing Type.</td>
<td>Cond: Proposed Type: Deformation A.0.1. Description: Slight Deformation At Butler.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cond: Existing Type: Type B</td>
<td>Description: Street Perpendicular to Butler Ends at One Side.</td>
<td>Cond: Proposed Type: Variance B.0.0. Description: Streets Follows Existing Deformation Type.</td>
<td>Cond: Proposed Type: Deformation B.0.1. Description: Branching at North of Butler.</td>
</tr>
</tbody>
</table>

**Legend**
- **Existing Butler Street**
- **Existing Perpendicular Streets**
- **Proposed Perpendicular Streets**

**Appendix 1:**

**Perceptual Typologies**
### III. Street Types Generated by Parallel Relationship to Butler Street

<table>
<thead>
<tr>
<th>Existing Street Type Relationship to Butler</th>
<th>Existing Deformations of Street Type</th>
<th>Proposed Variances Following Existing Conditions</th>
<th>Proposed New Deformations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. A.</td>
<td></td>
<td>A. A.</td>
<td>A. A.</td>
</tr>
<tr>
<td>Cond: Existing Type: Type A.</td>
<td>Description: Streets Parallel to Butler</td>
<td>Cond: Proposed Type: Variance A.0.0</td>
<td>Description: Street Follows Existing Type</td>
</tr>
</tbody>
</table>

- **Legend**:
  - Existing Butler Street
  - Existing Perpendicular Streets
  - Proposed Perpendicular

**Appendix 1**: Perceptual Typologies

*Appendices - Dominiczak Group*
IV. Proposals of New Typologies at the Riverfront

1. Riverfront Path

- Proposed Type Relationship to The River.
- Proposed Deformations of Riverpath Type

2. Mass-Transit Corridor

- Proposed Corridor Type Relationship to the River and Butler Street.
- Proposed Deformation of Corridor Type.

Appendices - Dominiczak Group
V. Types Of Public Plazas in Relationship to the Streets.

<table>
<thead>
<tr>
<th>General Plaza Types</th>
<th>Relationship to Surrounding Streets</th>
<th>Proposed Variances of General Types</th>
<th>Proposed Variances of General Types</th>
<th>Proposed Deformations Of General Types</th>
<th>Proposed Riverfront Plazas</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.0.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.0.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.0.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.0.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

appendix 1: perceptual typologies
Course Syllabus


Urban Form and Reconstitution of the Inner-City Neighborhood
The Study of Lawrenceville, the Neighborhood in Pittsburgh
Design Studio by Jacek Dominiczak, Ph.D., Visiting Professor

Fifth Year Urban Design Studio. Course Number: 48-500. 18 Units. Monday, Wednesday, Friday:
1:30 - 4:30. CFA

There were three main premises for the project.

1. The focus on an urban form
2. The use of the Hidden Compositional Code of the Pittsburgh Inner City
3. The use of the dialogic design strategy

1. The Focus on an Urban Form

Architects’ participation in a multidisciplinary discourse requires precise preparation that includes
at least two major issues:

- recognition of the realm of a specifically architectural knowledge for which architects are
  solely responsible
- recognition of possible synergies between architectural knowledge and other realms of knowl-
  edge: especially those of social, economical, and political interest.

The studio has been focused on the first issue and studied major compositional systems that
shape urban form:

- perceptual structure,
- visual composition,
- and behavioral patterns.

The program discussed the following aspects of urban form:

- hidden compositional codes that define the structural organization of the city form,
- spatial relations between architectural objects and urban interiors,
- the division between public and private realms of the city’s spaces.

As a basic design apparatus, the studio used two strategies:
APPENDICES - DOMINICZAK GROUP
• geometry
• typology.

Therefore, this project presents only one, but critical element of professional knowledge that describes the urban environment: an architectural thinking about the physical space of the city. It is based on the conviction that the quality of the environment’s physical form is one of an irreducible value of urban life, and as such, a specifically architectural and professionally unique responsibility of urban design.

2. The Use of the Hidden Compositional Code of the Pittsburgh Inner City

The Hidden Compositional Code of Pittsburgh was developed during two years of research work conducted at Carnegie Mellon University by Professor Jacek Dominiczak. Its final form was presented in the exhibition Uncovering Pittsburgh: Architectural Dialogues — the joint effort of Jacek Dominiczak, Laura Lee, Jason Alden and Alan Chu.

A goal of the use of the Hidden Code, and the goal of this studio project is to translate the architectural importance of Genius Loci, or ‘spirit of place’, into an understandable and applicable professional language.

The Hidden Compositional Code begins with the formulation of a basic geometrical analysis of the city. With the objective of discovering unique and descriptive characteristics of a city, the ‘code’ drawings illustrate the possibility of describing compositions which are not currently visible. However, their hidden code - as a compositional potential - already exists within the space of the city. Furthermore, as a common cognitive map of the city, the code may be a critical tool for understanding and communicating the organization and the value of an urban space. As a professional tool the code may be used to design and protect the quality of public spaces of cities.

3. The Use of the Dialogic Design Strategy

The very nature of the American city is in the mechanism of its growth. Currently, this mechanism is defined mostly by the strategy of an intervention — a surgery on the body of the city that leads to a better solution in the face of new needs and surrounding political, social, economical, and spatial conditions. As a consequence of this mechanism, the American city developed a unique value: a complex, spatially difficult urban environment. A spatial conflict is a significant part of this compositional language.
However, the concept of a compositional code that is based on a desire for a spatially understandable city suggests a necessity of a certain level of control of the city growth process. Therefore, to avoid a spatial conflict is one of the potentials of its compositional language.

To a certain extent, the relation between strategies of an intervention and a code is antinomical: one seems to exclude the other; a weakness of one is the strength of the other. In this antinomical relationship the concept of an intervention risks a radical and unpredictable design anarchy in the city growth process and, as a consequence, generation of a negative value in what is a specifically American physical environment. The concept of the code risks a radical design control and, as a consequence, the loss of a genius.

Let us suppose that the idea of art can be expanded to embrace the whole range of man-made things, including all tools and writing in addition to the useless, beautiful, and poetic things of the world. By this view the universe of man-made things simply coincides with the history of art. It then becomes an urgent requirement to devise better ways of considering everything man has made.

George Kubler,
The Shape of Time
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