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Spring 2007

Architectures of Integration: A Study of Transient Communities

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Architectures of Integration

A Study of Transient Communities

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UG 06|07
Bruce Abbey
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"doing architecture...is an embedded, spatiotemporal practice.
But there is nevertheless, always a moment when the free play of
*imagination – the will to create* – must enter."

– David Harvey

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Image right: William Penn's plan for Philadelphia, 1862. City Hall is placed at a central location at the crossing of the two major roadways through the city, Broad Street and Market.

Image below: The skyline of Philadelphia demonstrates how City Hall dominated the skyline of the city until 1987 when One Liberty Place was constructed. Several buildings have been constructed since then, as you can see that all of the buildings taller than William Penn are modern.

Figure 37. William Penn's Plan for Philadelphia, Pennsylvania. 1682
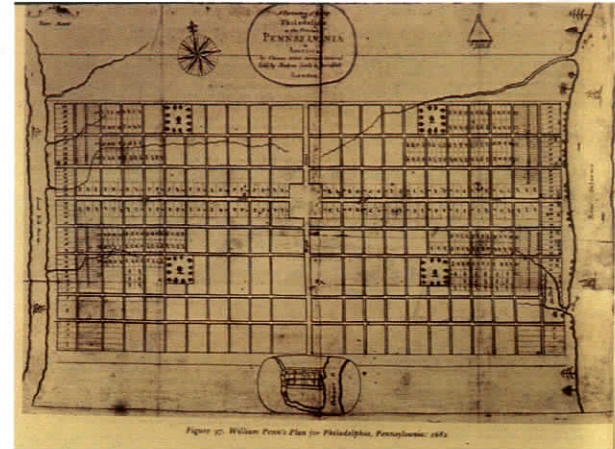
> "The architect is a metaphor for our own agency as we go about our daily practices and through them effectively preserve, construct, and reconstruct our life-world."
>
> - David Harvey, *Spaces of Hope*

The complex set of social conditions that exist in modern cities are the result of multifarious relationships of power. Cities are the spatial illustration of these complex social, economic and political relationships that have developed over time. The city of Philadelphia is no exception to this statement, as a handful of sources of power dominate the urban landscape and have produced the city as we know it today. Even from conception with William Penn's plan for Philadelphia in 1682, specific power relationships were utilized for the location of City Hall, at the crossing of the two main roads, Broad Street and Market Street. Moreover, until 1987, City hall's dominance was maintained by an agreement understood by developers in the city that no new construction was to exceed the height of the William Penn's statue atop City Hall.

As cities have developed, power relationships have become more complex as institutions other than government have come into considerable amounts of power. As a result of a minority of sources being in power, social and political boundaries often contest one another and create turmoil within the city.

What role does architecture play in this tangled web of power? Historically, we have seen many different architectural approaches to how architecture can relate and even better society. The early Modern Movement was successful in instilling a sense of hope in the general population that technology was a means to better society by constructing modern style buildings made of glass and steel. The City Beautiful Movement was another successful use of architecture. Its greatest example, the Columbian World Exposition in Chicago, signified to the rest of the world that Chicago had recovered from the great fire of 1871.

The whitewashed grandiose Beaux-Arts style buildings that welcomed visitors to the exhibition instilled hope in an otherwise struggling society. The exhibition was so successful that it spawned grandiose designs for a number of cities, including Washington D.C.

While these approaches were successful in their time, they would not be successful today. The societies that welcomed these approaches were quite different from what we know today. They were struggling economically with extreme political unrest, and in some cases even recovering from great tragedy. The people of that time desperately needed anything to help them believe that things would get better. These movements instilled hope to the population that their position in society could be bettered and that they would not always struggle. In contrast, the majority of Americans live rather comfortably today.

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"Architecture is not neutral. It expresses political, social, economic and cultural finalities."

- Francois Mittterand, 1988

Through analysis of the city of Philadelphia, I hope to distinguish various political boundaries that exist and demonstrate that these boundaries are frequently problematic due to their locations, which are often at odds with social boundaries. The effect of these boundaries are far greater than lines on maps as they are a dynamic representation of a power struggle that is waged between opposing powers. The effects of these boundaries are compounded by the mental boundaries established by the users of the disputed area. I assert that architecture can participate in a commentary on the existing social condition in West Philadelphia by becoming a physical representation of this condition. Such a representation is possible when the architecture blurs the boundaries between social demographics. The United States is largely a country of convenience. The boundaries that exist in West Philadelphia are not the only reason why the diverse groups that exist in this area remain segregated. They operate on convenience and the commercial establishments that have been founded near their homes and work cater to their needs. If the needs of their daily life are already met, why would they need to venture farther away from where they live and work? Day care services provide an opportunity for exploration into how architecture can become an active means to blur socio-economic demographics and become a social condenser, as these types of services frequently do not meet the needs of a variety of different demographics.

I am testing the role of architecture by identifying a given condition through the use of mapping. Mapping is important because it identifies conditions graphically and renders physically latent boundaries visible. The three types of boundaries that I am examining are political, socio-economic, and mental boundaries. Boundaries are interesting because they imply that a singular line divides one things from another. For instance, "this line on the road separates the good side from the bad side," or " this line denotes black from white. Socio-economic boundaries are sometimes neither as clearly defined nor as divisive as implied. It is rarely ever a case of "this line divides black from white." Most of the time, there are several lines drawn, and a grey gradient that spans both sides of the line and transitions black to white. This grey transitional zone has great potential. It is an area of difference, where inhabitants of both sides of the line can move freely. This transient zone contains both black and white, and has the potential to be a site of great change.

Through analysis of the city of Philadelphia at a large scale, I hope to identify an optimal site location where political and socio-economic boundaries have resulted in groups being at odds with one another. Furthermore, I hope to identify mental boundaries that further divide the community, as well as the transient zone that spans the boundaries.

boundary
philadelphia_political

The city of Philadelphia has many different political boundaries that organize the city. Many of these boundaries utilize the same natural and man-made barriers. Two of the major natural and man-made boundaries are denoted by the solid magenta lines while several secondary boundaries are denoted by the solid black lines.

Councilmanic Districts
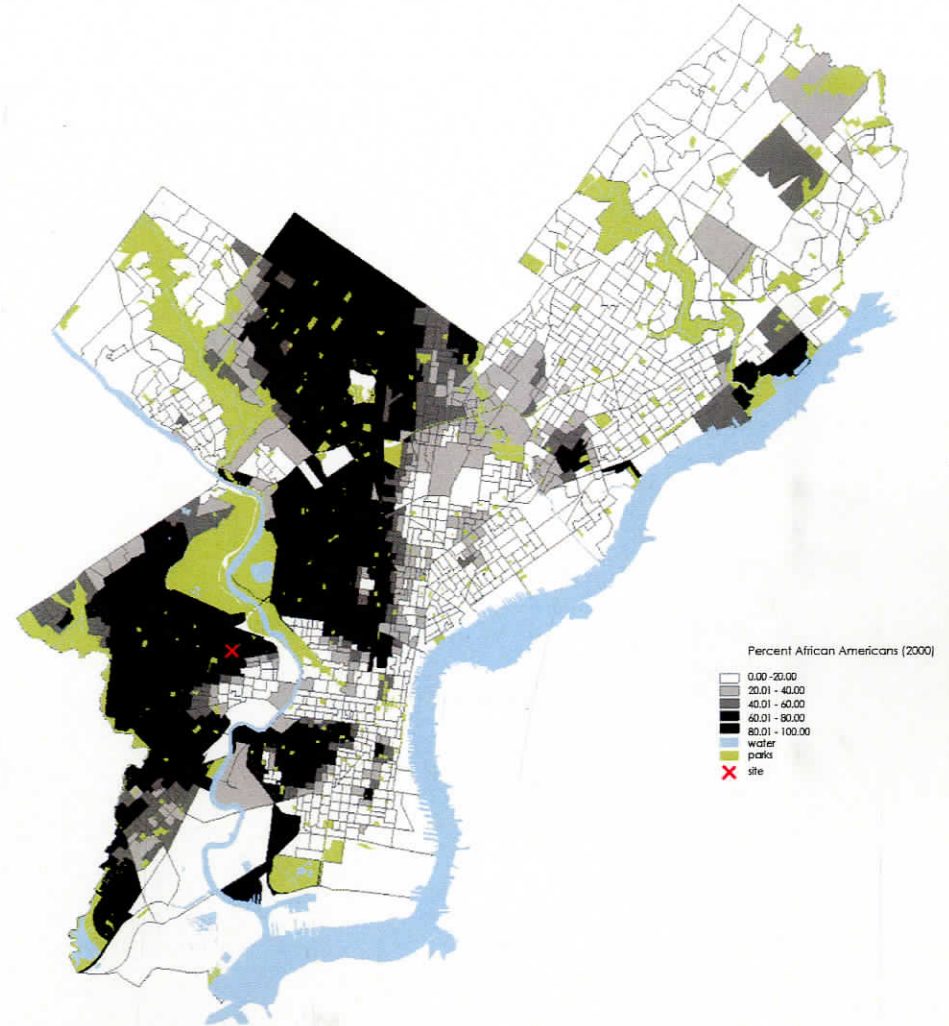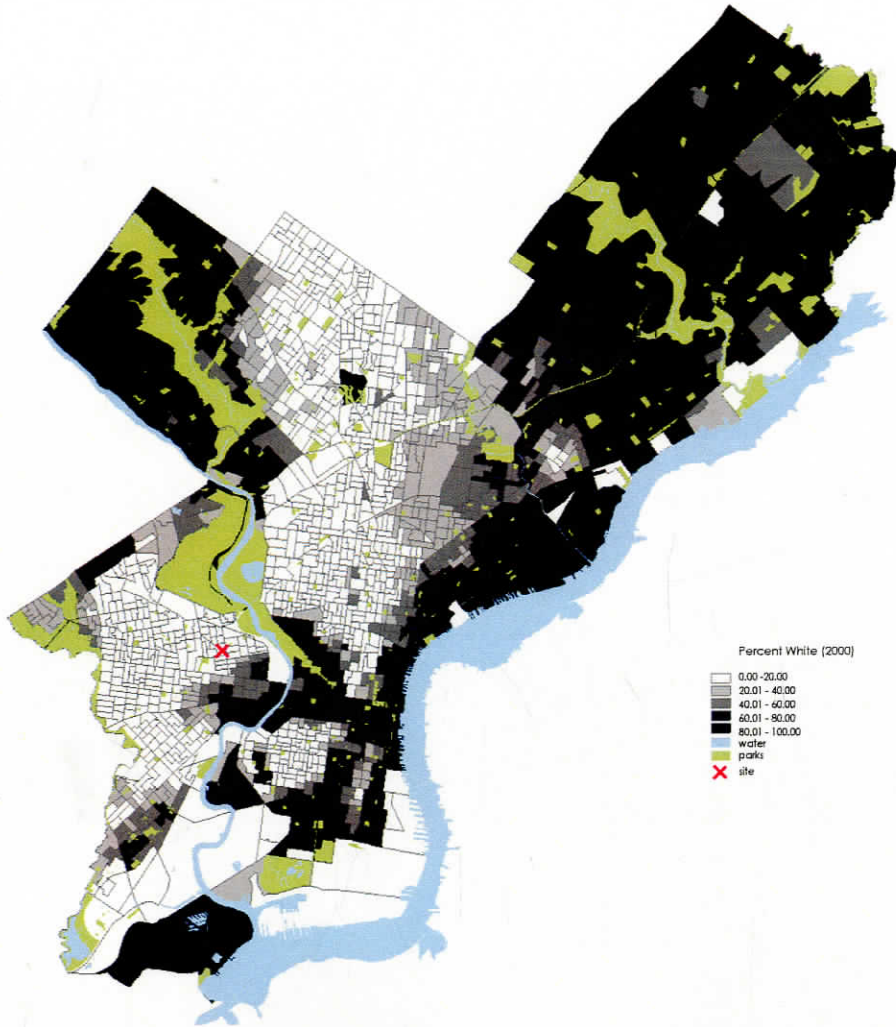
Neighborhoods
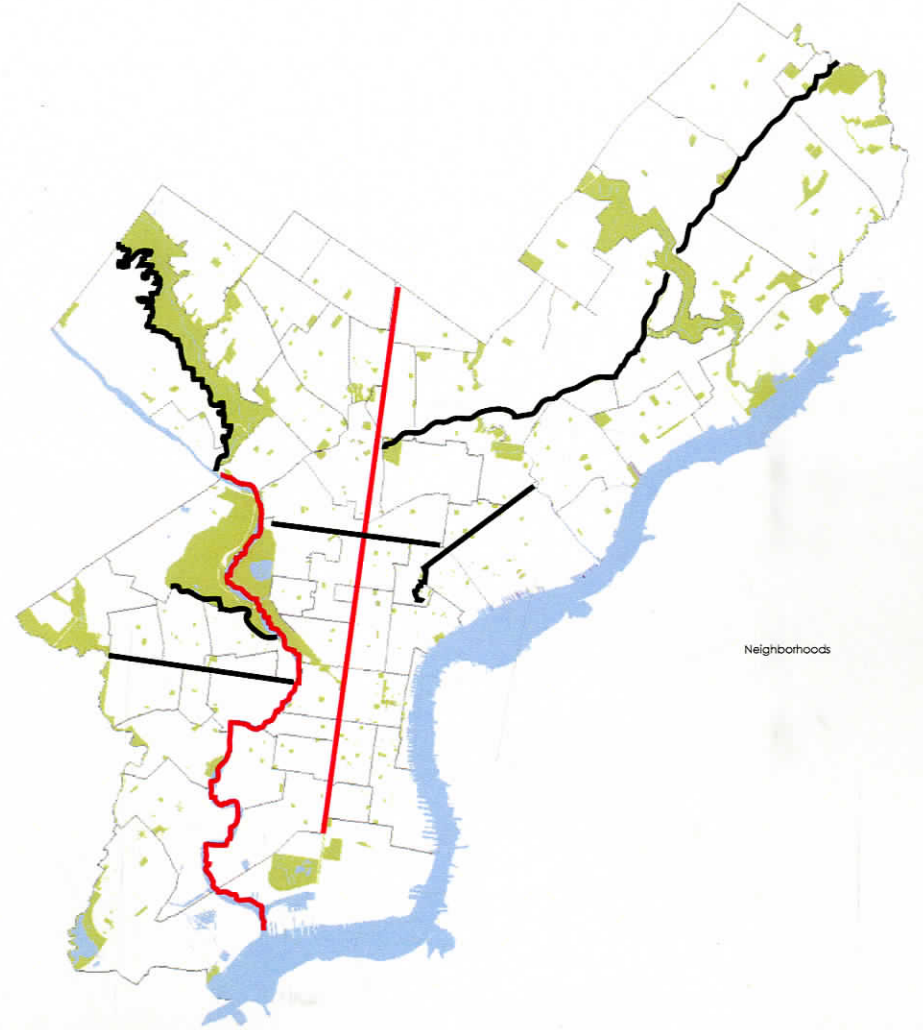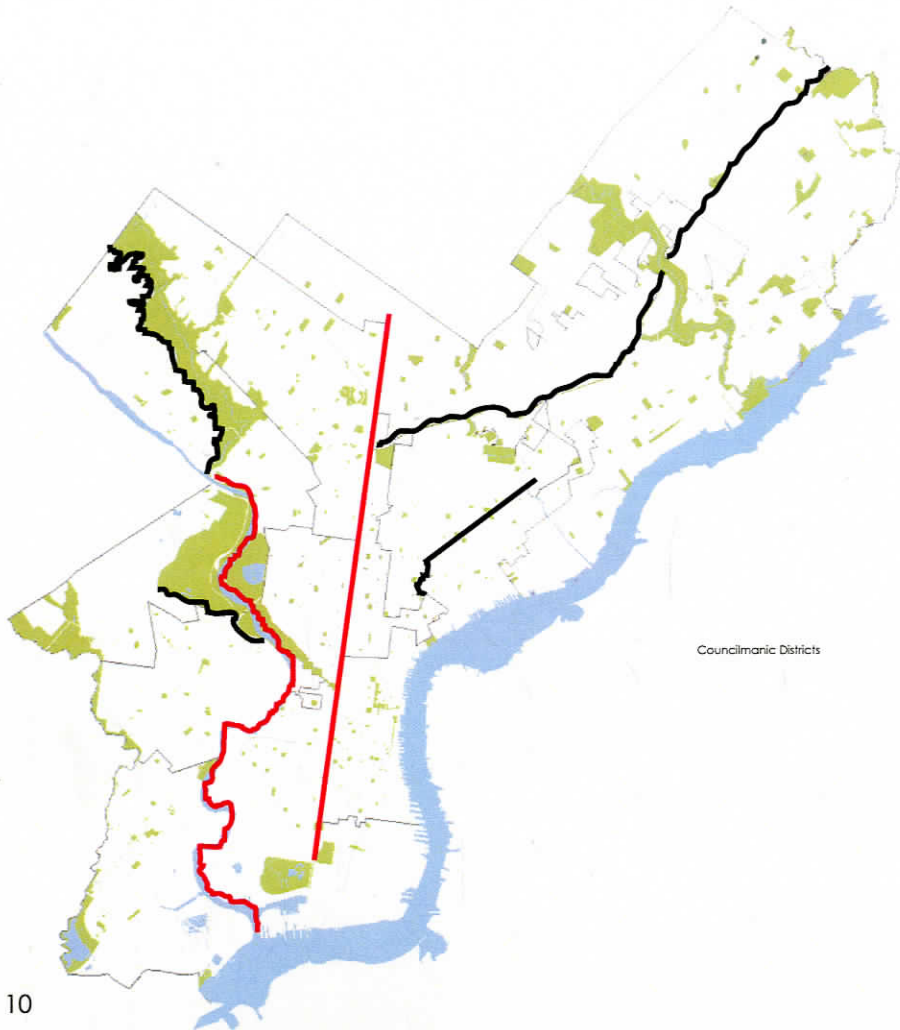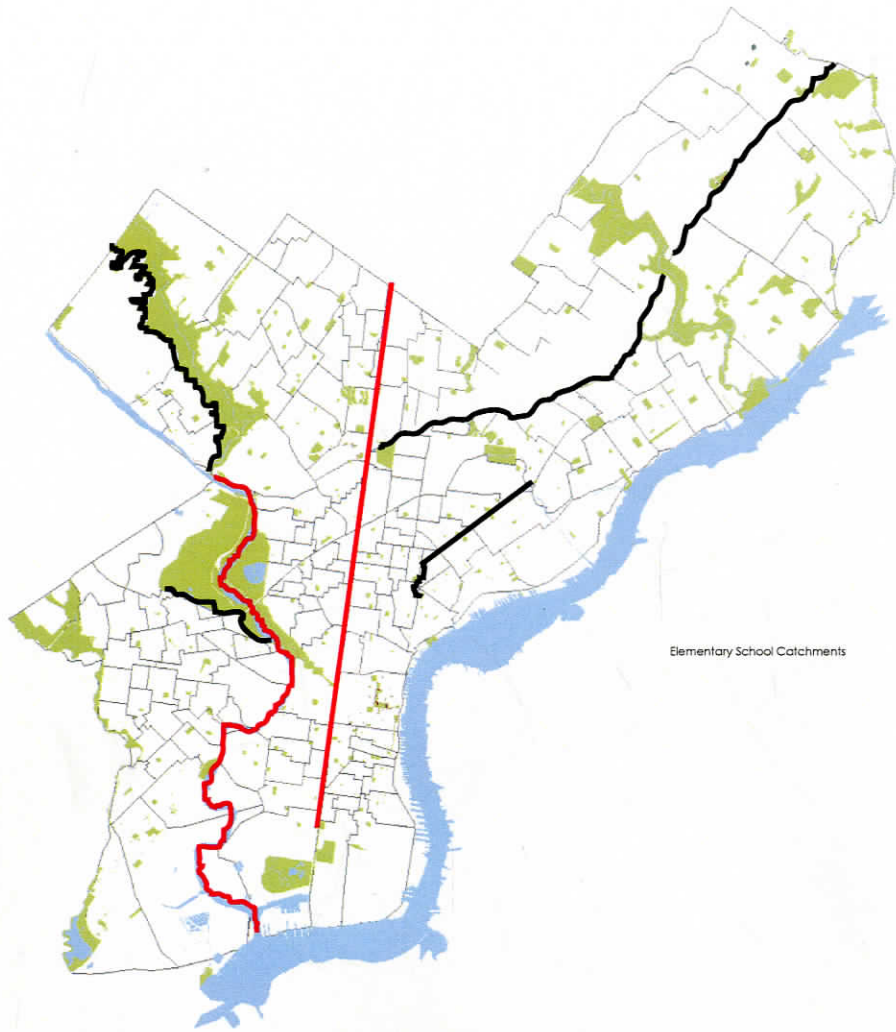
Elementary School Catchments
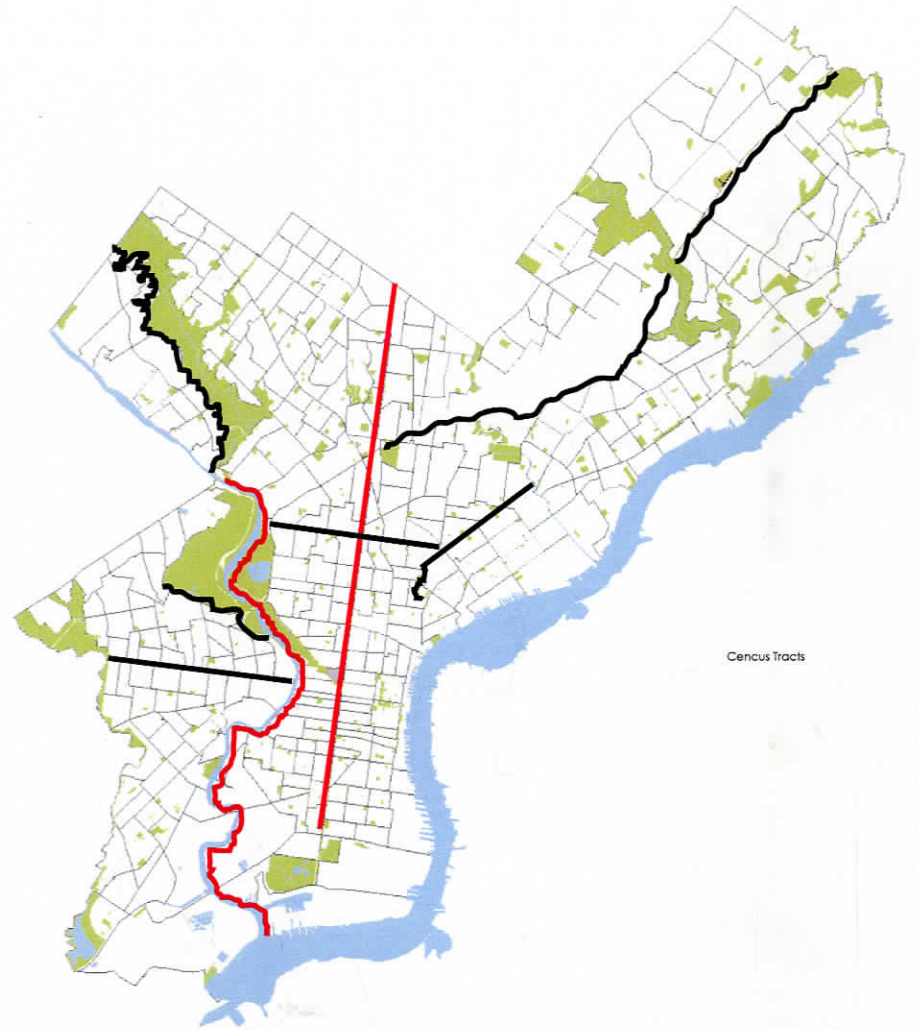
Cencus Tracts

boundary
philadelphia_racial

Racial boundaries in the city indicate how various groups live in relation to one another. In general, the city is highly segregated with the majority of the White population clustering at the edges of the city. In contrast, the African American population tends to inhabit the older parts of the city, with the exception of eastern North Philadelphia. The Hispanic population occupies a corridor along the eastern side of North Philadelphia while the Asian population is concentrated primarily in West Philadelphia and in a small tract just to the west of Center City.

Percent White (2000)

	0.00 -20.00
	20.01 - 40.00
	40.01 - 60.00
	60.01 - 80.00
	80.01 - 100.00
	water
	parks
X	site

Percent African Americans (2000)

	0.00 -20.00
	20.01 - 40.00
	40.01 - 60.00
	60.01 - 80.00
	80.01 - 100.00
	water
	parks
X	site

Several areas of the city are not highly populated: Center City, where most of the suburbanites work, Fairmount park, where many cultural attractions are located, and Southwest Philadelphia, where much of the area is industrial.

Percent Hispanics (2000)

- 0.00 - 20.00
- 20.01 - 40.00
- 40.01 - 60.00
- 60.01 - 80.00
- 80.01 - 100.00
- water
- parks
- X site

Percent Asians (2000)

- 0.00 - 20.00
- 20.01 - 40.00
- 40.01 - 60.00
- 60.01 - 80.00
- 80.01 - 100.00
- water
- parks
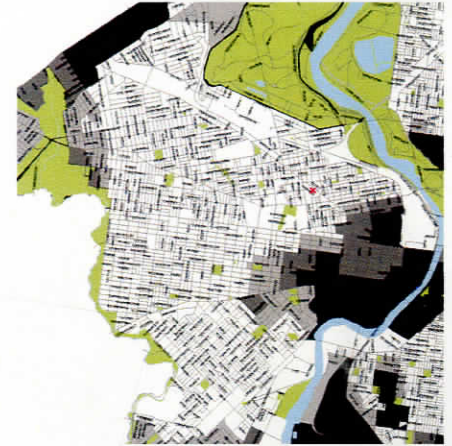- X site
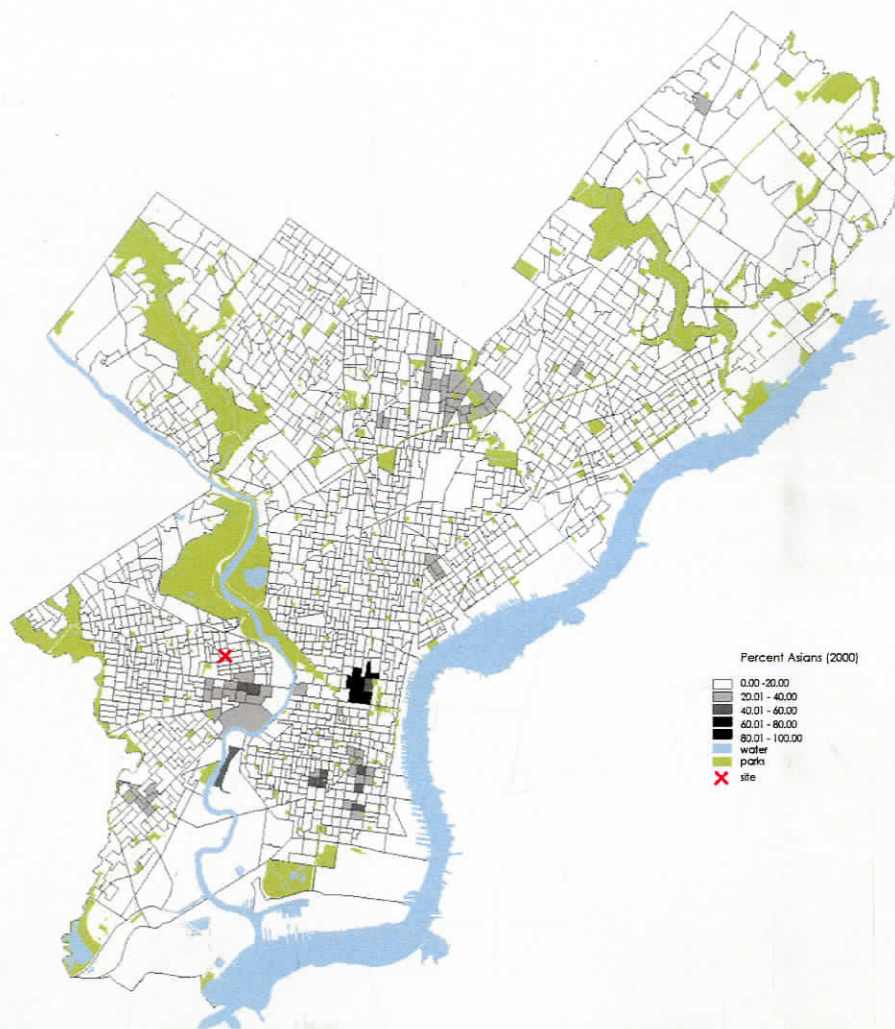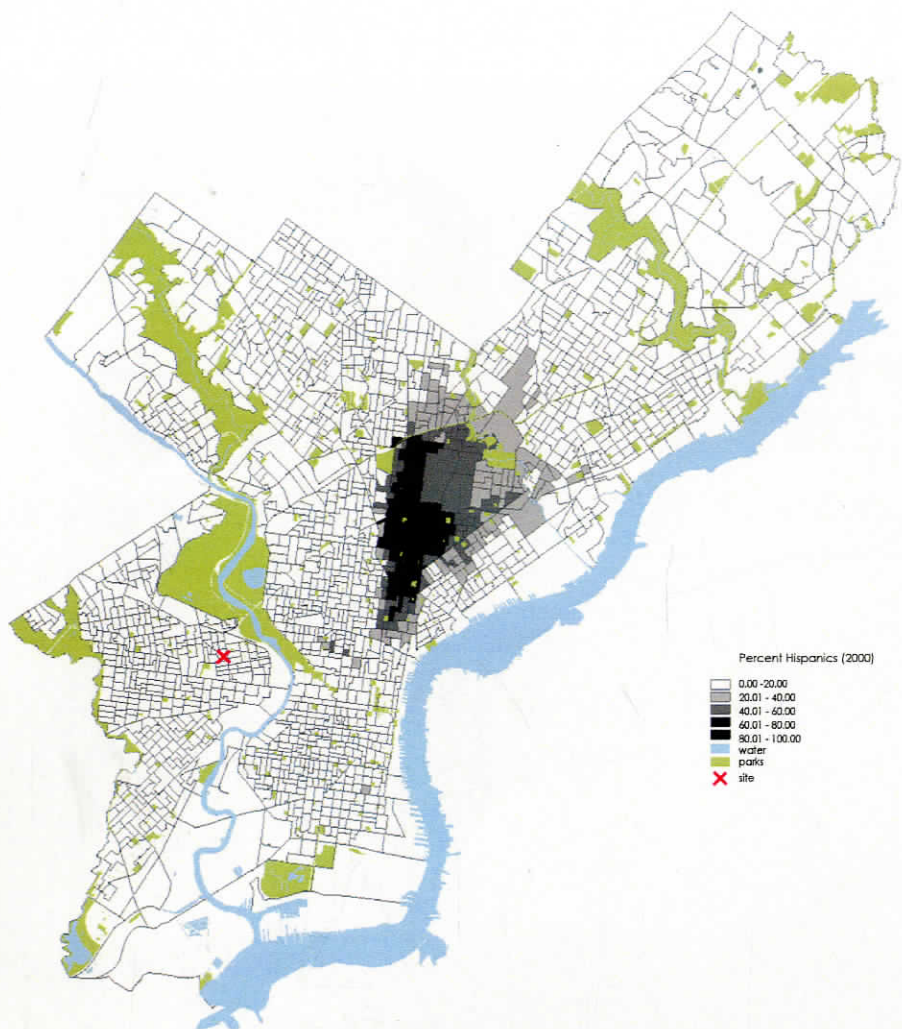
boundary
west philadelphia_economic

West Philadelphia features diverse community of people. It boasts a large academic community as it is home to the University of Pennsylvania, Drexel University, St. Joseph's University, and Philadelphia College of Pharmacy and Science. The expansion of The University of Pennsylvania as a leading research institution has led to the building of numerous health care and laboratory facilities in the surrounding areas. The large academic presence in this area has resulted in a concentration of both the White and Asian community. In addition, the northwestern part of West Philadelphia features a large Jewish population while the rest of the area in between is primarily black (97%), much higher than the city average of 40%. The diversity of races in the area also brings a wide spectrum of economic conditions. West Philadelphia has a number of extremely poverty-stricken neighborhoods including Mantua and Belmont, which are just north of Powelton, where many university students reside.

African American Population

White Population

Asian Population

Median House Income (2000)

- 0 - 17,386
- 17,387 - 25,595
- 25,596 - 31,981
- 31,982 - 41,042
- 41,043 - 200,000
- street
- water
- parks
- X site

Median Monthly Rent (2000)

- 0 - 400
- 401 - 800
- 801 - 1200
- 1201 - 1600
- 1601 -2000
- street
- water
- parks
- X site
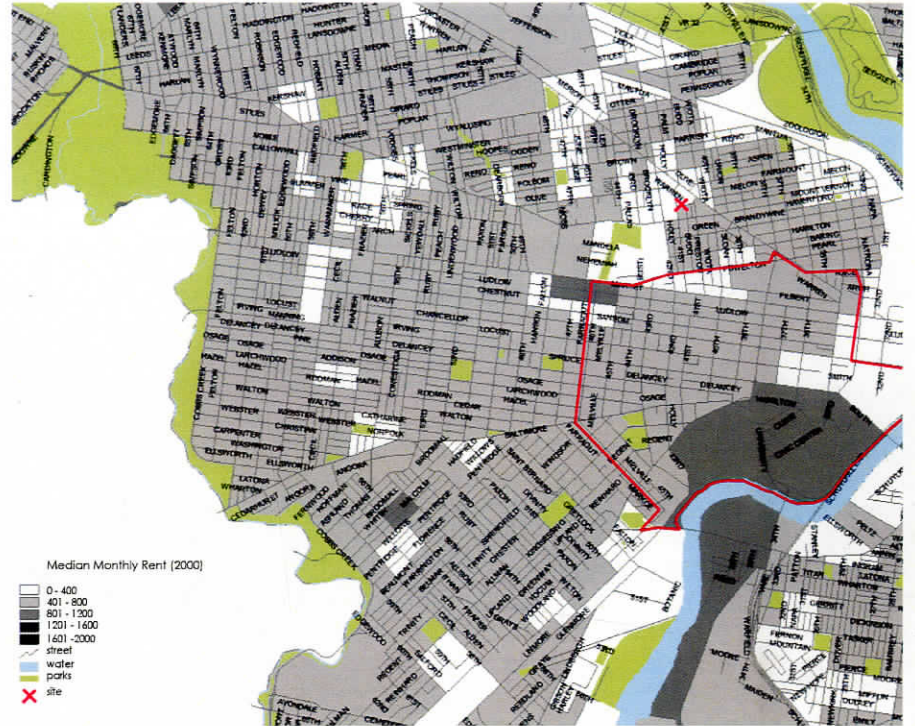
transient zone
gentrification

The socio-economic differences between the groups are the basis for resentment towards the university. The Universities have further exacerbated the situation through questionable practices in acquiring land for expansion. The University of Pennsylvania in particular has come to be the dominant institution in West Philadelphia as we know it today. It is not only one of the top employers for the area, but it has also spawned (with the help of Drexel University) the creation of the area that we now know as University City. The university has helped stimulate growth and revitalization in the area, as the reputation of the university has expanded. With this expansion, the area has enjoyed an insurge of young consumers every school year which has helped stimulate some of the adjacent communities' economies. While University of Pennsylvania's current president, Amy Gutmann, has made a point to push her initiative for more involvement from the university with the surrounding community, the town-gown relations have been far from favorable. Presidents Harold E. Stassen, Gaylord P. Harnwell, and Martin Meyerson all used their terms to overhaul and push the University of Pennsylvania to become not only a national force in research and learning, but also one with worldwide acclaim. This acclaim has come with considerable consequences for the surrounding communities, as University of Pennsylvania has used its resources to expand the university's campus, oftentimes demolishing poorer neighborhoods that stood in its way. Over the years, animosity towards the university community has grown, sometimes becoming quite intense as demonstrated by recent surges in crime rates. However, one positive outcome of the growth of the university for the surrounding community is the increased income and employment opportunities available.

Top image: The first University of Pennsylvania buildings, 1891
Image above: Powelton village, an area where many university students reside.
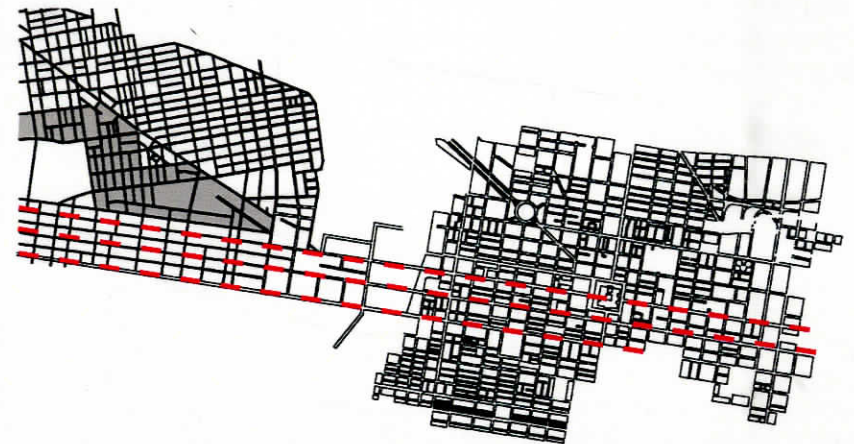
Top images (left to right): Photos of the University of Pennsylvania, 1920, 1947, and 1973. The photos detail the change of the area from one dominated by factories to a bedroom community.

Image right: Image detailing the scale of the university area buildings in relation to the surrounding residential blocks.

Image above: The university city grid has been developed as an extension of Center City. The shaded area indicates the transient zone.
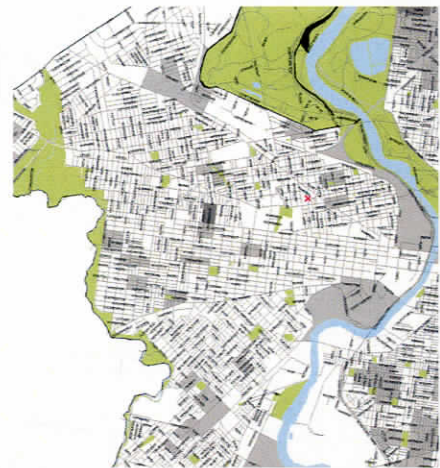
problem
west philadelphia_crime

A major result of the gentrification of West Philadelphia caused by University of Pennsylvania's zeal to be a leading university is the increased crime directed at the university community. The majority of incidents are minor with the bulk being burglaries, robberies, and theft. A major problem for the residents in the area is the re-emergence of the street gangs that infested the city in the 1970s. While today's gangs are not nearly as highly as organized as those in the seventies, they are numerous in number. Messages of claims to blocks and payback for members who were gunned down are seen all over the area on vacant properties. The increasing popularity of these street gangs is of major concern for this area where supervision of young, impressionable minds is often left to older siblings.

The state of West Philadelphia has resulted in students and faculty of the universities being chased out of the area as concern for safety has risen sharply. In the late '90s, 82 percent of University of Pennsylvania's graduate students lived in West Philadelphia. Today, a staggering 14 percent live in West Philadelphia with the vast majority residing in Center City. In a recent survey conducted by University of Pennsylvania's Wharton School, 40 percent of the 428 students polled indicated that they had never been farther west then 40th street, and another 24 percent indicated they only ventured past 40th street once or twice a year. The perception of university students has been undoubtedly swayed by news reporting that dramatizes the state of West Philadelphia further exacerbating the mental boundaries, and hindering the possibility of a connection between the university and the surrounding community.

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Mapping of crime in 2005 in West Philadelphia (clockwise from top left): robberies, burglaries, assualt, vehicle theft, major crimes against persons, theft.

West Philadelphia has a number of different groups living and working in the area. With the variety of different users come a variety of different needs. The needs of these users have thus far been filled by the respective area that they work or live, and thus result in the separation of these groups from one another. The users described to the right indicate a handful of the possible users in the study area. They range from children who are oftentimes on their own, to college students, to single working parents. The architecture must address the variety of different needs of the daily lives of the various users to be successful in breaking down the boundaries that exist.

User 1

Michael is a 13 year old student at middle school tudent. His father works a night shift so Michael is frequently alone after school and at night when his father is working.

User 2

Jeremy is a 19 year old student at University of Pennsylvania. He lives on 41st and Pine Street and spends most of his time on campus or in University City. Occasionally he will catch a concert in Center City, but spends most weekend nights at one of his friends' apartments in the area.

User 4

Shanay is 31 years old and lives in the Belmont section of the city with her two young children. She is a single mother who had children young and she works as a medical secretary at a doctor's office in the Presbyterian Medical Center on Market Street in University City. She has only graduated high school and is having a hard tme supporting both children as she receives little to no support from her children's father, her high school sweetheart.

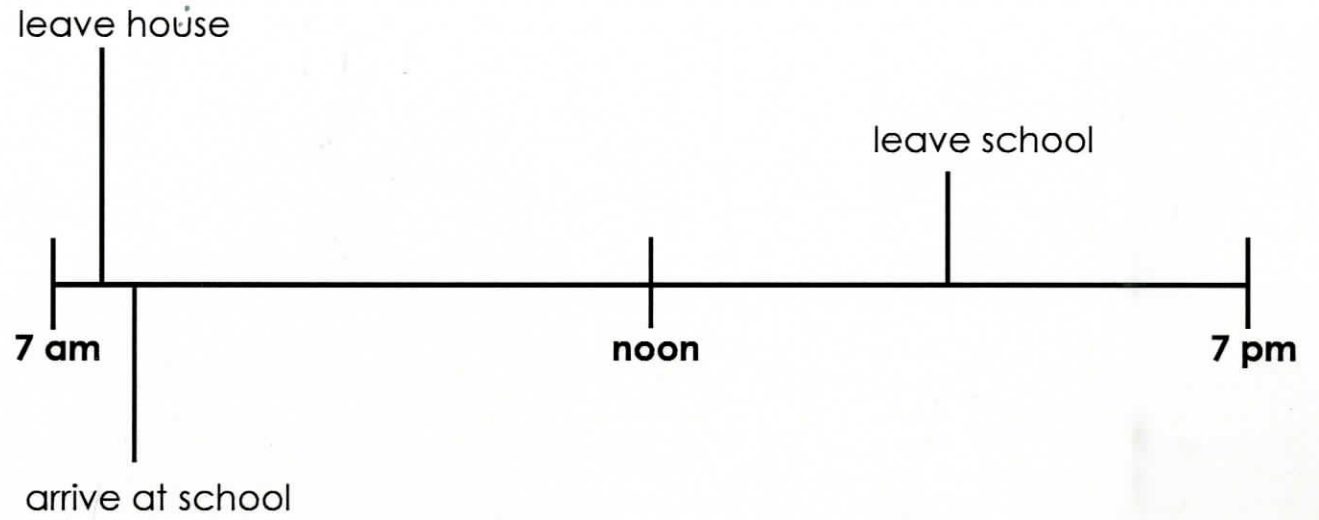**User 3**

Lisa is a 36 year old professor at University of Pennsylvania. She lives in Center City with her husband and infant daughter. She got back from her maternity leave only a few months ago and is struggling to balance the demands of motherhood with work as the brunt of the responsibility for the new addiiton to their family falls on her since her husband frequently travels for business.

problem
users_daily life

leave house

leave school

7 am   noon   7 pm

arrive at school

problem
users_daily life

leave house

arrive at class   **errands**   **go to library**

10 am   **4 pm**   **11 pm**

arrive at coffee shop   **eat lunch**   **eat dinner**

go out with friends
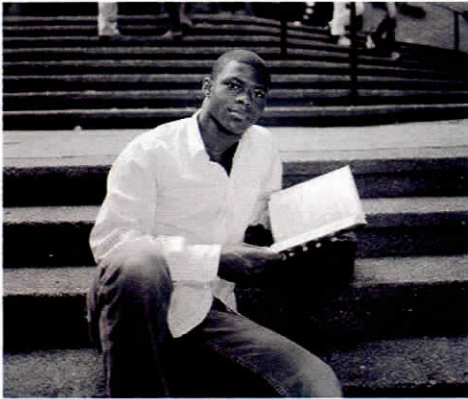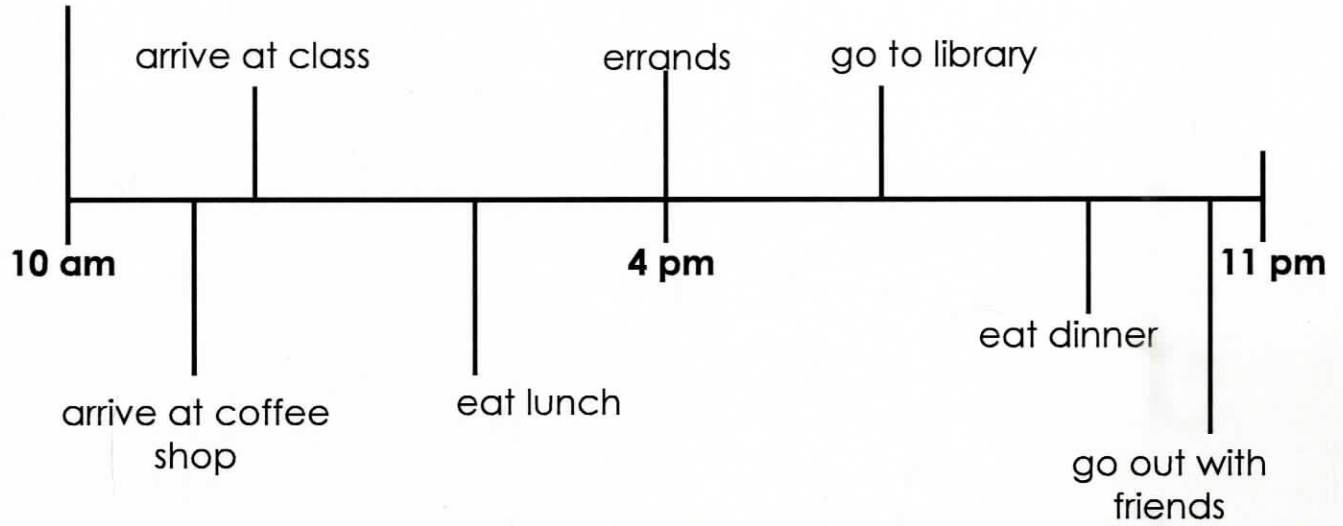
grocery store

starbucks
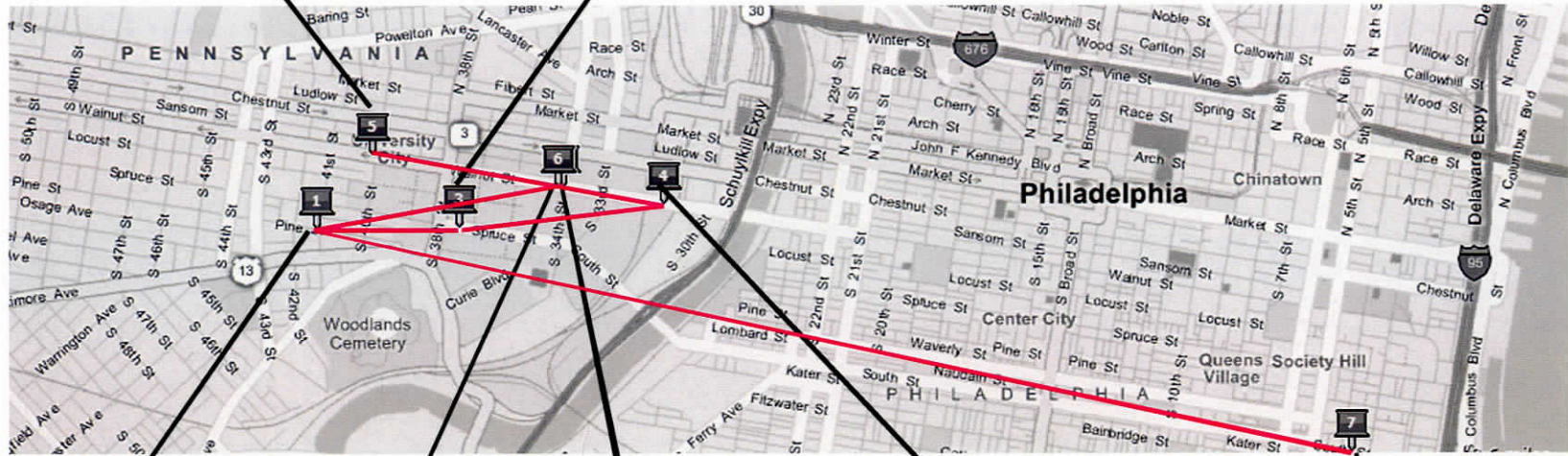
home

library

class

cafe

Theater

leave house

arrive at work

leave work

8 am   noon   8 pm

drop kids at
daycare

errands

pick up kids
from
daycare
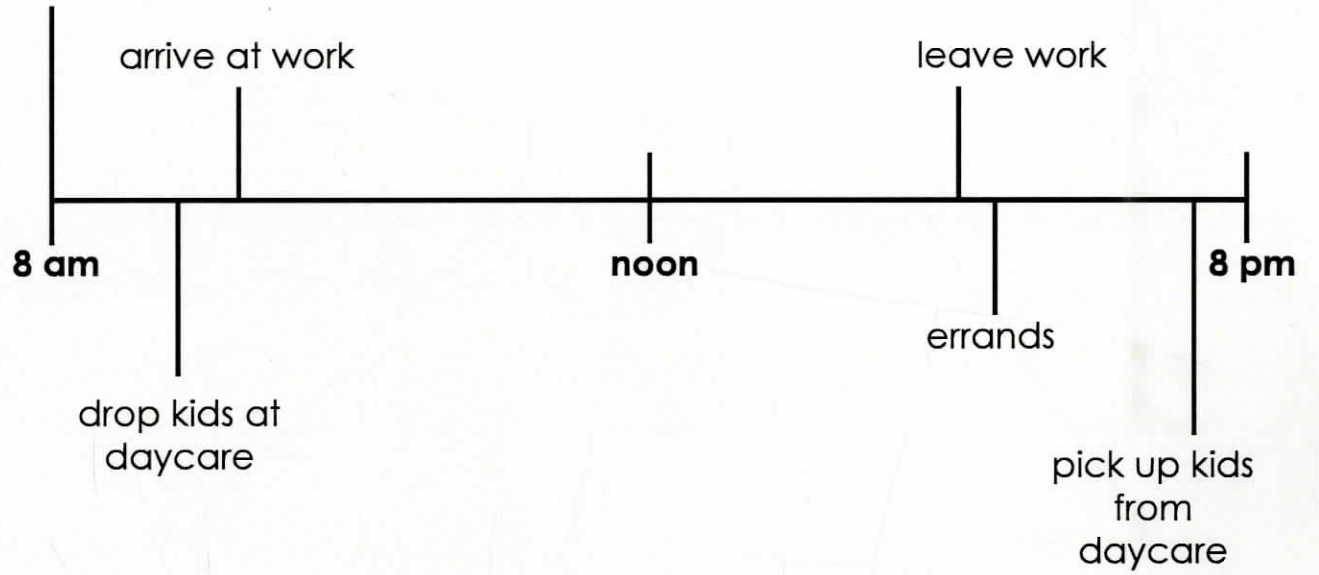
grocery store

dry cleaner

home

work

daycare

leave house

arrive at work

leave work

7 am

noon

7 pm

drop kids at
daycare

errands
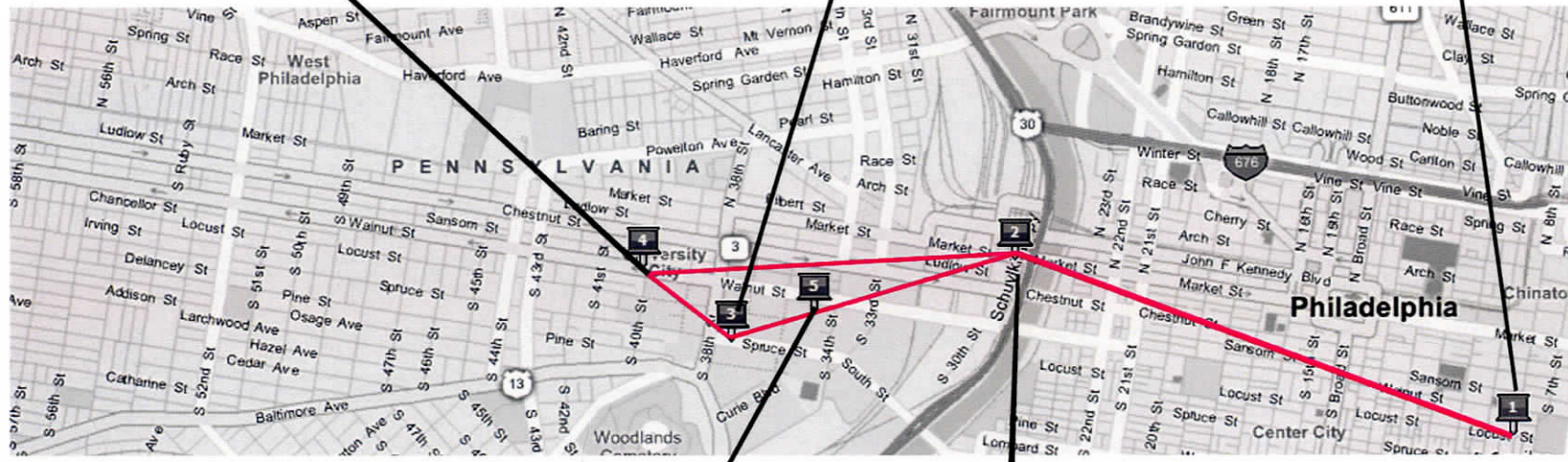
pick up kids
from
daycare
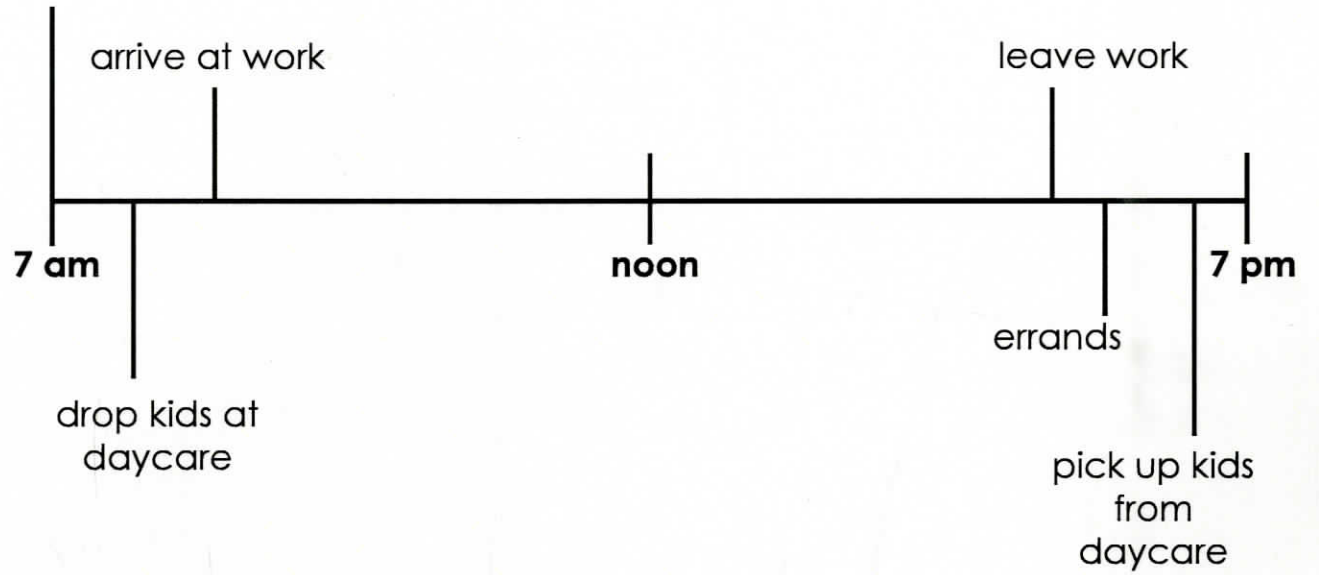
home   daycare   pharmacy   grocery store

work

Percent High School Diploma (2000)

- 0.00 - 20.00
- 20.01 - 40.00
- 40.01 - 60.00
- 60.01 - 80.00
- 80.01 - 100.00
- water
- parks
- ✕ site

Percent Bachelor's Degrees (2000)

0.00 -20.00
20.01 - 40.00
40.01 - 60.00
60.01 - 80.00
80.01 - 100.00
water
parks
site

program
benefit
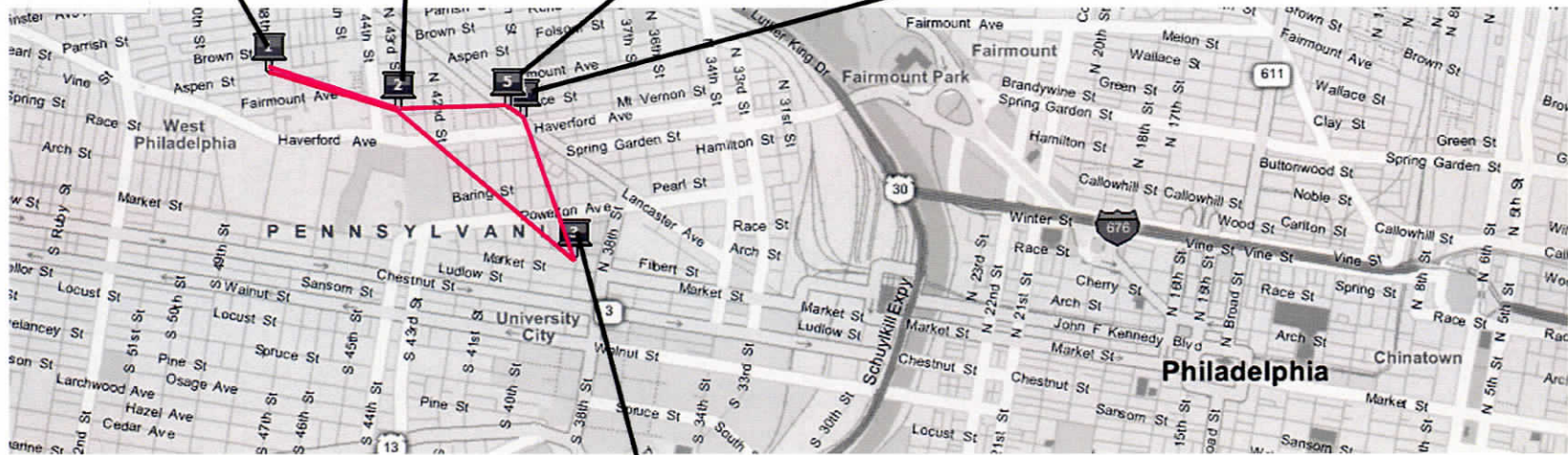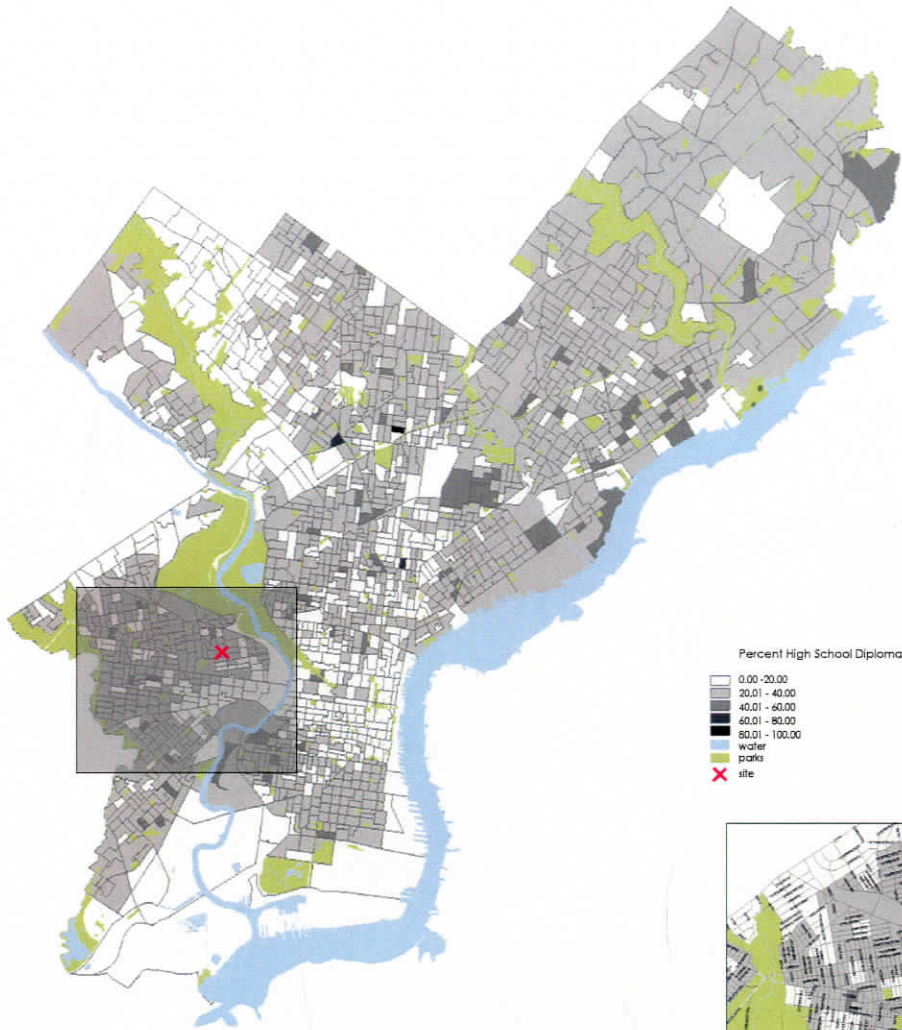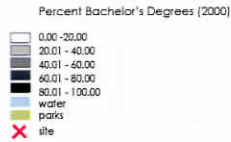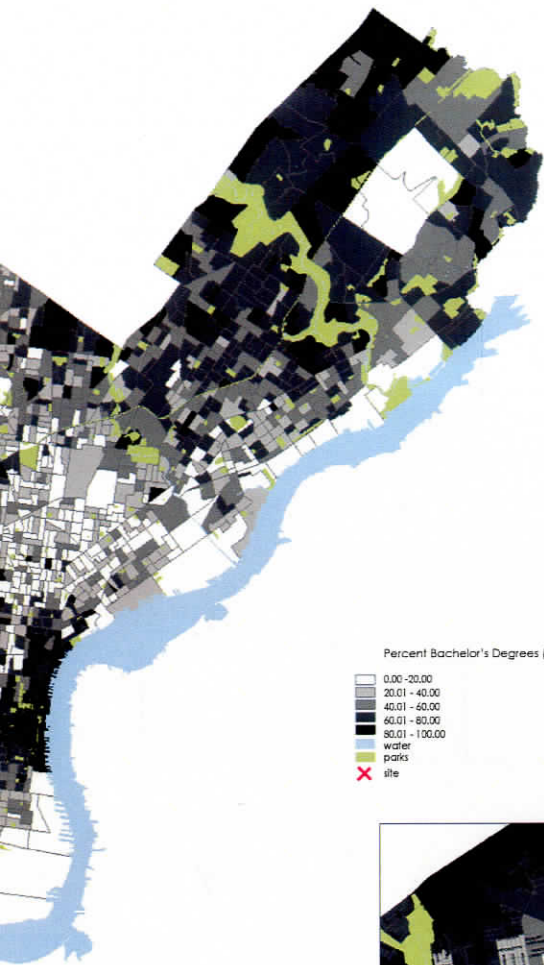
Low-income and upper-middle class families alike face problems with day care. Inconvenient hours with high overtime charges are problematic for working parents who find it hard to balance work and family life. Furthermore, low-income parents are often forced to take jobs with irregular hours that prevent them from spending time with their children after school. This lack of participation in their children's lives has been shown to be detrimental to children's education, and has attributed to higher drop out rates. Without a proper foundation, how can children be expected to acclimate themselves into society as healthy, functioning adults?

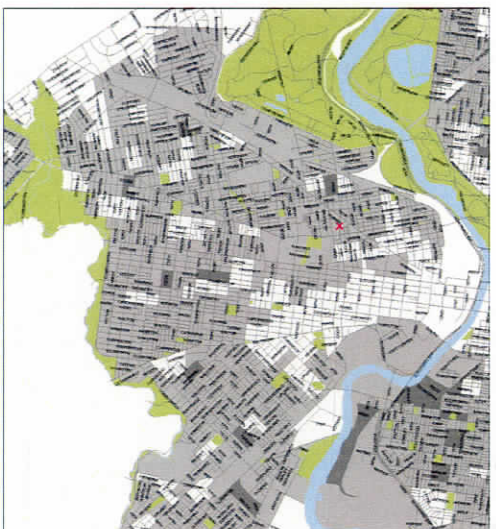West Philadelphia has one of the lowest high school retention rates with under half the population over the age of 25 having earned a high school diploma. Furthermore, the percentage of the population in the Belmont neighborhood with a Bachelor's degree or higher education falls below 15 percent of the population, but with most areas falling in the 0 - 5%. The education system is clearly failing in this area, so a more responsive program is needed to meet the needs of its students.
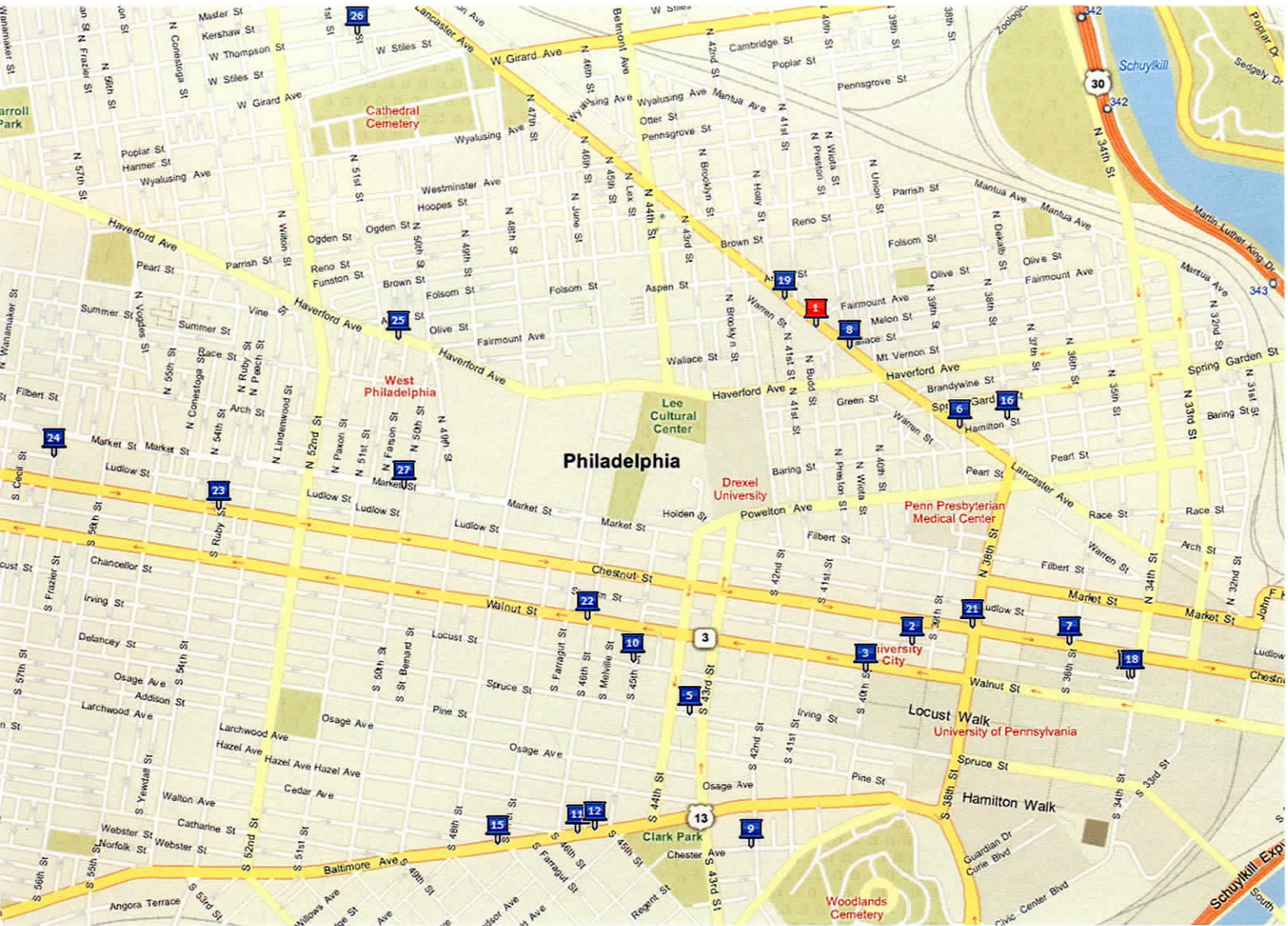
Over-21 Nightlife

1. Site

Bars / Nightclubs:
2. Blarney Stone
3. Smokey Joe's Tavern
4. Club Wizzards
5. Kelliann's tavern
6. Way's Lounge
7. Top Dog
8. B J Lounge
9. Millcreek tavern
10. Fiume
11. Gojo bar
12. Queen Sheba
13. Fergie's Pub
14. Ludwig's Garten
15. Dahlak Restaurant and Bar
16. White Dog Cafe
17. White Dog Cafe 2
18. New Deck Tavern
19. JW jack o' Harts Lounge
20. Brownie's
21. Koko Bongo
22. Watusi Pub
23. Fifty Four Lounge
24. Club Temptation
25. Cavall's Tavern
26. Caprice villa

West Philadelphia lacks night-time activities. While there are a number of bars that cater to the university crowd, under-21 activities are severely lacking in the area. This problem further encourages deviant behavior among unsupervised teenagers.
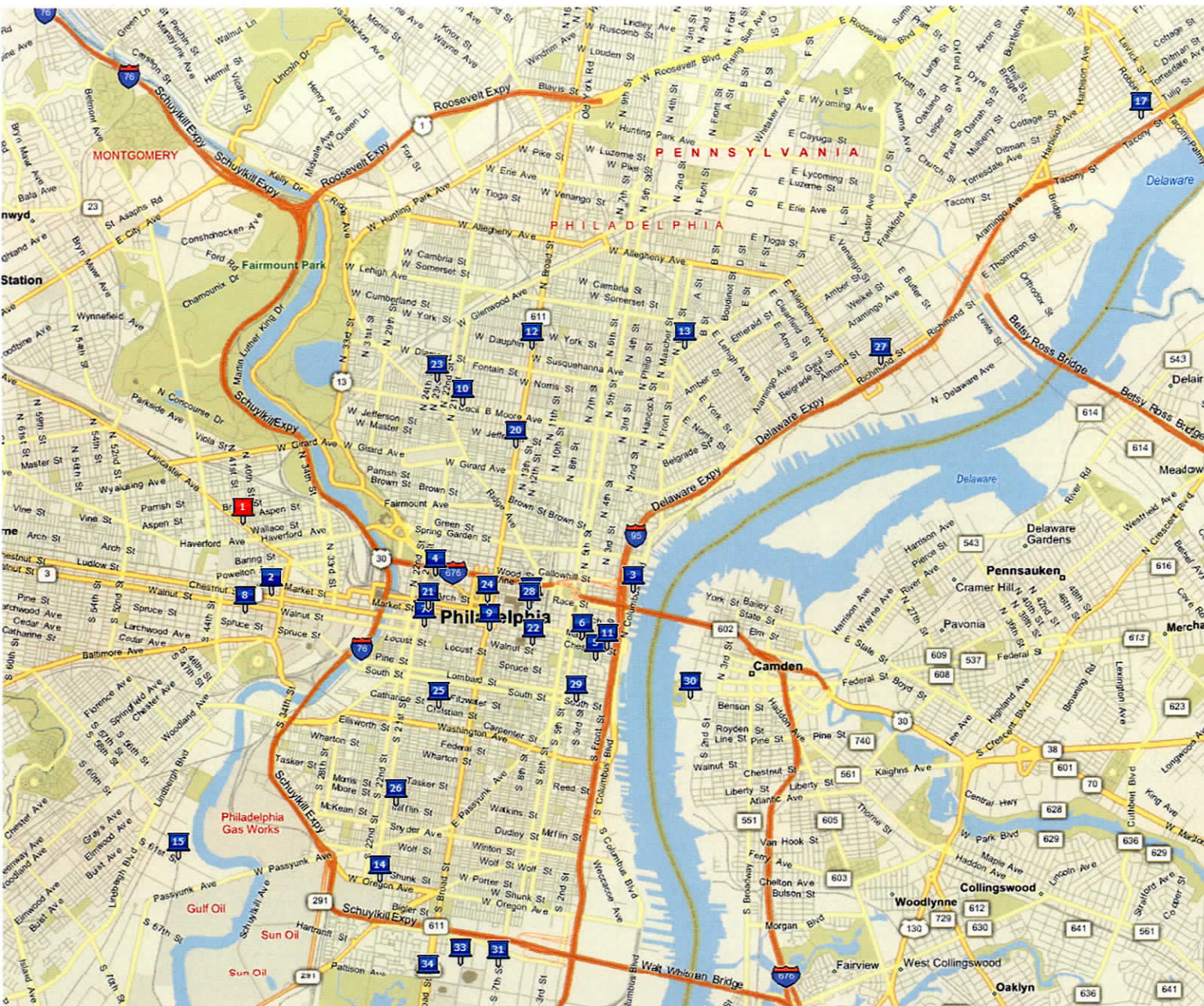
Under-21 Nightlife

1. Site

Movie Theaters:
2. Cinema de Lux
4. Tuttleman IMAX Theaer
5. Ritz 5 Movies
6. Ritz at the Bourse
7. Roxy Theatre

Bowling Alleys:
8. Strikes Bowling Lounge
9. Lucky Strikes Bowling
   Alley

Pool Halls
10. Ballard's Billiards
    Center
11. Buffalo Billiards
12. Broad Street Billiards
13. Vuong Viet Pool Hall
14. Willie Muscon Golden
    Cue
15. Ballbusters
16. 1 2 3 Billiards
17. Alpha Billiards Club
18. Tacony Palmyra
    Billiard Club

YMCA
18-26. YMCA

Concert Venues:
27. The Electric factory
28. The Trocadero
29. Theater for the Living
    Arts
30. The Tweeter Center

Sports Complexes:
31. Lincoln Financial Field
32. The Spectrum
33. Citizens bank Stadium
34. The Wachovia Center

programmatic elements

The school and day care facility will be organized into a variety of different stations where children will be able to play and learn. These stations will cover a variety of topics, some as a means for reinforcement of the public school system's curriculum and others as a means for building self-confidence and self-sufficiency. These stations will cover the following topics:

_Art

    ranges from finger painting to small murals with the potential to be integrated into the City of philadelphia's Mural Arts Program

_Music

    Simple percussion up to instruction of recorder including basic sheet reading

_Performance

    Creative expression to short plays

_Nutrition

    Snacking to preparation of healthy snacks to gardening

_Reading

    Story time to learning how to read and reading buddies

The various stations cater to different intelligences as detailed in the image to the right. The success of students in later years of schooling may be more successful if they are able to identify positive qualities and ways that they learn. Activities at the stations provide an early start to help teachers identify these qualities in students.

SEVEN INTELLIGENCES			
Type	Likes To	Develops Related Skills	Learns Best By
Linguistic Intelligence "The Word Player"	Read Write Tell stories	Memorizing names, places, dates, and trivia	Saying, hearing, and seeing words
Logical/Mathematical Intelligence "The Questioner"	Do experiments Figure things out Work with numbers Ask questions Explore patterns and relationships	Math Reasoning Logic Problem solving	Categorizing Classifying Working with abstract patterns/relationships
Spatial Intelligence "The Visualizer"	Draw, build, design, and create things Daydream Look at pictures/slides Watch movies Play with machines	Imagining things Sensing changes Reading maps, charts	Visualizing Dreaming Using the mind's eye Working with colors/pictures
Musical Intelligence "The Music Lover"	Sing, hum tunes Listen to music Play an instrument Respond to music	Picking up sounds Remembering melodies Noticing pitches/rhythms Keeping time	Rhythm Melody Music
Bodily/Kinesthetic Intelligence "The Mover"	Move around Touch and talk Use body language	Physical activities (sports/dance/acting) Crafts	Touching Moving Interacting with space Processing knowledge through bodily sensations
Interpersonal Intelligence "The Socializer"	Have lots of friends Talk to people Join groups	Understanding people Leading others Organizing Communicating Manipulating Mediating conflicts	Sharing Comparing Relating Cooperating Interviewing
Intrapersonal Intelligence "The Individual"	Work alone Pursue own interests	Understanding self Focusing inward on feelings/dreams Following instincts Pursuing interests/goals Being original	Working alone Individualized projects Self-paced instruction Having own space

program
activities

Additional activities that may occur:
- voting
- working out
- bake sales
- gardening
- adult classes
- artist gallery
- small conerts
- dances
- town meetings
- auctions
- party
- banquets
-

program square footage

Pre Kindergarten / Kindergarten
- Classrooms (4) @ 750 sq. ft.
- Restrooms (4) @ 80 sq. ft.
- Teacher Workroom
- Kitchen
- Tumbling room

3000 sq. ft.
320 sq. ft.
350 sq. ft.
600 sq. ft.
sq. ft.

Grades 1 through 5
- Classrooms (10) @ 800 sq. ft.
- Restrooms (10) @ 80 sq. ft.
- Kitchen

8000 sq. ft.
800 sq. ft.
1200 sq. ft.

Community Spaces
- Art Room
- Music Room
- Greenhouse
- Gymnasium
- Auditorium
- Computer Room
- Library

1000 sq. ft.
850 sq. ft.
850 sq. ft.
1872 sq. ft.
1050 sq. ft.
1000 sq. ft.
900 sq. ft.

Student Support Spaces
- Nurse's Office
- Counselor's Office
- Special Education Services

590 sq. ft.
150 sq. ft.
350 sq. ft.

Administration
- Principal's Office
- Administrative Assistant
- Admissions Office
- Parent Conference Rooms (2) @ 100 sq. ft.
- Waiting Area

250 sq. ft.
150 sq. ft.
200 sq. ft.
200 sq. ft.
200 sq. ft.

Staff Support Spaces
- Break Room
- Teacher Workroom
- Restroom

600 sq. ft.
900 sq. ft.
100 sq. ft.

Circulation / Mech / Elec / General Storage   6000 sq. ft.

Total Indoor: 33232 sq. ft.

Outdoor Playground   22500 sq. ft.

Total Facility: 55732 sq. ft.

program
future development

As different users begin to utilize the building, different types of businesses should fill previously vacant buildings to better serve the needs of different users and increase the level of convenience. The educational programming of the site can expand to fill other vacant sites in the area and further develop this area as a premier area for youth education.

Site

Vacant sites for future development

Vacant buildings for future development

program
temporal uses

The building can transition through the day so that spaces that were previously utilized for classroom and other elementary educational purposes may serve alternate users in the evening. This allows a multitude of users to take advantage of this flexible space.

site selection
challenges

benefits

West Philadelphia boasts an extensive set of trolley tracks. The site selection take advantage of this fact in that it stands at the cross roads of two lines, one running along Lancaster avenue, the route 10 trolley, and the other running north and south of the site. It is within a 5 minute drive from the universities and is within walking distance from a number of amenities, as Lancaster Avenue is a major commercial artery in West philadelphia.

Image right: denotes the distance that may be travelled on foot in 5 minutes (small magenta circle) as well as driven (large magenta circle).
Image opposite page left: describes the positioning of the area in relation to transportation available to residents.
Image opposite page right: describes the relation of the commercial roads (Lancaster Avenue and Market Street and surrounding blocks) in relation to the rest of the area which is primarily residential.

40

Map labels (left map):

FAMILY CHARTER SCHOOL

MILLER H.S.

BELMONT

PHILADELPHIA ZOO

BELMONT E.S.

MANTUA

McMICHAEL E.S.

WASHINGTON E.S.

37TH & OLIVE PLAYGROUND

ST. IGNATIUS

POWELTON

WEST POWELTON

SAUNDER'S PARK

SAUNDER'S PARK

DREXEL UNIVERSITY FIELDS

PRESBYTERIAN MEDICAL CENTER

DREW E.S.

UNIVERSITY H.S.

WEST PHILADELPHIA CATHOLIC H.S.

UNIVERSITY CITY SCIENCE CENTER

WALNUT HILL COLLEGE

UNIVERSITY CITY
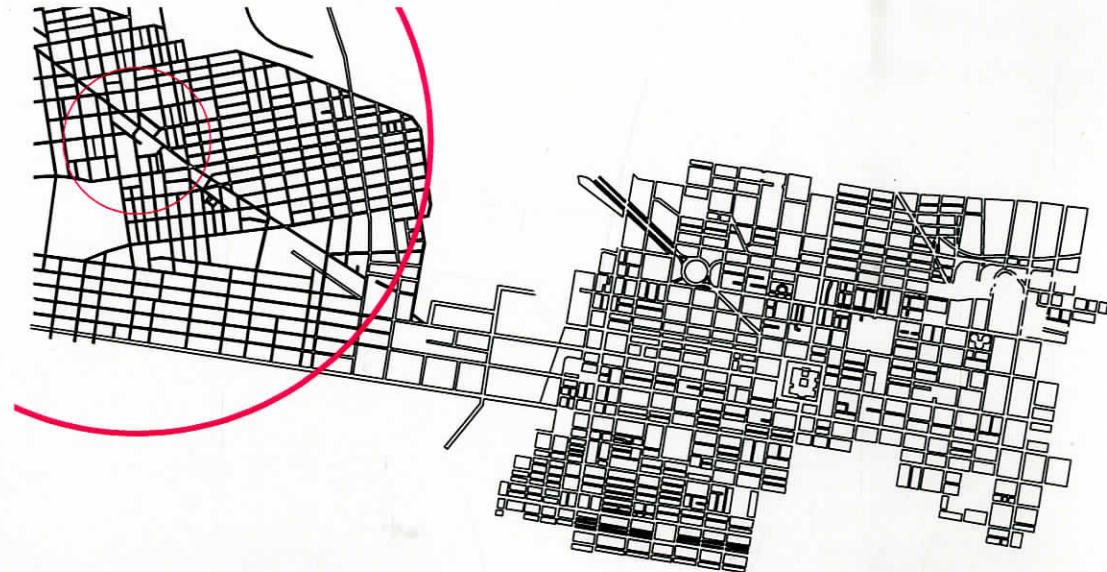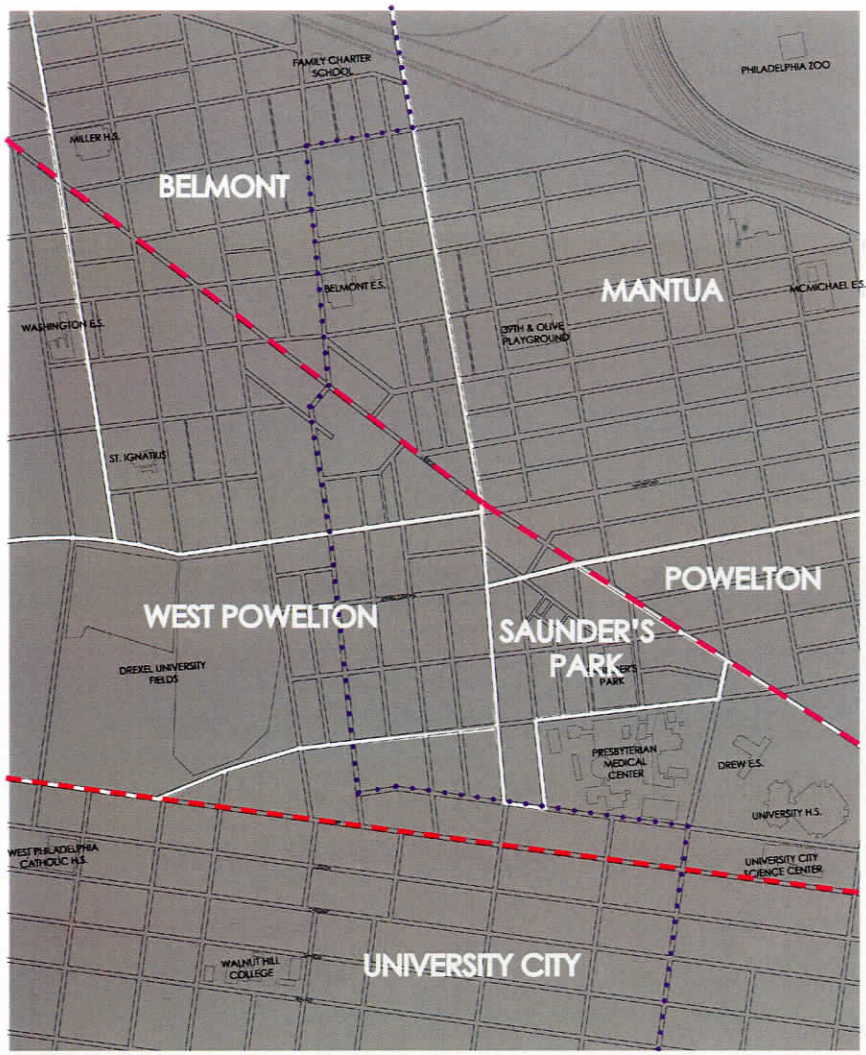
Legend (left):
- - - Market - Frankford Line
- - - Route 10 Trolley
• • • • Other Trolley tracks

greater belmont area

Legend (right):
- residential
- commercial
- institutional
- industrial
- store with dwelling

land use

site selection
photo documentation

poverty

10% - 20%
21% - 40%
41% - 70%

vacancy

vacant building

B

C

D

E

L

S

T

M

H

A

U

F

V

N

K

O

G

R

Q

J

P

Avg
Heel
Hgt

20 .8

Weight Kg & Lb (includes Avg. Clothes). Data Are For Load Computations, Not Health Purposes.

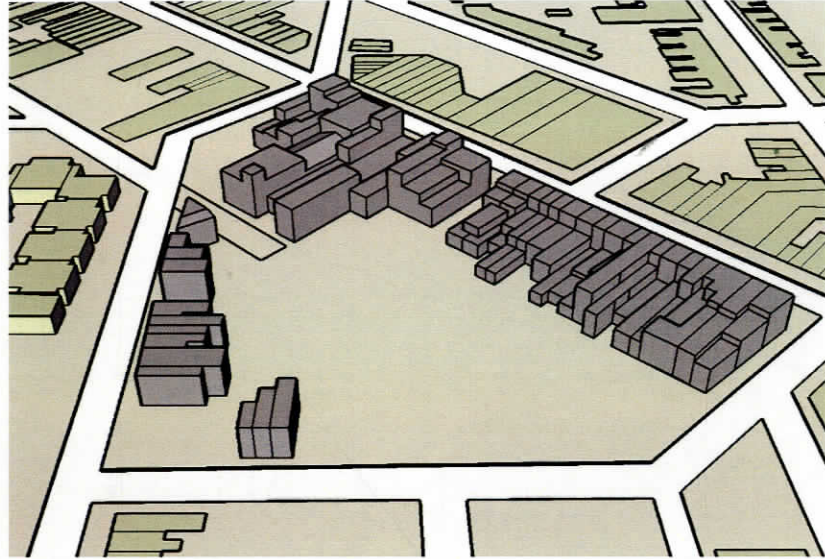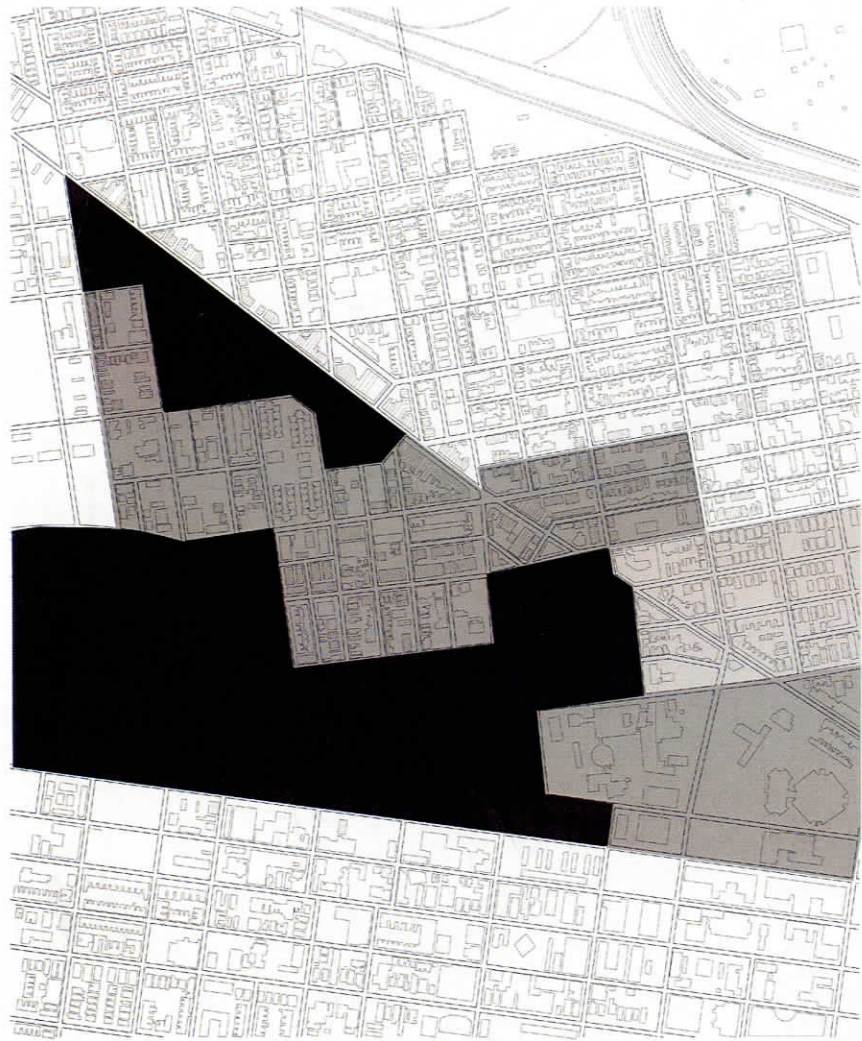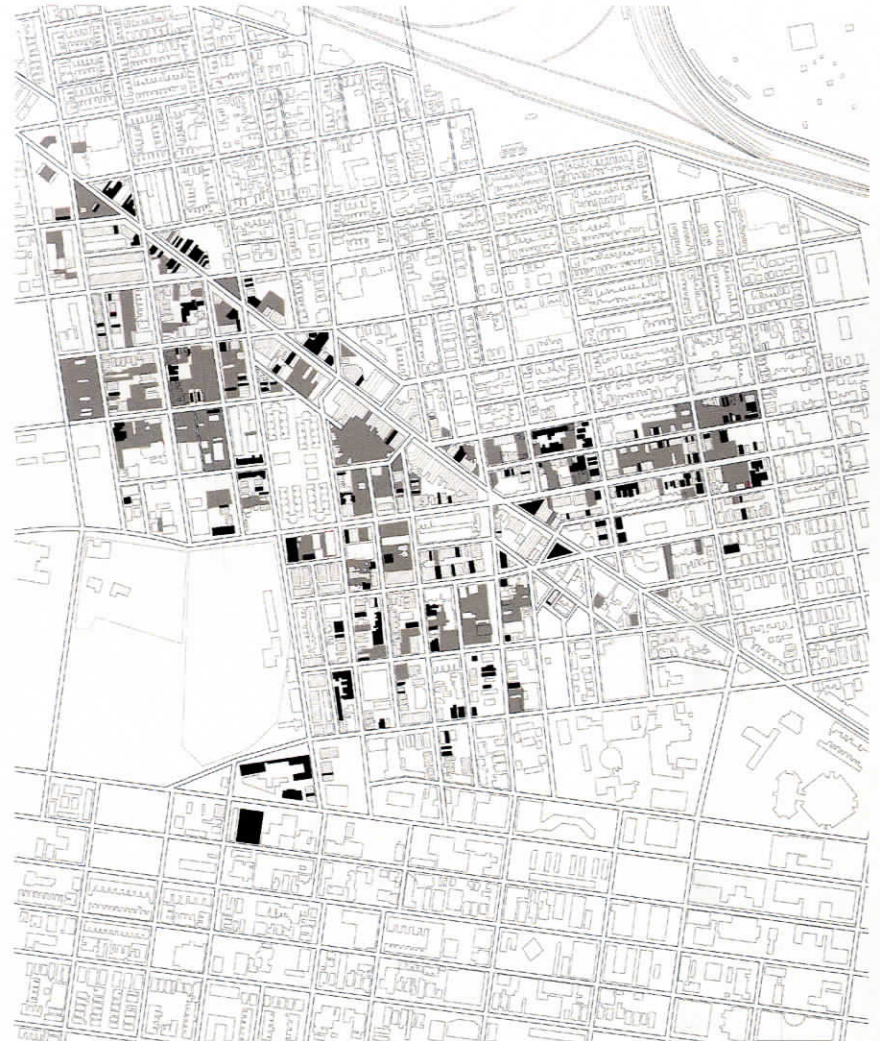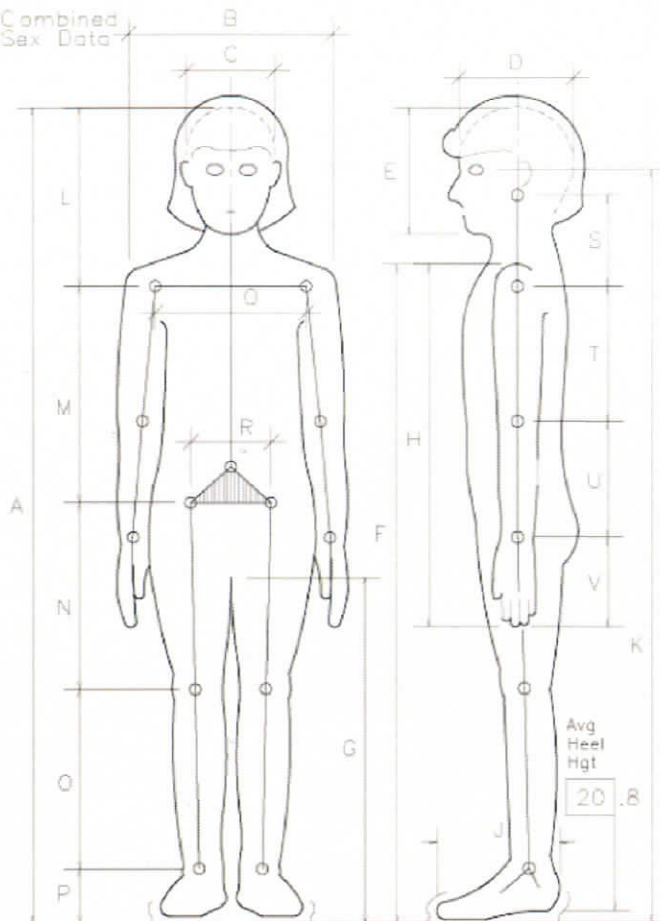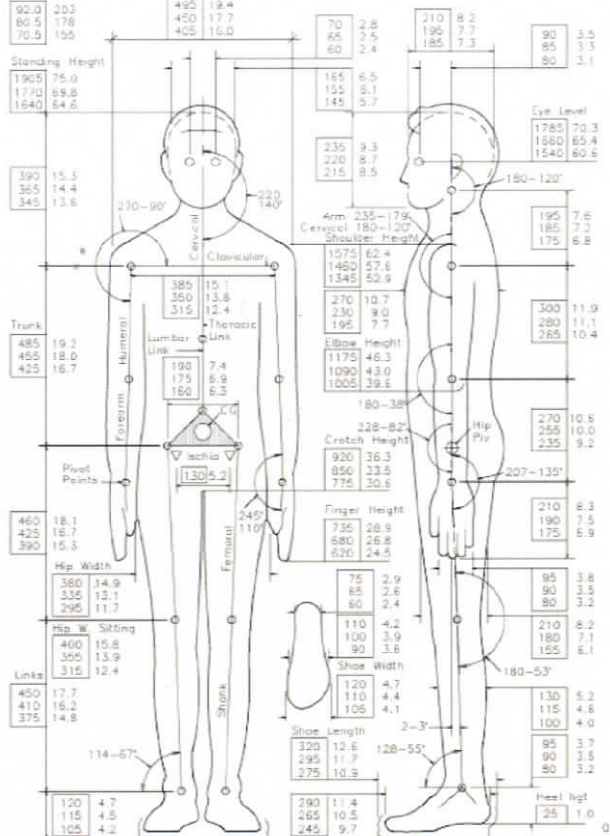| 92.0 | 203 |
| 80.5 | 178 |
| 70.5 | 155 |

Standing Height

1905	75.0
1770	69.8
1640	64.6

390	15.3
365	14.4
345	13.6

270-90°

Cervical

Trunk

485	19.2
455	18.0
425	16.7

Humeral

460	18.1
425	16.7
390	15.3

Forearm

Hip Width

360	14.9
335	13.1
295	11.7

Hip W. Sitting

400	15.8
355	13.9
315	12.4

Links

450	17.7
410	16.2
375	14.8

114-67°

120	4.7
115	4.5
105	4.2

Shank

495	19.4
450	17.7
405	16.0

165	6.5
155	6.1
145	5.7

235	9.3
220	8.7
215	8.5

Clavicular

Arm 235-179°
Cervical 180-120°

385	15.1
350	13.8
315	12.4

Lumbar Link

Thoracic Link

190	7.4
175	6.9
160	6.3

CG

Ischio

| 130 | 5.2 |

Pivot Points

245
110

Femoral

Hip W. Sitting

Shoe Width

120	4.7
110	4.4
105	4.1

Shoe Length

320	12.6
295	11.7
275	10.9

128-55°

70	2.8
65	2.5
60	2.4

210	8.2
195	7.7
185	7.3

90	3.5
85	3.3
80	3.1

Eye Level

1785	70.3
1660	65.4
1540	60.6

180-120°

195	7.6
185	7.2
175	6.8

Shoulder Height

1575	62.4
1460	57.6
1345	52.9

270	10.7
230	9.0
195	7.7

Elbow Height

1175	46.3
1090	43.0
1005	39.6

180-38°

228-82°

Crotch Height

920	36.3
850	33.5
775	30.6

Finger Height

735	28.9
680	26.8
620	24.5

300	11.9
280	11.1
265	10.4

Hip Plv

270	10.8
255	10.0
235	9.2

207-135°

210	8.3
190	7.5
175	6.9

75	2.9
65	2.6
60	2.4

110	4.2
100	3.9
90	3.6

130	5.2
115	4.6
100	4.0

95	3.8
90	3.5
80	3.2

210	8.2
180	7.1
155	6.1

180-53°

2-3°

95	3.7
90	3.5
80	3.2

Heel hgt

| 25 | 1.0 |

290	11.4
265	10.5
245	9.7

0 Datum

Standing Slump Can Be 30 1.2 For Men Or Women. C.G. Is Within Pelvic Link.

Weight Kg & Lb

| 75.5 | 166 |
| 61.5 | 135 |

Standing Height

1790	70.4
1660	65.4
1540	60.6

370	14.5
350	13.8
325	12.8

Trunk

455	18.0
455	18.0
400	15.8

CG

Pelvic Link

Hip W

425	16.7
375	14.6
355	14.0

Hip W. Sitting

450	17.7
370	14.6
310	12.3

Links

410	16.2
380	14.9
345	13.6

135	5.0
120	4.7
115	4.5

450	17.7
400	16.0
365	14.4

350	13.7
315	12.4
285	11.2

Shoe Length

275	10.4
260	10.2
240	9.4

| 70 | 2.7 |
| 55 | 2.2 |

155	6.2
145	5.8
135	5.3

210	8.3
205	8.0
200	7.9

Shoulder Height

1475	58.0
1365	53.7
1260	49.6

Elbow Height

1105	43.5
1025	40.3
935	36.9

Crotch Height

| 865 | 34.9 |
| 730 | 28.7 |

Finger Height

690	27.1
640	25.1
580	22.9

Shoe Width

105	4.1
95	3.7
85	3.3

Shoe Length

265	10.4
245	9.7
225	8.9

195	7.7
185	7.3
185	7.3

| 85 | 3.3 |
| 80 | 3.2 |

Eye Level

1675	66.0
1560	61.4
1440	56.6

185	7.2
175	6.9
165	6.4

285	11.2
255	10.0
250	9.9

255	10.1
235	9.2
220	8.7

190	7.5
185	7.1
180	6.9

90	3.6
80	3.2
75	2.9

205	8.0
185	7.3
145	5.7

120	4.8
100	4.0
95	3.7

2-3°

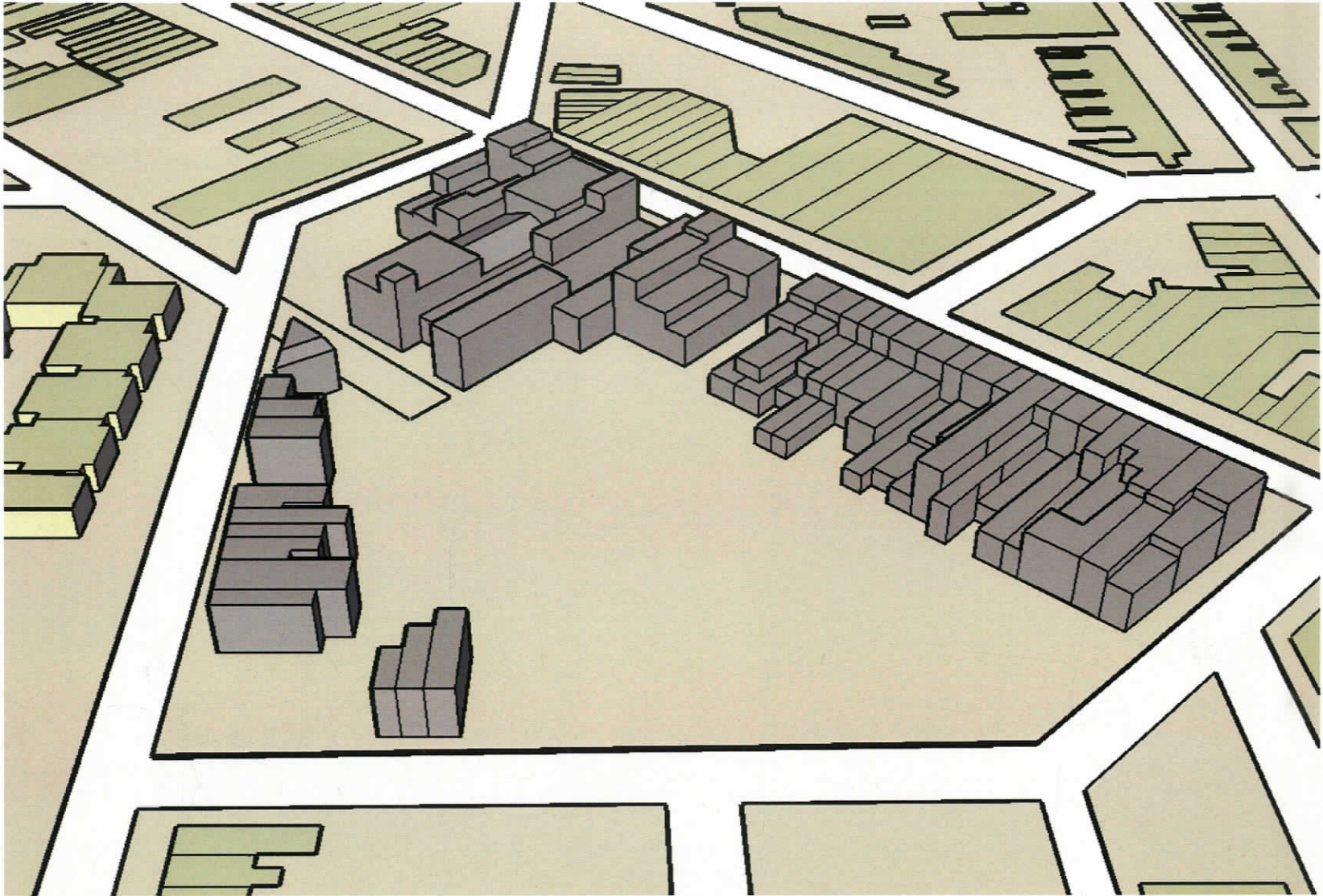| 90 | 3.5 |
| 80 | 3.2 |
| 75 | 3.0 |

Heel hgt

| 40 | 1.5 |

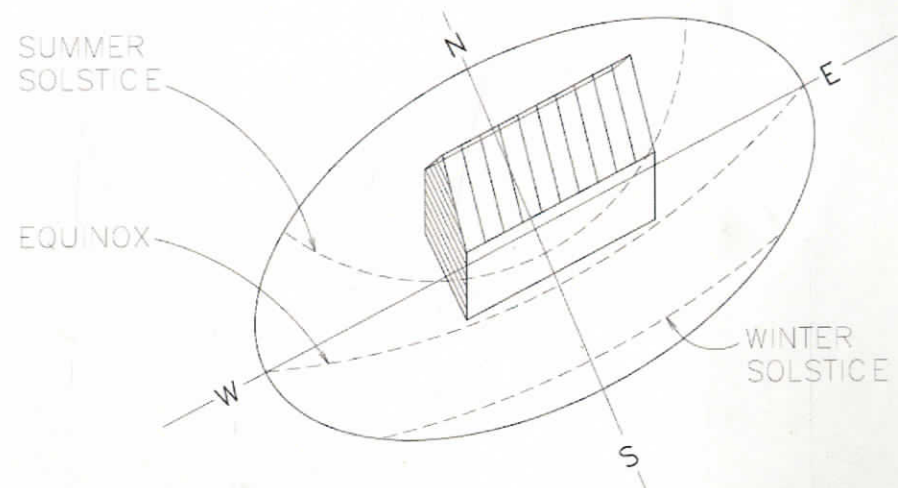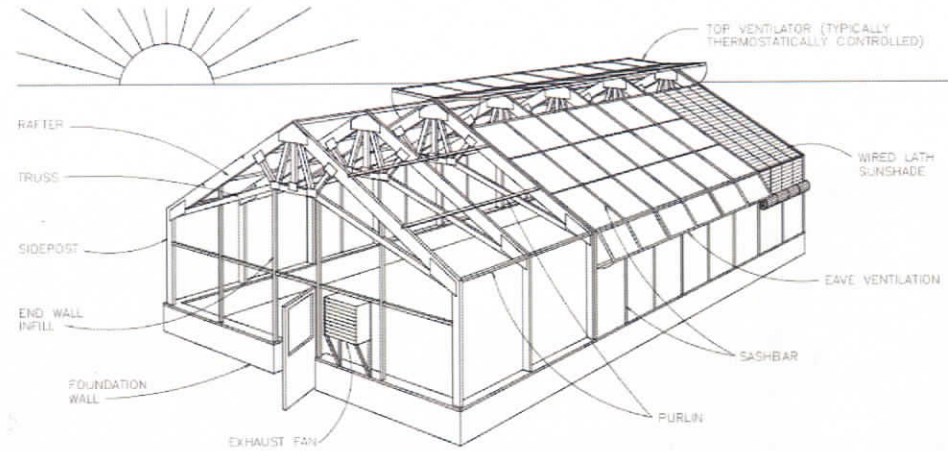# design considerations
scale

The building's primary users are children, so the architecture should reflect this important detail. At the same time, the building is also meant to transition through the day to serve older users in the evening hours. Scale changes in the design of the building are important to reflect this unique aspect.

TOP VENTILATOR (TYPICALLY THERMOSTATICALLY CONTROLLED)

RAFTER

TRUSS

SIDEPOST

END WALL INFILL

FOUNDATION WALL

EXHAUST FAN

WIRED LATH SUNSHADE

EAVE VENTILATION

SASHBAR

PURLIN

SUMMER SOLSTICE

EQUINOX

WINTER SOLSTICE

N

E

W

S

users_social condensing of daily life

The objective of this project is to help blur the stark social boundaries that exist in West Philadelphia through creative programming that work as social condensers. In addition to this primary goal, the program also seeks to meet the needs of the surrounding neighborhood, Belmont. In addition, the temporal uses of the building work to bolster both a greater community involvment as well as increased family involvement in children's education. parental involvement in education is key to successful early education

Small schools provide an environment more focused on the needs of students. Not only do they encourage smaller student-to-faculty ratios, but they provide a variety of different scaled spaces that foster a sense of community. Grades are often separated and encouraged to create their own identity as a part of the greater whole. Small spaces where single students can go to refresh are also frequently considered in the design process. The grades are generally strung along a central circulation piece with the shared spaces located either centrally or as anchors to the circulation piece. The following precedents all provide examples of these principles in their designs.
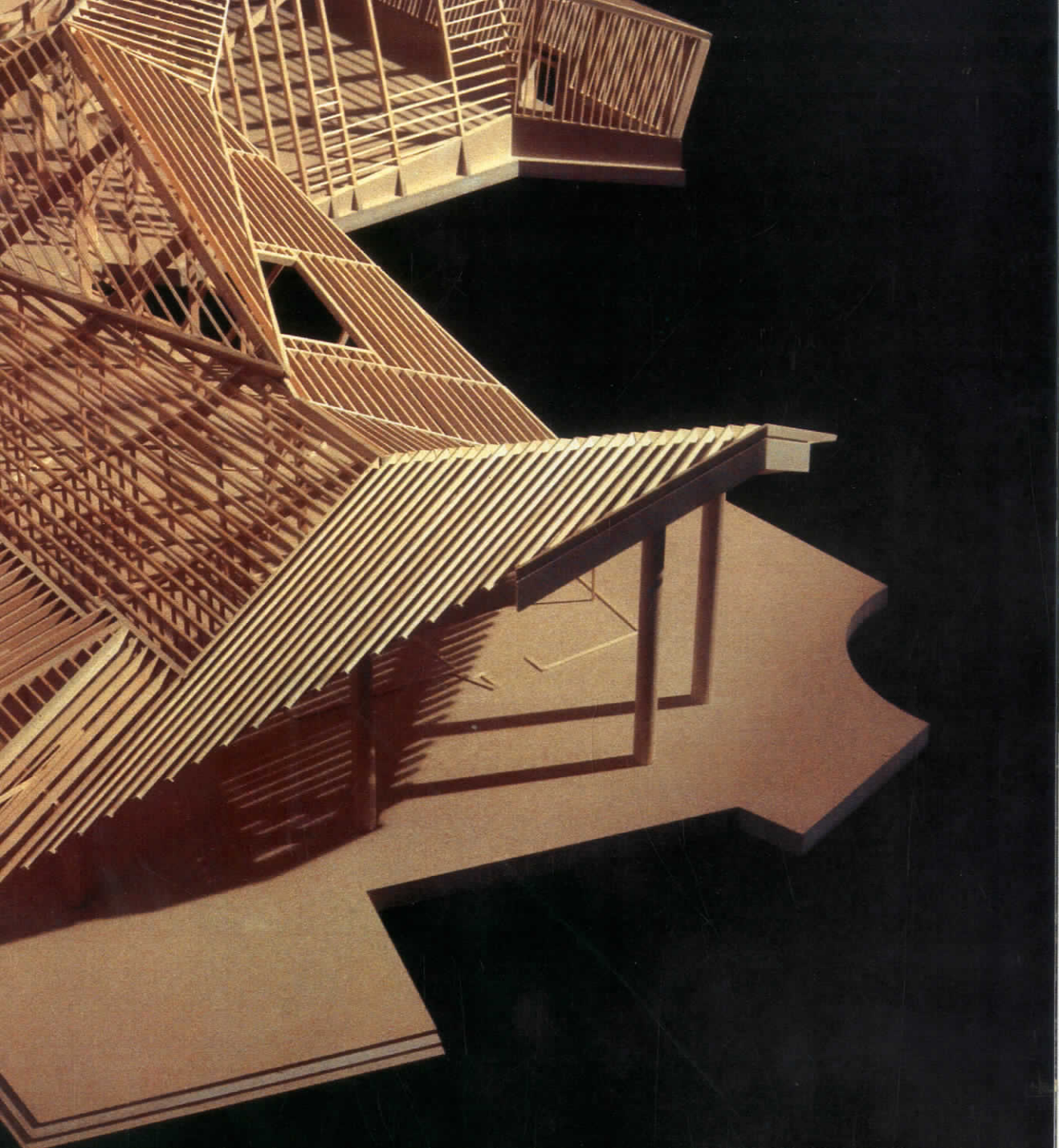
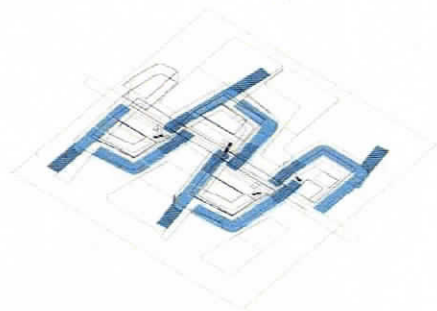# precedent
koning eizenberg_architecture for education

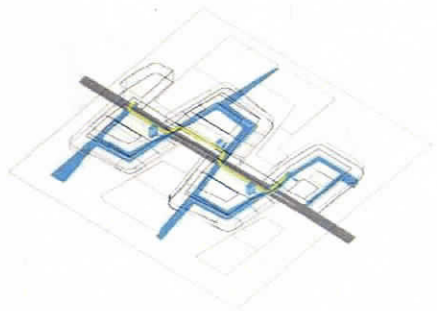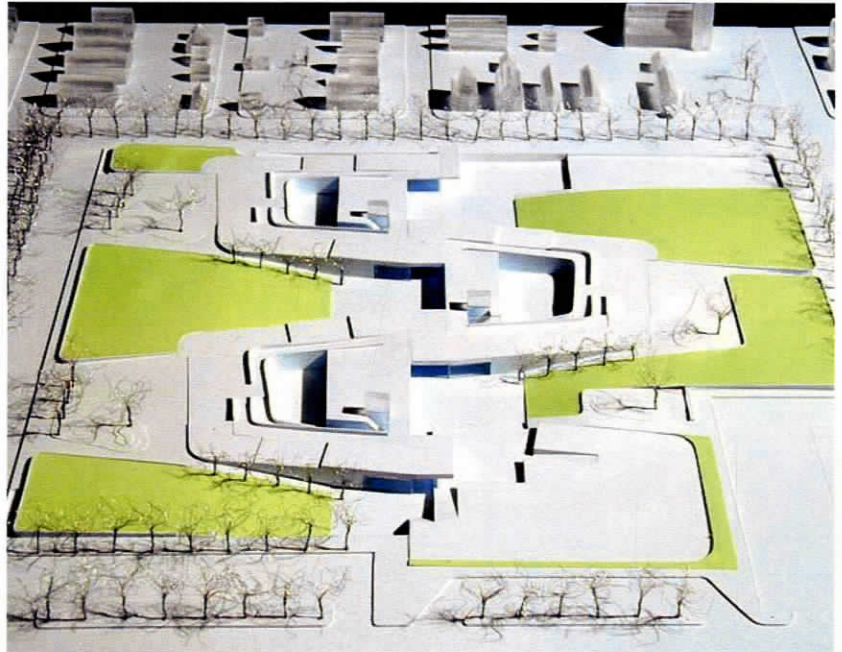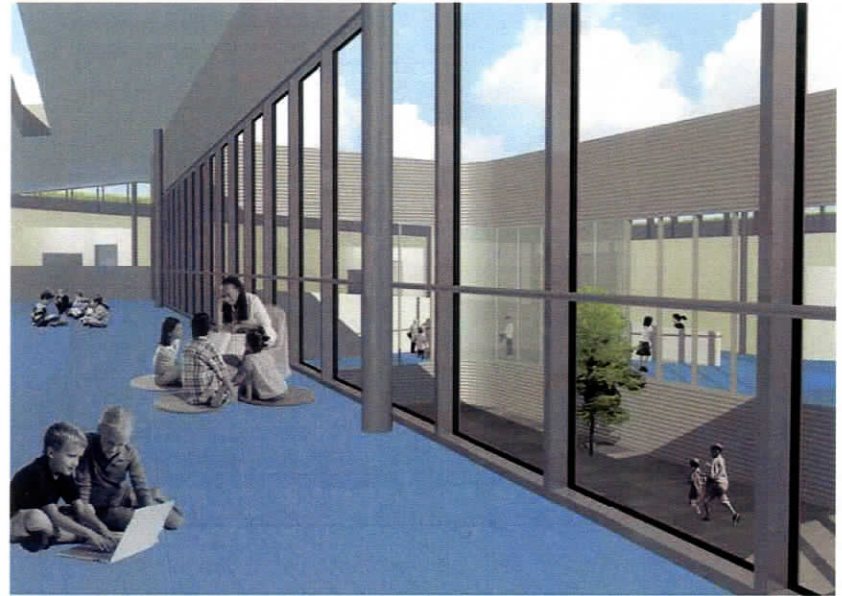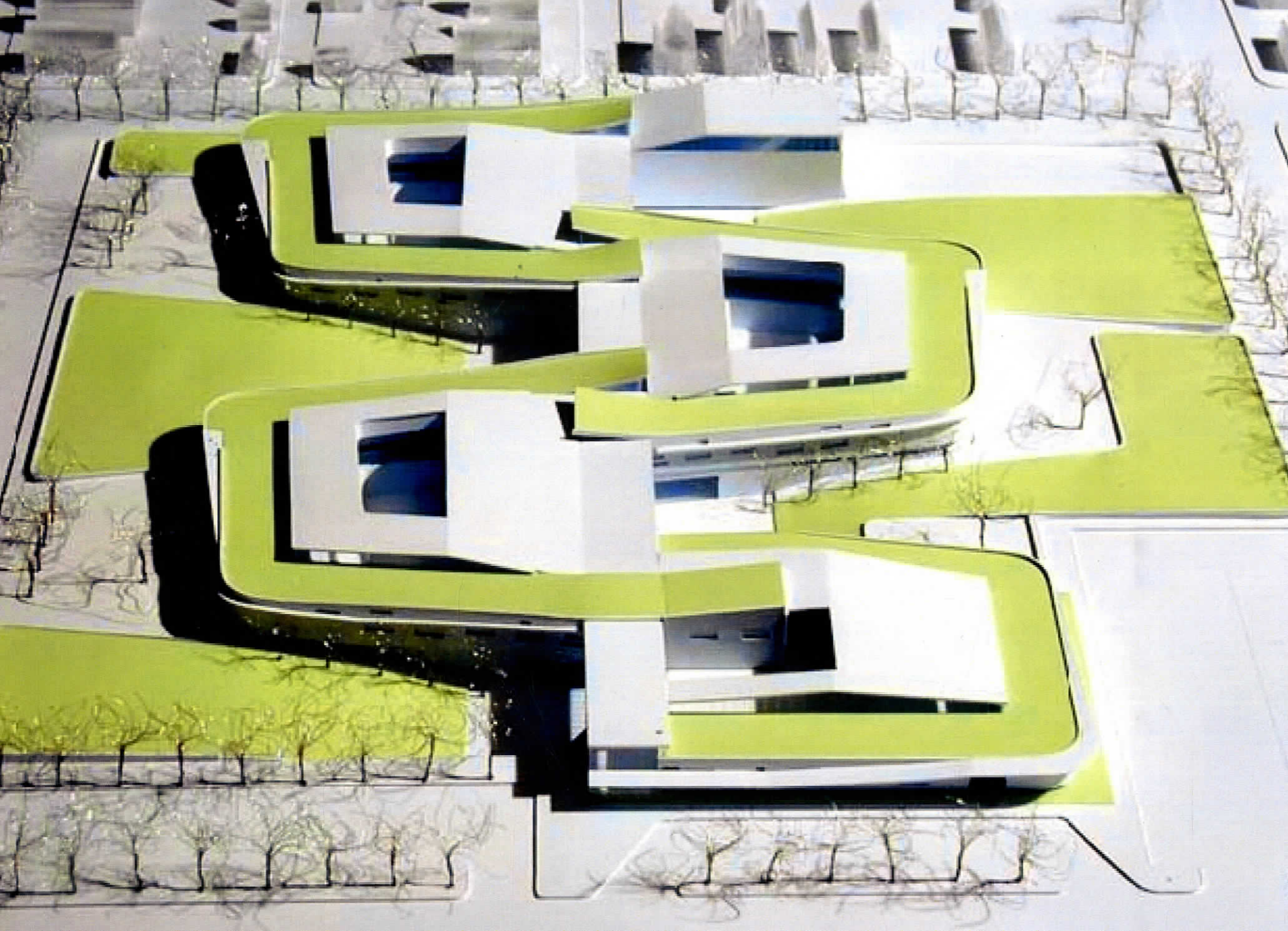indoor play area
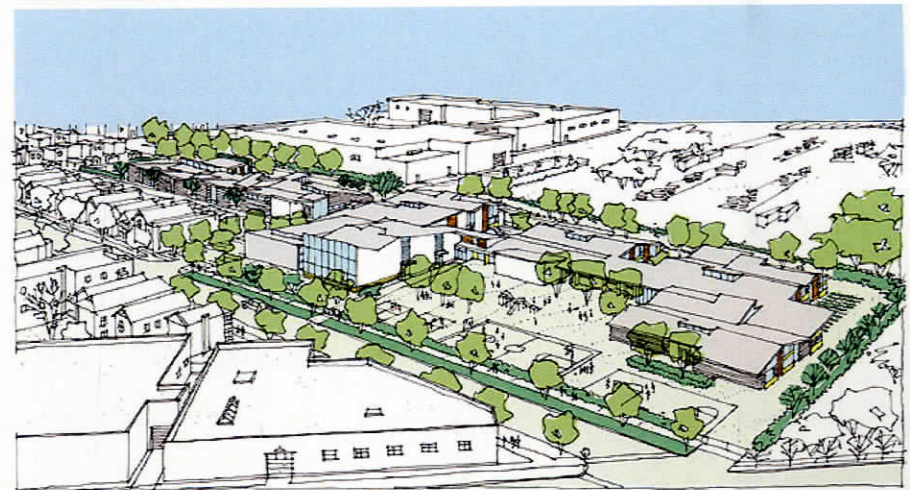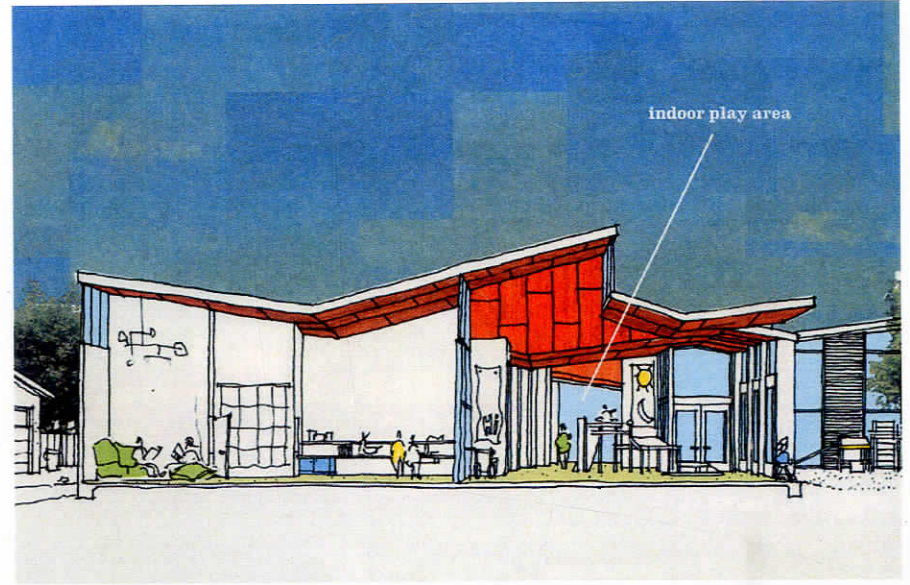
precedent
patkau architects_seabird island school

works referenced

Bacon, Edmund. *Design of Cities*. New York: Penguin Books, 1980.

    Based on Bacon's experience as the Executive Drector of the Philadelphia Planning Commission. Guidebook to how to design cities using a number of diagrams and images to demonstrate concepts and is based on the concept that the city is an act of will, and not out of our control.

Certeau, Michel de. *The Practice of Everyday Life*. Translated by Steven Rendall. Berkeley: University of California Press, 1984.

    Essays contend that the users are not passive as we generally assume. Instead, Certeau tries to make explicit what he calls "operational combination," or give importance to the way users operate in everyday life.

Findley, Lisa. *Building Change: Architecture, Politics, and Cultural Agency*. London: Routledge, 2005.

    Insightful book discussing the role of architecture in influencing the politics of disenfranchised areas. Provides three solid modern examples with a lot of references to other reading material. Provided a really good jumping off point for research.

Oakley, David. *The Phenomenon of Architecture in Cultures in Change*. Oxford: Pergamon Press, 1970.

    Design in Action, relationship of land to people. This book concerns itself with not only the role of architecture on land and people, but also includes chapters discussing examples of design in action.

Harvey, David. *Spaces of Hope*. Berkeley: University of California Press, 2000.

    The book concerns itself with the lack of political will to do anything about our current state (of economy, the proliferation of large corporations, unused tracts of land, etc.) The latter part of the book is particularly interesting on Harvey's take of the "insurgent architect" and their role. It is also an interesting source because Harvey examines Utopias and what made them fail.

Krier, Rob. *Urban Space*. New York: Rizzoli, 1979.

    Classic reading on urban space with Stuttgart used as an example. Krier provides a wealth of graphic information to help understand the material.

Rowe, Colin. Collage City. MIT Press, 1984

    Contemporary discussion of the role of the architect/urban planner in the planning of the city and discusses how both the traditional city and the modern city may be combined to produce the "collage city.

Rowe, Peter. Civic Realism. Cambridge: MIT Press, 1997.

Offers an alternative view to how we think of the word "civic" as a point-of-view about public conduct. Civic Realism refers more to behavior in public and the need for a communitarian concept to which people's conduct can correspond.