Anticipating Detroit:
A Collection of Instruments as a Catalyst for Recovery

by

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ABSTRACT

The social, political and economic history of Detroit has been inextricably linked to the development of its most dominant industry: automotive manufacturing. This thesis suggests a strategy to overcome the disadvantages of this industrial legacy, drawing from the city's viable contemporary social resources and dynamics in order to incite the informal gathering of individuals together for the performance of music. It is at the scale of the individual and the neighborhood that such a transformative process can occur. In order to combat the slow erasure and abandonment of neighborhoods near Detroit's downtown area, this project seeks to take advantage of the indigenous resources available to it, by using abandoned structures and materials. It acknowledges the primacy of sound and nature on the experience of the site.

Thesis Supervisor: Fernando Domeyko
Title: Senior Lecturer in Architecture

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"No one remembers what need or command or desire drove Zenobia's founders to give their city this form, and so there is no telling whether it was satisfied by the city as we see it today, which has perhaps grown through successive superimpositions from the first, now undecipherable plan. But what is certain is that if you ask an inhabitant of Zenobia to describe his vision of a happy life, it is always a city like Zenobia that he imagines, with its pilings and its suspended stairways, a Zenobia perhaps quite different, a-flutter with banners and ribbons, but always derived by combining elements of that first model.

This said, it is pointless trying to decide whether Zenobia is to be classified among happy cities or among the unhappy. It makes no sense to divide cities into these two species, but rather into another two: those that through the years and the changes continue to give form to desires, and those in which desires either erase the city or are erased by it."

- Italo Calvino
Thin Cities 3 in Invisible Cities

Collage

Background photo by Jordi Bernado
from
Daskalakis, Georgia, Waldheim, Charles
and Young, Jason, eds. *Stalking Detroit*.

DETROIT

ABANDONMENT OF A POSTINDUSTRIAL AMERICAN CITY

Woodward Avenue, July 2002.

This paper was written as background research during the summer of 2002 for Professor Julian Beinart's class, "Theory of City Form."

Many cities in America face the problems of racial injustice, unemployment, and poverty in the face of post industrialization, perhaps none so much as the city of Detroit, Michigan. These forces have ravaged the city, leaving only decayed ruins of the mighty industrial giant it briefly was. This present form of the city is less the result of city planners' actions than it is the result of abandonment. An enquiry into the history of the city reveals a complex web of social, economic, and political forces at work over time, particularly within the post World War II decades. It is the interaction between these various structures which define the shape of the city, and not the single domination of one over the others. While spatial structures in most cases reinforce existing social structures as in public housing for example, what is infrequently found is a radical change in the form of the city positively affecting these non-physical structures of economics, politics, society.

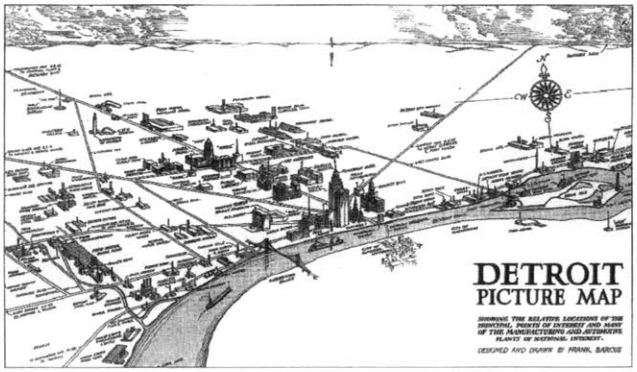
An attempt to clarify the intersections between these structures is often stymied by the very nature of the process by which decisions are made in the city. The process of city government working with private interests in a city facing the challenges of social inequality is complex. From the existing form of the city we must conjecture how it came to be, in an attempt to determine if this model can work for the future of the city. Ideally, decisions would be based on optimization of benefits and outcomes for all parties involved, not when a single person or entity makes decisions for the whole as with Robert Moses in New York (Beinart, lecture 3/30/00). In general, it seems that the majority of decisions were made by political or economic leaders, though it is not clear if either of these was particularly dominant in the city (Thomas, page 4). What happened and continues to happen in Detroit is that the process of development is not transparent, and residents are left to deal with the results of these decisions. In some cases, the decisions reinforce the social structure, as in segregated housing. In others, the spatial structure of the city is directly affected, as with land speculation in downtown Detroit. These are the types of intersections that will be examined in an attempt to clarify the complex model by which the city of Detroit has developed.

This method of examining a city differs from the one that may be used for European cities. It is unique to the situation in post industrial America because it looks at race, unemployment, and economics as well as history. These are the dynamic forces acting upon the city. Unlike the traditional European city, this new industrial American city does not have the classical references of an older city: walls, aristocracy or royalty, or a state to control growth or intervention (Beinart, lecture 3/9/00). The forces acting upon European cities are clearer. We can see, for instance, the shape of Paris contained by the ring road which was once a defensive wall. The very nature of a democratic process is complex and more susceptible to changes in elected leaders with different agendas. Couple this with the highly dynamic nature of market forces acting in an industry driven city like Detroit and even more complexity is added. Finally, decades of social unrest and race riots create the chaos at the center of this postindustrial city. While a master plan had once had influence in a city like Detroit, the economic and political forces were far more powerful than any single design in influencing the spatial characteristics of the city. Detroit is an industrial city that is essentially chaotic, its form the result of a complex web of social, economic, and political structures operating with and against each other.

In recent years, a number of scholars have focused their work on Detroit, fascinated by its steady decline. Cities in America do not die, but if there was one that ever came close to death, it is Detroit (Beinart, lecture 2/10/00). In researching the city of Detroit, three recently written sources were used, Thomas Sugrue's Origins of the Urban Crisis, June Manning Thomas', Redevelopment and Race, and Heather Ann Thompson's Whose Detroit?. Sugrue examines discrimination, deindustrialization, and racism as explanations for the crisis in Detroit. Thompson looks at politics, labor and race. She focuses on black liberalism as well as white flight, conservatism, and the labor movement in the 1970s. It is a more optimistic position, looking not at decay of the city but of "determination" (Thompson, page 5). June Manning Thomas looks closely at the role of the traditional urban planner in the city, the causes of decline, and the planners' roles in this decline. She also looks to learn from the study in the study of other American cities.

at the foot of Woodward, 1890s
from
Poremba, David Lee, *Detroit: A Motor City History*

The history of Detroit is that of a French fort town founded in 1701 as the Ville d'Etroit, or 'city of the strait', along what is now the Detroit river. Later the land was characterized by the long narrow "ribbon farms" that ran perpendicular to the water. Traces of these farms can be found in the modern city, as the names of the streets perpendicular to the river can be traced back to the farmers who once cultivated this fertile land.



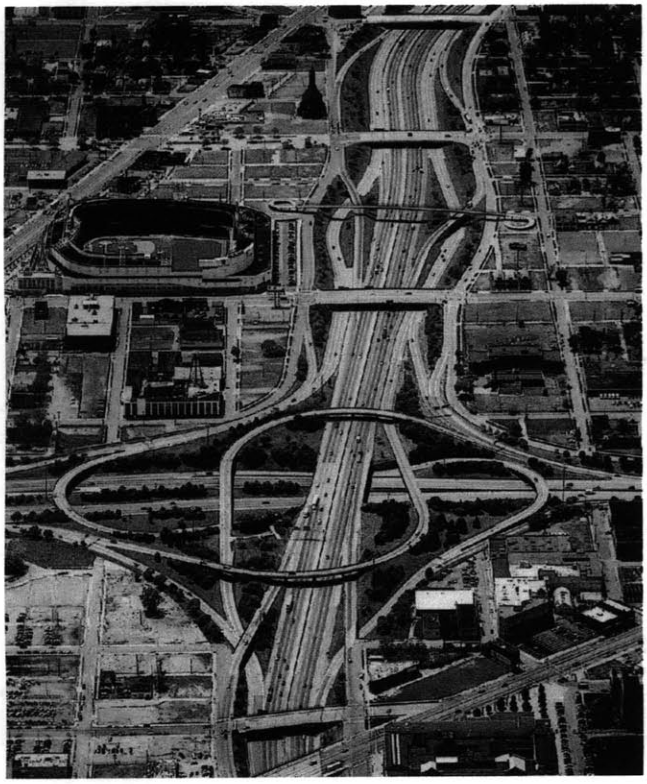
Detroit Picture Map showing locations of major public builidngs and avenues
from
Woodford, Arthur M., *This is Detroit: 1701-2001*

In the past 100 years, the city has developed into a large metropolis encompassing much more than the 138 square mile area which is designated as Detroit. Indeed, it is the small size of the city in relation to the surrounding area that has caused some of its trouble. The legal boundaries were drawn long ago and the city has not grown despite the desires of a number of planners who wished to see it fully incorporate some of the surrounding, now wealthier, areas. For the purpose of this study, we will look at the city alone in relation to the existing suburbs without a close analysis of the development of the suburbs themselves.

Physically, the city plan is a grid overlaid with five wide avenues radiating from the center of downtown. The neutrality of the grid is unbounded to the north and west, where development continues to press towards farmland areas further from the city center, connected by freeways running through the city in all directions. With fewer pedestrians in the downtown, the citizens of Detroit rely more everyday on the use of individual cars for transportation. This is appropriate in a city where there are many incentives to purchase an automobile. Most auto workers receive discounts to buy the company's product. It is reminiscent of Ford's belief that cars should be priced so that his workers could afford them.

Symbolically, the center of downtown is marked by the enormous Renaissance Center, a development constructed in the seventies to house the headquarters for the Ford Motor Company as well as provide office space and a hotel in a protected sanctuary. The story of the RenCen is representative of the manner in which large scale projects are constructed in the city. Henry Ford II, then chairman of the automotive company, put together a consortium of more than 51 banks and businesses associated with the automotive industry. Combined the banks contributed 200 million dollars to the project with Ford alone putting up 300 million dollars. Compared to the budget the city has for its own programs, this is an enormous amount of money invested in the city, one that the city could not decline even if the RenCen was disastrous for the life of the city outside 'the sanctuary.' Here is an example of politics working with businesses to build big projects, a method which continued under the mayoralty of Coleman Young, Detroit's first African American mayor who remained in office for 20 years. Later, when it was more beneficial for Ford to relocate outside the city limits to Dearborn, GM moved its headquarters to the Renaissance Center, drawn by tax incentives, and marking the building as its own with an enormous sign. Again, symbolically, the automotive companies continue to dominate the city, both economically and physically with the presence of this enormous tower. Only now has the community been able to have any impact on the tower with the removal of the large burms which blocked pedestrian access into the 'public' courtyard and mall at the center of the Center.

The avenues, respectively named Michigan, Jefferson, Gratiot, Woodward, and Grand River were remnants of Judge Woodward's plan for the city in 1807. He had been influenced by L'Enfant's plan for Washington DC. Though the plan included many more radiating centers of avenues, only a part of the plan was completed. Like the freeways after them, they were intended to provide speedy access to and from the city center. One can travel the city from downtown at the RenCen to Royal Oak, an outer suburb, in twenty minutes by car.



Detroit Freeways
photograph by McLean, Alex
in Daskalakis et al., *Stalking Detroit*

In post-WWII decades this plan has been overlaid with sunken, not buried, expressways that cut wide swaths through the city. Not the beautiful freeways imagined by Frank Lloyd Wright for the Broadacre city, these expressways were meant to alleviate the burden of heavy traffic on surface streets and provide essential routes of transportation into and out of Canada. Over one half of the trade that the US conducts with Canada passes through the Detroit border. Not only used for industrial transport, these freeways allow city workers to live comfortably further away from the city, but also allow for suburbanites to completely bypass the life of the city on their way to work, allowing them to have a less vested interest in the condition of the downtown, which they no longer require for living, shopping, or entertainment.

Sugrue argues that perhaps these expressways were also intended for another purpose, that is, "a handy device for razing slums (Sugrue, page 47)". Inner city highway construction disrupted the predominantly black neighborhoods close to the downtown while at the same time causing minimal interruption to the middle class residential areas. Yet at the time, Mayor Jeffries and a special postwar improvements committee determined that of many projects under consideration at the time, "none is of greater importance to Detroiters" than a proposed system of expressways and wider streets (Thomas, page 18). The veracity of this statement is in doubt when it seems that the plan primarily benefited industrial transport and commuters from the suburbs. Who are the Detroiters of whom he speaks?

Also critical to the spatial structure of the city is the Detroit River, a geographical and national boundary which separates Detroit and Windsor, Canada. The relationship of the city to the water is one of heavy dependence. In the "logic of replacement" (Beinart, lecture 2/15/00) the city survives the transition from different manufacturing industries as a result of this close proximity to the river. As long as the city relied on manufacturing, the river would sustain it. Marking the southern and eastern boundaries of the city, the Detroit River provides access to the Great Lakes and therefore access to coal and ore, materials which were difficult to ship by land. Chemical and steel manufacturers use the river for cooling systems, and as an outlet for industrial waste. (Sugrue, page 18). The benefits of a river attract industry and industry attracts labor. When deindustrialization began in the fifties, the river became less relevant. Though Coleman Young declared at the beginning of his long term as mayor that the key to the city was the revitalization of the waterfront, there has been little change beyond the isolated area near the RenCen.

Early Worker Housing

from
Thomas, June Manning,
Redevelopment and Race

The image of Detroit is inextricably tied to the image of the automobile. When the automobile industry has benefited, the city has benefited. Likewise when the automobile industry falters, Detroit is one of the first places to feel the effects. However, had the city not had more than just the automobile industry on which to rely, it would have long ago faded. In the early twentieth century, the city had a multi-industrial fabric.

> *Over 40 percent of the city's industrial jobs were in non-automotive plants. Some were descended from nineteenth century enterprises: stove making, brewing, furniture building. Also in Detroit were chemical companies, aircraft part fabricators, oil refineries, salt mines, stell mills, garment manufacturers, food processing plants, the largest pharmaceutical manufacturer in the world, and a major producer of adding machines and typewriters.* (Sugrue, page 18)

It was the manufacturing industry center that created jobs in Detroit, not the service or financial center as in New York, nor the educational center as in Boston. The promise of steady work was a powerful draw to the city and the effects can be seen in the population data of the 1900s.

Census reports provide invaluable information about the shifts in the city during the last 100 years. In the year 1910, before the boom in industrial growth and jobs, the city's population totaled 465,766. Twenty years later, the population nearly tripled at 1,511,482. It reached its peak in 1950 at 1,849,568 and has been declining ever since: 1,511,482 in 1970, then 951,270 in the year 2000, and a projected population of 865,623 in the year 2030. The percentage of the population that is black however has grown steadily: from 1.2% in 1910, to 16.2% at its peak in 1950, to 82% in the year 2000. Detroit is one of the most segregated cities in America, and the population statistics beg a number of questions surrounding the phenomena of decline and abandonment.

Race riots scarred the city significantly on two occasions and are physical reactions to segregation and social injustice, reactions that impact greatly the spatial structure of the city. The race riots of 1943 left 39 people dead, with twenty five of those black. The NAACP blamed "prejudice within the police department, conflict over war related jobs, and the pressures of inadequate housing and residential segregation." (Thomas, page 17) The riots began as a brawl between youth on Belle Isle, a Frederick Law Olmstead park in the Detroit River. Ironically, part of this historic park has been transformed into a race track, evidence of the city's commitment to the automobile. The 1943 riot occurred when the city was still balanced racially between black and white, at a time when tensions over the housing situation were high but poverty was not uncontrolled.

The Race Riots

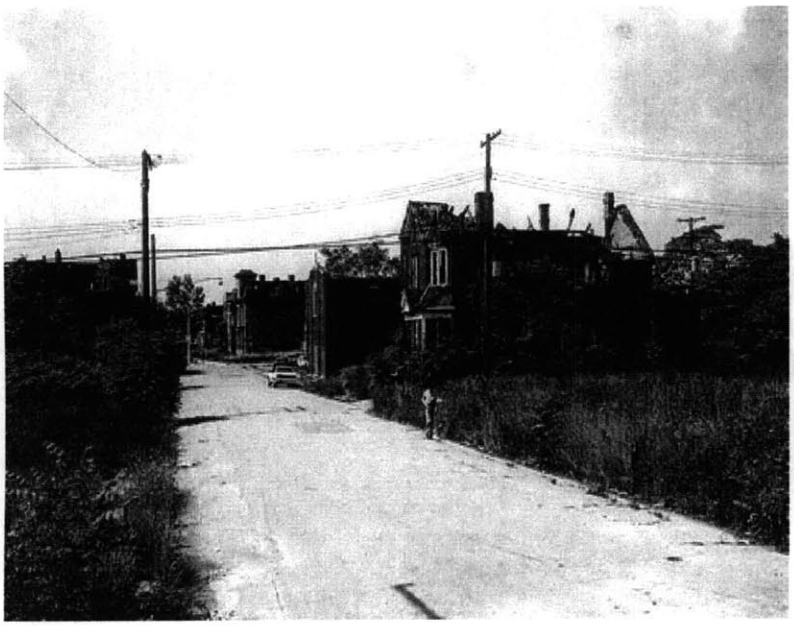
from
Woodward, David Lee,
Detroit: A Motor City History

Detstruction of Poletown

from
Woodward, David Lee,
Detroit: A Motor City History

Twenty four years later, the infamous 1967 riot was sparked after police arrested 85 people for illegal drinking on a hot summer night. It sparked five days of looting and burning of nearly 2500 buildings and caused 36 million dollars of lost property. It required the force of 17,000 local and federal police. Thomas Sugrue compares the two riots, and suggests that the 1967 riots were motivated more by anger and resentment over the living conditions in the city which by this point was predominantly black. The 1967 riots were later used by the suburbs as evidence of the city's unruliness, and justification for the continued isolation of the city from the surrounding areas through reduction in funding, for example.

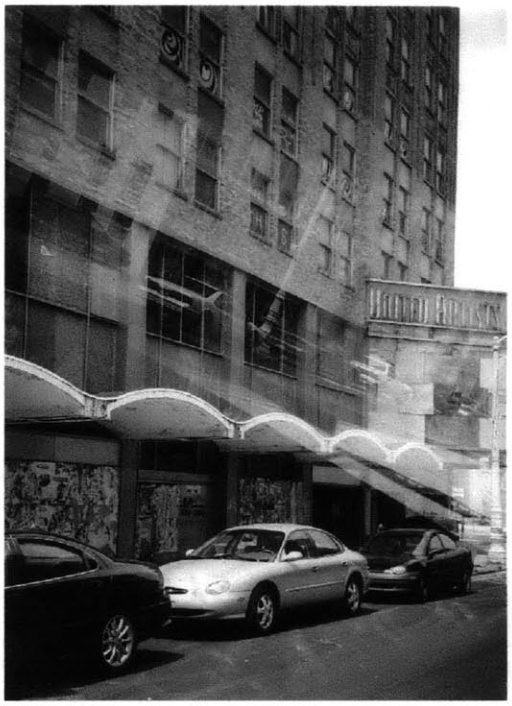
A comparison with one of Detroit's smaller neighbors to the north, Eastpointe, allows for a better understanding of the racial divide that continues to plague the city's development. Eastpointe was once legally named East Detroit. In an effort to distance itself from the reputation of the city as crime ridden and bankrupt, it was renamed Eastpointe recently, perhaps so as to be associated more closely with Detroit's wealthiest suburbs, the Grosse Pointes. Eastpointe is a blue collar city of 34,000. Though its borders are shared with Detroit south of the east-west running 8 Mile Road, Eastpointe's population is 92% white and only 5% black. The median household income was $46,261 with only a 6% poverty rate compared with Detroit's median $29,526 income and 26% poverty rate in the year 2000. Though Detroit managed to drop its poverty rate from 32% in the 1990 census compared to Eastpointe's 1% increase, the changes are minor compared to the staggering inequality between these two neighbors. What the census shows is that racial inequality in this area is also coupled with social inequality. Regardless of the city's racial characteristics, there is a glaring difference in the income and poverty levels throughout the Detroit metropolitan area, with most of the poverty concentrated in a city with already strained resources.




above left and right *Abandoned properties*
July, 2002.

The spatial characteristic of this disparity is abandonment. The city of Detroit has an atmosphere of neglect, partly because the city government cannot afford the upkeep of its streets and public spaces, but also because many of the city's residents, predominately white residents, left their homes behind. Heather Ann Thompson suggests this was a process that began in the 50s (Thompson, page 4). Though the population peaked in 1970, this may be due in part to a steeper increase in the black population compared to the decrease in the white population during the years between 1950 and 1970. It is a phenomenon known as 'white flight.' It can best be understood by the construction of the Eight Mile Wall. The wall is a tale of racism in real estate, and the underlying social problems which affected the layout of the city's public as well as private residential developments. As neighborhoods became integrated, white residents fled to the more expensive and more exclusive neighborhoods outside the city, taking their much needed property tax payments with them. They often did not leave without a fight. Under President Eisenhower, the Federal Housing Association was then granting loans to people living in homogeneous neighborhoods. At 8 Mile, to guarantee that loans would be given in a neighborhood that, while white, abutted a black neighborhood, a developer constructed a 7 foot concrete wall to physically separate the neighborhoods. The loans were granted, and the wall remained a very potent reminder of the bias in the city and the government's culpability in the situation. The government also created incentives such as the Federal Housing Administration and Veterans' Administration mortgage insurance programs allowing many to move to single family housing (Thomas, page 20). Coupled with federal subsidies for freeway development, abandonment was disastrous for the downtown. Whether driven by economics, politics, race, or crime, the trend was real. Jobs and people moved outside the city's limits. While some historians have portrayed this movement as a negative statement on racism in the city, others have suggested that it was instead a signal that a more powerful black middle class had finally gained some ground within the city (Thomas), electing a more representative mayor.

After a majority of whites left the city, "social taboos against housing integration prevented drawing Whites back into the city and the lack of open housing kept Blacks in the city (Thomas, page 7)." Compounding the problem were other issues. Poorer blacks who could not afford to buy their way out of inhospitable living situations were often displaced by large scale public works projects such as the Medical Center and Arts Center downtown. With public housing segregation and preference given to whites for placement, many blacks found themselves worse off after developments designed to improve living situations in the city.



Abandoned theater downtown, July, 2002.

Housing is a much debated issue. While new public housing had the opportunity to change some of the social problems with the city, especially in terms of racial inequality, it was more often used as a tool to reinforce segregation. In the 1930s, Josephine Gomon, then director of the housing commission of the city, and in the face of a growing housing crisis which left many of the city's poorer residents living in stacked and inhospitable living conditions declared, "No housing project shall change the racial characteristics of a neighborhood." (Thomas page 25). Had the city been integrated at this point, it would not have been an issue. Without declaring that projects were reserved specifically for whites, she essentially declared that no integrated housing would be built. After the war, 43 percent of Black veterans' families in Detroit lived in "doubled up or in rented rooms, trailers or tourist cabins. (Thomas, page 17)" It is hard to find any positive examples of housing development in the city. Lafayette Park, designed by Mies Van der Rohe, remains as a positive example of middle class housing near the downtown. Architect Peter Smithson described the project as "one of the few triumphs of American urban design." (Thomas, page 56). Even this project however failed to produce enough housing to replace the low income housing cleared.

Abandoned public library in Highland Park, Home of the Model T Factory, July, 2002.

Short term solutions to the problem became long term problems, when public housing did not adequately meet the needs of its tenants. As pressure rose to provide more housing for residents displaced by urban renewal projects, or returning war veterans, the quality of public housing decreased. Where some of the earlier projects were built with considerations for open spaces, security, and children, later projects were built with elevators and more disorganized units stacked within larger buildings. Occasionally, functioning housing projects were hurt by overcrowding or additions. One such housing project, the Sojourner Truth project, was disputed far before any construction began. Though located near to a black neighborhood, the federal government vacillated for weeks as to the racial designation of the project. They finally settled on black war workers, after weeks of protest and near riots at the site of the project. Even at a time when only one other project in the city was designated for black residents, the government was more willing to bow to white pressure than to improvements for inner city housing shortages (Sugrue, page 73). Public housing failed in Detroit because "the federal government did not support it consistently, because the program suffered from internal dilemmas and external opposition, and because cities misused public housing to perpetuate racial segregation and oppression (Thomas, page 19)." As the political climate shifted in the 60s and 70s to civil rights issues, there is a change in the political stance of many urban whites towards antiliberalism, that is away from a liberal stance on issues like poverty. Rather than taking their issues to the streets, they began pressuring their politicians to take the protest to the state and federal governments. At a time when Detroit was under intense pressure to relieve poverty and provide jobs, they fought abandonment of key programs by state and federal funding. Housing was one such area in which the city continually lost.

Abandoned factory buildings downtown, Nature has reclaimed the roof. July, 2002.

After decades of neglect and abandonment, the city is sometimes described as an urban prairie. The number of vacant lots and abandoned houses is striking, as the city's fabric in some places seems to simply have been erased. Local web sites document "The Fabulous Ruins of Detroit" and publish images of the blight. The city's budget cannot afford the clean up of these lots and relies heavily on neighborhood groups to take initiative in maintaining their blocks. In some cases, the abandoned houses are not taken down by the city, but by the residents themselves.

As the former murder capital of the world, the city continues to struggle with its reputation as crime ridden. The city must deal with the problems that poverty and unemployment bring: drug use and crime. Recent federal positions on the drug war have forced the police department to spend the majority of their resources on a war they cannot win. One phenomenon which the city has only recently gotten under control is Devil's Night.

Traditionally the night before Halloween, it is marked by the setting of fires all over the city, particularly in abandoned houses. The tradition draws television crews from all over the world to witness the senseless but methodical destruction of a city by its own residents. In the mid 80s, there were more than five hundred fires set in the city. In recent years a city wide curfew before nightfall for all residents has helped to curb the destruction, yet the legend lives on in many peoples' minds. Herron sees this night as symbolic of the "failure of urban America." (Herron, page 123).

Other instances of the residents turning on their city are not as destructive. Artists have used vacant houses as canvases. Political adversaries are known to have used abandoned houses as campaign points in the years before Coleman Young's retirement. Here space is literally political. When opponents painted their campaigns onto abandoned houses, the city (under Mayor Young's direction) was quick to tear them down, solving their own campaign issues but at the same time solving the problem of dangerous vacant houses in the city.

The Heidelberg Project by artist Tyree Guyton from Daskalakis et al., *Stalking Detroit*

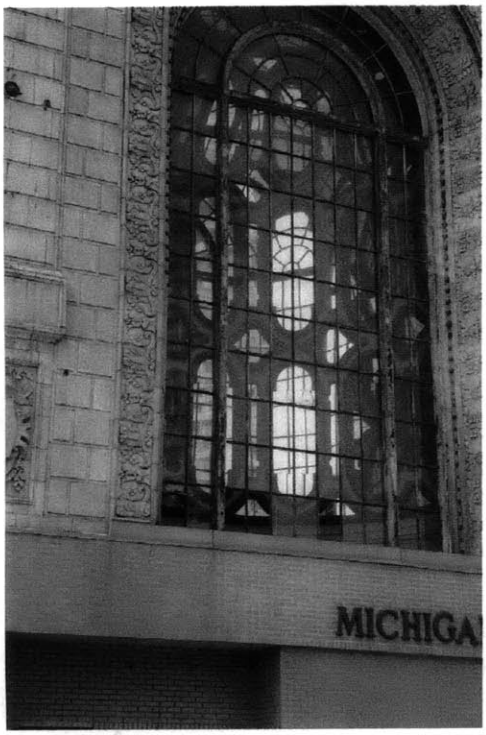
In the multifaceted political climate in the late sixties and early seventies, it was unclear whether the city would exist as a "white-dominated center of racial segregation and conservatism" or an "island of black nationalist and white leftist revolution" or an "oasis of opportunity for the black middle class." (Thompson, page 3). It was before the city had a black mayor, a powerful mayor like Coleman Young.

Sugrue summarizes the political climate of the 1970s and 1980s as white backlash. As the industry continued to shrink its production in the Detroit area, not just in the city, the surrounding suburbs faced for the first time the unemployment which was ever present in the city. Angry at this change, "blue collar suburbanites turned their anger against government-sponsored programs for African Americans, particularly affirmative action (Sugrue, page 266)." These suburbanites became "angry antiliberal white voters" (Sugrue, page 267)." However, Sugrue argues that this was not simply a reaction to the war on poverty, to civil rights, or black power movements. He traces it back to the housing crisis that divided the city in the 40s and 50s. The end result was the "growing marginalization of the city in local, state and national politics (Sugrue, page 268)." At a time when the city needed funds more than ever for urban education and social programs as well as infrastructural problems, they were challenged by the suburbs, and the angry voting suburbanites won out again.

Coleman Young photographed atop the city. The photograph is eerily reminiscent of Robert Moses in a depiction of a strong personality in control of the city. Downtown and the RenCen can be seen in the distance.
from Woodford, Arthur, *This is Detroit*

For most of its history, the mayors of Detroit were poor representatives of the city's population. Until Mayor Coleman Young was elected in 1973, there had never been an elected black mayor. It is arguable whether the city's mayors have adequately focused on the needs of the city's residents rather than the city's workers, many of whom were now commuting from outlying suburbs. For twenty years, Coleman Young met the resentment of the suburbs with anger and stubbornness. His stance on abandonment was simple: the city of Detroit did not need the suburbs in any way.

Coleman Young is remembered by most as a strong mayor and a champion of the black community. During his decades in office, he sponsored a number of redevelopments including the People Mover. None of these redevelopments have had a great affect on the social, economic, or spatial structure of the city. The People Mover, now crime ridden and mismanaged, has become yet another economic burden on the city as the concrete elevated tracks age and must be maintained. It is an example of Mayor Young's ability as mayor to muscle large projects through a coordination of public and private funds, working with developers, corporate leaders, and federal officers. Another example is GM's relocation of the Poletown plant. June Manning Thomas describes the process through which Young guaranteed the automotive giant a new plant location at a critical time in the 1980s, when the automotive industry was suffering around the nation in competition with the Japanese market. Against community wishes, Young authorized the razing of an entire area of residences and churches in the area of Poletown. It is an instance where against the trends of decentralization which would have dictated that GM build elsewhere, a politician secures a project. (Thomas, page 163). Whether or not Poletown was beneficial for citizens is another issue. Certainly for those displaced by the plant, it was a negative development, yet it is difficult to argue with the creation of much needed jobs in the city.



The Michigan Theater, now converted into a parking garage.
July, 2002.

The experiment is still inconclusive as Detroit's third black mayor, Kwame Kilpatrick, the young son of a popular state legislator, takes the reins from Mayor Archer, a mayor remembered most for his offering of an olive branch to the suburbs. During his few years in office, Mayor Archer did much to heal the rift between the suburbs and the city, though perhaps his efforts came too late after decades of animosity and antagonism fostered under Mayor Young. It was under Archer however that the Federal Empowerment Zone funds were secured, and a strategic plan was developed under a better organized and stronger planning department.

Within the city's political structure is the often overlooked and underused planning department. Thomas looks closely at the history of this department in her book, Redevelopment and Race, In the 40s and 50s when traditional land use tools and redevelopment could function within the political and economic climate of the city, the planners worked towards the creation of a master plan. The goals of the urban planners in the 40s were focused on Detroit's central business district and industrial areas to protect them from blight, to rebuild public facilities and to clear residential slums. (Thomas, page 38) By the 50s however, the city was still characterized by "deteriorating community facilities, loss of the middle class, downtown decline, clogged streets, industrial exodus, inadequate housing, and racial conflict." (Thomas, page 17). In the 60s, urban renewal goals dealing with social programs were put into place, though many of these projects were not met with approval among the city's poorer residents. When planners came to be identified with the urban renewal projects that displaced many residents, the department gained a bad reputation among the minority electorate, making it more difficult for planners to work in later decades. In the 70s and 80s planners became less useful as long range planning was replaced with specific project development under Coleman Young, who did not believe in the use of a master plan. She argues that the department was often ineffective because "city politicians and staff, particularly urban planners, did not have the implementation tools and administrative structures necessary to ward off the city's deterioration [and] that racial bias stunted efforts (Thomas, page 2)" In a city where industry follows its own rules, and where politics occasionally play a role in decisions related to industry, the location of industry is critical, especially in relation to housing and transportation.

Many of the city's struggles with industrial locations within the city could have been better handled had the city implemented a zoning ordinance in the earlier stages of industrial development. While New York City had adopted a zoning ordinance in 1916, and the US Department of Commerce promoted a state zoning enabling act as early as 1916, Detroit did not have such an ordinance until 1940. They did not adopt a master plan for future developments until 1951. This both caused and was a result of the conflicting structures operating in the city. Perhaps Coleman Young could have foreseen a better place to locate the GM Poletown plant. Had the city utilized an up to date zoning and master plan, Poletown's churches and residences might have been saved. Thomas suggests that zoning efforts were in part stymied by those parties interested in land speculation in the city. Fearing that regulation would decrease the value of downtown properties, the owners fought the ordinance, only to face the inevitable blight that came with the depression in the 1920s. The absence of a zoning ordinance meant that industrial interests could operate as they pleased within the city limits. As a result, factories were built near or directly in residential areas. These residences became more densely clustered around the factories as jobs were provided and housing was lost to large scale redevelopments. The results were substandard living conditions for many of the workers in the city, especially among black workers.

While New York had in place a zoning ordinance, they also had a number of powerful mayors and planners given free rein in the city. Robert Moses, for example, was single-handedly responsible for a number of civil engineering projects in the New York area. Detroit had no such figure, and no comprehensive goal for the city that such a single figure could give. Mayor Young's public/private partnerships did not produce a great number of structural changes to the form of the city. Unlike Chicago where a devastating fire left the city with the opportunity to rebuild anew, without a Burnham to design the waterfront or a Worlds Fair to attract culture or technology, Detroit was left to the forces of economy and politics, not to the hands of capable planners who could help direct the city in its development.

The urban planners did eventually agree upon a master plan in 1951 with the goals of "developing broad swaths of industrial and commercial corridors, and organizing residential areas around neighborhood units (Thomas, page 40)." The plan intended to create six to twelve neighborhood units clustered to create a community with schools dispersed throughout the city. The master plan would also allow for the coordination of civic improvements. It is remarkable that the city lasted as long as it did without a comprehensive document such as this. It is ironic that the plan was developed only at the peak of Detroit's population growth. Rather than a master plan for growth, the city needed a master plan for deterioration, or another way to survive the abandonment of industry and population.

The Model T Factory, Highland Park
July, 2002.

The most recent efforts to revitalize the downtown area have come on behalf of economic interests. Casinos have opened in the last few years on legally owned Native American land downtown to challenge the Canadian casinos across the river. Sports arenas dominate Woodward boulevard, built with the belief that the only way to bring people back from the suburbs is a weekend sporting event. When sports teams do poorly though, the stadium is rarely full and the city appears to rest its hopes on a good season rather than a viable plan for development. It is with these types of developments that the city invests. Much of the land downtown and along the river is tied up by land speculators. The Medical Center, for example, while one of the city's largest employers, cannot find the land it needs for expansion despite the seemingly endless number of vacant or abandoned properties downtown. The expectation seems to exist that Detroit will again be worth investment, not without reason.

Detroit is part of the largest foreign trade zone in the country with 24.1 billion dollars traded through the area every year. It gained this position partly as a result of its geographical location, its proximity to Canada and to the river and partly as a result of the automotive industry still located in the area. Critical to understanding the landscape of the city is the precise location of industry within the metropolitan area. The city does not benefit greatly from plants constructed outside its borders. The surrounding suburbs do however, and as a result there is a constant struggle for incentives to lure industries to and from the city, as the incentives driving Ford out and GM into the RenCen. The city found itself competing not with cities in other states, but with cities next door in an unfortunate lack of foresight.

Early on in Detroit's history, towns surrounding the city limits were not incorporated into the city. This resulted in a loss of a tax base as companies moved outside the area of the city. As the population has steadily decreased in the last five decades, it has done so most noticeably inside the city limits. While suburbs have grown smaller in population, they have not done so at the rate of Detroit, and the suburbs at the outer ring continue to expand in size and population.

The suburbs have become increasingly independent and self sufficient, unwilling to take on the burden of annexation with an aging deindustrialized city. This is fueled by racial tensions as well as political tensions between powerful mayors on both sides of the borders. Regional planning as a movement never took hold in Detroit, despite plans to annex outlying land. Without consistent support for the movement, and in the face of a growing number of independent municipalities, it failed (Thomas, page 19). At present, the only means of incorporating the surrounding suburbs would require an act of state legislature.

Satellite cities would have helped to alleviate some of the city's troubles with industrial locations. The idea of a satellite city is loosely based upon Howard's garden city utopias, though they were never self sufficient as Howard imagined them. As early as 1947, two sites north and west of the city were proposed to provide open tracts of land for industrial expansion and allow for "soundly planned" stable communities (Thomas, page 31). State legislature did not act on these proposals, or another "new town" proposal in 1970. Without the authority or the budget to make such annexations itself, the city was left with another failed planning project.

Some of those very municipalities located close to or within Detroit's boundaries now face bankruptcy, and have come to rely on the city's already depleted services for emergencies. Highland Park, home to the original Model T factory, now itself is bankrupt and though before had rejected incorporation, now relies upon the city of Detroit for emergency services. Unwilling to now take on Highland Park's debt in incorporation, the city is forced to provide services without benefiting from the area in terms of taxes.

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Decentralization is essentially the economic equivalent of 'white flight' though here it may be called 'industrial desertion.' The idea of decentralization, or capital mobility, is central to the arguments raised by Sugrue. This is the economic climate of the post World War II decades.

> *Throughout the nineteenth and early twentieth centuries, American industry followed a pattern of centralization. Considerations of topography, access to transportation routes (either water or railroad), and the availability of raw materials determined plant location. The process of deindustrialization – the closing, downsizing, and relocation of plants and sometimes whole industries – accelerated throughout the twentieth century. Advances in communication and transportation, the transformation of industrial technology, the acceleration of regional and international economic competition, and the expansion of industry in low-wage regions, especially the South, reshaped the geography of American industrial cities.* (Sugrue, page 127)

Because the city was tied so closely to the automotive industry and because the city did not have another industry on which to rely decentralization created conditions of unemployment, a loss of tax base which dealt a blow to the city's shrinking budget and support for social services and programs.

In a 1944 planning report, this tendency towards decentralization was predicted. "If decentralization is not to be accelerated, areas for future industrial development must be designated, and some means for land assembly found." By tying industrial needs to redevelopment projects, the planners were trying to overcome one of the major hurdles towards realization of long term goals, the conflict between industrial interests with public interests (Thomas, page 17).

Sign for the 'Future Office of Greater Corktown Development Corporation"
July, 2002.

The city, built as it was without a zoning code or master plan until the 1950s found itself unable to provide industry with the space needed for the construction of new modern plants. Older multi story structures, many still barely standing vacant today, were not suitable for the new technologies of automobile manufacture. Sugrue goes farther to argue that these technological justifications were not themselves neutral. "Decentralization was an effective means for employers to control increasing labor costs and weaken powerful trade unions (Sugrue, page 128)."

As industry finds cheaper lands and lower taxes in the surrounding areas of the city, their relocations prove to have powerful effects on the urban economy, especially in terms of the loss of jobs within the city limits. Detroit's attempts to prevent industry from leaving the city for lower taxes in relocation meant that the city instead shifted its burdens to income earners. Clearly, industry had the upper hand in the relationship. Forcing the city to compete with small town competitors squeezed the city dry of resources it desperately needed for school funds, social welfare programs, and the maintenance of infrastructure used by those same industries. Meanwhile, the outlying areas benefited greatly from this new industry. The metropolitan area then finds itself competing with itself for valuable industries. Without a cohesive plan for the entire area before the economic downturn, the city of Detroit found itself an aging city, abandoned by the very industries that it had helped produce.

The federal government has attempted to overcome some of these economic problems plaguing the city by funding a federal empowerment zone to attract businesses and residents back into the city, bringing industry back to poorer areas of the city in an attempt to redistribute wealth. The Empowerment Zone guarantees 100 million dollars in Title XX funds over 10 years to fund community driven plans to improve economic and social conditions in an 18.35 square mile of Detroit. The city faced stiff competition to win these federal funds, developing a much needed strategic plan in the process to demonstrate its ability to fully take advantage of the funds. Local businesses, corporations, foundations, and banks agreed to contribute nearly 1.4 billion dollars towards the fund. In addition, a tax free Renaissance Zone was created as of January, 1997 for twelve years as an incentive to draw industry and business back into the city. All in all, businesses who locate to this area benefit from four different federal and state tax benefits including employer wage credits, and increased federal tax deduction for depreciable property. The criteria for the zone were total population, land area, and poverty rate. 101,279 residents are affected by the influx of funds as well as 9000 businesses. Without improvements in education, the culture of poverty is resistant to change. Unlike Europe, where the state assumes greater control of the land, in a free market system, the improvement of social capital is expected to resolve spatial issues.

Unfortunately, the social costs of living outside the city are not paid for by their own tax base (Beinart, lecture 4/4/00). The long term effects of such a policy are yet unrealized. To date, 723 new housing units have been constructed, 38 businesses have started in the area, 11 businesses have expanded, and 13,000 new jobs have been created.

The track for the People Mover above an empty street and sidewalk in downtown Detroit.
July, 2002.

What these funds need to overcome are an example of the intersection between social and economic structures. Sugrue argues that discrimination not only plagued the housing situation in Detroit, it also plagued employment. As Detroit was entering one of the more difficult periods of its economic downturn in the mid 50s, blacks were receiving the lowest paid and most unskilled jobs. Ironically, Sugrue states, "just as attempts to provide blacks with a greater slice of the labor market pie began in earnest, the pie shrank. Blacks made gains in occupations that became increasingly scarce in postwar decades (Sugrue, page 123)."

June Manning Thomas suggests three reforms for the city, "the elimination of the extremes of wealth and poverty dividing metropolitan communities, the expansion of social progress and economic opportunity for the region's poorest citizens, and the eradication of the lingering effects of racial disunity and injustice (Thomas, page 3)." Detroit continues to struggle for its survival. "Nowhere else in this country has so much history, both human and material, been reduced to a dreadful and frightening inconsequence (Herron, page 208)."

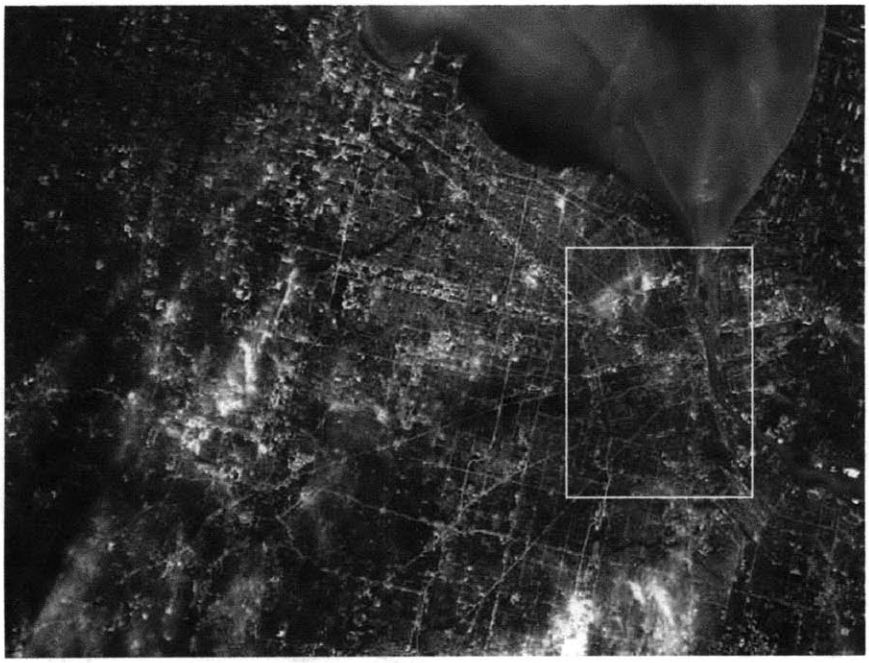
The plight of Detroit has drawn a number of authors, historians, and architects to the city, if only to witness with their own eyes the struggle of an aging city. Jerry Herron, a professor of English at Wayne State University in Detroit, writes:

> *Abandonment now becomes the justification for the precise acts of stripping – actual as well as metaphoric – that fulfill the prophecy already scripted for Detroit: America's first urban domino to fall. The city, then, in its popular representations, is apropos of nothing so much as expediency: a general need to imagine the worst but to imagine it as both titillatingly close and at the same time exotically distant.* (Herron, page 26)

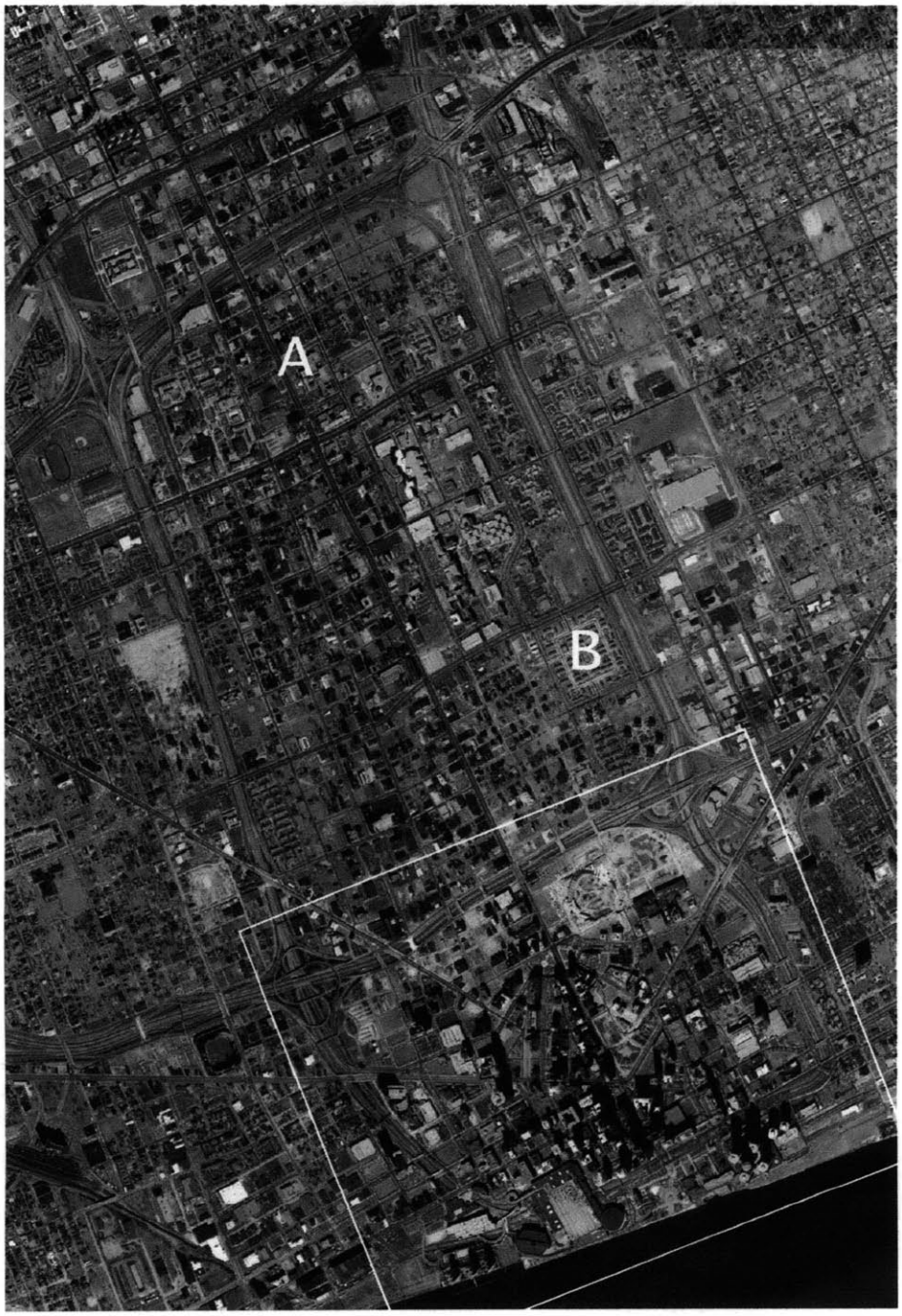
Whether by its citizens, its industries, or its political leaders, the city of Detroit has suffered the ill effects of abandonment. There are lessons to be learned from the history of the city's fall, yet it is clear from examination that many of the characteristics of this fall are unique to the city itself. It is difficult to establish a single model which can be judged positively or negatively and can be applied to other postindustrial American cities. At any point in time, Detroit was facing the dynamic forces of social, political, and industrial movements. The interaction between these forces has produced the form of the modern city.

Burned out house, Detroit.
August, 2002.

SITE DOCUMENTATION



satellite image of Detroit and Windsor from
Images of the Great Lakes as Seen From Space/Wisconsin Sea Grant

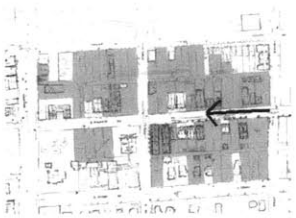


aerial view of downtown Detroit
image from *Terraserver v5.0 Homepage*

Woodward Avenue extends from the center of downtown through the neighborhood of Brush Park and the Cultural Center (A) before crossing I-94. The residential areas in this neighborhood have suffered extensive damage, firstly by the location of the freeways and then through abandonment. Entire blocks (B) in some cases have been cleared to make way for new townhouses. These new blocks destroy the continuity of the existing streets and in some cases are damaged by vandalism before they are inhabited. The site for this thesis is located near to the Cultural Center, adjacent to the freeway.

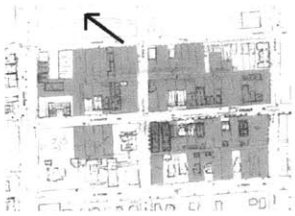
site plan : scale 1"=100'

The site plan above outlines the devestation on the neighborhood adjacent to the site. The base for the drawing shows the state of the neighborhod in 1995. The green indicates areas that are empty. Lot lines are visible where no house is drawn, indicating the house was destroyed before 1995. Since then, a number of structures have disappeared. Of the remaining structures, a number of them are abandoned and are in danger of disappearing as well. On the following pages, photographs document the site in its most recent, but unstable, state in July 2002. A plan key is used to indicated where photographs are taken.

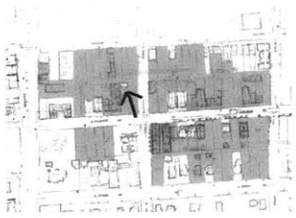


View down East Palmer street. The building in the distance is one of a pair of abandoned buildings reclaimed in the project.

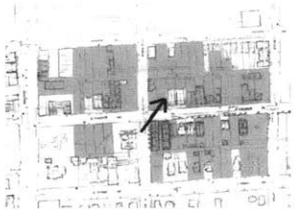
View across the empty corner of John R and Hendrie. The low building on the corner is an abandoned liquor store. This picture was taken immediately after one of the bi-annual mowings to clear brush from the empty lots in the city.



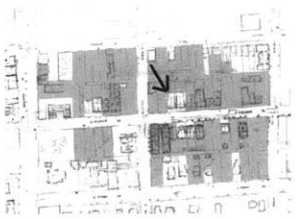
View across I-94 to the Woodward Avenue bridge. I-94 defines the north edge of the site both physically and acoustically. The sound of the freeway is a dull roar, most noticeable from Hendrie Street.



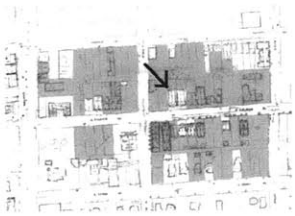
View of the abandoned car wash at the corner of John R and East Palmer. Ironically, the faded sign reads "New Cultural Center Hand Car Wash," a sign of the anticipation for dramatic changes in the neighborhood of the Detroit Institute of Art and Public Library.



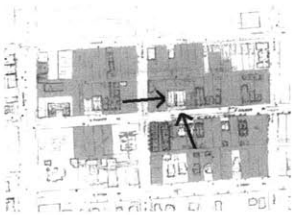
View of the abandoned buildings on the site. These two will be reclaimed in the project as a pair of performance spaces.



View of the rear facades of the twins. Because neither the front nor the back of the buildings functions as intended, the design takes liberties with the way people move through the site. The alley between the two blocks is now an open space, and the buildings open more prominently to the back.

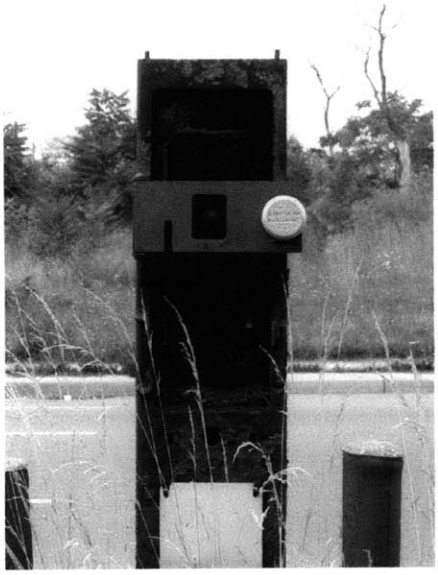


The manner in which nature has reclaimed the area is remarkable, especially given that this photograph was taken during a drought in the city.



Because the buildings are no longer inhabited, it is not necessary for the masonry to define the exterior perimeter of the structure. The walls can become part of a larger system. Walls that were once exterior become interior screens, while the masonry continues to function structurally.

Above, a new housing typology. As blocks are cleared in the area, the city permits the construction of these types of housing units, much denser and more cheaply constructed.



(above, right) The site has a presence on the freeway as indicated by the billboards facing away from the city and towards the individual motorists.
(above, left) It is not uncommon to find strange remnants of building on empty lots.

NOISE

"I BELIEVE THAT THE USE OF NOISE

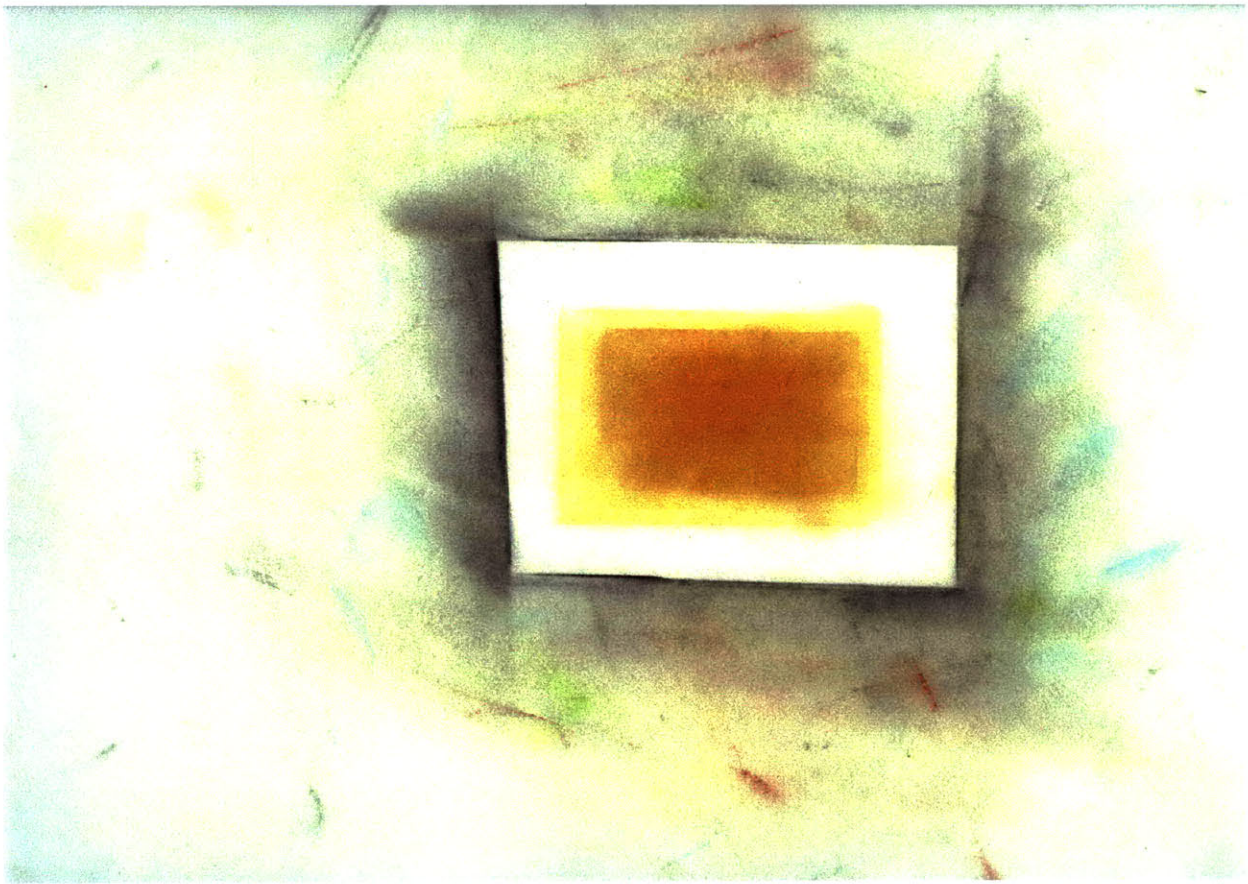
Wherever we are, what we hear is mostly noise. When we ignore it, it disturbs us. When we listen to it, we find it fascinating. The soudn of a truck at fifty miles per hour. Static bewteen the stations. Rain. We want to capture and control these sounds, to use them not as sound effects but as musical instruments. Every film studio has a library of "sound effects" recorded on film. With a film phonographit is now possible to control the amplitude and frequency of any one of these sounds and to give to it rhythms within or beyond the reach ofthe imagination. Given four film phonographs, we can compose and perform a quartet for explosive motor, wind, heartbeat, and landslide.

TO MAKE MUSIC

If this word "music" is sacred and reserved for eighteenth- and nineteenth-century instruments, we can substitute a more meaningful term: organization of sound.

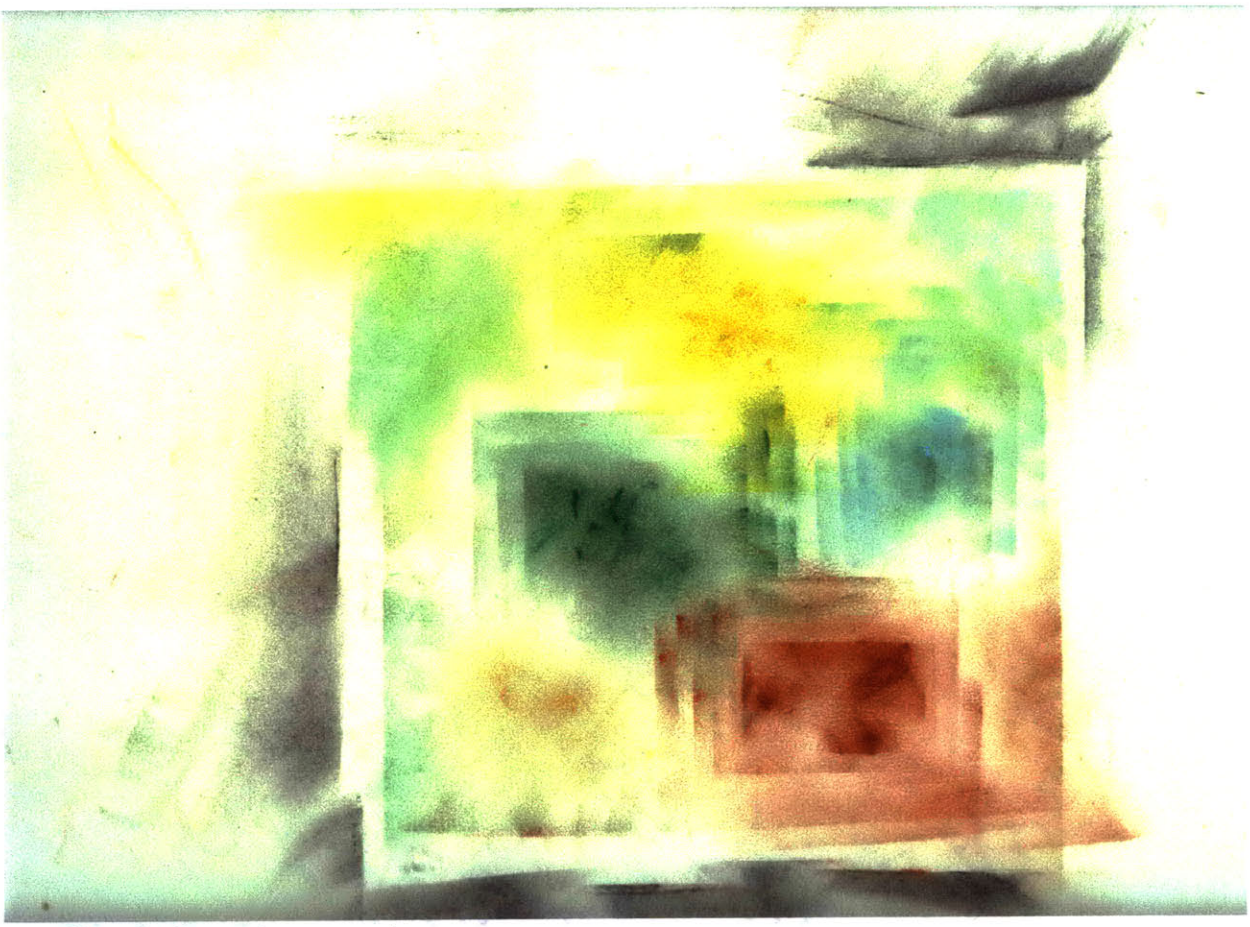
WILL CONTINUE AND INCREASE UNTIL WE REACH A MUSIC PRODUCED THROUGH THE AID OF ELECTRICAL INSTRUMENTS"

-John Cage
The Future of Music Credo
in
Silence



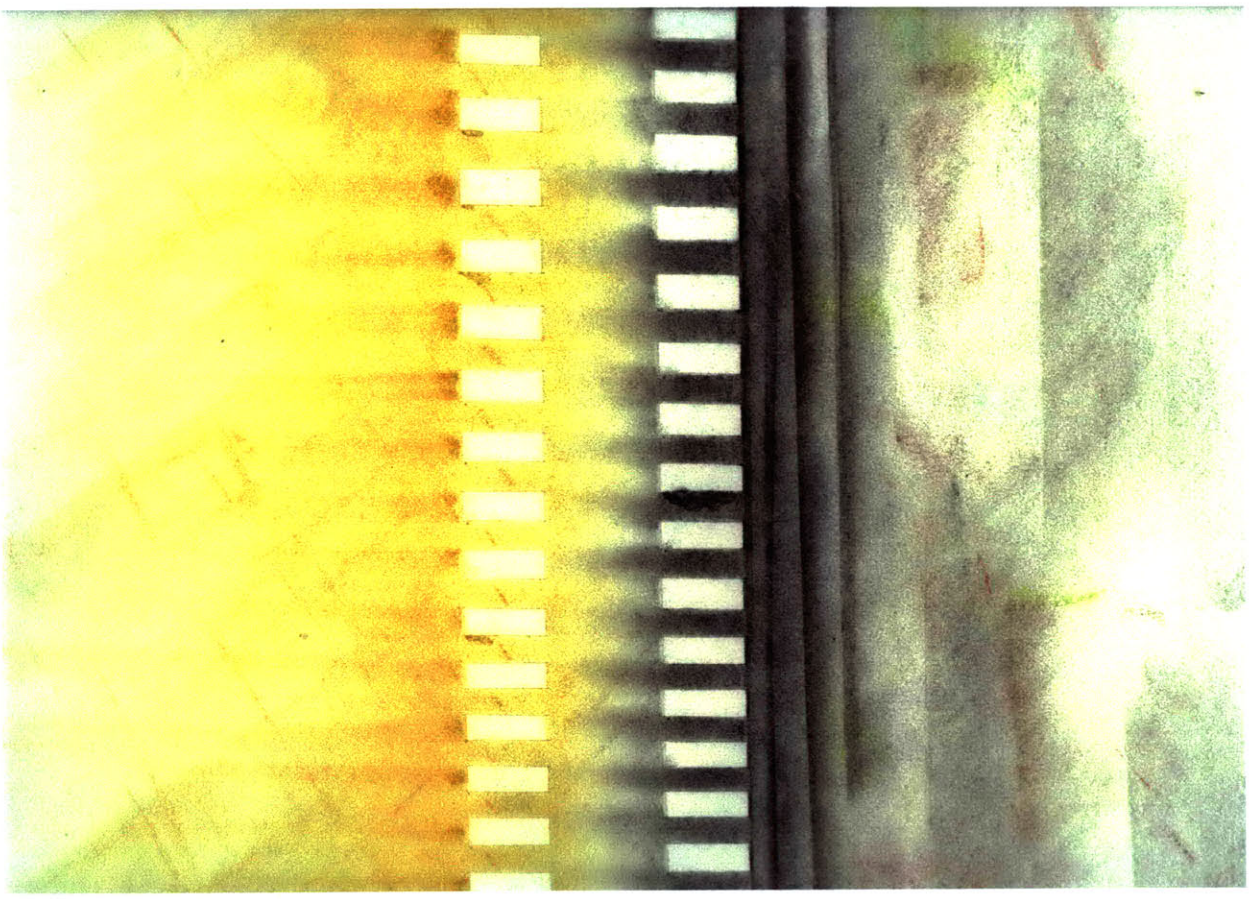
pastel 1, sound representation

The following series of pastels explores the visual representation of sound. While recent modeling tools make it possible in theory to 'hear' unbuilt spaces, there is always a difficulty in representing this acoustic experience, particularly because it is a temporal phenomenon. The experience of sound is also a personal one, as the stroke of a keyboard begins with the pianist's hand, produces a disturbance in the air, is modified by the qualities of the space in which it was produced, and finally resonates in a listener's ear. In this example, I have tried to express how the cacophony of sounds must be isolated to produce an environment pure and clean for the production of a single sound, represented here by an orange color.



pastel 2, multiple sound representation

The performance of music however involves much more than the simple physics of a sound wave. It becomes more complicated with the presence of other musicians or sound producers, an audience for example, or mechanical equipment. All of these things combine together in a completely unpredictable way to produce the experience of a performance. It is in this drawing that I try to explore the anticipation of hearing, listening, or playing. Sound is no longer defined by a single color, but a multiplicity of colors.



pastel 3, boundary sound representation

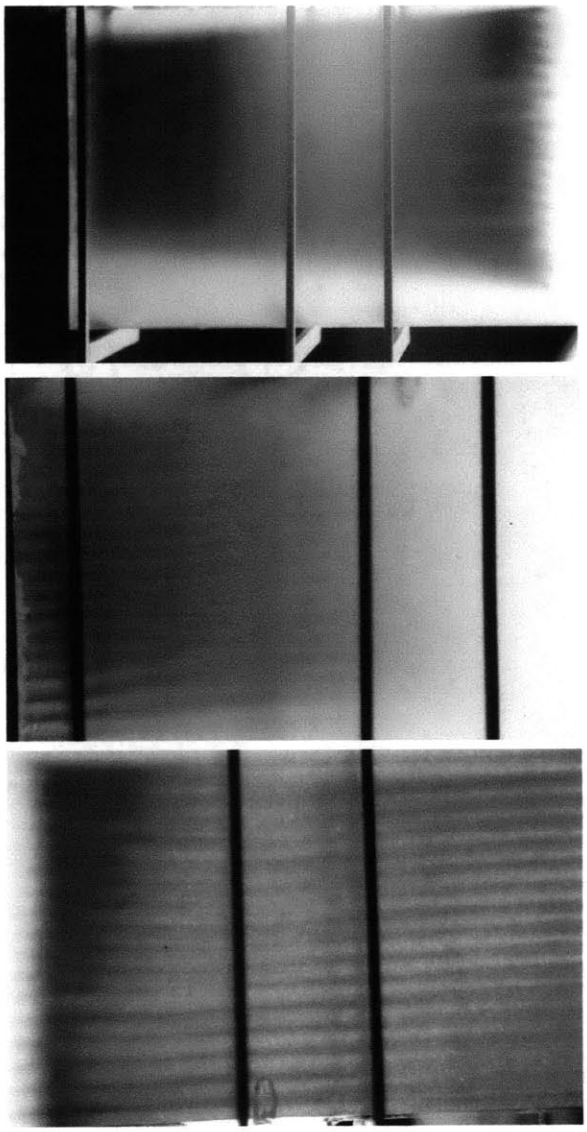
This drawing explores the boundary of the space defined by sound and an obstruction. Here a screen might be opened up to allow two different sounds to interact. Sound can either be absorbed, diffused, or reflected. In this configuration, sounds are allowed to pass through a boundary and be absorbed into the next space.

above images, quarter scale study model in different configurations

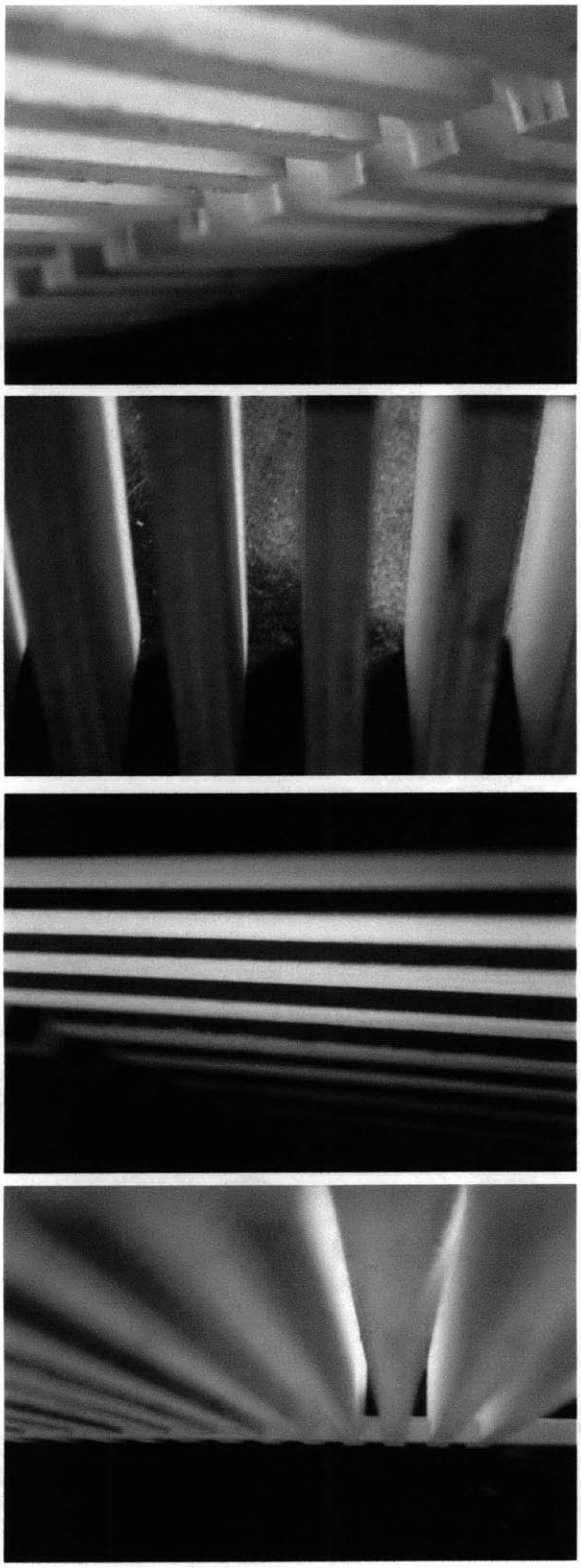
Taking the pastels further into a three dimensional study, I began looking at the ways in which sound might be represented, not with color but with light.

At the bottom, a wall is solid. The surface may either be flat, and therefore reflective (depending on the density and mass of the material, some longer waves may be absorbed by the surface). The screen could pull apart slightly to become a diffusive surface. It may open in such a way that part of it remains reflective while the other becomes diffusive. In the top images, the screen is pulled completely apart, allowing both light and sound to transfer. Sounds may travel now between two spaces if, for instance, the screen was placed between two performance spaces.

Taking this idea further, a structure might be able to communicate the acoustic qualities of the interior by revealing the position of the screen on the exterior. In these images, the screen transforms the translucent facade differently in each configuration. In the lower image, the screen is open. At top, the screen is closed.



above images, quarter scale study model in different configurations with translucent screen

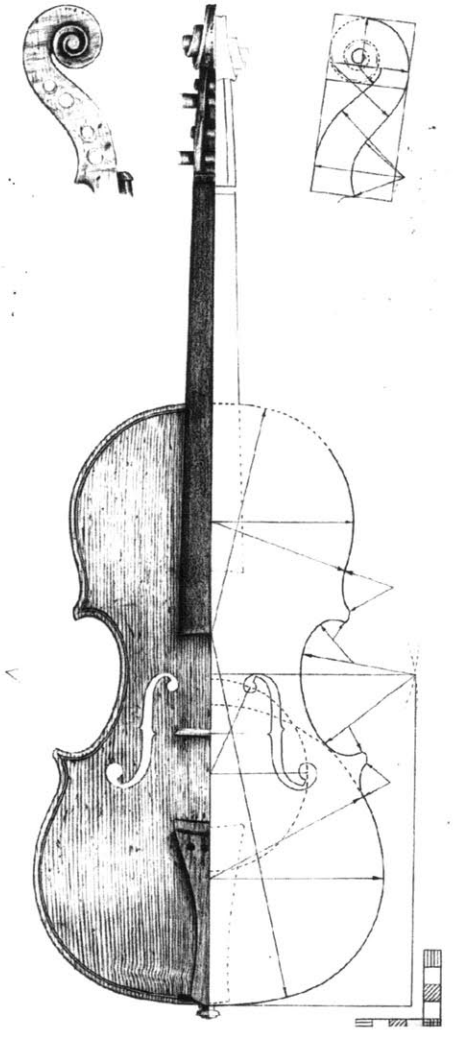


To test these ideas further and to understand how this screen might function at a building scale, a full scale model was constructed out of 4" plywood strips. The size of the model demonstrated how difficult it might be to modify a space so significantly, but also revealed that it may not be necessary to change entire portions of a wall. One could for example, open only one part of a screen to expand a volume into the adjoining space.

all images this page, full scale plywood study model.

A NOTE ON THE PROGRAM

It is inevitable to draw the connection between sound and music, but the relation in this project is not so simple. The choice to design for a collection of instruments came from a desire to find a program which worked for the city in some way, either socially or economically. The program this semester was a means to synthesize a number of ideas already held about the city. The choice of a collection of rare instruments generates an entire series of questions about how these instruments are housed, what spaces are necessary for the protection and performance of these instruments, and how to bring the scale of the individual back to the city where Motown turned music into a commodity, just as it did with cars. These questions are exacerbated by the condition of the chosen site. What is unique about this specific program versus the design of a museum of textiles for example, is that music and Detroit are inexorably tied in history. With the millions that came to the city to find work came an incredible number of musicians. That tradition continues today and is found in all genres. A collection of instruments also suggests that it may be possible to gather from all over the world instruments that reflect the diversity of the city, as a means to heal some of the social wounds inflicted during the past decades. With this in mind, the program consists of a number of spaces which I thought necessary for the needs of the collection and for the city: a museum with public access, a workshop and performance space connected to the museum for the use of the rare instruments, a series of indoor and outdoor performance spaces of different scales, and a cafe.



above, drawing for a violin
in Coates, Kevn, *Geometry Proportion, and the Art of Lutherie*

drawing for the Parnassus, by Raphael
in Coates, Kevn, *Geometry Proportion, and the Art of Lutherie*

cello detail, December 2002

Given the challenge of representing sound, and the basic challenges of designing for each instrument specifically, a decision was made early in the semester to design for a set of instruments that is familiar, classical instruments.

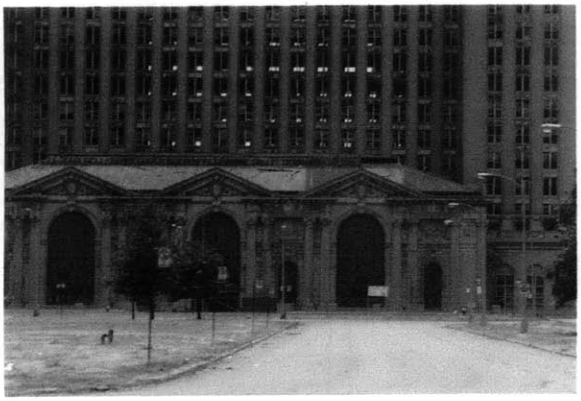
A biographical note: The site is near to the grounds of a music school I once attended from a very early age until I left Detroit for university. This school was torn down years ago to make way for the construction of a new industrial design school. It was at this school that I learned the violin. Later in life, near to the beginning of this project, I began cello lessons. Classical music training has been a large part of my upbringing and the choice of classical instruments seemed a natural choice when faced with designing for a specific sound.

RECOVERY

BY NATURE

BY ARTISTS

OF MATERIALS



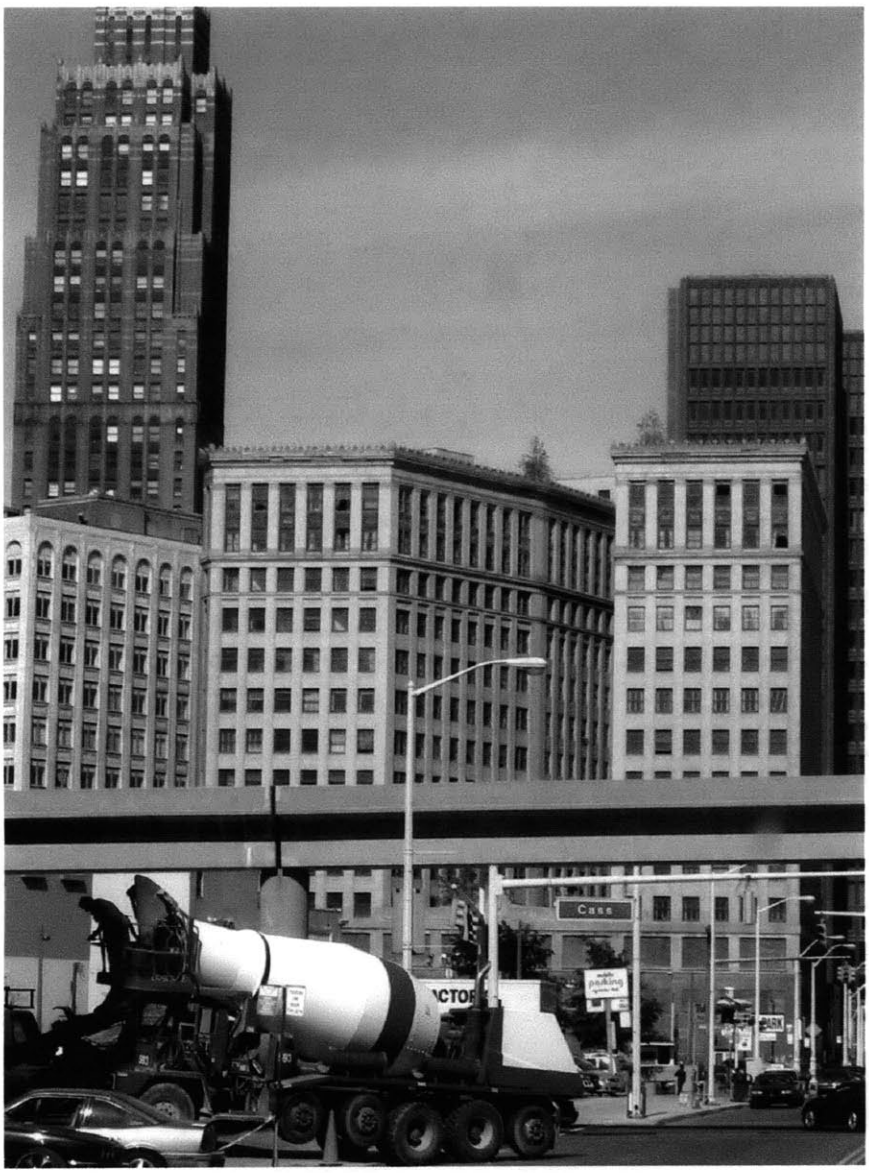
Michigan Central Depot, July 2002.

Michigan Central Depot tracks
from Kavanaugh, Kelli, *Detroit's Michigan Central Station*

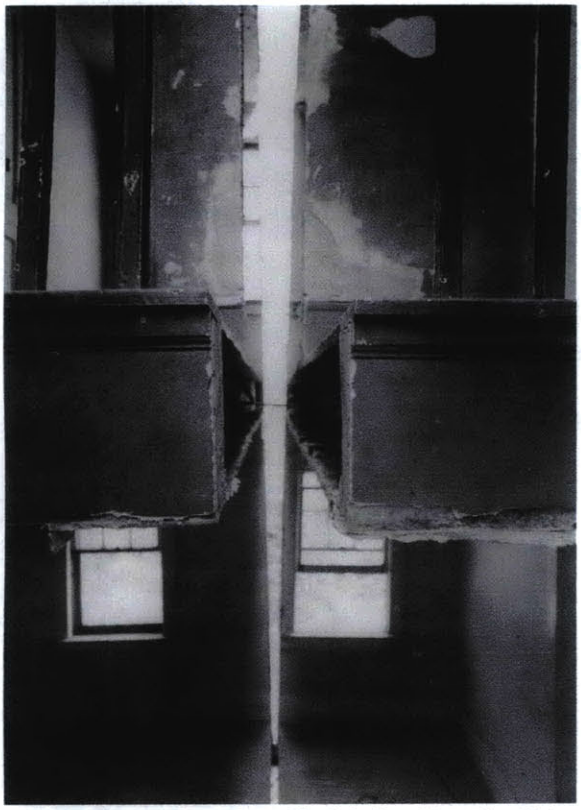
Michigan Central Depot from afar, July 2002.

The Michigan Central Depot is an example of the scale of abandonment in the city of Detroit. Opened in 1913, the station was closed permanently in 1980. In its short history, the upper floors were never used. The neighborhood around the station, once thought to be replaced by an expanding downtown area was later cleared for industrial use. Industrial factories never appeared and Corktown lost many residents. The station stands empty and eerily transparent as natural growth slowly reclaims the tracks.

Here and in the following image, recovery works on the scale of nature reclaiming the manmade. Neglect is a powerful force in the city. When there is no money to tear down buildings, let alone to restore them, strange places begin to appear in the city, as on the tracks at the Depot.



Abandoned Hotel with trees growing on the roof, July 2002.



Splitting by Gordon Matta-Clark in Lee, Pamela, *Object to be Destroyed*

above, the corner of John R and Hendrie liquor store, now vacant and marked with a blue dot.

Recovery also occurs in the city by its artists. Gordon Matta Clark sets an important precendent.

Work with abandoned structures began with my concern for the life of the city of which a major side effect is the metabolization of old buildings. Here, as in many urban centers, the availability of empty and neglected structures was a prime textual reminder of the ongoing fallacy of renewal through modernization.

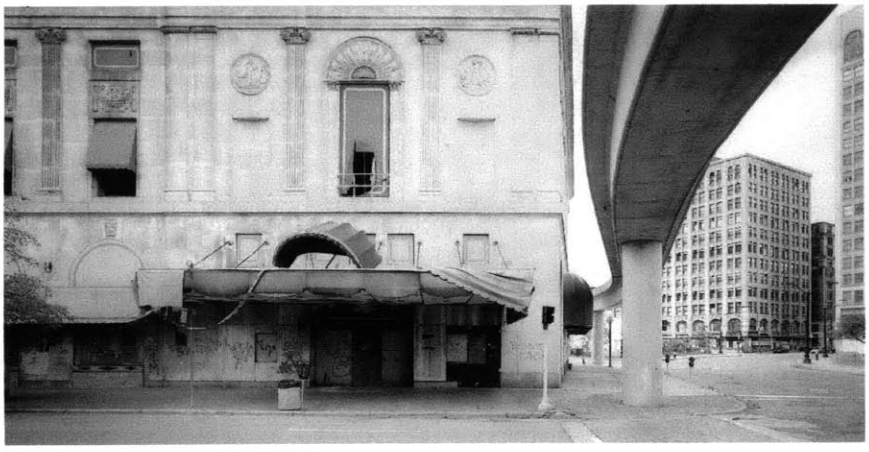
-Gordon Matta Clark
in Lee, Pamela
Object to be Destroyed

In Detroit, Tyree Guyton's use of abandoned structures creates much controversy. More subtly, artists paint blue dots on doors of abandoned structures to draw attention to them. This liquor store is found on the corner of Hendrie and John R.

Is there a way to reinhabit older structures, to make use of materials and resources available without resorting to the clearing of the land and the construction of whole blocks of poorly made housing?

figure ground diagrams of downtown Detroit
Plunz, Richard, "Detroit is Everywhere," *Architecture Magazine*, April 1996, vol. 85, no. 4, pp. 55-61.

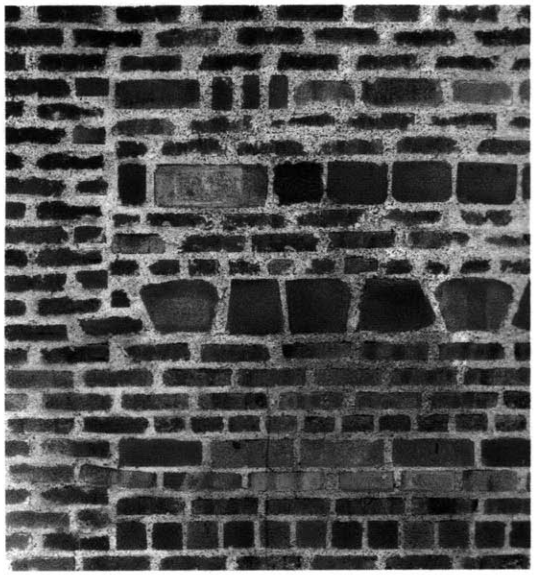
Nowhere is the erasure of the city more evident than in a series of figure ground drawings created by Richard Plunz for an article in Architecture Magazine called, "Detroit is Everywhere." In these diagrams, the immediate downtown area is shown over 80 years slowly disappearing. If nothing else, the erasure is taking place in Detroit at all scales, from the industrial to the residential. What is replacing the smaller scale blocks downtown and along the river (the bottom boundary of each image) is a much larger scale civic building: sports arenas, casinos, and theaters. The success of Joe Louis Arena likely inspired the construction of apair of baseball and football stadiums just off Woodward Avenue (not shown in these images). What is the physical space of this new city?



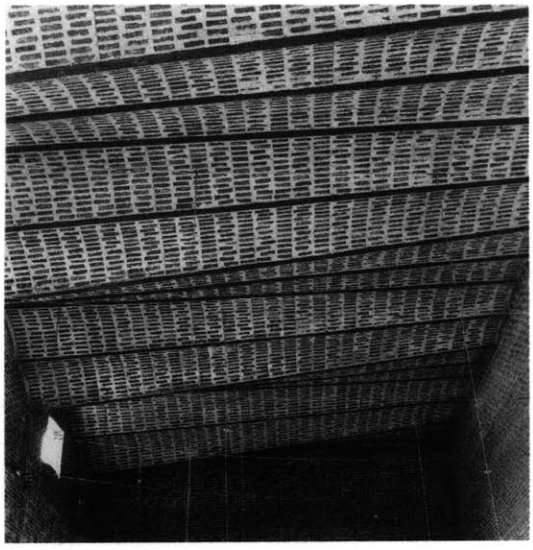
an empty downtown street
photograph by Jordi Bernado, in Daskalakis et al., *Stalking Detroit*

abandoned structures on the waterfront, July 2002.

Spaces such as this one might no longer require destruction and removal, but recovery instead. If the abandoned structures of the city were no longer seen as impediments to renewal or nostalgically as ruins, they might be seen as potential for material recovery. Many of the empty lots in the city contain wood houses whose ruins are unusable. Brick however, is a resource that remains, and it is with this in mind that the project proposes to 'mine' the city.



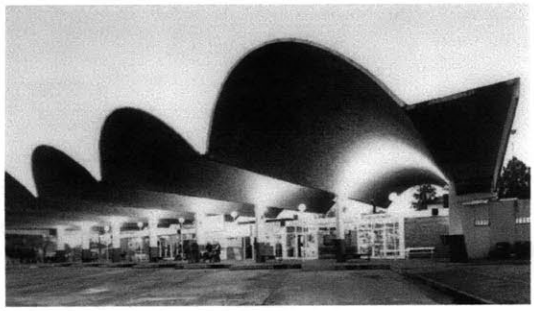
Brick Detail
Lewerentz, Sigurd in *Sigurd Lewerentz, 1885-1975: The Dilemma of Classicism*



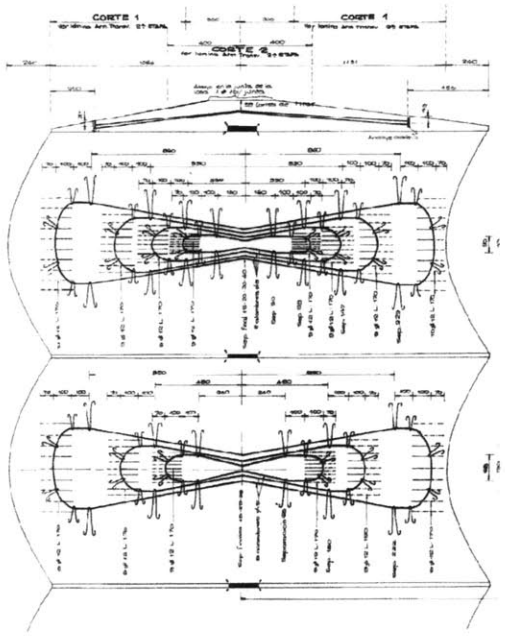
Vault Detail
Lewerentz, Sigurd in *Sigurd Lewerentz, 1885-1975: The Dilemma of Classicism*

An important precedent for the use of brick is Sigurd Lewerentz, especially in his use of vaults in two churches in Sweden. Vaults are used in the project as a method to recover material but use it in a way which is not familiar in the city. The continuous vaults of Lewerentz's churches suggest that a new surface might be possible.

Catalan Vaulting system
Photograph by John Ochsendorf



Eladio Dieste - Bus Station - Salto
from Pedreschi, *The Engineer's Contribution to Contemporary Architecture*



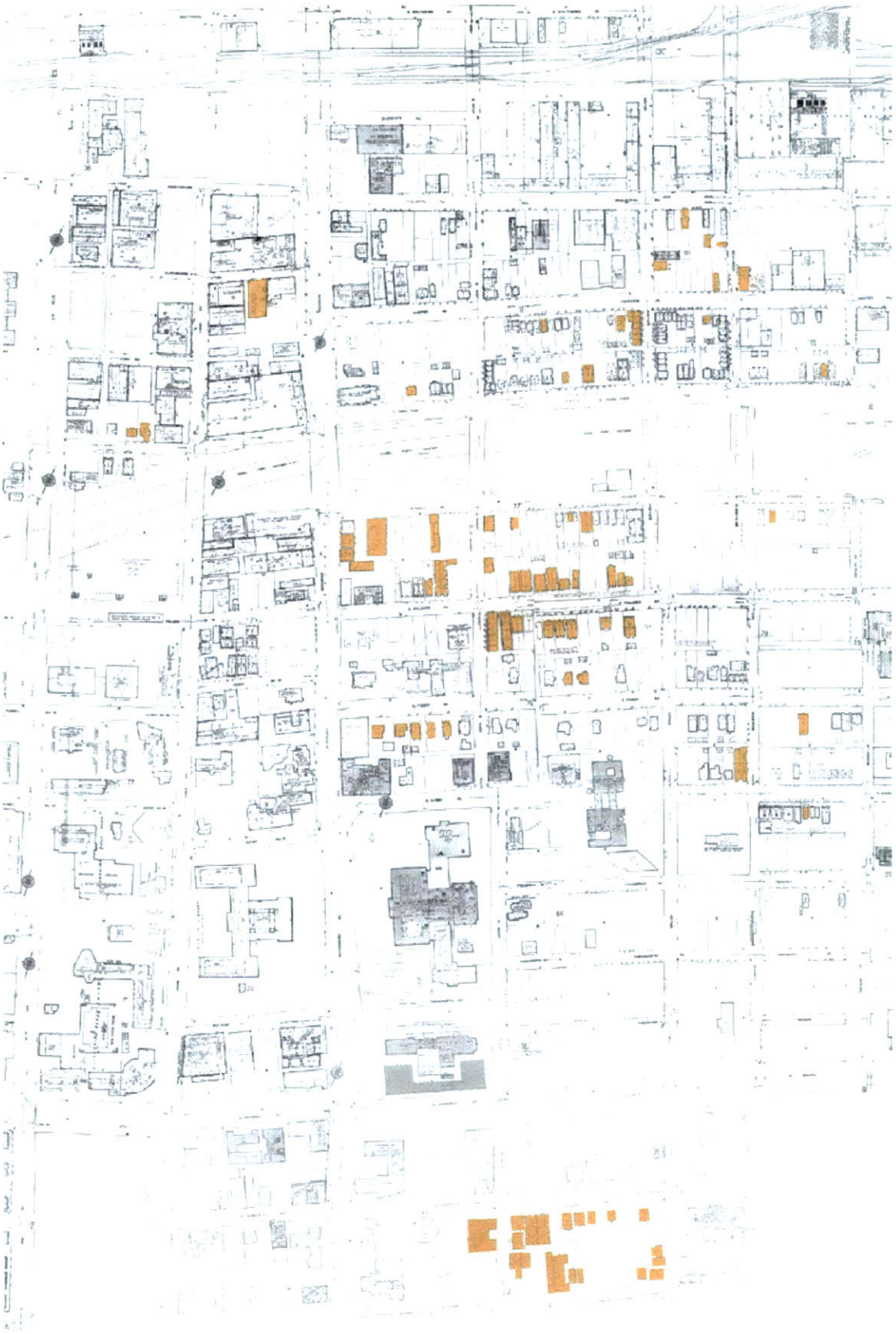
Eladio Dieste - prestressing tendons in vaults
from Pedreschi, *The Engineer's Contribution to Contemporary Architecture*

There are two other important precedents for the development of the vaults. The Catalan Vaulting system at top left is constructed with thinner tiles which may be set without much formwork, if any. On top of this thinner layer of tiles may be layered other bricks.

Eladio Dieste's vaults demonstrate the extremes of this structural system. Using prestressed tendons, he is able to create enormous unsupported spans.

For the project here however, Lewerentz's vaults, with their I beams supporting each edge and steel columns most accurately reflect the type of vaulting possible in the city of Detroit, especially with its manufacturing history.

In the drawing on the following page, the orange (shaded) sites are empty or abandoned structures. Especially around the area of the specific site of the thesis project, there is a remarkable number of potential sites for the recovery of material.



Site plan showing potential sites of material recovery.

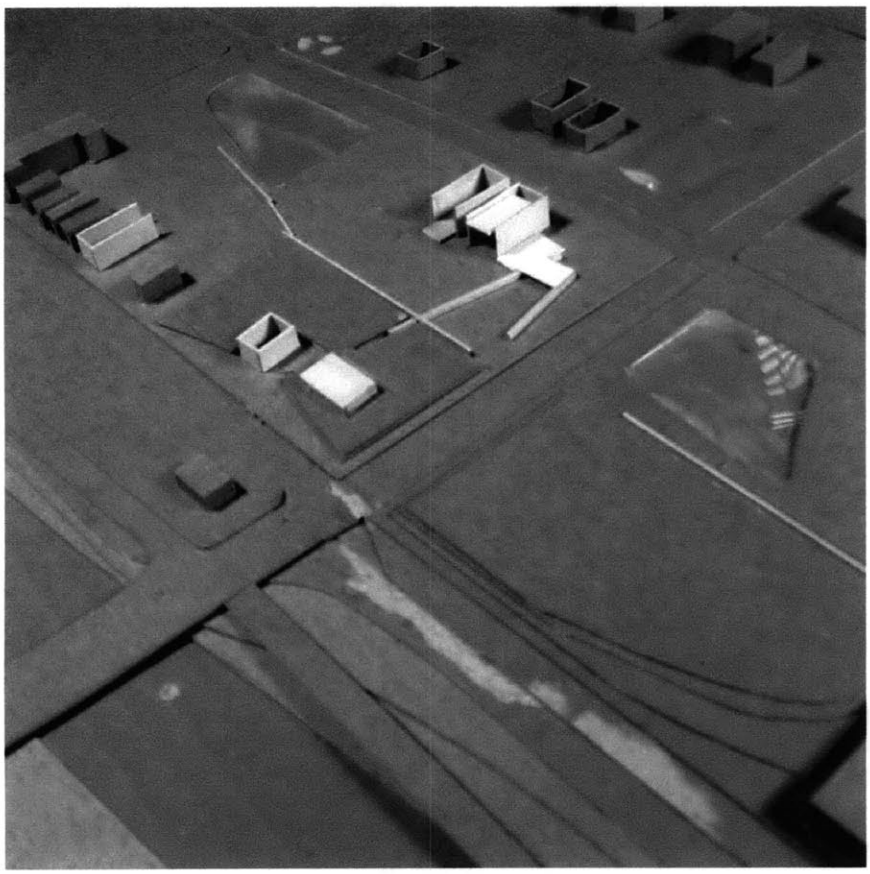
a neighborhood not far from the site
photograph by McLean, Alex
in Daskalakis et al., *Stalking Detroit*

With the disappearance of houses in many neighborhoods come strange consequences, not the least of which is the openness of the blocks which now appear as estates. Circulation paths appear where they were not possible before. The alley becomes more than a service passage as the houses no longer have strict lot lines. The site for the project takes the same liberties with established lot lines and structures on one half of a city block.

EXCAVATION

As it happened, in Dusseldorf some neighborhoods still were in ruins, and a Luftchutstraum had been turned into a church. I went to mass in a bunker that is called the Church of the Holy Sacrament.

-Paul Virilio
in *Crepuscular Dawn*



This image reflects the initial moves on the site. In the foreground on the lower left side is the freeway running past the site at an average level 18' below ground level. To combat the noise of this thruway, ground is excavated from one corner to the other. The plexiglass in this case is water which would collect in the now lower portion of the block. The pale buildings are abandoned or new structures. Initially, the project was to exceed more than one block. In the final version however, there are three abandoned structures reinhabited as well as two new structures placed on the site.

The excavation of one corner and the building up of the freeway side of each block serves many functions: sound control, water drainage, as well as the opportunity to bury the museum which will house the instruments. The idea of excavation is tied to protection, as Virilio's writings on bunkers suggest.

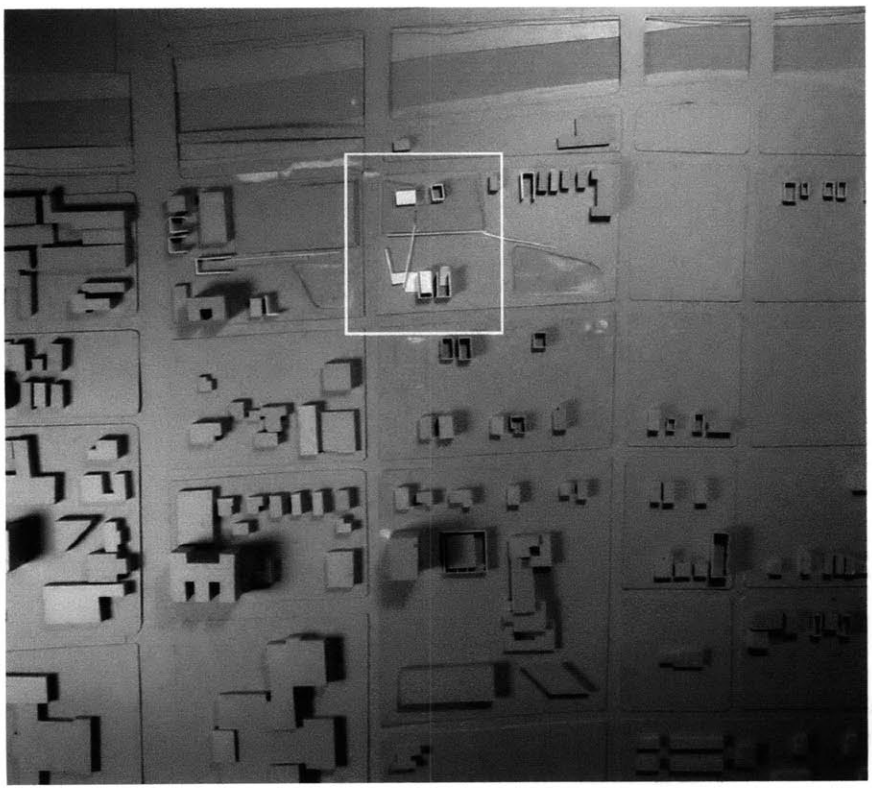
DESIGN

SITE MODELS

PLANS

SECTIONS

MODELS



Site Model scale 1"=100'

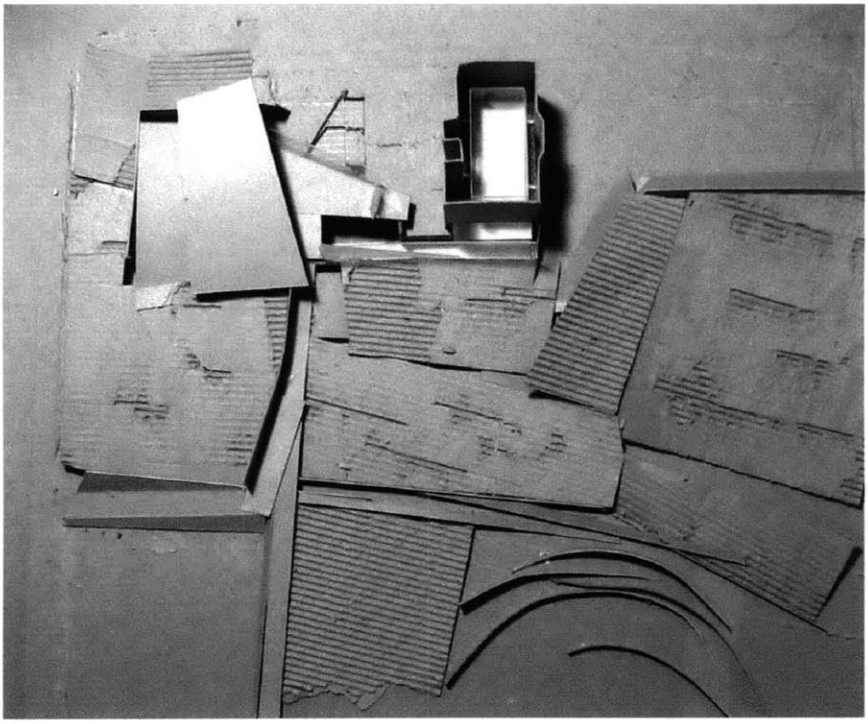
The site is located at the center top, just below the freeway. The buildings without tops show abandoned or empty structures. At the lower left, the public library is across Woodward avenue from the Detroit Institute of Arts. Also in the neighborhood of the Cultural Center is an industrial design school and a number of smaller historical and children's museums which inhabit old houses.

Study Model scale 1/16"=1'

An early study model of the project shows the relationship of the abandoned structures to the new structures. The twins (at lower center) have been transformed into a pair of performance spaces. The one on the left is covered and connected to a lobby at the rear. The one on the right is open, the brick wall becomes a screen, not a weather enclosure. The stage is located at the back and can be opened to the interior or exterior space of the alley. At the top, the museum is buried into the excavated earth and covered with brick vaults. It is connected underground to the abandoned house adjacent which has also been transformed into a performance space.

Study Model scale 1/16"=1'

The vaults of the museum extend over the outdoor path and appear as part of the geography of the new site.



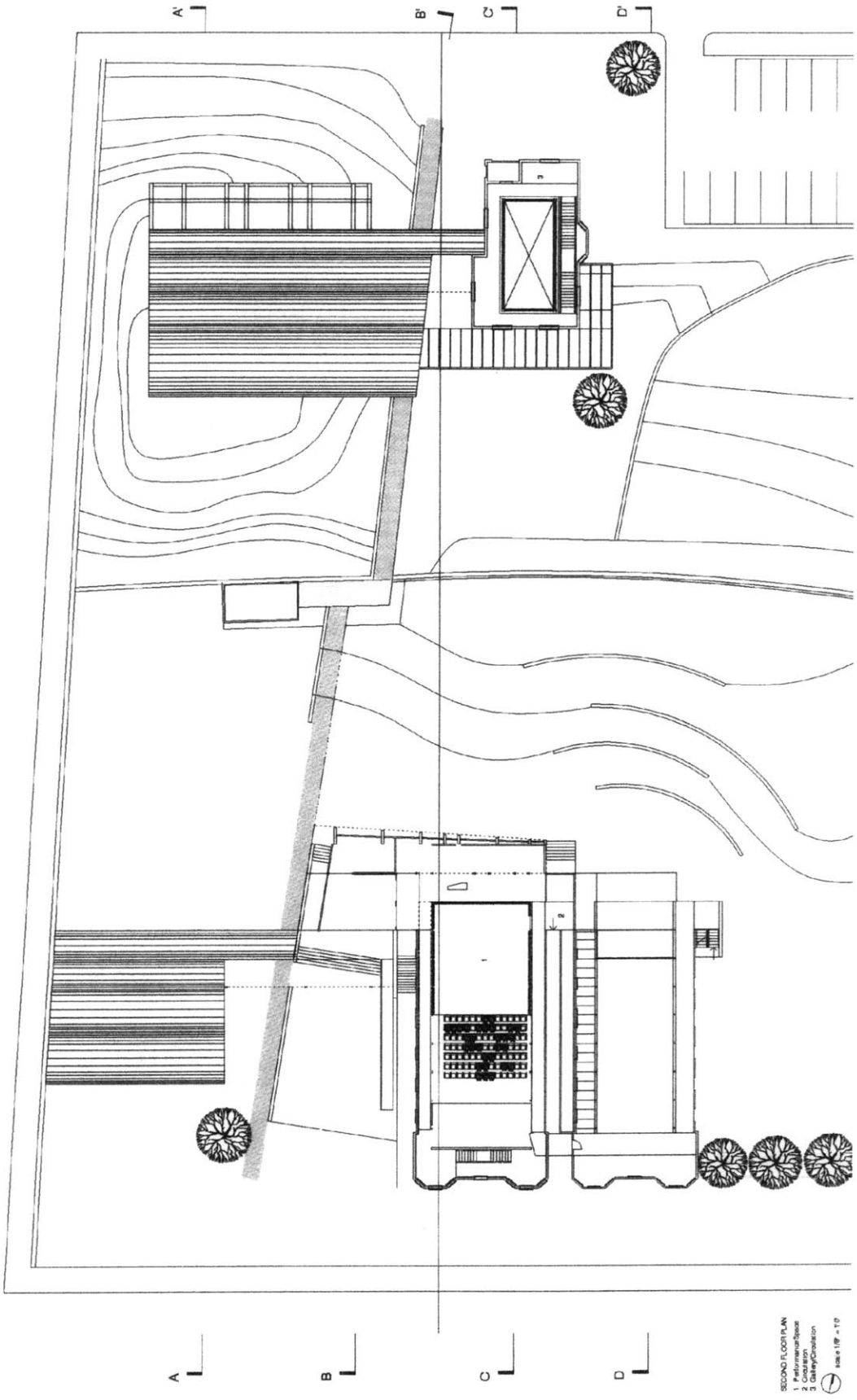
Study Model scale 1/16"=1'

Before the vaults were developed, the roof of the museum was still conceived as a part of the landscape. Here the path through the site is less clearly defined. The model is a study for the excavation and changing topography.

SECOND FLOOR PLAN

The new buildings on the site (cafe at bottom, museum at top) are single story structures. The second floor plan shows the performance spaces in the existing brick structures. Circulation to the second floor of the main spaces (at bottom) occurs between the twins. Here, brick ramps join the two shells together and stabilize the walls. The lobby space opens to East Palmer street and turns to come around behind the structure. The front of the building is now the stage without an entrance directly off the street.

Above the more formal performance space in the left building at bottom, is a practice room suitable for a medium sized gathering. It is in this space that the walls are defined by screens that may open up into the space below. In this way, the spaces may be joined or remain isolated from each other.



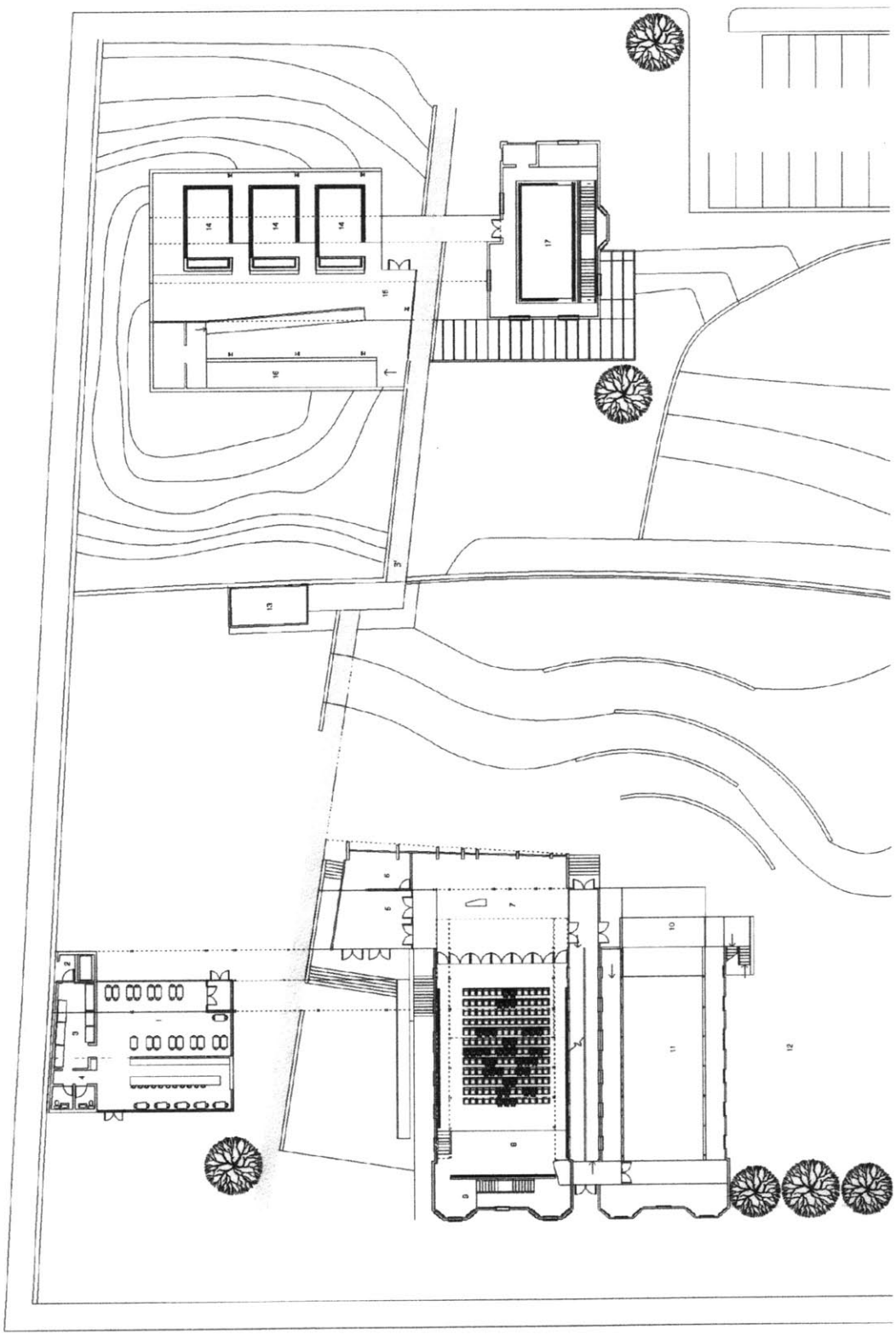
Second Floor Plan

GROUND FLOOR PLAN

The cafe (at bottom left) opens to both sides, and is a simple structure defined by shear walls, columns, and the brick vaults above. It is connected to the lobby by a covered outdoor space through which passes a a path that leads to the museum. There are two circulation paths on the site, one which follows the gradation along the former alley and the other which crosses against it. Each building is a separate entity connected by the ground paths or the vaulted surface above.

The first floor of the museum is entered off this path either from Hendrie or from East Palmer. It is possible to pass through the site without ever entering a building, only by passing beneath the vaults. The house next to the museum is entered off the shared outdoor space or by circulating to the lower floor of the museum and under the house.

The site plan allows for the potential of larger informal concerts to be performed when the weather is fair. The more formal interior hall seats 100 people. The same screens found in the practice room above the hall are found along the walls of the performance space, making it possible to control the reflective or diffusive qualities of the walls.

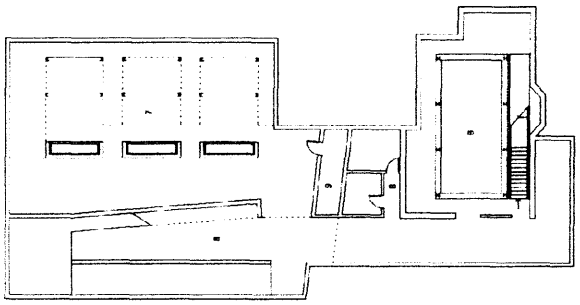


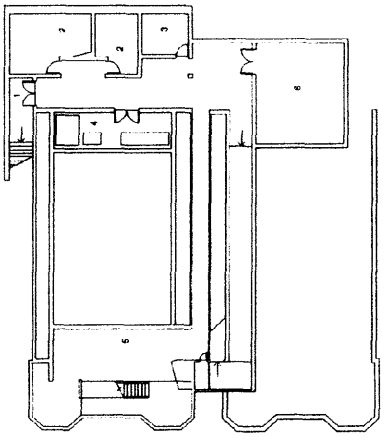
Ground Floor Plan

BASEMENT FLOOR PLAN

Below the museum is a circulation space into the house. Also found here are the workspaces. The galleries in wood hover above this space allowing light to pass between them and down into the work areas. It is here that the instruments might be safely cared for or studied. The circulation space is public and takes advantage of the excavation to allow for a ramping down into the ground.

Below the twins are found the service spaces: restrooms, coatrooms, mechanical spaces. The performer preparation areas are below the stage and can be reached by the same ramps running between the buildings to the second floor.



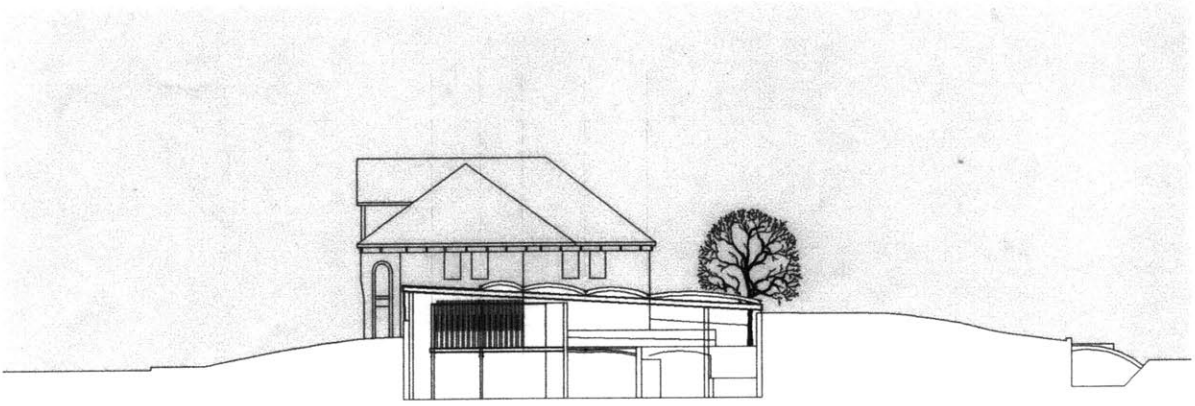


BASEMENT LEVEL PLAN
1 Service Entrance
2 Restroom
3 Coatroom
4 Mechanical
5 Preparation Area
6 Storage
7 Vestibule
8 Exhibition
9 Mechanical

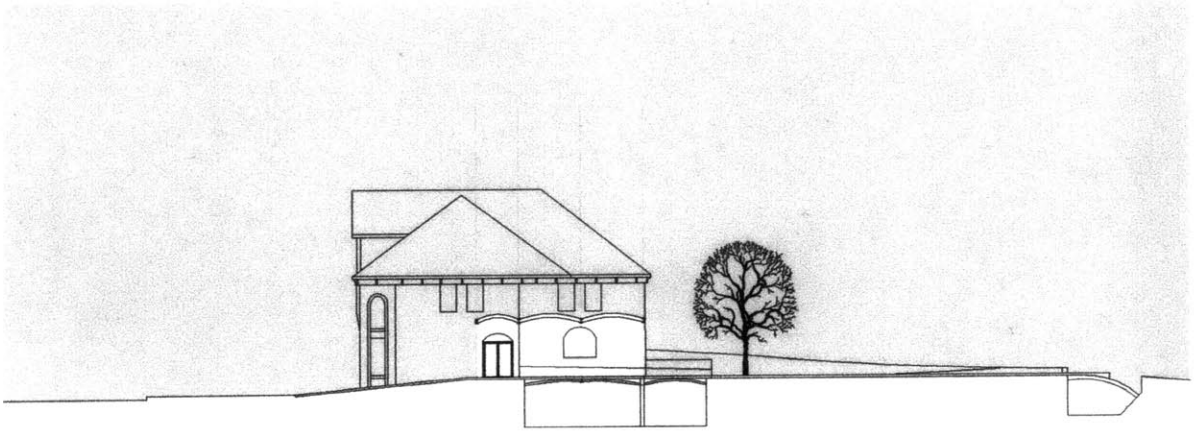
scale 1/8" = 1'-0"

Basement
Floor Plan

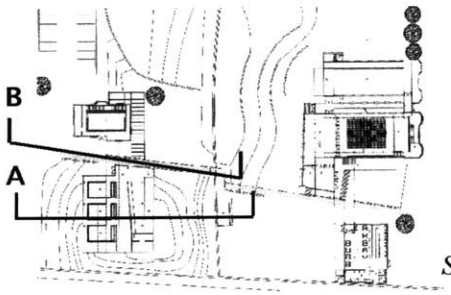
SECTIONS



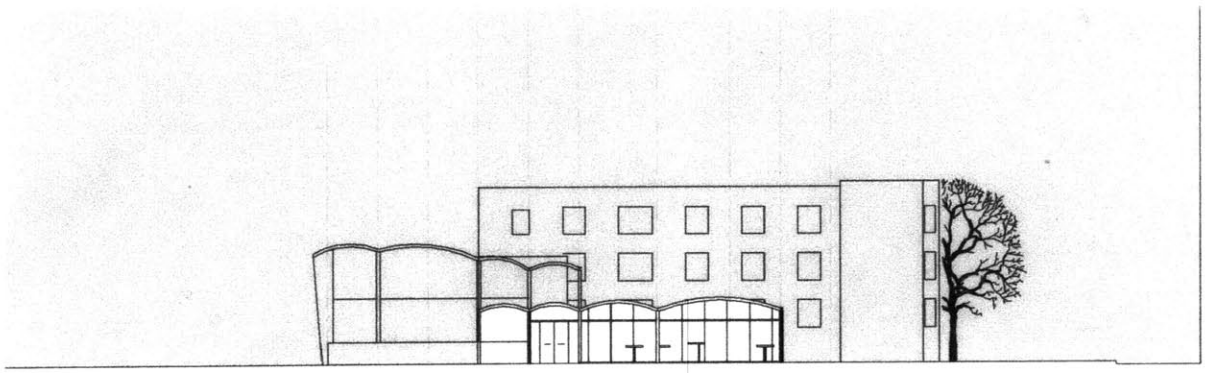
Section A through museum



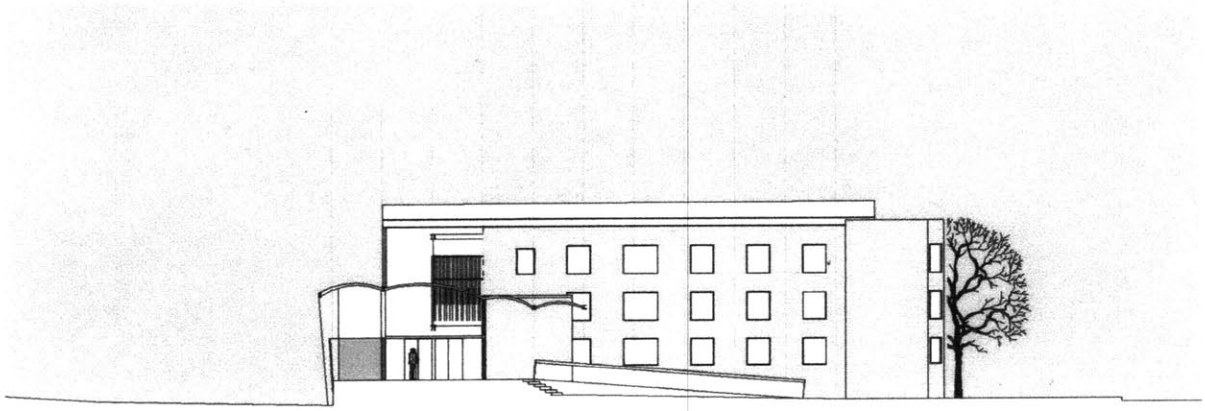
Section B through covered path and circulation to the adjacent house below the path



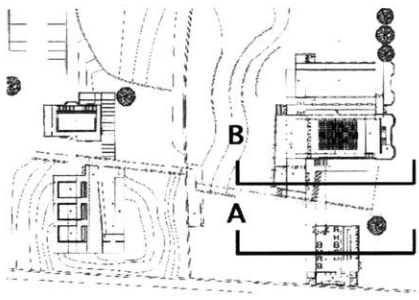
Section Key Plan



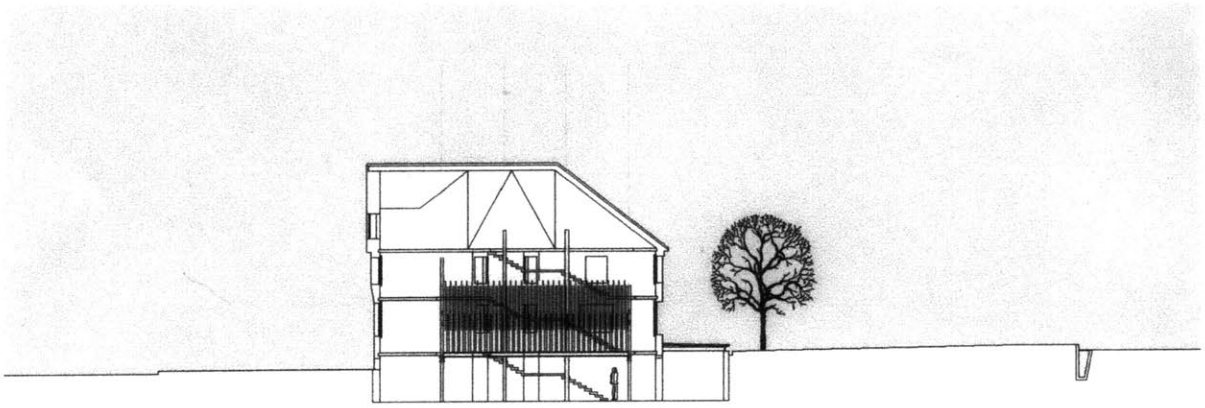
Section A through the cafe



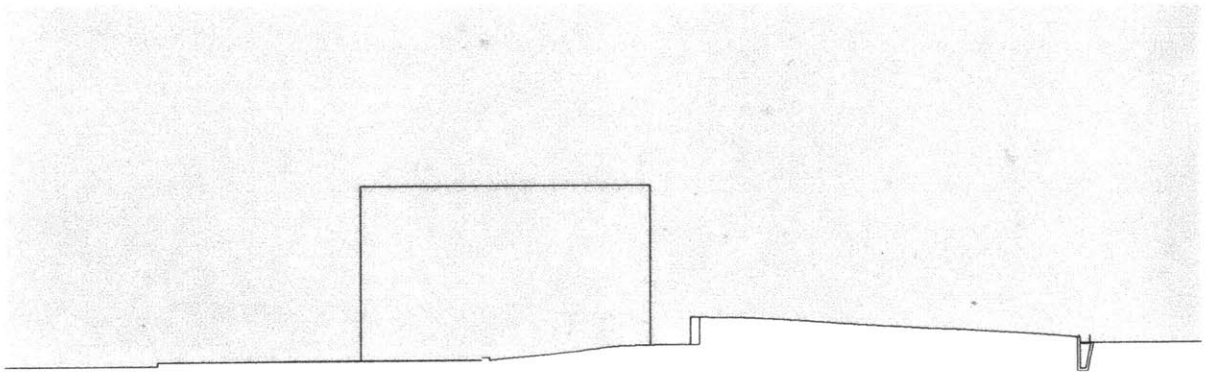
Section B through the lobby



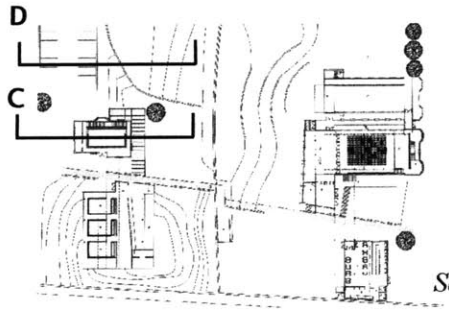
Section Key Plan



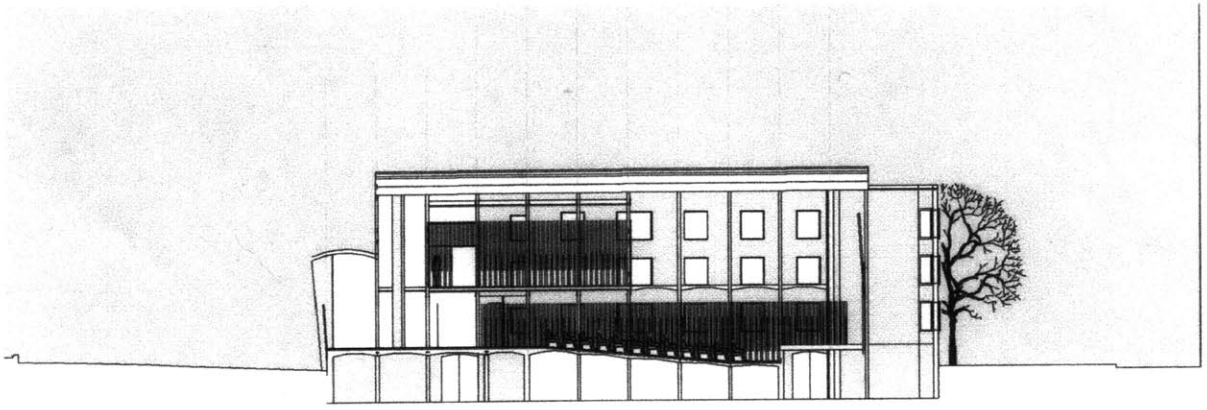
Section C through the house and performance space adjacent the museum



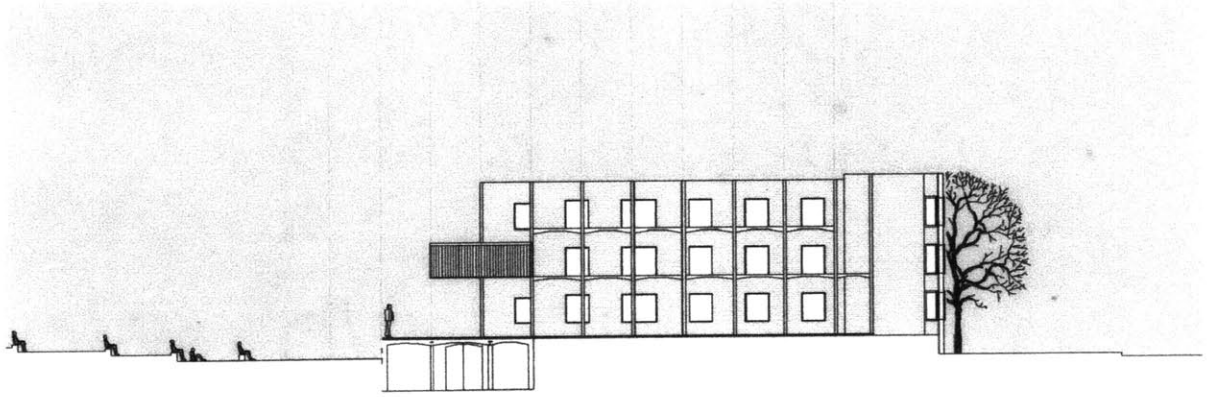
Section D through parking



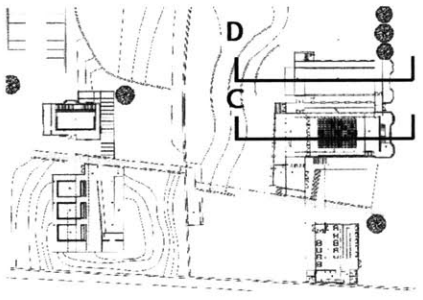
Section Key Plan



Section C through the interior performance space and practice room on the second floor

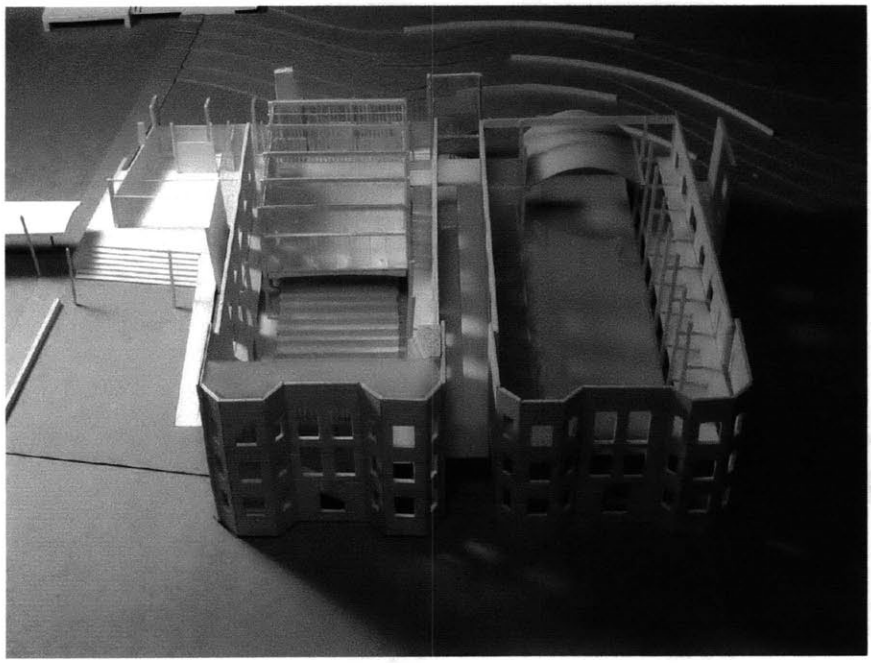


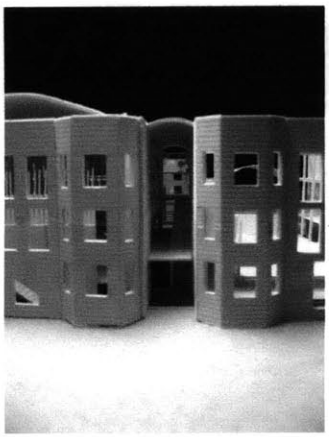
Section D through the exterior performance space



Section Key Plan

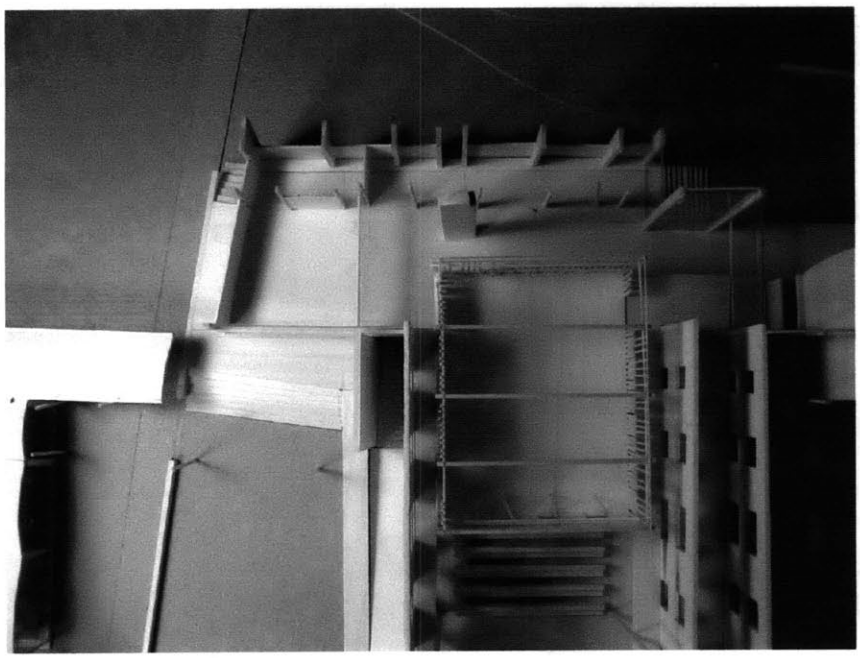
MODELS



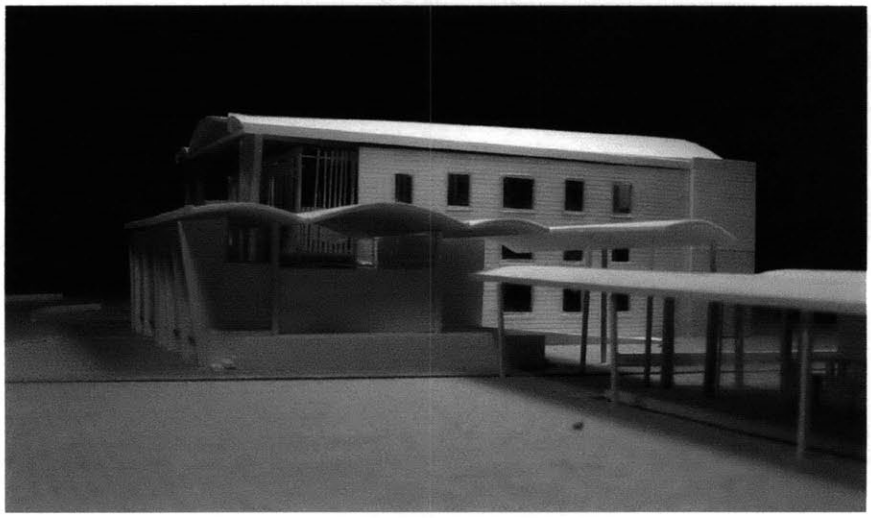


Above, eighth scale model showing the two performance spaces (roof removed from left building) and lobby entrance from left side.

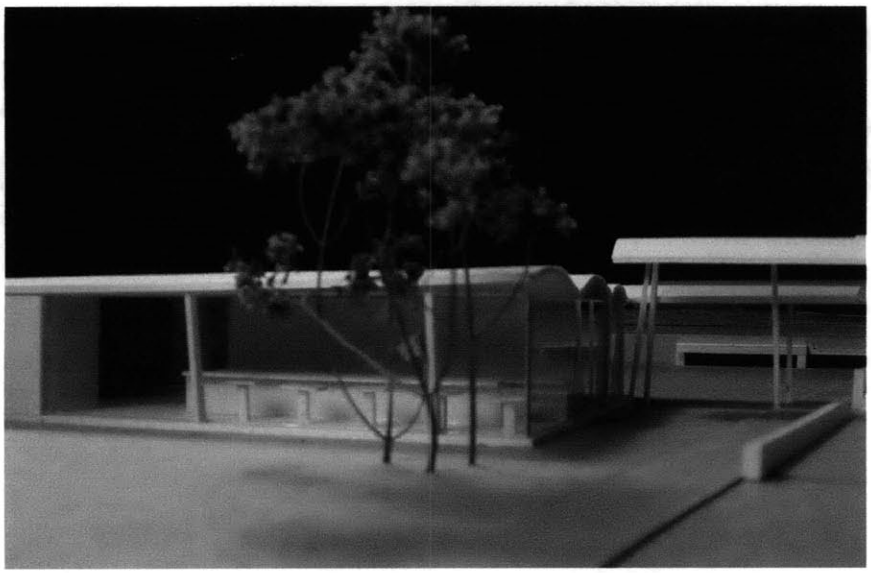
Left, eighth scale model street facade showing the ramp which ties the two together. This interior ramp is covered by a brick vault which runs the length of the two walls.



Above, eighth scale model aerial view showing the lobby space. The lobby is divided into two parts. The ticket office is found in the first lobby. The practice room on the second floor spans between the lobby and the performance space. The lobby here may potentially be joined with the seating area to expand the volume of the space. One might circulate up the ramp to the performance space or down the stairs to the exterior.

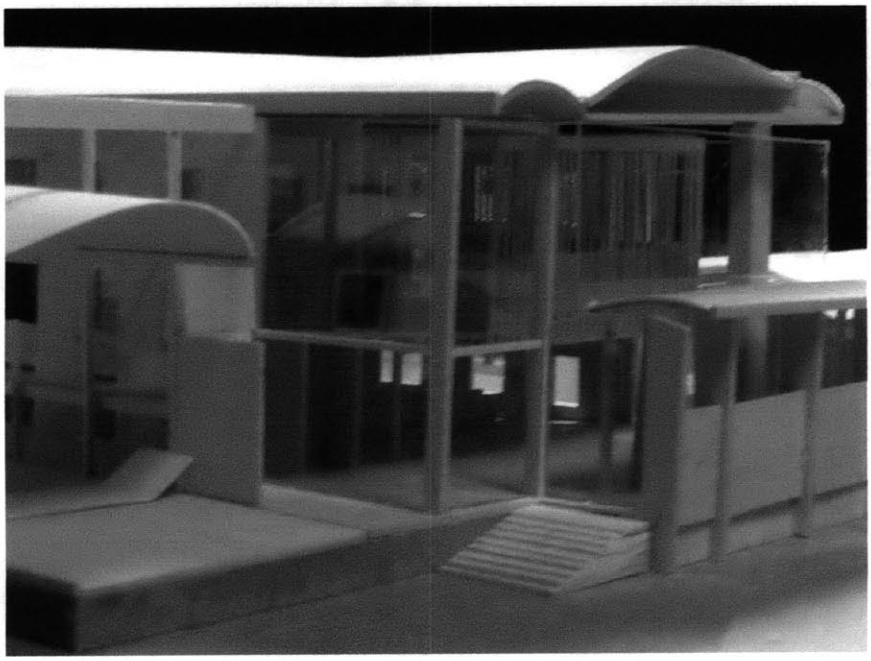


Above, eighth scale model aerial view showing the lobby and cafe. The path to the museum passes below the vaults which span out from these two spaces. The vaults of the lobby space are slightly higher than the cafe.



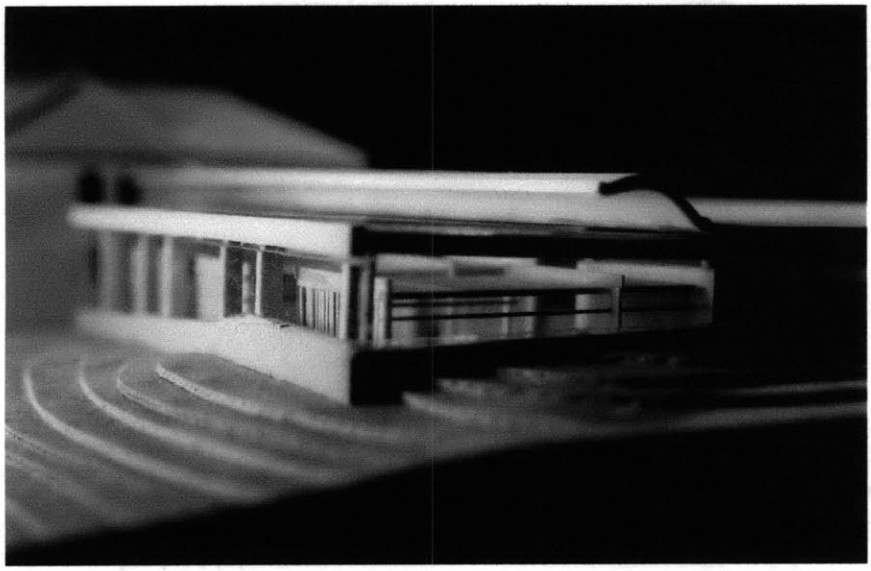
Above, eighth scale model aerial view showing the cafe from the East Palmer street side. The cafe opens to a plaza on the front as well as the back.

Above, eighth scale model view from Hendrie street showing the house in foreground now converted to a performance space. In the background, the left structure is the stage for outdoor performances. The stage is covered by another vault in wood. Parking is in the foreground, left.

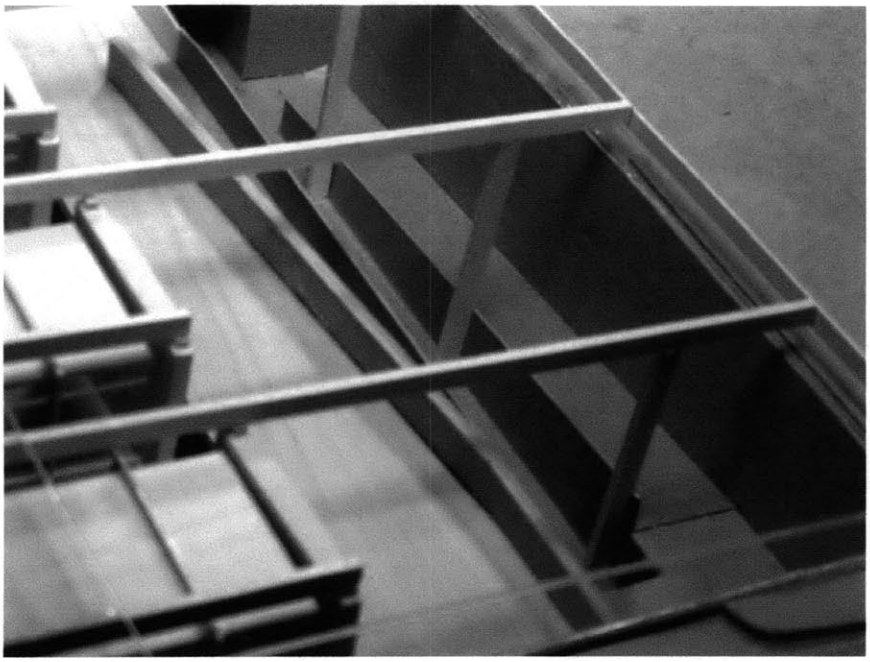


Above, eighth scale model view of the rear facade. The buildings now open onto what was the alley. This stair leads from the stage (left) into the second lobby space. This lobby space is turned inward and focused towards the stage. The opposite is true for the second twin, where the stage is located on the alley side of the building.

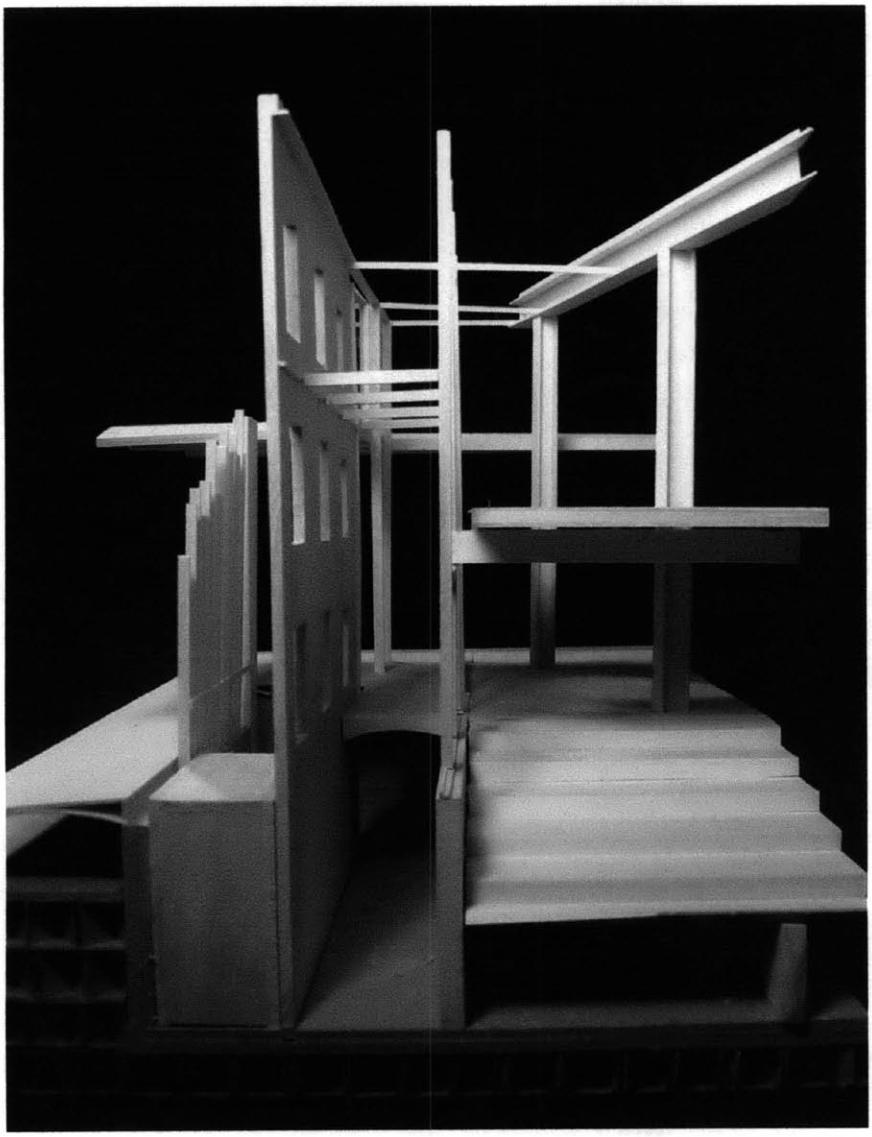
Above, eighth scale model view of the museum elevation on Hendrie Street. The wood screened galleries are hidden from the street by the new grade of the site.



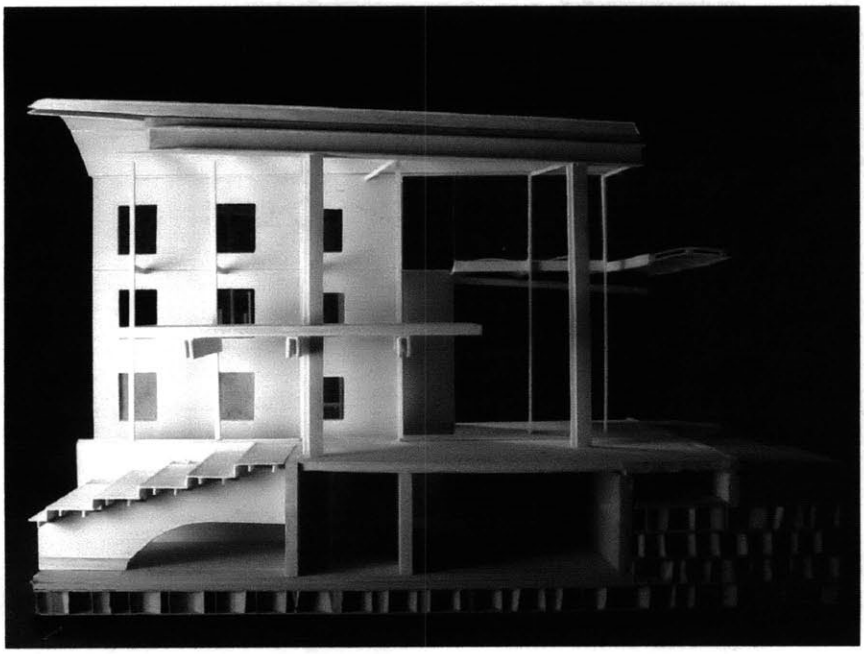
Above, eighth scale model view of the museum elevation the corner of John R and Hendrie.Above, eighth scale model aerial view of the museum elevation on Hendrie Street. The wood screened galleries are hidden from the street by the new grade of the site.



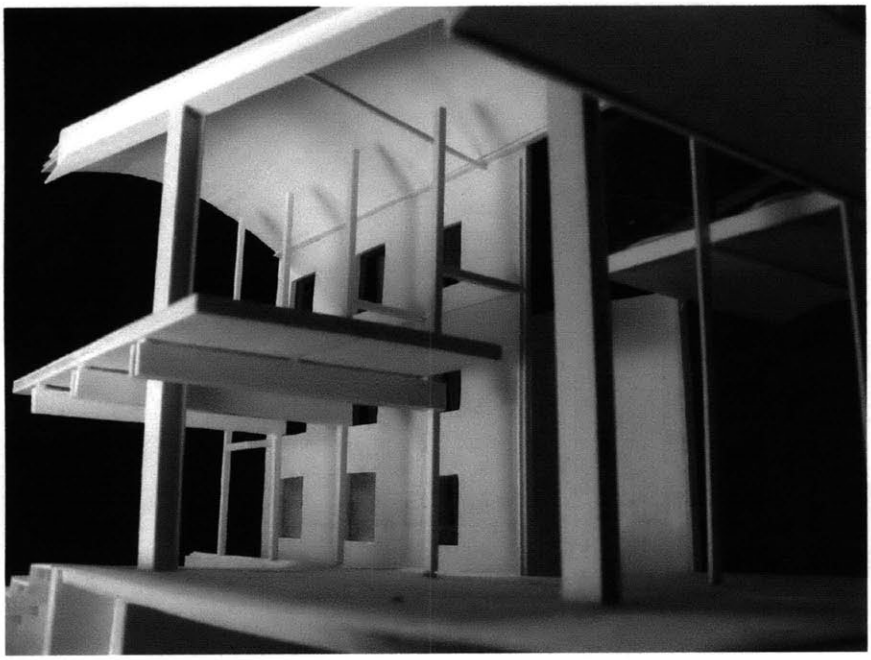
Above, eighth scale model aerial view of the museum without roof. At left is the public circulation into the galleries. Ramps take visitors down to the next level where the workshops and entrance to the house adjacent are found. The circulation here is wide enough to accomodate exhibitions along the path.



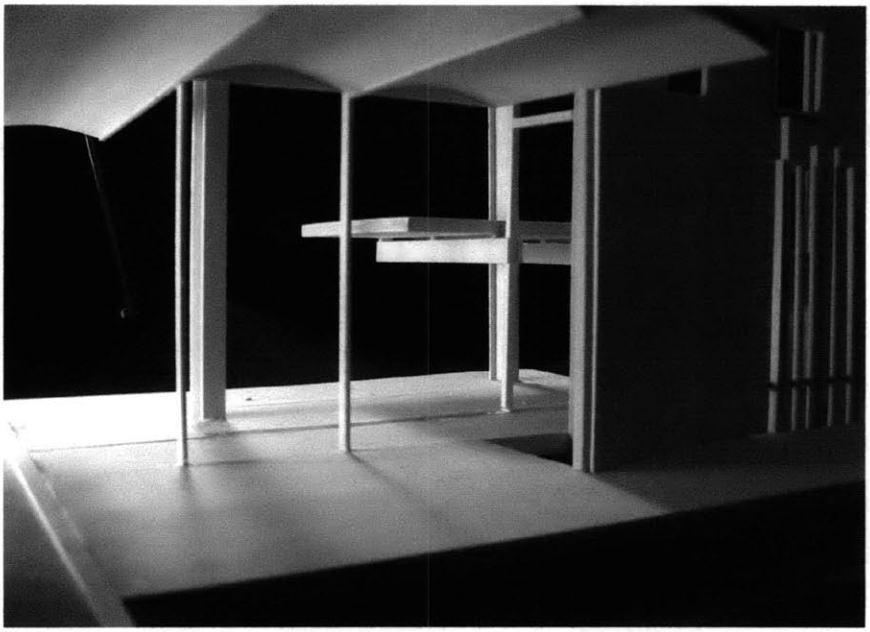
Above, quarter scale model detail. The exterior walls, once they have lost their lateral supports, must be braced from the interior. An early model has a line of columns bracing the wall at many intervals. Circulation alway occurs around these brick walls. The vaults of the roof (not shown) are supported by a steel I beam which runs the length of the structure. The seating area slopes down from the lobby level (at four feet above ground level).



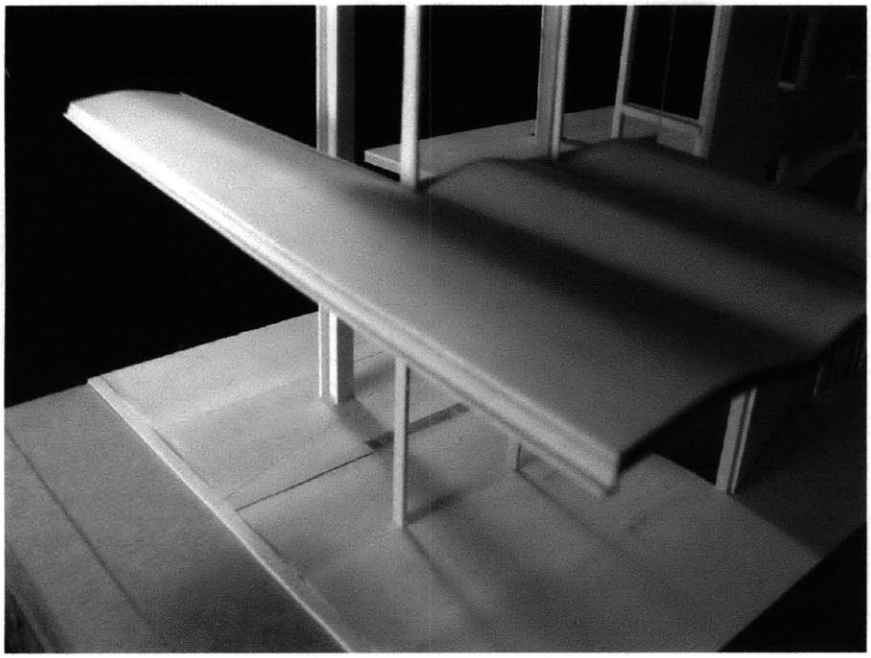
Above, quarter scale model detail. This model was used to study the relationship of the height of the lobby to the performance space level. The vaults of the lobby are much lower, and run perpendicular to the vaults over the main space. In this section, the lower service level is also visible. Missing from this model are the wood screens which define the space of the practice room and the screens along the walls of the main performance space (see elevations).



Above, quarter scale model detail showing the span of the main vault.



Above, quarter scale model detail. Again, this model was used to study the position of the vaults in relation to the main space and the height of the practice room. Here the vaults are shown at a height of 18'.



Above, quarter scale model detail showing the lobby vaults from above.

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unless otherwise noted, all illustrations by the author

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