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SOCIAL FACTORY



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MANUFACTURING MOMENTS OF SOCIAL INTERACTION

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TEXAS A&M UNIVERSITY DEPARTMENT OF ARCHITECTURE 2023-2024

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ABSTRACT

The word industrial can be used to describe things that are cold, mass produced, fabricated, and repeated, but can industrial terminologies be used to reflect architecture that is as refined as the industrial process? The goal is to design a social factory that manufactures moments of interaction between people of different backgrounds within an industrial context. Detroit, a city founded on the great American dream and blue-collar workforce, now just a shell of its former glory it finds itself on the cusp of a revitalization movement. A city of industrial ruins searching to become a great American city once again, but lacking many of the infrastructure that can provide spaces for people to foster their curiosity and creativity.

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HISTORY OF DETROIT

Detroit, Michigan is known as the Motor City of America due to its rise and fall highly dependent on the invention of the car and its mass production. Some of America's most prominent car manufacturers early beginnings began in Detroit. The big three; Ford, Chrysler, and General Motors kicked off the blue-collar work force that sparked the growth in both Detroit's population and job opportunities in the early 1900s. However, during the 1950s the United States went to war which caused majority of these large manufacturing plants to stop production in the civilian market and shift into production of ammunitions and military vehicles. This shift in production led to innovations in automation where machines started to take many of the jobs of the blue-collar workers. This led to the rapid decline of Detroit's intercity population also known as the 1950s White Flight because many of those who depended on manual labor jobs were left with no alternative opportunities as Detroit was built on the backbone of the automotive industry and nothing more. Many were left with no alternatives but to leave the city in search of new jobs. Soon after the fuel crisis in the 1970s caused even the big three car manufacturers of America to slow down production because of the lack of people in the market for gas guzzling big American cars. Coupled with the fact that the United States vehicular market no longer relied solely on American branded vehicles, many smaller more reliable fuel-efficient economy cars coming in from Japan and Europe marked the end of the big American vehicle. From that moment the decline of Detroit was assured till the city filed for bankruptcy in 2013. The only thing being left behind is the ruins of once successful and prevalent factories that invented and produced one of the most revolutionary inventions of our time, the car.



TIMELINE

The Motor City Capital of the World, Detroit's roots have been tied to history as the birthplace of mass produced vehicles. From the mid to late 1800s the United States was on a mission towards industrialization. With the abundance of new raw materials and westward expansion the city of Detroit was no different. Seeing its early beginnings as a trading hub due to its direct connections to the Great Lakes Detroit has always been a city of trades. In 1896 Henry Ford test drove his first motor vehichle the Quadricycle.

However, it wasn't until 1904 that Ford established its first manfacturing plant on Piqutte Street in the Milwaukee Junction neighborhood. 1899 saw the very first automotive manufacturing plant built by The Detroit Automobile Company. Till the 1940s there was a large rise in many new automotive companies such as Chrysler, General Motors, Studebaker, and Packard Automotive to name a few. During the 1940s the word was in conflict and led to many of the automotive manufacturing plants to shift from production of motor vehicles to production of ammunition and artillery for the war. This shift in production and with blue collar workers leaving for war meant that something needed to replace the working class while they were away. This sparked the early beginnings of machines taking the jobs of workers when they returned. With no other skills aside from manual labor many of the blue collar workers were forced to find new jobs in other cities in the 1950s.

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With the fall of Detroit's major job market, it has struggled to keep itself afloat. At one point being the fourth largest city in America, it is now a mere shell of its former glory. Being plagued with high rates of poverty, continual population decline, lack of job opportunities, and high crime rates Detroit struggles to find its place as one of Americas greatest cities even today. The big three car manufacturers; Ford, Chrysler, and General Motors have returned to Detroit and continue operations and production

as they once have before, but no longer hold the majority of the job market within Detroit. The city longs for change, revitalization, and growth like never before. Today Detroit is a changing landscape that has seen its first rise in population in the past year after decades of decline. With many artists, singers, musicians, and car manufacturing companies beginning to rise from the remains of what was once a great American city the lack of city infrastructure and places to foster the creative growth

of young individuals is self-evident. By providing a space that caters to the cultural aspects of Detroit it can begin to create a place that can become a positive outlet for young people. A place that can both keep kids off the street to help reduce crime rates by providing a positive environment that can nurture skills that can be used to instill and encourage a more productive mindset. To give a creative place for the new wave in rising population after long trends of decline since the 1950s.

SITE ANALYSIS

With dozens of existing automotive manufacturing plants left in Detroit, the vast majority being demolished or abandoned, the process of selecting the ideal site was difficult. One historical site stood out amongst the rest, the original Ford Piquette Factory. Currently converted into a historical automotive museum, it is located in one of the most historical automotive neighborhoods in Detroit, the Milwaukee Junction District. Just ten minutes north of downtown on the outskirts of the city, the site is located on the fringes of the urban landscape. The site is composed of two buildings, the Ford Piquette Museum and the abandoned Studebaker

Service Center that was built 16 years after the Ford Plant. The three-story brick masonry building uses heavy timber construction with intricate brickwork along windows and its cornice. It is the birthplace of the Ford Model T and the modern-day assembly line. The building being reused in this project is not the historical Ford Museum, but instead the large imposing neighboring four story reinforced concrete Studebaker Service Center. Between the two buildings is a large asphalt parking lot that seemingly creates a plaza to the north of the site that is invisible to anyone who is on the main thoroughfare. The Studebaker Building has no frontage as the large concrete columns meet the sidewalk they are completely infilled between their 24' structural bays with CMU and no windows. The tan building bearing scars of the decades of disuse and dozens of layers of repaint done as mere patchwork having no effect on its attractiveness. This site provides the ideal opportunity for an adaptive reuse project that aims to be an urban catalyst that ties itself into the historical context of Detroit and the automotive industry. This historical context telling the story of what once was the catalyst for Detroit's growth now being used as the bones for change that will continue the new growth of Detroit.





The Ford Piquette Factory sits on a site that straddles between the urban and suburban neighborhoods of Detroit. This gives the site a more diverse range of population to interact with. A urbanly and suburbanly dense population group around the site leads to many different groups of people with different backgrounds that interact amongst one another creating a more culturally rich site. This gives way to a new gateway between the urban and suburban.

SELECTING SITE LOCATION

A site tied to its historical relevance to the car industry was a difficult niche to choose from. In the most automotively rooted location in America it would be believed that there are dozens of locations to choose from, but the city of Detroit has actively allowed for many of these locations to be demolished. Many of these automotive junkyards becoming background to the city scape and soon becoming nothing more than ruble in an empty field. At least 20 of the 41 surveyed locations were in use today, but not in their original condition. While the remaining 21 were demolished or in disrepair and disused. The Ford Piquette Factory being one of the most historically significant automotive sites in America being saved in 2001 and turned into a historical automotive site.



POPULATION DENSITY

GREEN ANALYSIS

CONTEXT



In analyzing green space we can break it into two catagories planned and incidental green space. Green space that is planned is green space built into the area with intentions of being publicly used and architecturally planned. Incidental are the green spaces that are unintentionally created, for example, under bridges or due to abandoned lots. There is a fundamental lack of planned green spaces in the area surrounding the site. to the east all contributing to the diverse changing landscape

The site is in a located in a historical industrial area of Detroit. This neighborhood is experiencing many of its surroundings begin to grow as Detroit exhibits a new wave of growth. A commercial strip expands to the north, the university encroaching towards the site from the south, the constant need for new housing due to new population growth trends, and manufacturing jobs



FORD PIQUETTE FACTORY

The Ford Piquette Factory was one of the original pioneers of the automotive industry in Detroit. The Milwaukee Junction being the perfect place to build the factory as it had direct connections to the Milwaukee Railway. This led to faster delivery of motor vehicles that allowed for faster production. The faster production of motor vehicles was achieved through the invention of the assembly line which was founded in this factory by Henry Ford. The idea that a line of cars would move through the factory lined with stations of workers that would put together a few pieces at a time as the car made its way down the line was revolutionary. It allowed for multiple cars to be put together by hundreds of workers that specialized in singular tasks rather than one worker who had to be skilled in all crafts to put together a single vehicle. This led to the very first mass produced vehicle, the Ford Model T. The building stands through the use of load bearing brick walls and a repetitious heavy timber structural system reminiscent of the many stations of workers. The building had large bay windows and a narrow profile to allow lots of natural light into the space that would allow workers to see without the need of artificial lights.









THE STUDEBAKER ADDITION

The Studebaker Service Center was built as a sales department for Studebaker Automotive just 16 years after the Ford Piquette Factory was built. Studebaker was once one of the most predominant automotive manufacturers in America in the early 1900s. This service center was built as a sales center for the company not a manufacturing facility like majority of the buildings in this neighborhood. Using large concrete structural systems was new at the time especially for offices. This building uses 24' by 24' -6" structural concrete bays that allow for a free plan design with no load bearing walls. This allowed for the company to modify the layout as much as needed while using large open glazing between structural bays for good natural light penetration. This building is four stories and built right up against the Ford Plant. Towering a story above with a much more hefty structural system its proportions dwarf the Ford Factory.

CLIMATE ANALYSIS

Detroit is a rather cold city with bitter arctic cold winds from the north east during the winters. During the summers detroit can experience warm weather conditions that hover in the 80s. This helps provide key information on the types of activities that could be performed indoors and outdoors. This helps to show where activities on site should be arranged along the front of the site in order to combat the cold arctic winds from the north.

CONNECTIONS

The site is located between three roadways that each connect to major parts of the city. The site is connected to the historical Milwaukee Junction that is still lined with modern manufacturing facilities along the railway. To the west the site is connected to one of Detroits major Universities, Wayne State University. To the south the arts Center of downtown Detroit and to the north Highland Park which is a suburban neighborhood that also houses the historic Highland Park Ford.



ABANDONED PROPERTIES

There are several abandoned/for lease properties surrounding the Studebaker service center. The storefront shops across from the service center are currently for lease and vacant properties that could begin to serve the community if a revitalization project happens in the area. To the east of the service center is an old Ford Manufacturing plant that currently sits vacant. In the near future it will be converted into offices and manufacturing facilities for EV production. The lots across on the south-east corner of the site are vacant abandoned lots that have been demolished and are just empty fields.





PROGRAM

The program of the site is a mixed use social center that aims to This programs emphasis is on music, art, performances, along reuse portions of the existing structure while providing additions of new space that could be used to serve functions that are too large to be confined within the existing footprint of the Studebaker Service Center. The program is comprised of many plazas and green space within the city are also important functions that aim to create a connection between the historical programmatical elements to design. To create a strong Ford Piquette Museum to a cultural hub. The automotive industry public presence and frontage to the buildings a plaza can help used to be the culture of Detroits old industrial city, but now in to consolidate all the different programs and amenities on order to reflect the current landscape the aim is to reconnect site. The Ford museum uses the existing parking lot to curate car

with many programs that are scarce within Detroits urban fabric such as public sports facilities, performance venues, and pastime educational facilities like libraries. The lack of public the historical culture with todays contemporary cultural scene. shows and car meets in order to raise money and cultivate car

culture. So, the fundamentals of the plaza should be to maintain the current events and activities on site while enhancing the quality and opportunities of the site. The public plaza must create both a buffer between buildings and a connection. Programs such as theaters can help become driving factors of the site both in traffic and monetary. All these distinct programs playing off of one another drives people into the site and gives them multiple avenues to explore. A social center that allows people of different backgrounds to interact.



URBAN PLAZA

The plaza is the most important part of the project as it tethers all three buildings together; theater, community center, and museum. The creation of the plaza took inspiration from what was already happening on the site. A similar thought process came about as Lina Bo Bardi's commented when touring the SESC de Pompeia, "not to destroy whats happening here simply but The lighting design of the plaza is inspired by the Ford Model T enhance it". There is currently a rich culture and history to the motor vehicle on site that the aim became to enhance that experience of the motor vehicle while creating a more versatile and functional space. This in between space serves as a space

site, venue for performances, a stage, and a place for sporting events. The two-tiered plaza design allows for events to happen above that are on grade with the site and a lower-level plaza designed to connect the community center, theater, and museum. headlight. Around the perimeter of the lower plaza are circular Ford Model T headlights that help to illuminate the site. The pavement patterns of the plaza are also inspired by the car. The pattern of the upper plaza subdivided into a grid system is based

on the Ford GT40 seat design which uses a grid system with circular openings where the lines cross. The plaza paving changes design correspond with the different datums they occupy. The lower plaza changes from the paver pattern design to a concrete system to distinguish the different functions on site. The lower plaza bleeds beneath the upper plaza and into the historical museum to provide entrances into a U-shaped corridor. This U-shaped corridor is labeled the social assembly line because it creates the connections between all 3 buildings both physically and visually allowing for people of different backgrounds to connect.













on the right and the abandoned Studebaker Service Center bridges the two buildings together, it can open up the site to the L-shaped building on the left which will be reused. The current community and main roadway. This allows for more permeability between the two existing buildings allowing for activities on parking for this facility is located in the large "plaza" to the north. into the site and gives more connection of the activities happening the site to be viewed as more community oriented.

between the buildings to the surrounding neighborhood.

The existing site consisted of the historical Ford Piquette Museum By removing the central leg of the Studebaker building that The insertion of a new centralized pavilion can refocus the community space to the front of the site along the main roadway



By submerging portions of the plaza, we can add a multitiered The implementation of an addition to the back of the existing system the can distinguish functions on different levels of the plaza. This will allow more flexibility and opportunity for different basketball courts or pools that do not fit within the confines events to happen simultaneously.



Studebaker building will allow for larger functions such as of the existing building's structural system. This will also allow the project to establish a better connection to the surrounding the site to retain a centralized plaza to the front of the site.



The site across the street and diagonal to this site are also important to master plan in order to create a connection between the Fisher 21 Lofts that are a block away. This will allow context.





- 1 UPPER PLAZA
- 2 AMPHITHEATER
- 3 THEATER
- 4 THEATER VESTIBULE
- 5 FORD MUSEUM 6 SPORTS COURTS
- 7 SPORTS FIELD
- 8 SPORTS VESTIBULE

9 BASKETBALL COURT

10 CENTRAL ATRIUM

11 CAFE

12 ENTRY HALL

- 25





- 1 UPPER PLAZA
- 2 AMPHITHEATER
- 3 LOWER PLAZA

- 4 THEATER
- 6 THEATER VESTIBULE 7 BACK OF HOUSE
- 8 MECHANICAL

5 REHEARSAL ROOM

- 9 NATATORIUM 10 TENNIS COURT
- 11 PICKLEBALL

- 12 PARKING

In the center of this social assembly line (U-shaped corridor) is an amphitheater that faces the central theater which connects the upper and lower-level plazas. The theater becomes the background to any location on site as it is the central focal point of the plaza. The theater faces towards the amphitheater so



that people on the upper plaza level with the street can see the three buildings to create the concept of water beneath the stage and events happening in the theater. Just as the theater is the background to the site the site becomes the background to the theater. A water feature that surrounds the theater in the lower-level bleeds into the U-shaped corridor connecting all what is happening above and below the site.

plaza. This helps to tie into the idea of the natatorium being located in the lower-level plaza. The northern end of the site becomes a more privatized sports complex that connecting

SECTION PLAZA

0′	24′	48'	96′









THEATER

The theater is the central focus of the site. Taking the idea of keeping a four story volume proportionate to the existing three story museum the approach of overlapping boxes was used. The theater rests on the lower plaza, but the upper volume starts from ground level of the upper plaza and extends three stories. This helps to visually connect the theater to the surrounding plaza while keeping a proportionate scale to the museum and community center.

The upper translucent mass takes inspiration from the ford Model T windshield. The operable windshield of the Model T opens on a hinge giving it a particular V shaped appearance as it is opened. The same approach was taken when defining the volumetric character of this upper mass of the theater. By taking the same V shaped design and rotating it vertically an interesting volume inspired by the Model T, which was invented in the factory next door, provides a more intimate connection to the historical context. In plan these volumes became ways of dividing functions. The theater and stage occur within the larger volume while the support and prefunctions of the theater occur in the smaller solid volume that connected to the surrounding plaza. The overlap between the two volumes became the space for vertical building services that connect both masses.



DESIGN INTENT

In order to create interest in the design of overlapping boxes the idea of a translucent materials to counteract the heaviness of the anchoring concrete mass was used. However materiality is but one way to create a distinction between masses. The idea of a V shaped translucent glazed panel system stemmed from the idea of the Ford Model T windshield. This operable windshield can be moved to create various angles depending on its use. The Ford Model T was invented and manufactured on this site in the Ford Piquette Factory, so taking inspiration from its design was inevitable. Another ford building that does similar volumetric play is the Ford Rotunda in Michigan which burned down in the 1960s. This was a place where Ford hosted winter holiday celebrations, rides, historical ford memorabilia, and cars to the public. The large stone walls lit up at night from the exterior with colorful uplights gave way to the inspiration of both the form and design intent of the theater shape and lighting.

The translucent glazing of the upper mass illuminates at night with different shades of color dependent on what events and lighting are happening within. This helps to create a much more vibrant plaza and helps to illuminate the site. This takes inspiration from the Ford Rotunda design.













LEVEL 1

LEGEND

- 1 THEATER STAGE
- 2 THEATER SEATING
- **3** ENTRY VESTIBULE
- 4 RESTROOM

- 6 MEZZANINE SEATING 10 CHANGING ROOM 14 STORAGE

- 7 UPPER PLAZA
 - 8 REHEARSAL ROOM

5 LOWER PLAZA HALL

9 THEATER TERRACE

12 FLY TOWER

11 LIGHTING EQUIPMENT

13 mezzanine



LEVEL 2

LEVEL 3



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THEATER SECTION









THE DETAILS

The translucent box floating over a transparent panoramic glazing allows for the visual connection between the plaza and the theater. Embedded into the the translucent glazing is a lighting system that allows for the box to glow in the evening or during events. A water feature around the building create a reflecting pond that gives a more intimate moment to the space as people walk next to the theater.

THE PERFORMER

The colorful translucent volume connects with the lower plaza through a moment of clarity as it touches the ground on a transparent panoramic view of the site. This moment of clarity allows for those outside the space to experience the performances happening within, allowing all users of the site to participate. The lights within the translucent volume creating the ambiance both within the space and the plaza.



THE STAGE

The stage is the center of the site. It serves as a place to perform and a forum to present. Housed within the white volume is a moment of calmness within the plaza. Though the central focus of the plaza is the theater it rests grounded to the plaza connected through a heavy concrete mass that allows entry into the bright and open theater.



THE REHEARSAL

The rehearsal space above the theater is a performance of light. The skylights in a two story volume give way to the light that dances in the space. The idea to perform in a space of calmness with no distractions while being the centeral focus of the site. This is the physical manifestation of the intense focus and mindset of a performer's rehearsal.



COMMUNITY CENTER

The idea of overlapping forms stems from the approach to make the 4-story Studebaker Service Center more proportional to the 3-story historical museum. If you were able to read a 3-story volume from a 4-story structure, it would allow for the proportions of the much larger building to fit better into its context. The original and narrower 3-story museum. By creating two solid boxes that overlaps the two solid volumes. In order to create that are 3-stories tall that overlap a single transparent 4-story box it begins to mask the volume of the 4-story building.

connect the lower plaza to the building. This moment of clarity becomes very important as it is the only space that allows you to perceive both masses from within the building. It establishes the bridge between the old and the new structures. Within the new structure is the gymnasium which receives conditions create an imposing 4 story mass over the smaller most of its natural light from the clerestory of the glass volume permeability within the solid masses of the facade a louvered fin system helped open the solid volumes to the site. Each fin Between the three boxes is a moment of clarity that helps to on the community center faces towards the center stage of the

amphitheater. They help form the visual connection between the interior spaces and the activities on site. From the street it helps to keep the solid volumes of the building in tact, but upon entering the site they slowly begin to reveal a more transparent façade. The three overlapping masses also help to define order within the plan. Each of the three masses overlapping help to define larger and smaller volumes within the space. The central transparent mass' width is smaller than the larger solid volumes creating small rooms along the perimeter connected to the much larger congregational spaces in the center.





1 ENTRY HALL

- 2 MECHANICAL ROOM 6 EXHIBITION ROOM
- 3 KITCHEN
- 4 CAFE

- 7 ART STUDIO
- 8 MUSIC HALL

5 LIBRARY

9 REHEARSAL ROOM

- 10 OFFICE
- 11 ATRIUM 12 GYMNASIUM
- 13 DANCE STUDIO 14 WEIGHT ROOM
 - 15 NATATORIUM
 - 16 SPORTS FIELD

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SECTION					
0′	12′	24′	48′		



- 1 ENTRY HALL
- 2 RECEPTION
- 4 KITCHEN
- 3 FAN ROOM

- 6 CENTRAL ATRIUM
 - 7 RESTROOM

5 CAFE

- 8 BASKETBALL COURT
- 10 CONCESSIONS

9 SPORTS VESTIBULE

- 11 LOCKERS
- 12 STORAGE
- 13 ELECTRICAL ROOM
- 14 ELEVATOR SERVICE



COMMUNITY CENTER



LEGEND

- 1 LIBRARY
- 2 CONFERENCE ROOM 6 RESTROOM

- 3 OUTDOOR READING 7 CENTRAL ATRIUM
- 4 PRIVATE STUDY ROOM 8 FAN ROOM

5 COPY ROOM

11 WEIGHT ROOM 12 MECHANICAL ROOM

9 RUNNING TRACK

10 BASKETBALL COURT

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- 1 EXHIBITION HALL
- 2 STORAGE ROOM
- 3 STUDIO CLASS
- 4 PHOTO STUDIO

5 MIXED MEDIA STUDIO 9 JANITOR ROOM 6 PAINT STUDIO

10 CENTRAL ATRIUM

11 BASKETBALL COURT

- 7 COPY ROOM
- 8 RESTROOM

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- 1 MUSIC HALL
- 2 REHEARSAL ROOM
- 3 SERVER ROOM
- 4 STORAGE ROOM

- 6 BREAKROOM
- 7 OFFICE

5 RESTROOM

- 11 PRACTICE ROOM
- 8 CONFERENCE ROOM 12 PIANO ROOM

9 LOUNGE

10 RECORDING STUDIO

13 FAN ROOM

14 JANITOR ROOM

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THE ENTRY

The entry through the old Studebaker Center shows the new void space carved from the center of the building. What once was concrete slabs with no visual vertical connections or natural light has become a warm and inviting space. The wooden interior taking inspiration from the wooden dashboards and details of the Ford Model T and the heavy timber structure within the Piquette Factory.



THE SPACE BETWEEN

The space between serves as a buffer between the old and the new. It is the transitionairy space where the existing structure meets the the new addition. This is a secondary main entrance from the lower plaza that serves as a reception space into the community center.



THE OVERLAP

The overlap is the space created between the solid and transparent overlapping masses. The overlapping transparent mass poking just above the solid brick walls allows for light to penetrate through the structural truss into the basketball court. The trusses following the same rhythmic V shaped motion of the buildings.



THE NOOK

A space that is quiet and personal. A social center implies moments of interaction, but there are also moments of seclusion and personal reflection. A space that provides a moment of calm, but stays connected to the rest of the site.



NATATORIUM

conclusion we must think about all the requirements of a outdoor sports courts and recieves natural light through the use competition swimming pool. To be 150m long and 50m of skylights and light reflectors that redirect sunlight deeper into level. This helps to provide the division of wet and dry spaces wide minimum and provide lanes of warm-up and cool-down. the space. The large V shaped ceiling design not only help diffuse A space that large requires its own facility. In order to keep light into the space, but are also meant to link many of the design the plaza as flexible as possible and keep the theater the elements of the rest of the site. The ceiling also takes its inspiration

central focus of the site the pool needed to be hidden. from a swimmers wide open gull wing strokes as they swim.

A natatorium built into the ground. In order to get to this Embedded into the lower plaza the natatorium lives under the The lower plaza becomes the natatorium providing spectator seating on the upper deck and swimmer access on the lower as swimmers and spectators remain separated on their own levels, but connected visually. The main connection to the natatorium is through the use of the atrium in the sports addition or the lower plaza.





- 1 POOL
- 2 STORAGE

NATATORIUM

- 3 LOCKER ROOM
- 4 COACH OFFICE

- 6 LIFE GUARD OFFICE

5 CLASSROOM

- 7 MECHANICAL
- 8 NATATORIUM VESTBULE

9 HEAT PUMP ROOM

10 Equipment room

THE SWIMMER

As a swimmer the sports facilities are all consolidated into the lower level. This allows for swimmers to stay within the wet zones of the pool space without exiting into the social centers dry spaces. The 8 lanes are mandatory for competition events along with cool down lanes. The movable bulkhead can move to the center to also create two separate water polo courts or two short courses. The perimeter wall has indentations into the retaining wall to create places for swimmers to sit and rest or place personal belongings.





1 POOL

| NATATORIUM

- 2 SPECTATOR PLATFORM
- 6 MECHANICAL 3 RESTROOM

- 4 STORAGE
- 81
- - 7 LOWER PLAZA HALL
 - 8 MUSEUM ENTRY

5 FAN ROOM

THE SPECTATOR

The spectator seating flood in from the lower plaza hall. The hall is connected to a parking garage that allows people to enter into this underground space directly. This is a shared corridor between the community center, natatorium, theater, and museum. Large windows between structural columns gives passerbys the opportunity to see competition events and swimmers as they wait for entry to the theater or are just passing through. This visual experience helps to connect the underground natatorium to the rest of the plaza.









THE SPECTATOR

The spectator deck set below the skylights receive diffused natural sunlight as they watch the swimmers below. The plane of the plaza bleeding into the space becoming the viewing deck for spectators divides the space between those watching and those participating.

THE SWIMMER

The swimmer standing at the podium takes in the moment, scene, and crowd above. The ceiling guiding their eyes back into the pool space, focused, calm, and collected. The natrual light flooding into the upper deck redirected and diffused into the space.





SOCIAL FACTORY

In conclusion, all of the different programs can work independent The Ford Piquette Factory is one of the most automotively historic of one another to an extent, but the plaza is what connects and heightens the experience of the users and the spaces. The plaza becomes the main connecting element of the project. Without the plaza each of these buildings could be stand alone, but would not work as efficient or as a singular entity. The idea to connect the historic Ford Museum to a cultral hub would not be and structural systems. The ideas of refinement and mass as successful if the plaza were not there to establish the phyiscal connections. The idea of the social factory stems from the

sites in America. The idea of designing a new social center in industrial terminology was an intruiging task. How to bring a new modern design that roots itself into the historical context while providing newer and more refined ways of design. The concepts of repetition being used in the design of the facades, plaza paving, production being found in material choices such as steel, concrete, brick, and glazing. All materials and elements were approach of reusing a historically automotive industrial site. not new to the site, but their design intent being much more

contemporary brings a level of refinement to these crude materials. The wooden heart of the community center atrium taking inspiration from the heavy timber structure of the Ford Museum housed within a hard shell of bricks. The brick matching the existing color, but being used in a more contemporary design pattern. The repeated lovers reminiscent of smoke stacks are repeated like structural bay windows in a factory. This project aimed to be a connection between the contemprary and historical context of Detroit through the use of industrial terminologies and materials native to the site to create a much deeper connection.





- 1 PARKING
- 2 AMPHITHEATER
- 3 THEATER
- 4 THEATER VESTIBULE
- 5 LOWER PLAZA HALL
- 6 MUSEUM HALL
- 7 MUSEUM ENTRY8 NATATORIUM
- 9 FAN ROOM10 DANCE STUDIO
- 11 RECEPTION
- 12 CENTRAL ATRIUM



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- 1 UPPER PLAZA
- 2 AMPHITHEATER
- 3 THEATER
- 4 THEATER VESTIBULE
- 5 FORD MUSEUM 6 SPORTS COURTS
- 7 SPORTS FIELD
- 8 SPORTS VESTIBULE
- 10 CENTRAL ATRIUM
 - 11 CAFE
 - 12 ENTRY HALL

9 BASKETBALL COURT





- 1 PLAZA
- 2 REHEARSAL ROOM
- **3** FORD MUSEUM
- 4 WEIGHT ROOM
- 7 FAN ROOM
 - 8 CENTRAL ATRIUM

5 BASKETBALL COURT

6 RUNNING TRACK

9 LIBRARY

10 OUTDOOR SEATING

- 1 PLAZA
- 2 FLY TOWER
- 3 mezzanine
- 4 FORD MUSEUM
- 5 BASKETBALL COURT6 CENTRAL ATRIUM
- 7 EXHIBITION HALL
- 8 ART STUDIO

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- 1 PLAZA
- 2 THEATER
- 3 FORD MUSEUM

5 MUSIC HALL6 FAN ROOM

4 REHEARSAL ROOM

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COMMUNITY CENTER CIRCULATION

The community centers circulation revolves around a stepped atrium that cascades through the center of the building connecting all floors. This atrium helps to bring in natural light into the floors below and becomes visual connection between floors. The most immediate entrances to this portion of the buildings is through the upper level of the plaza.

GYMNASIUM CIRCULATION

The gymnasium is the addition made to the northern side of the existing structure. This addition can be accessed from the main entrance of the community center or accessed from the parking garage using the hallway that surrounds the lower plaza. The sports addition has its own atrium for circulating between the natatorium and other sports facilities on site.

NATATORIUM CIRCULATION

The natatorium is located below the northern end of the plaza under the tennis court. The pool is connected to the upper and lower plazas through the use of the lower level plaza's hallway. This hallway connects to the central atrium connecting the old and new structure of the community center and gymnasium addition.

THEATER CIRCULATION

The theater can be accessed from the lower paza directly, but for local climactic conditions it is most suitable to provide interior connections to the space. The Theater is connected to the rest of the buildings on site by using the plaza. The hallway surrounding the lower level plaza allows people to access the theater from the parking garage and the upper plaza.

SOCIAL FACTORY

THE SOCIAL ASSEMBLY LINE

Each of the different buildings on site have their own inner circulation paths in order to move around within the building. However, it can be difficult to connect multiple buildings on site grams and modes of circulation in order to create divisions,

moments of interaction we need locations where each of these programs can interact with one another. This forms the complex interactions between different programs. to one another in a clear and coherent manner. The goal for this The idea is that the different paths of circulation to get to each project was to use the plaza in order to connect each of the of the major distinct programs on site can in some form individual buildings on site to one another in order to make a connect people of different backgrounds and allow them to fully functioning complex that weaves together completely interact with one another. People who attend events such as different programs to one another. It is often easy to divide pro- plays and performances can interact with others attending competition swim meets or basketball games giving but in a social center where the goal is to manufacture complex each group of people new avenues of interest to explore.

The social assembly line also stems from the fact that the museum connected to this project is the birthplace of the modern day assembly line. Henry Ford is the father of the modern day assembly line used to mass produce the Ford Model T in the Ford Piquette Factory. This terminology of the social assembly line is used to pay omage to the site and show that we are now using this assembly line not to manufacture cars, but instead manufacture moments of social interaction between people of different backgrounds and interests.

STRUCTURAL SYSTEM

There are several different forms of structure used on site. The first being the existing building which uses a two way flat slab concrete structural system. This system uses 24' -6" X 24' structual bay. This bay sizing was used for buildings on site including the plaza. The plaza uses a two way slab system as it makes it easier to connect a concrete structural foundation to concrete retaining walls around its perimeter.

In order to create space for much larger programs such as basketball courts that don't fit within a 24' -6" X 24' structural bay system steel was used in the addition. The steel allows for much more complex structural systems like truss systems which give us a much more permeable spanning system. The truss gives ample column free space below for a basketball court while allowing for natural light the permeate through the clerestory and the webs of the truss.

The theater uses a similar structural system as the gymnasium addition, but also has a concrete structural load bearing wall system and two way slab. The concrete mass gives lateral stability to the steel construction and gives a more grounded connection to the concrete plaza. The structural system of the plaza 3 main structural truss bays that support the floor below. This allows for there to be a column free void space for the main theater below.

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IMAGE CITATIONS

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THANK YOU