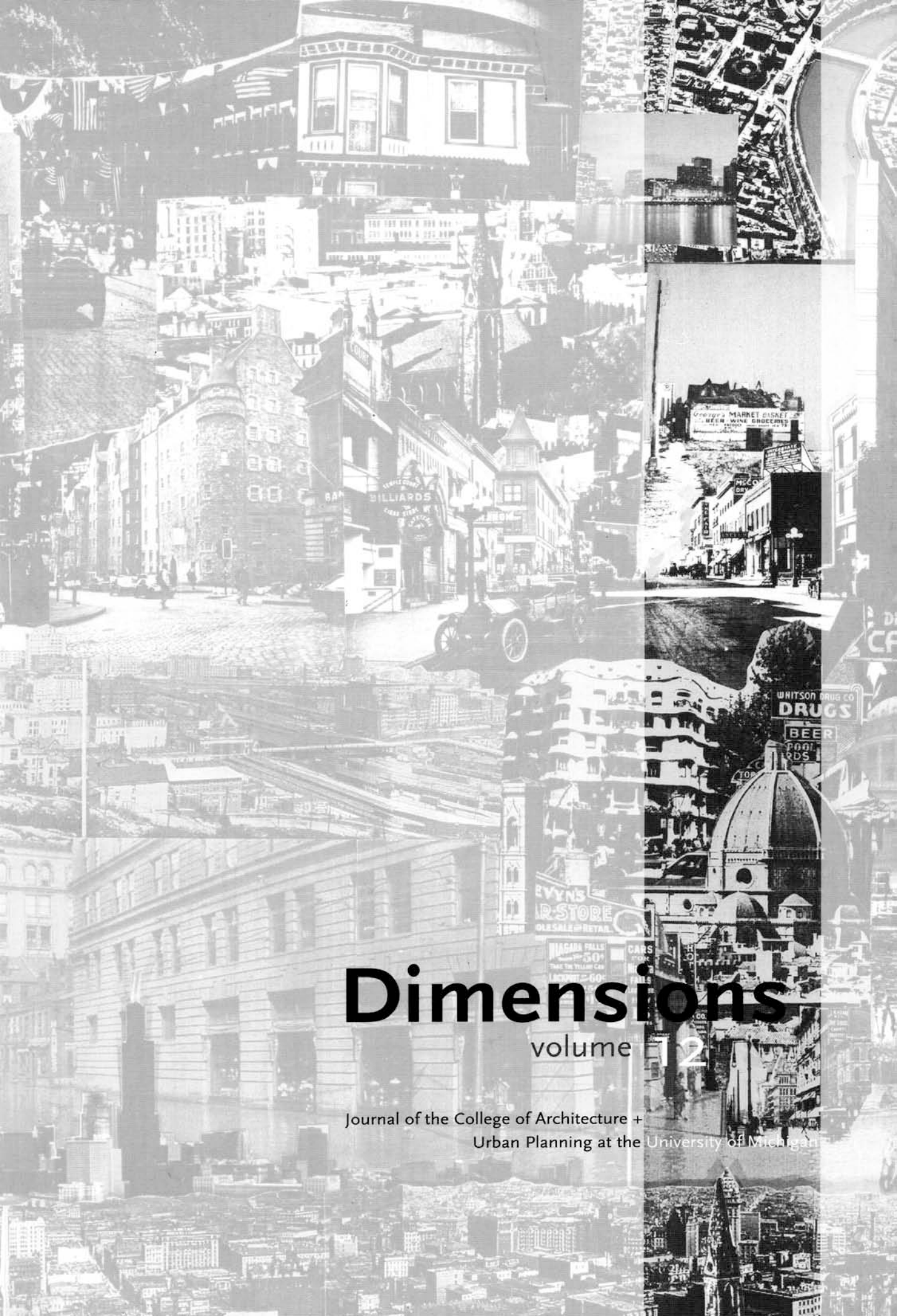

Dimensions

volume 12

Journal of the College of Architecture +
Urban Planning at the University of Michigan

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University of Michigan
College of Architecture + Urban Planning
2000 Bonisteel Boulevard
Ann Arbor, Michigan 48109-2069
tel: 734 764.1300 fax: 734 763.2322

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Editors-in-Chief	Caleb Clauset Carla Swickerath
Copy Editor	Janice Barnes
Layout Editors	Simone Ghetti Christopher Lanzisera MaryEllen Winczewski Kristina Winegar
Graphics Editor	Caleb Clauset
Staff	Dong-Ha Chung Tonino Vicari
Faculty Advisor	Brian Carter

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Dimensions

volume 12

Journal of the College of Architecture + Urban Planning at the University of Michigan

Contents

Foreword

As designers we are used to casting ideas to the wind. Thoughts take shape in our minds and are passed along, given form and become someone else's. Good ideas are often appropriated, taken over, absorbed, their origins lost. In this way ideas and concepts develop a life of their own.

Dimensions has developed a life of its own. I am humbled to be invited to write a foreword to this edition. I have a deep attachment to this publication. I take pride in its stature, its growth, its maturity, just as one takes pride in the progress of a child. It is now 12 years old. And somehow, while it belongs to others, there is still a place in my heart for this publication which in many ways has come to represent the College's growth over the last decade.

Dimension was a publication launched by students of the College in the 60's. It had a vibrant life for a while then fell into abandon. Students of the late 80's discovered some old copies in the library and asked if they might resurrect the publication. I was in a privileged position to help with a few dollars from the College budget. Now in its 12th edition **Dimensions** has a life all its own. There have been 12 editors, 12 staffs, 12 audiences who now identify intimately with this publication. Why? It was a good idea and has been suitably appropriated. It belongs to no one except those who keep it alive. It is not so much a credit to the College as it is to those who have labored over its very existence. It is a product of intellectual curiosity and desire.

Dimensions is as much an idea as it is a publication. It is a voice for a time when voices need amplifying. It has served the College well, its students, faculty, alumni/ae, friends and colleagues. It is a chameleon. Changing color every year, not to be fickle, simply of necessity. Each year **Dimensions** has confronted new challenges, learned new skills and responded to new ideas, and adapted to such changes without losing its essential character.

Dimensions lives. And as it lives it continues to mature.

Robert M. Beckley, FAIA

My Regency Window, New York, NY, 1975.
A New York mood shot through the
window of my Park Avenue Hotel.
Image #1 in the *Presidential Gift* folio.

A Career of Capturing the City

Balthazar Korab interviewed by John Comazzi

I have always considered myself an architect who takes pictures rather than a photographer who is knowledgeable about architecture.

– Balthazar Korab

Born in Budapest, Hungary in 1926, Balthazar Korab left the city in 1949 "in search of freedom" and thus began a life traveling, collecting experiences and stories and burning them into images. As was displayed in the photographic exhibit entitled, "Balthazar Korab, 40/40," held in the gallery in the College of Architecture + Urban Planning at the University of Michigan, the strength of one person's vision through the camera has the ability to extract a clarity of meaning and spirit indicative of a particular place that would otherwise remain dormant to the casual observer.

From Rome to Detroit, Berlin to Sydney, Columbus, Indiana to Frankenmuth, Michigan, his images present familiar places in ways previously unknown while providing a window into worlds previously unnoticed. With a resume including names like Saarinen, Le Corbusier, Mies van der Rohe and Wright, Korab's camera has captured a survey of architecture far too extensive to be bound within these pages.

Following the exhibit, I had the pleasure of spending time in Balthazar Korab's studio discussing his career in architecture and photography. A series of images were selected to reflect his extensive workings within the setting of the city. There is a story for every place told with a wit as sharp as his images.

Self Portrait at the Villa Savoye, 1952. An historic perspective in one of Le Corbusier's landmarks.

K. ...What should we do now?

C. I've got a few questions here that we can go through after which some ideas about more images might become apparent.

K. I keep digressing, but I think life is a digression for me. I was trained as an architect and here I am taking pictures.

C. Well maybe we can start with that. How was it that you got into photography?

K. I've been involved with visual thinking ever since I was able to walk, so I did a lot of watercolor because that is what kids have to work with. My parents said, "you don't want to be a painter. It was not respectable for a boy from a nice family. So be an architect. You see your Uncle, he paints too and he is now an architect. So I followed my uncle and became an architecture student in Budapest. Three years later rising communist power became too urgent to disregard, so I had to leave the country in the midst of my studies (which I finished later in Paris at the Beaux Arts). A friend, my kid brother, and I moved across the border on New Years Eve 1948 which is another story, a true adventure. We faced freedom, with some fifteen million drifting refugees in war torn Europe. Eventually we got to Salzburg, Austria, then the headquarters of the American Occupation Zone. My friend, fluent in English, got a job in the army service club, where he learned they needed an English speaking photographer. Although disqualified on both accounts, I applied for the job and got it. So that's the way I started.

C. Do you think working for Le Corbusier and Saarinen affected the way that you photograph?

K. When I first met Le Corbusier, he said, Hungarian? You must be a good photographer! Quite a predicament it turned out. Later I learned that his favorite photographer, Lucien Herve, was Hungarian.

As for the Saarinen office, the extensive use of study models and elaborate presentations challenged my skill. I made photography a tool in design development. My seeing developed to interpret not just form, but space. In Paris I freelanced as a renderer for many architects. That helped too. There are many good photographers nowadays, however few are responsive to the three-dimensionality, (or even four, if one thinks space/time architecture) that architecture is.

C. *Being a photographer, when you approach a new city is there something that you look for in the place? For example, I know that the images from Rome depicted that city unlike any way that I have ever seen.*

K. Well there was definitely a particular point of view for that series. I was invited by an old friend, Astra Zarina, then a Rome prize architect, to collaborate on a book: Roofscapes of Rome. We spent two years searching out views from towers, terraces, altanas, high windows, and of course from the seven hills (Plate 3). Those spectacular roof terraces, left generally to the poor willing to climb stairs, were now colonized with the help from Otis by the members of the "Dolce Vita." Good time rubbed off on us too. Astra herself had a lovely terrace overlooking the Collegio Romano on the left and Anna Magnani's on the right. Among the endless studies of the Eternal City, we hit on an original one, I think, and we had fun.

C. *Do you look for that in any other cities? In other words, do you attempt to extract anything of characteristic significance from each city you approach?*

K. Significance, yes, but no fun in experiencing poor Detroit. It is with a bleeding heart that I watched the city literally falling apart under my nose. Arriving in 1955, Detroit was no Paris, but a dynamic city with great diversity, growing under the opportunities of the success of the car industry. I have been greatly interested in the ubiquitous role of the car shaping the city. My image of Hamtramck shows a blissful village, without the desert of parking lots, people walked to church. They also walked the Livernois stretch to buy their first car (Plate 4).

C. *Sensing the deterioration of Detroit, did you set out to capture that in any particular way?*

K. In 1976 Woodward East was designated by the Mayor Coleman Young as a bi-centennial project. I joined scores of architects from all over the country to study the rehabilitation of this historic site. Our enthusiasm, hopes and expectations were failed sorely by the mishandling and perhaps corruption of the mayor's administration. My image was taken seventeen years after our efforts (Plate 5).

C. Are there certain cities or cultures that make you more aware of the way that you photograph a place?

K. Beside the well experienced inspiration some of the great or small European cities offer, I had a long and rewarding rapport with a county seat in southern Indiana, named Columbus (Plate 6). On mission to follow a most ambitious modern building program, I was charmed by the character of a nineteenth century Midwestern small town. For close to forty years I have be returning to photograph a new building and to savor the life and "genius loci" of the place. Many of my favorite urban character shots come from that town.

C. Is there a difference in the way that you photograph a city like Rome, or Budapest or Paris, as opposed to a Modern American city?

K. Well, obviously it is the character of the city that makes me unpack my cameras. And of course, in Detroit that sad character of the decaying city prevails. In Florence, its the extraordinary, untouched environment that manages to survive fires, floods and everything else. It stood there and you sense history. Some of those images that I showed you in Moscow (Plate 7), for instance have that strange feeling. I could have chosen to show all of the beautiful pictures of that area with nice columns and pictures, like I shoot in Rome, but that is not what I have chosen. The image shows the bombastic legacy of Stalin.

C. *What were you looking for as emblematic of the American experience in your selection of the urban images for the Presidential Series?*

K. The White House was interested in bringing something as a gift for the President of Hungary on a recent trip to Budapest. They wanted something American, something creative and preferably with a Hungarian reference, and that is where I came in. My basic theme was based on the fact that urban culture prevails in modern America over the rural (Plate 8). Hungary has gone through a similar kind of a condition in that it is basically a rural country that is now being industrialized and urbanized heavily. So, I thought that gives us an interesting perspective on the American reality. So we made a selection on that theme.

We sent a whole pile of maybe thirty or forty proof prints to the White House. President Bill Clinton himself spent twenty minutes laying it all out, and he decided on twelve photographs over several other gift proposals.

C. *I notice that you rarely use any devices like double exposure or photomontage, and yet your images are still very complex.*

K. Well, I think I have a particular point of view, definitely that of the architect. I have always considered myself an architect who takes pictures rather than a photographer who is knowledgeable about architecture.

C. *Is there a difference?*

K. Oh yes, definitely, I have a deep emotional investment in man's shaky relationship with his environment. For me photography is a powerful means to express my concerns, not a L'Art pour L'Art exercise. For me the built environment, architecture, is of prime interest and not just a pretext, a subject of esthetic considerations. Aesthetics, however lend power to the message I am to convey.

Plate 1
"Hamtramck in it's better days," 1976.
The proper relationship between
the house of God and of man.

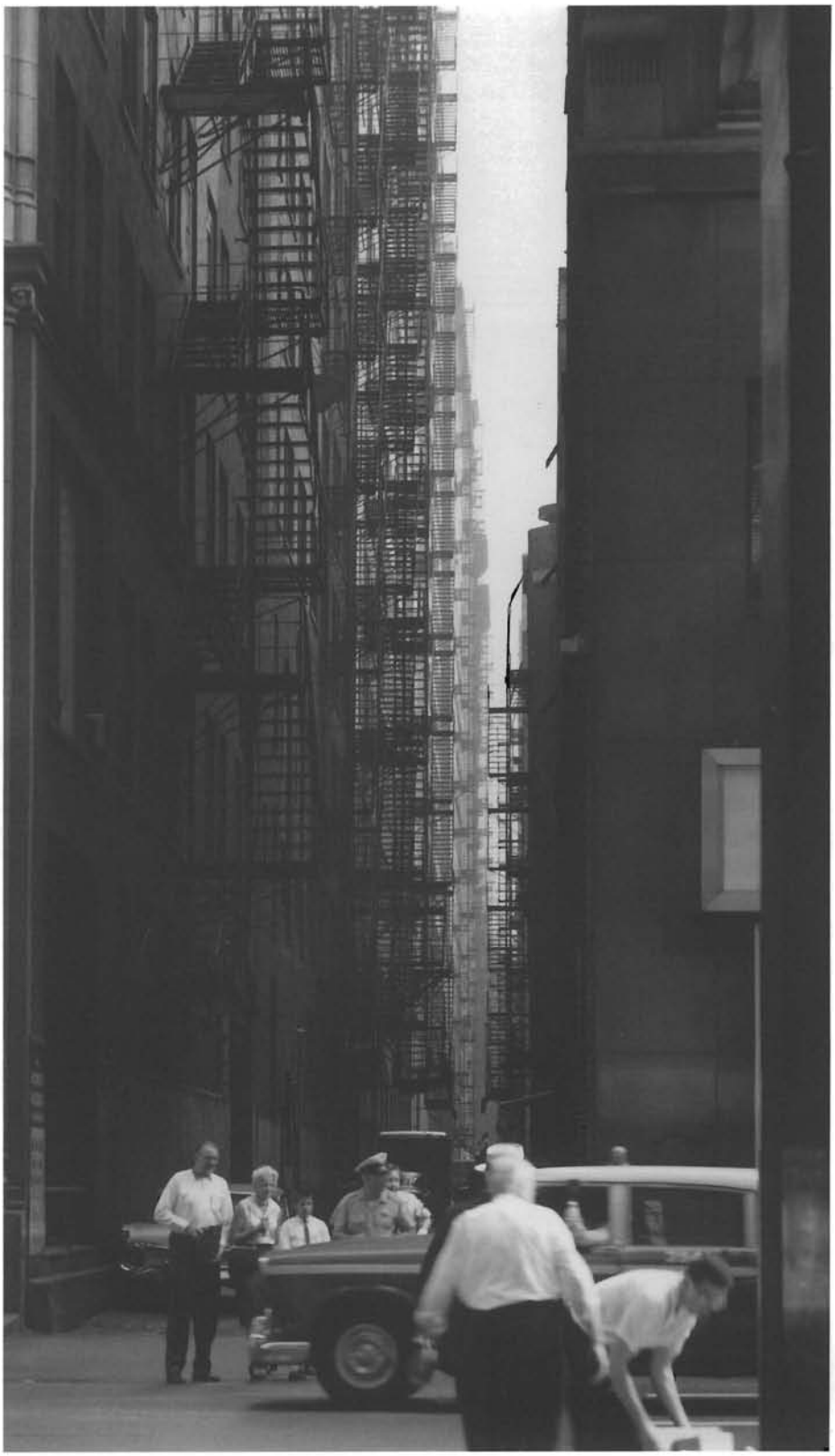


Plate 2
"Chicago Alleys," 1959.
Image #3 in the
Presidential Gift folio.

Plate 3
"Rome by De Chirico," 1959.
A roofscape reminiscent
of the surrealist visions of
the great painter.

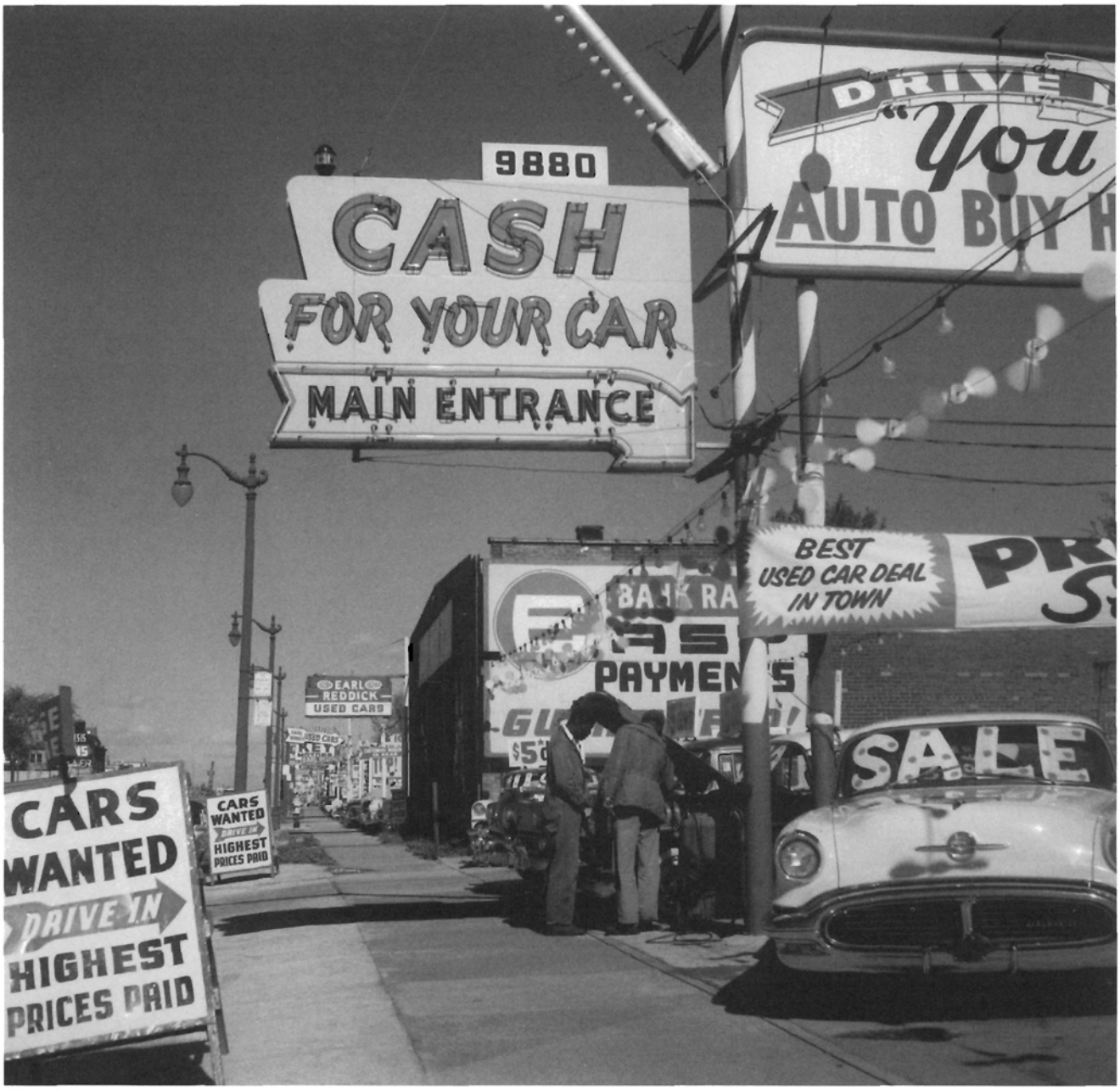


Plate 4
"The Walk in Car Market," 1958
Livernois Avenue, Detroit.

Plate 5
"Woodward East," 1990.
The failed bicentennial
project of Coleman Young.

Korab + Comazzi

Plate 6
"Washington Street," 1968.
Columbus, Indiana
Main Street USA, still vital
in this midwestern town.

Plate 7
"Moscow," 1978.
Stalin's architectural statement.

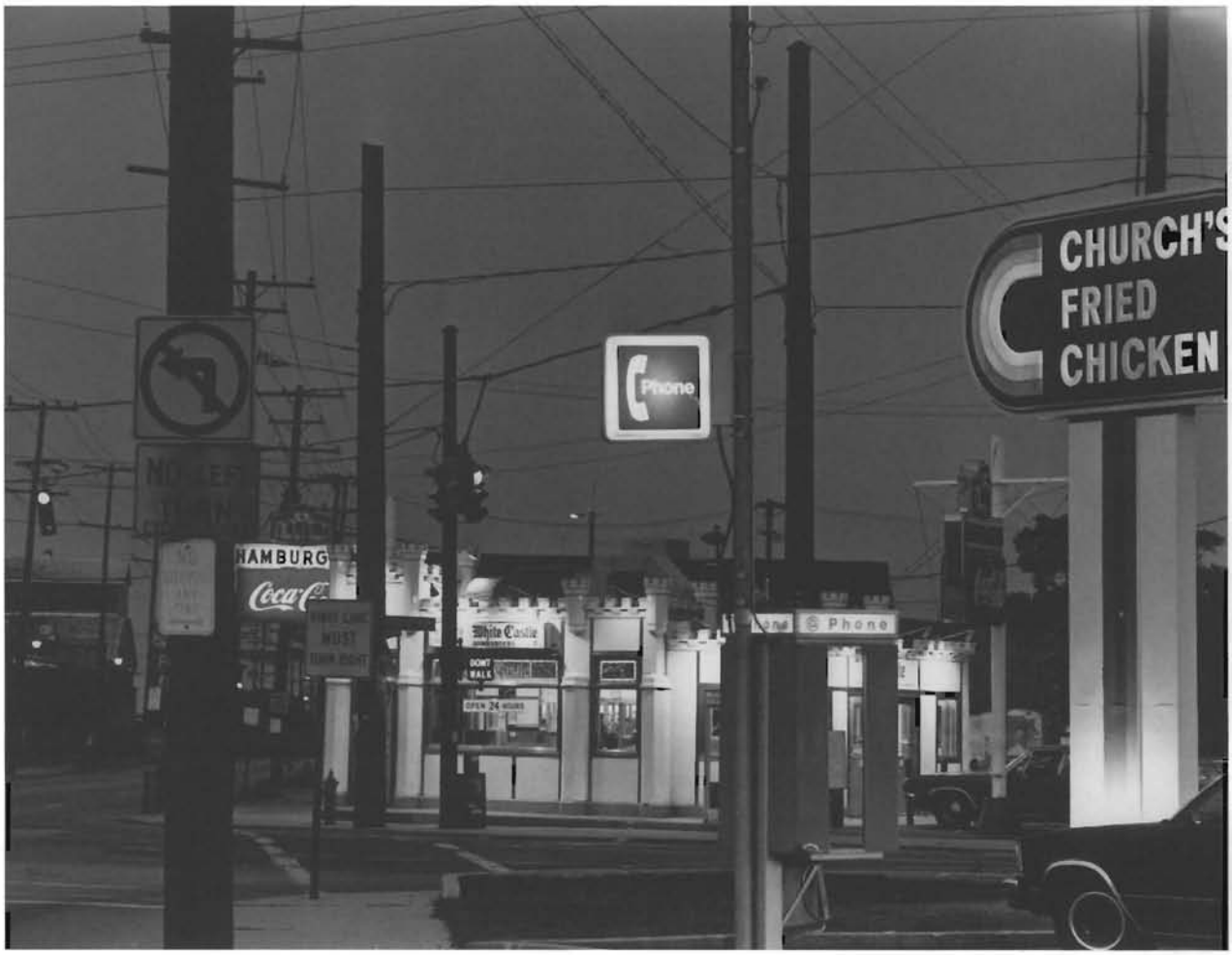


Plate 8
"White Castle," 1958.
Columbus, Ohio
Image #8 in the
Presidential Gift folio.

St. Petersburg, Russia:
Designing A Monumental Urban Stage Set For Imperial State Craft

Anatole Senkevitch, Jr.

Bird's eye panorama of St. Petersburg in the mid-19th century. From an engraving by I.I. Charlemagne. (Saint Péterbourg: Ville et granit de glorie et de malher. p. 53)

St. Petersburg , which Peter the Great founded in 1703 on the marshy banks of the Gulf of Finland as his "window to the West," was the principal focus for the political, cultural and artistic reforms undertaken by Peter and his successors. Peter's decision to open Russia to Western influence marked a decisive break with Moscow and the country's conservative and traditional past. As a result of these reforms, Russia moved from a parochial, quasi-medieval civilization into the "Age of Reason." St. Petersburg emerged as the seat of the new Russian imperial government proclaimed by Peter the Great and a practical and symbolic vehicle for its development.

View of the University Embankment, 1850s. From a lithograph by J.J. Charlemagne. (Saint Péterbourg: Ville et granit de gloire et de malheur, fig. 141)

The city's imposing physical and spatial setting, encompassing a seamless network of built forms, squares and waterways, represents an unparalleled achievement of urban design. That achievement was fostered by the keen interest and enlightened participation of key sovereigns – from Peter the Great to Catherine II and particularly Alexander I – in the embellishment of their new capital as the preeminent embodiment of imperial Russian culture. That the venture proved a success was also due in no small measure to the high caliber of the architects recruited for the task. Involving individuals from Western Europe and Russians trained abroad, chiefly in France, these architects demonstrated a singular capacity to create magnificent urban ensembles and a genius for integrating them into the overall physical and spatial fabric of the city.

Because of the importance that Peter and his successors attached to the establishment of St. Petersburg as a world capital of unparalleled splendor, architecture and urban design assumed preeminence among the emerging imperial Russian fine and visual arts, determining the very style of the age. They were not employed simply to embellish the stage on which the acts of imperial reform were to be played out. Rather, they were deployed as both

Figure 1 – Plan of the territory of which St. Petersburg was founded in 1703, showing the Neva River delta and the conditions of the site before its occupation by Peter I. (Egorov, **Ansambl' v gradostroitel'stve SSSR**, p. 34)

Figure 2 – Panorama of the Neva River, 1753. From an engraving by M.I. Makhaev. (**Saint Péterbourg: Ville et granit de gloire et de malheur**, fig. 15)

instruments and symbols of reform. In this sense, architecture and urban design proved the most imperial of the Russian arts, supplying vivid means for reforming, interpreting and re-possessing the Russian townscape.

Figure 3 – View along the Fontanka

Early Planning

Although St. Petersburg was founded as a port of entry to the sea, its character was defined less by its proximity to the Gulf of Finland than by its situation in the delta of the Neva River, encompassing several of its branches and canals (fig. 1). Peter's admiration of Amsterdam, which he had visited in 1697, inspired visions of incorporating the Neva and its branches into the fabric of his city. The Neva River plays a vital role in the layout of the city, effectively constituting its main "thoroughfare." As much a ceremonial route as a waterway, the Neva's stunning breadth creates a unique expanse of space that breaches the horizon to encompass the spatial impression of the whole (fig. 2). The palaces and public buildings that line both sides of the Neva act, in Kaganov's words, to turn formless emptiness into formed space at an unprecedented urban scale.[1] The branches and canals, less colossal in scale, constitute dynamic, seamless channels of formed space (fig. 3). St. Petersburg's unique character thus derives in great measure from the degree to which its scintillating waterways both inform and energize the city's "tout ensemble," endowing it with a unique spatial and experiential character (fig. 4).

Figure 4 – Winter Canal (**S-Peterburg/St. Peterbourg**, p. 10)

The first years of St. Petersburg's existence saw an amazing transition from a swampy, scarcely populated military outpost to a fledgling town that was destined to become a leading European capital. The first installations to be erected in 1703 were the Peter and Paul Fortress on Hare's Island and the Admiralty on the opposite, or mainland side of the river. At first, construction of these and other structures was dictated by a strategic desire to keep the enemy at bay. However, Russia's victory at Poltava in 1709 enabled Peter to focus on St. Petersburg in order both to consolidate Russia's strategic position in the region and to capitalize on Russia's rise as an emerging European power. In 1712 Peter the Great proclaimed St. Petersburg the new capital of Russia. From that moment, haphazard building activity gave way to concerted planning aimed at facilitating the swift construction of the city. Peter's vision of his new capital called for replacing the irregular medieval layout characteristic of most Russian towns, including Moscow, with a regular network of streets, waterways and squares lined with continuous rows of building.

Figure 5 – Fortress and Cathedral of SS. Peter and Paul (**S-Peterburg/St. Peterbourg**, p. 11)

Figure 6 – Plan of St. Peterburg, 1720, showing Trezzini's plan for Vassily Island. Published by I.G. Homann (**Gli Architetti italiani a San Pietroburgo**, fig. 8)

Figure 7 – The Building of the Twelve Collegia and the old Gostinyi Dvor Shopping Arcade, encompassing the initial public nucleus of the city (engraving from a drawing by I.I. Charlemagne. (**Saint Péterbourg: Ville et granit de gloire et de malheur**, fig. 17)

The Swiss-Italian architect, Domenico Trezzini, who had been recruited in 1703 to become the first chief architect of the capital, had put his stamp on Peter's fledgling town through his design of the later masonry Fortress and Cathedral of SS. Peter and Paul (fig. 5), as well designs for a series of utilitarian and imposing structures alike. Concerned that the town was growing without a plan, Peter commissioned Trezzini in 1715 to prepare a plan for Vasily Island, which Peter had initially projected as its center.

Although Trezzini aimed to satisfy Peter's desire to emulate the great European maritime cities, especially Amsterdam, his plan for Vasily Island was preoccupied with practical concerns (fig. 6). The territory, fortified by a continuous bastioned wall and thus reflecting lingering concerns for military security, was laid out in a straightforward grid of streets and intersecting canals to drain the marsh, using a common Dutch practice for reclaiming areas of low-lying land from a sea, lake or river.[2] Although the intermittent placement of parks and squares offered some relief, Trezzini's layout lacked any architectural center or focus. He set aside a large public square near the cape of the Island as the administrative and commercial center of the city. In 1722 Trezzini erected two buildings to frame the square (fig. 7): the Twelve Colleges Building (now St. Petersburg University), conceived by Peter the Great to house the twelve ministries comprising Russia's new imperial form of government, and the Gostiny Dvor, a storehouse for imported and exported goods.

Figure 8 – Jean Baptiste Alexandre Le Bond. Plan for St. Petersburg, 1717. (Bunin, **Istoriia gradostroitel'nogo iskusstva**, p. 351)

In concentrating exclusively on Vasily Island, Trezzini's plan did not take due account of the surrounding landscape or accommodate the structure of the growing town beyond the Island, including the Peter and Paul Fortress and the Admiralty, which had already become the city's symbolic and practical focal points. Having initially approved it, Peter grew disenchanted with Trezzini's scheme. In 1717 he commissioned a grander plan from the Parisian architect, Jean-Baptiste-Alexandre LeBlond, a pupil of André Le Nôtre who had edited works on architecture and formal gardens and who had been recruited the year before to come to Russia for five years as superintendent of all architectural work.[3]

Le Blond's monumental plan was the most elaborate and fanciful of the planning schemes produced for the Russian capital (fig. 8). Inspired by Renaissance plans for an ideal city, by the new plan of 1690 for Copenhagen, and by Vauban's 17th-century improvements to the French system of bastioned fortifications, Le Blond created a fortified city of canals that commanded the central part of the Neva delta. Unlike

Figure 9 – Plan of St. Petersburg, 1738, showing Eropkin's scheme. (Egorov, **The Architectural Planning of St. Petersburg**, p. 32)

Figure 10 – Plan of St. Petersburg showing the planning project of 1762. (**Gli Architetti italiani a San Pietroburgo**, fig. 4)

Trezzini's scheme, Le Blond's plan included the Peter and Paul Fortress and the Admiralty, together with portions of the adjoining islands and the south bank of the Neva. The town was enclosed by an oval ring of fortifications with angular bastions.

Le Blond treated the eastern half of Vasily Island as the center of the city, laying it out as an intricate rectangular grid of parallel streets, squares and intersecting canals cut through the low-lying marshland. Two main canals ran the length of the island, with twelve smaller canals intersecting it. A new imperial palace with an extensive formal garden stood at the center of this monumental grid composition; the diagonal avenues radiating from the palace terminated in four squares with cathedrals. Adjacent to the central square, Le Blond proposed a park and large square in the manner of a Place d'Armes.

Despite the fact that it would have inhibited growth on the mainland south of the Neva, Peter approved Le Blond's plan.[4] However, Le Blond had failed to comprehend the ambition of Alexander Menshikov, the governor general of the city, who did not wish to have his valuable properties on Vasily Island compromised by Le Blond's scheme. While Peter was abroad in 1717 Menshikov successfully undermined the initial work on the canals, causing the project to be abandoned.

After Peter the Great's death in 1725, the enterprise of building the capital threatened to collapse. When Peter II moved to Moscow in 1728 St. Petersburg effectively ceased to be the capital. The population began to abandon the city, construction came to a halt, the factories closed and industry and trade were deprived of state support. With the return of Empress Anna Ivanovna and the imperial court to St. Petersburg in 1732, however, the population began to grow and construction resumed. The Commission for the Construction of St. Petersburg, headed by the architect Peter Eropkin, was established in 1737 to regulate building activity in the city and finally resolve the problem of planning its center. The plan prepared by Eropkin offered interesting new options for the city's further development.

Eropkin's scheme reflected his belief that the south bank of the Neva was more suitable for development than the north because it allowed for unlimited expansion. In addition as part of the mainland, it would always remain in communication with the rest of the country, while the opposite shore might at times be cut off by floods.[5]

Figure 11 – View of the Moika Canal, 1830s. From a lithograph by K.P. Beggrov. (Gordin, **Pushkinskii Peterburg**, fig. 161)

Eliminating the confining fortifications that Trezzini and LeBlond had featured in their proposals, Eropkin's scheme provided a more sensible framework for incorporating existing building and advanced a more dynamic approach for managing the city's southward expansion (fig. 9).[6] It projected the Admiralty as the plan's focal point and applied the *patte d'oie* or "goose-foot" motif to create a symmetrical convergence of three primary radial thoroughfares at the Admiralty tower. The road from the east, incorporating an existing regional route, became the great Nevsky Prospect, the main street in the city, extending some two and a half miles from the Admiralty to the Moscow Railway Station and then to the Alexander Nevsky Monastery. The two other thoroughfares – Voznesensky Prospect, adapting the road westward to Novgorod, and Gorokhov Street, the central avenue – were realigned to complete the pronged layout. This dynamic device, whose implementation in Eropkin's plan Edmund Bacon termed "one of the wonders of urban design,"[7] proved an effective vehicle for coalescing the city's ensuing architectural and urban development. Eropkin's proposal was effectively incorporated in the 1762 Plan of St. Petersburg (fig. 10) issued by the Commission for the Building of St. Petersburg and Moscow, established earlier that year by Catherine the Great.[8]

Developments Under Elizabeth and Catherine II

If Peter the Great's era was one in which St. Petersburg was still in process of becoming, that of his daughter, the Empress Elizabeth, marked the point at which St. Petersburg began to acquire more compelling trappings of an imperial setting. Her architect, Count Bartolomeo Rastrelli, built several outstanding late Baroque and Rococo urban complexes in St. Petersburg,[9] ranging from the diminutive Stroganov Palace on Nevsky Prospect (1750-4) to the vast Winter Palace (1754-62), firmly integrated into the core of the emerging capital; and the Smolny Convent (1748-57), a magnificent quadrangle of convent buildings. Rastrelli's projects pointed the way to the ensuing creation of integral urban ensembles in St. Petersburg.

During Catherine's reign, the art of architecture and town planning lost the last vestiges of provincialism and became full-fledged contributions to the legacy of European architecture.[10] Embracing the Neoclassicism of the French Enlightenment, Catherine evinced a passion for architecture that found expression in her personal involvement in the building enterprise. Leading palaces and public buildings erected during her reign followed Rastrelli's example in setting a more urban and urbane tone for urban design, albeit with a decidedly Neoclassical bent. Vallin de la Mothe's

expansive Academy of Fine Arts Building (1765-72) and Gostinyi Dvor (1761-82), a Retail Arcade covering an entire block fronting on Nevsky Prospect, are symptomatic of this new tendency, as are the Italian Giacomo Quarenghi's Hermitage Theater (1783-7), State Bank (1783-90), and Academy of Sciences complex (1783-9), together with Ivan Starov's Tauride vast Palace (1783-9).

Catherine's growing concern for town planning prompted her to establish the Commission on the Building of St. Petersburg and Moscow in 1762.[11] The commission devoted considerable attention to controlling growth and building through a strict regulation of lot and building lines. Its proposal to establish a system of regular lot and building lines was incorporated in the official plan for St. Petersburg adopted later that year.[12]

At Catherine's urging, the commission embarked upon a mammoth project to face the city's embankments with granite. Bold, severe and superbly adapted to the curving entrances of the canals, these granite embankments, designed by Yuri Velten, supplied a magnificent base for the rows of public and private buildings lining the city's waterways (fig. 11). The addition of overlook platforms, flights of steps and ramps descending to the landing docks and water-gates turned the city's waterways into veritable urban ensembles, the most grandiose and coherent of any European city at the time.

Although no major urban ensembles per se were erected during Catherine's reign, her own efforts and those of her commission were important contributions to the development of St. Petersburg as an imperial capital. They proved instrumental in setting the stage for the dramatic strides made during the first part of the 19th century under her successor Alexander I.

The Alexandrian Empire Style

It was in the reign of Alexander I (1801-25), to whom the French architect Claude-Nicolas Ledoux had dedicated his 1804 treatise, *L'Architecture considérée sous le rapport de l'art, des moeurs et de la législation* (1804),[13] that St. Petersburg achieved its final dynamic physical and spatial definition as a consummate imperial capital through the masterful conception and execution of a network of central squares encompassing the core of St. Petersburg.

Alexandrian classicism, which has come to be known as the Alexandrian Empire style, was a Russian version of the Empire style conceived in France. When Napoleon, posing as the champion of the ideas of the French Revolution, rose to power in Europe, the Neoclassical

Figure 12 – View of the Cathedral of Our Lady of Kazan, 1830s. From an engraving by Fedor Alekseev.

Figure 13 – Cathedral of Our Lady of Kazan (**S-Peterburg/St. Peterbourg**, p. 7)

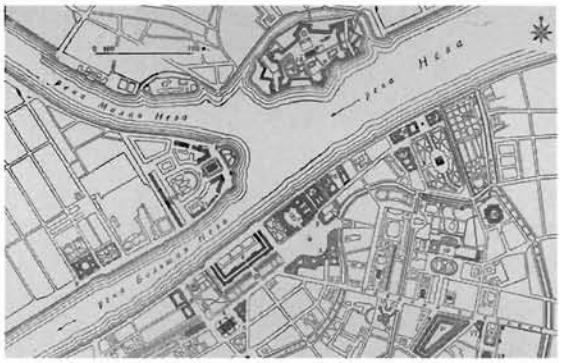


Figure 14 – Plan of the central area of St. Peterburg in the mid-19th century. (Bunin, Istoriia gradostroitel'nogo iskusstva, p. 421)

style of architecture became the style of the French Empire. Arguably, the most vigorous and benign expression of this empire style was built not in France but in Russia. The monumental new imperial planning program inaugurated by Alexander I concentrated on the erection of government offices and ministries as demonstrations of Russia's newly acquired power and prestige following Russia's victory over Napoleon in the War of 1812.

Alexander was blessed with good taste and a profound affection for St. Petersburg. During his long reign he sought to enhance the city with buildings in a consistent and harmonious style. The final classical homogeneity of the city as a whole is attributable to Alexander as much as to any of his predecessors. Alexander also seems to have had the capacity to summon the best in his architects. The greatest works of his best architects evinced a masterful propensity for a bold but harmonious urban design, one informed by an innate ability to manipulate monumental buildings to organize and shape an effective sequence of major spaces in the central areas of the imperial capital. These spaces were conceived as ceremonial stage sets for enacting the new rituals of imperial grandeur, ranging from military parades to civic and religious festivals.

Figure 15 – View of the ensemble of the St. Petersburg Exchange at the cape of Vasili Island, 1817. From an engraving by I.V. Chesky. (Gordin, Pushkinskii Peterburg, fig. 8)

Inaugurating this triumphal age of the architectural ensemble was the Cathedral of the Virgin of Kazan (1801-11), designed by Andrei Voronikhin, a pupil of Charles de Waily in Paris.[14] The cathedral was erected to house the miraculous icon of the Virgin of Kazan, one of the most ancient relics of Russian Orthodoxy (fig. 12). In the process of designing the cathedral, Voronikhin created a harmonious square on Nevsky Prospect, thus inaugurating the construction of a series of new ensembles that related spatially to the main thoroughfare of St. Petersburg. Although derived from Bernini's Piazza of St. Peter's in Rome, Voronikhin's Neoclassical conception was quite novel in its disposition (fig. 13). Given the obligatory Russian Orthodox orientation of altars to the east, Voronikhin set his church on a Latin cross parallel to Nevsky Prospect. In so doing, he made the north side of the building rather than the customary west side the formal entrance off Nevsky Prospect, accentuating it with a pedimented columnar portico. From the northern portico he projected a semi-circular colonnade that opens out onto and frames the square fronting on Nevsky Prospect.

The full measure of the Alexandrian Empire style was revealed in the Exchange (now the Naval Museum) by the French architect Thomas de Thomon, begun in 1805 (fig. 15)[15] Thomon transformed the ragged contour of the cape into a harmonious ensemble aimed at creating a

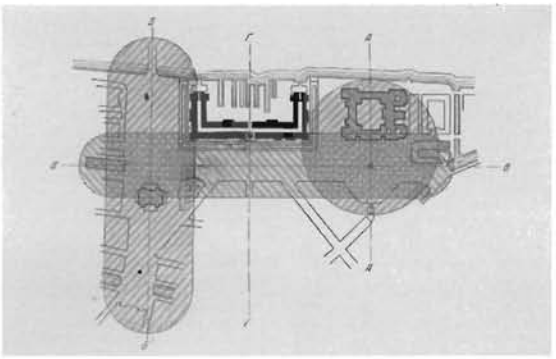


Figure 16 – Plan of the five central squares and their axes of composition. Drawing by Iu. A. Egorov. (Egorov, **Ansambl' v gradostroitel'stve SSSR**, p. 114)

monumental setting for civic and commercial ceremonies. This ensemble consisted of a monumental temple housing the exchange, combining elements taken from Ledoux and from temples at Paestum, which de Thomon had visited; a granite embankment with a semi-circular promontory and ramps descending to the river; and a square in front of the exchange framed by two lighthouses in the form of rostral columns with seated figures of marine divinities at their feet.

Thomon oriented his ensemble toward the cape of Vassily Island, washed by the Greater Neva on one side and by the Little Neva on the other. This masterful orientation served to enhance the Exchange's connection to the Peter and Paul Fortress, the Admiralty and the Winter Palace – the symbolic and spatial core of the imperial capital. The result was a singular urban ensemble that encompassed both land and water as integral parts of a dynamic spatial whole.

The Central Squares

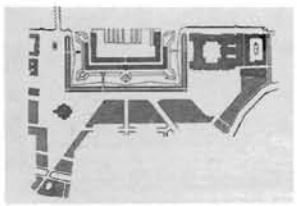
In the 18th century there had been no functional requirements that would have called for the creation of large squares or the development of a strong spatial network in the center of St. Petersburg. Around 1802, however, a major reorganization took place of the whole governmental structure of the Russian empire. A large number of ministries was set up to replace Peter the Great's Collegia, creating a demand for major new governmental buildings to house the new ministries (fig. 14). Similarly, Russia's victory over Napoleon in the War of 1812 created a demand for a system of squares in the ceremonial center of St. Petersburg to accommodate the frequent military parades in honor of Russian victories. The construction of the new ministries and the need for large open spaces

Figure 17 – The Admiralty from Palace Square, 1820s. Lithograph. (Gordin, **Pushkinskii Peterburg**, fig. 112)

Figure 18 – View of the original Admiralty, looking north along Nevsky Avenue, 1753.
From an engraving by M.I. Makhaev. (Saint Pëterbourg: Ville et granit de gloire et de malheur, fig. 16)

around the Winter Palace for military parades provided the final impetus for creating the ensemble of central squares in St. Petersburg, including Admiralty, Palace, Senate and St. Isaac's Squares (fig. 16).[16]

The centennial jubilee of the laying of the foundation of the old Admiralty by Peter the Great in 1706 provided the occasion for the monumental reconstruction of the facility by Adrian Zakharov, who had trained under Chalgrin in Paris.[17] His new Admiralty building (1806-23) was a U-shaped structure for the Ministry of Naval Affairs, arranged in a double row separated by a narrow court (fig. 17). Zakharov's design succeeded in integrating the ensemble into its immediate surroundings while making it the effective center of the city. In the process, it established a framework for developing the other central squares.



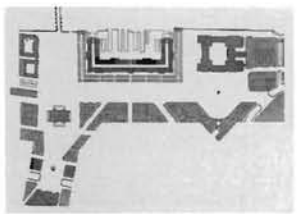


Figure 19, 20 – Plan of the central squares of St. Petersburg at the beginning of the 19th century (before and after reconstruction).
Drawings by Iu. A. Egorov. (Egorov, Ansambl' v gradostroitel'stve SSSR, p. 78-9)

Zakharov's design is a superior example of the way traditional elements can be shaped into something strikingly new. By 1800 Korobov's century-old complex, with its outmoded facilities, was no longer an appropriate monument for the center of an emerging great city and imperial capital (fig. 18). Zakharov's solution retained the basic length of Korobov's facade but transformed it into an expression of the emerging Alexandrian empire style. The main facade, a quarter of a mile long, overlooks Admiralty Square, projecting an imposing facade to the city proper. Its most compelling feature is the central entrance pavilion. Here, Zakharov retained the basic silhouette of Korobov's building – the tall, slender spire, which had become a symbol of imperial St. Petersburg – while transforming it into a bold, fresh monumental design. Brilliantly conveying the aspect of upward striving, the structure becomes lighter as tier succeeds tier, and as the square Ionic colonnade erodes the building mass. The whole is crowned by a golden spire, boldly thrusting toward the sky as the pivotal focal point for the three great avenues converging upon the Admiralty tower.

Zakharov's initial conception of Admiralty Square had envisioned it as an island complex surrounded by a canal and fronted by a minor boulevard (fig. 19).[18] As parades in honor of Russian victories were becoming a frequent occurrence, it was decided to widen the passage in front of the Admiralty in order to accommodate them. Doing so entailed removing the moat and earthen ramparts and widening the passage in front the of the Admiralty to provide a broad boulevard passing in front and parallel to the main facade of the building (fig. 20). That boulevard was to be part of the axial vista extending from Senate Square to Palace Square to form a continuous parade route. In developing Admiralty Square, Zakharov anticipated the spatial significance and relationship of the future squares surrounding the complex and laid the groundwork for their ensuing development.

Figure 21 – View of Palace Square toward the General Staff Building, 1836.
Lithograph of L.P.A. Bichebois and A.G.B. Bayot from a drawing by A.R. de Monferrand. (Gli Architetti italiani a San Pietroburgo, p. 294)

Palace Square represents Carlo Rossi's masterful urban design solution for creating imperial Russia's grandest ceremonial review and parade ground. Italian-born but Russian-trained, Rossi became the principal architect and

urban designer in St. Petersburg after 1816.[19] His work proved decisive in giving definitive form to the imperial capital. Whether commissioned to build a palace or a theater, he transformed the entire area involved, molding buildings to create spacious new squares that, in turn, succeeded in completing other ensembles already in existence. He shaped huge reservoirs of space into squares and streets, lining them with buildings and opening up remarkable perspectives.

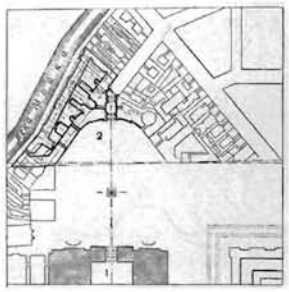


Figure 22 – Final scheme by Carlo Rossi for the reconstruction of Palace Square. (Bunin, **Istoriia gradostroitel'nogo iskusstva**, fig. 393)

To create the urban space of Palace Square, Rossi actually joined the building housing the General Staff to the one containing the Ministries of Finance and Foreign Affairs to create an integral hemispherical building ensemble (fig. 21). Originally, the street had entered the square at a very awkward angle, running alongside a row of structures that was at once part of and detached from the complex (fig. 22). Rossi's solution was to unite the two buildings with a bold triumphal arch and to situate the resulting complex directly across from, and integrally linked to, Rastrelli's Winter Palace. Although Rastrelli's palace and Rossi's building are in completely different styles, Rossi succeeded in making his own spare but superbly proportioned complex blend admirably with Rastrelli's exuberant frontage. He did so by focusing attention on the bold triumphal arch in the center of the complex (fig. 23). This triumphal arch was actually a complex assemblage of three arches, the first two framing an unroofed cubical pavilion; the third, extending from the second and set at an angle to it to frame a bending of the street that connects Palace Square to the city's main thoroughfare, Nevsky Prospect. The triumphal arch also frames a magnificent view of the Winter Palace, whose entrance pavilion is precisely on axis with Rossi's arch.

Figure 23 – Arch of the General Staff Building, 1822. From an engraving by K.P. Beggrov. (Gordin, **Pushkinskii Peterburg**, fig. 14)

Rossi's brilliant scheme, which Edmund Bacon has cited as an example of great design produced by accepting an existing plan and turning its problems into assets,[20] is an imaginative solution to the problem posed by the irregularity of the square and the need to create an impressive public building worthy of its place opposite the Imperial Residence (fig. 24). In the center of the square the French architect Auguste Ricard de Montferrand built the Alexander Column (1829) to commemorate Alexander's victory over Napoleon. The granite monolith, the largest in the world, serves as one of the primary visual foci of the classical center of the city

Figure 24 – View of Palace Square, showing the lateral axis employed as the principal parade route (engraving from drawing by A.R. de Montferrand, 1836). (Egorov, **Ansambl' v gradostroitel'stve SSSR**, p. 117)

Between 1829 and 1834 Rossi erected two more buildings – the Senate and the Synod, the highest judicial and ecclesiastical bodies of the imperial Russian government.[21] Once more the architect was confronted with the difficult problem of designing a unified facade for two separate buildings to house two different government ministries (fig. 25). Although the buildings had to be of different sizes because of the off-center entrance of the street between them, they appear to be identical. The greater length of the Synod, to the right, was disguised as a curving colonnaded pavilion turning the corner toward the Neva. The two buildings are linked by a

Figure 25 – View of Senate Square, framed by St. Isaac's Cathedral and the Senate and Synod complex to the right. 1830s. Lithograph. (Gordin, **Pushkinskii Peterburg**, fig. 119)

Figure 26 – View of the southern embankment along the Neva River, from St. Isaac's Cathedral to the Admiralty and the Winter Palace, 1820-30 (**Saint Péterbourg: Ville et granit de gloire et de malheur**, fig. 139)

Figure 27 – St. Isaac's Cathedral (**S-Peterburg/St. Peterbourg**, p. 4)

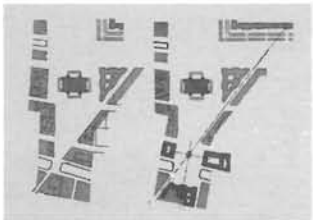


Figure 28 – Plan of the St. Isaac's Square. (before and after reconstruction). Drawing by Iu. A. Egorov. (Egorov, **Ansambl' v gradostroitel'stve SSSR**, p. 111)

triumphal arch whose supporting pylons are the inner pavilions of the buildings on each side.

In ways similar to those employed at Palace Square, Rossi related the facade of the Senate and Synod Building to the side facade of the Admiralty Building by aligning the axis of symmetry and the secondary axis of the square (fig. 26). St. Isaac's Cathedral forms the square's southern boundary.

In the mid-19th century another square, St. Isaac's, was added to the already established network of three squares.[22] It was completed in 1858 with the completion of the enormous St. Isaac's Cathedral (1817-58), designed by Auguste Ricard de Montferrand (fig. 27). The church was built on a Greek-cross plan with a dome and four Corinthian porticoes, two of which are flanked by a pair of smaller cupolas relating uneasily to the monumental central dome. The great gilded dome, inspired by Soufflot's dome at Ste-Genevieve and Wren's dome at St. Paul's Cathedral, is supported on a cast-iron framework that was the earliest use of this material in Russia on such a scale. A dominant focal point in the city's skyline, St. Isaac's dome is visible from miles around.

St. Isaac's Square was the last classical ensemble to be completed in the center of the city. Besides the cathedral, the square is fronted by the Lobanov-Rostovsky Mansion (1817-19), by Montferrand, and the Marinsky Palace (1839-44), designed by the architect A. I. Stakenschneider. In 1856-59, a monument to Nicholas I, designed by Montferrand and the sculptor Peter K. Klodt, was raised in the center of the square. After the Marinsky Palace had been completed it was found to be totally cut off from the square by the houses located on either side of the Moika Canal. Carlo Rossi was summoned out of retirement to create a plan for opening up the square toward the palace and thus completing this portion of St. Isaac's Square (fig. 28).

Nevsky Prospect Ensembles

The construction of Nevsky Prospect, the city's main thoroughfare proceeded concurrently with the replanting of the central areas (fig. 29). It was gradually transformed into a fully developed sequence of spatial compositions through the insertion of several carefully placed ensembles designed as spatial and functional linkages (fig. 30).[23] As a result, Nevsky Prospect and its immediate ensembles were effectively linked to the

Figure 29 – Nevsky Prospect (**S-Peterburg/ St. Peterbourg**, p. 17)

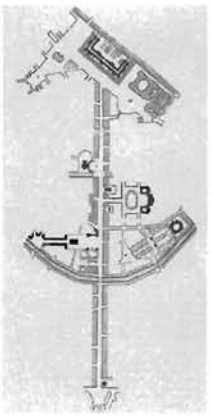


Figure 30 – Plan of the central squares and ensembles along Nevsky Avenue. Drawing by Iu. A. Egorov. (Egorov, **Ansambl' v gradostroitel'stv e SSSR**, p. 122)

major ensemble created within the spatial corridor of Nevsky Avenue. Rossi's Michael Palace complex and Alexandrian Theater complex round out the Nevsky Prospect series.

Built for Grand Duke Michael, youngest brother of Alexander I, the superbly proportioned Michael Palace (1818-25) now houses the State Russian Museum. Although Rossi's first major commission, it already reveals Rossi's urban design sensibilities (fig. 31).[24] Following Voronikhin's example at the Kazan Cathedral, Rossi created a square in front of the Palace, which was placed on axis with the palace and its adjoining dependencies. He also cut a new street, placed on the same axis, to Nevsky Prospect, creating a striking spatial ensemble within urban core o`f the imperial capital. Rossi also positioned the palace's side wings to create an entrance court of decidedly urban scope and scale.

Figure 31 – The Michael Palace, 1832. From a watercolor by K.P. Beggrov. (Gordin, **Pushkinskii Peterburg**, fig. 204)

In this brilliant ensemble for the Alexandrian Theater complex (1816-32), Rossi created a network of streets and squares linking Nevsky Prospect to Lomonosov Square on the Fontanka River, with connections to other adjoining districts (fig. 33).[25] The theater, a highly articulated geometrical mass with lofty Corinthian porticos on the longer sides, a second Corinthian colonnade on the front, and a range of flat pilasters on the rear facade, stands at the head of a square set between the Public Library and the Anichkov Palace and opening out onto Nevsky Prospect. At the opposite end of the square, the rear facade of the theater serves as a terminus for Theater (now Rossi) Street, a new throughway that Rossi cut to the

Figure 32 – Panorama of Nevsky Avenue, fragment of the left side at Great Gables Street, 1835. From an elevation lithograph by P. Ivanov from a drawing by Vasili Sadovnikov. (Gordin, **Pushkinskii Peterburg**, fig. 204)

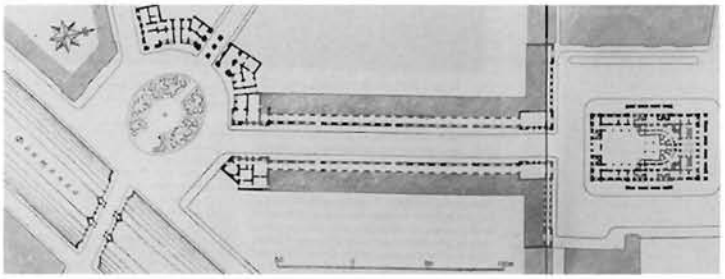


Figure 33 – Plan for the Alexandrian Theater complex, 1827-32, with Theater (now Rossi) Street. (Bunin, **Istoriia gradostroitel'nogo iskusstva**, p. 414-15)

Anichkov Palace and opening out onto Nevsky Prospect. At the opposite end of the square, the rear facade of the theater serves as a terminus for Theater (now Rossi) Street, a new throughway that Rossi cut to the Fontanka River, where it terminates at the semi-circular Lomonosov Square. Rossi treated it as a "corridor" street akin to Vasari's Uffizi in Florence: the shaft of space is contained on each side by a long colonnaded facade of identical design (fig. 34). Rossi designed the facades of all the buildings on the squares and streets as parts of a single monumental ensemble.

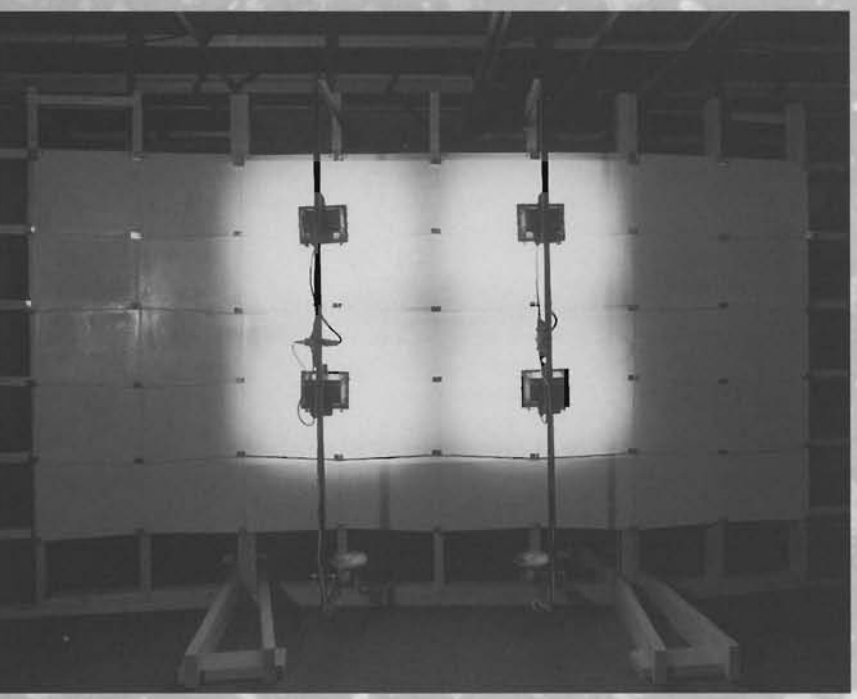
The urban ensembles that Rossi and his immediate predecessors had created constitute a superbly integrated urban design oeuvre of unequaled power, fluidity and grace, the final triumph of Petersburg classicism. Through their concerted efforts, St. Petersburg had successfully become, and would remain, a city of truly imperial proportions, especially within the complex of dynamic ensembles of buildings and squares that had developed around and beyond the Admiralty, Winter Palace and Nevsky Prospect.

Figure 34 – Theater (now Rossi) Street, by Carl Rossi

1. Grigorii Z. Kaganov, *Sankt-Peterburg: obrazy prostranstva* [St. Petersburg: Images of Space] (Moscow: Izd-vo "Indrik," 1995), p. 24.; Engl. transl. by Sidney Monas, **Images of Space: St. Petersburg in the Visual and Verbal Arts** (Stanford, CA: Stanford Univ. Pr, 1997), p. 16. 2. Nicola Navone, *Domenico Trezzini and the Plans for Vasilyevsky Island,* **Domenico Trezzini e la costruzione di San Pietroburgo** (Florence: Octavo, 1994), p. 68. 3. Boris Lossky, J.-B.-A. Le Blond, **Architecte de Pierre le Grand** (Prague: Russkii svobodnyi universitet v Pragie, 1936) 4. Igor E. Grabar, *Zhan Batist Aleksandr Leblond,* in **Peterburgskaia arkhitektura** v XVIII i XIX veke, vol. 3 in his **Istoriia russkago iskusstva** (Moscow: Izdanie I. Knebel,' 1909), 124-125. 5. V. Shilkov, *Proekty planirovki Peterburga 1737-1740 godov,* **Arkhitekturnoe nasledtsvo**, p. 4 (1953), p. 7-13. Cf. P. Petrov, *P. M. Eropkin,* **Zodchii**, no. 5 (1878), p. 54-5; A. Gorin, *Arkhitektor Petr Eropkin,* **Arkhitektura SSSR**, no. 7 (1940), p. 66-8. 6. Shilkov's article includes several of the planning studies associated with the preparation of Eropkin's plan. 7. Edmund N. Bacon, **Design of Cities** (2nd ed.; New York: Viking Press, 1974), p. 197. 8. Andrei V. Bunin, **Istoriia gradostroitel'nogo iskusstva**, vol. 1 (2 vols.; Moscow: Stroiizdat, 1979), p. 374. 9. Iurii Ovsiannikov, **Franchesko Bartolomeo Rastrelli** (Leningrad: Iskusstvo, Leningradskoe otd-nie, 1982); see also Iurii Ovsiannikov, **Velikie zodchie Sankt-Peterburga: Dominiko Trezini, Franchesko Rastrelli, Karl Rossi** (St. Petersburg: Iskusstvo SPB/Severo-Zapad, 1996). 10. Natal'ia A. Evsina, **Russkaia arkhitektura v epokhu Ekateriny II** (Moscow, Nauka, 1994). 11. *Ob uchrezhdenii Kommissii dlia ustroistva gorodov S. Peterburga i Moskvy,* No. 11723 in **Polnoe sobranie zakonov Rossiiskoi Imperii**, XVI (1762), p. 127-128. Although the Commission's initial purpose was to direct the planning and future construction of the two Russian capitals, it actually carried out all of the town planning done in Russia between 1763 and 1796. In addition to the rebuilding of old towns, the Commission also directed the planning of the hundreds of new towns created as part of Catherine's major urban planning reforms. The official plans prepared by the Commission were published in a supplement to the **Polnoe sobranie zakonov Rossiiskoi Imperii** in a separate volume entitled **Kniga chertezhei i risunkov** (St. Petersburg, 1839). 12. B. Vasil'ev, *K istorii planirovki Peterburga vo vtoroi polovine XVIII veka,"* **Arkhitekturnoe nasledstvo**, 4 (1953), p. 14-29. The plates accompanying the article are superb and are most descriptive but of poor quality. 13. The first of a projected five-volume work, this volume was the only one to appear before Ledoux's death in 1806. The work had been a long time in preparation. Originally, the book was to have been dedicated to Emperor Paul I of Russia, who had agreed to the dedication of the book on his visit to Paris in 1782; Paul finally received a collection of 273 drawings in the spring of 1789, with the title page simply reading **L'Architecture de C. N. Ledoux**. With Paul's assassination in 1801, the book that finally appeared in 1804 under the expanded title **L'Architecture considérée sous le rapport de l'art, des moeurs et de la législation** was dedicated to Paul's son and successor, Emperor Alexander I, who was then still an ally of Napoleon in 1804. 14. German G. Grimm, **Arkhitektor Voronikhin** (Leningrad-Moscow: Gosizdat lit-ry po stroitel'stvu, arkhitekture i stroitel'nym materialam, 1963), Chap. 3. 15. Valerii K. **Shuiskii, Toma de Tomon** (Leningrad: Lenizdat, 1981). 16. A detailed examination of the central squares of St. Peterburg is contained in Iurii A. Egorov, **Ansambl' v gradoistroitel'stve SSSR** (Moscow: Izd-vo Akademii nauk SSSR, 1961), Chaps 2-3. For English translation, see **The Architectural Planning of St. Petersburg**, trans. Eric Dluhosch (Athens, OH: Ohio University Press, 1969). 17. Valerii K. Shuiskii, **Andreian Zakharov** (St. Petersburg: Stroiizdat, 1995). 18. Egorov, **Ansambl' v gradoistroitel'stve SSSR**, p. 81-91. 19. Ibid, pp. 92-101. See also Marianna Z. Taranovskaia, **Karl Rossi – arkhitektor, gradostroitel', khudozhnik** (Leningrad: Stroiizdat, Leningradskoe otd-nie, 1980) and Iurii Ovsiannikov, **Velikie zodchie Sankt-Peterburga: Dominiko Trezini, Franchesko Rastrelli, Karl Rossi** (St. Petersburg: Iskusstvo SPB/Severo-Zapad, 1996). 20. Bacon, Design of Cities, p. 198. 21. Egorov, Ansambl' v gradoistroitel'stve SSSR , pp. 102 12; see also Taranovskaia, **Karl Rossi–arkhitektor, gradostroitel', khudozhnik**. 22. Ibid. See also Ol'ga A. Chekanova, **Ogiust Monferran** (Leningrad: Stroiizdat, 1990) and Aleksandr L. Rotach, **Monferran** (Leningrad: Lenizdat, 1979). 23. Egorov, **Ansambl' v gradoistroitel'stve SSSR**, p. 123-5. 24. Egorov, **Ansambl' v gradoistroitel'stve SSSR**, p. 24. Taranovskaia, **Karl Rossi–arkhitektor, gradostroitel', khudozhnik**. 25. Ibid.

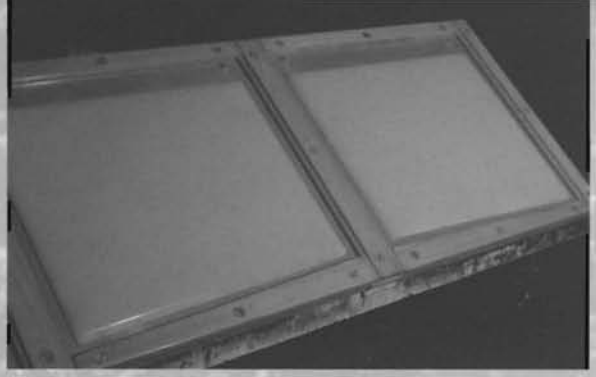
inside the apple house

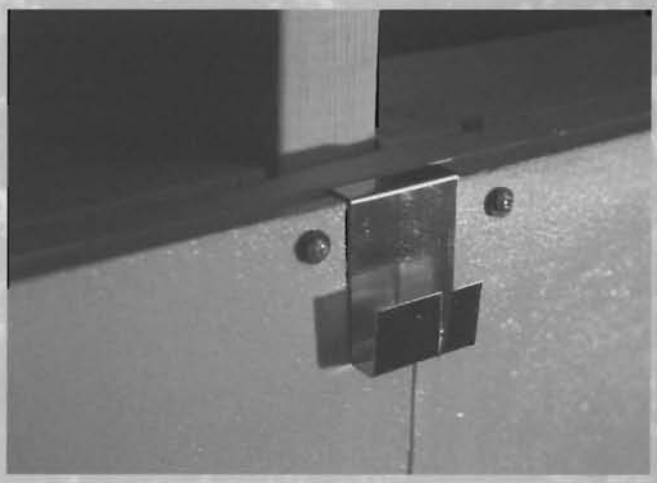
will wittig



context

The Apple House is a work in progress which began at the Cranbrook Academy of Art in January of 1995 and continued at the University of Michigan 1997-98. This work was done with the support of the William A. Oberdick Fellowship. The initial project began with a series of material investigations involving pre-cast concrete, as well as research involving the status of the reasoned hand in the landscapes of Cezanne. That work evolved into the development of an orchard which provided opportunities to explore the use of concrete in several unique architectural situations. Two of those circumstances are represented by the drawings (pencil and gouache on medium density fiberboard) on the following pages.





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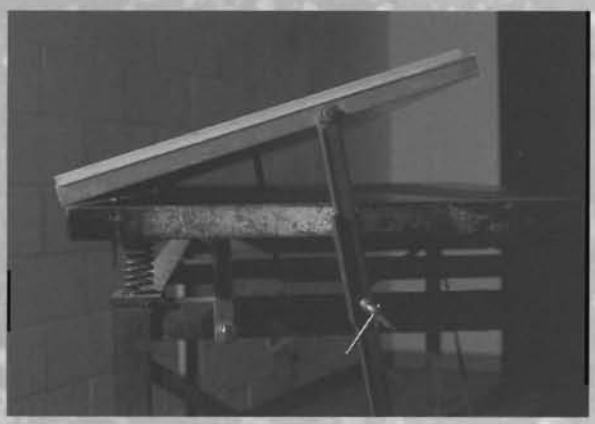
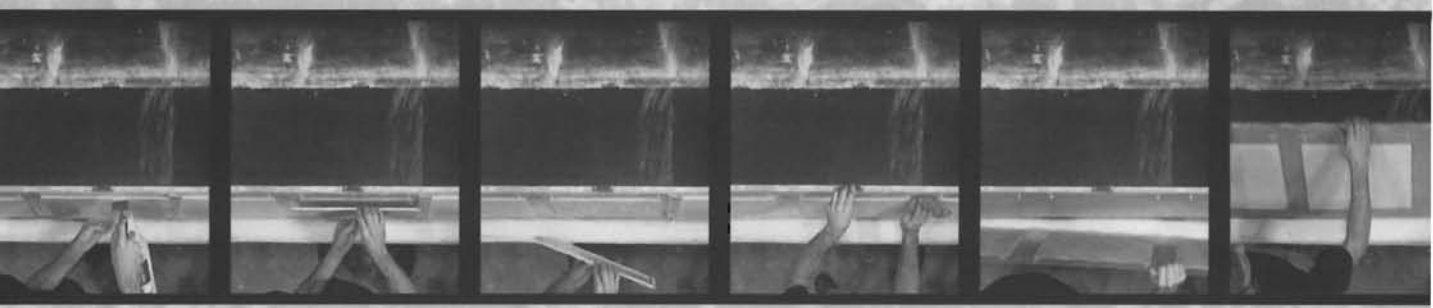


casting table

in progress

During the period of the Fellowship, the goal was to proceed with the construction of a small building based on the research and design process begun in the orchard project. It is not an attempt to construct one of the circumstances within the orchard, but a new proposal inspired by that work. The hope is that the building may unfold from the fragment shown here. The limits placed on the building are simply that all structural elements are to be constructed of small, standard sections of soft wood, and all surfaces are to be constructed of pre-cast concrete elements.



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of stone

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of two
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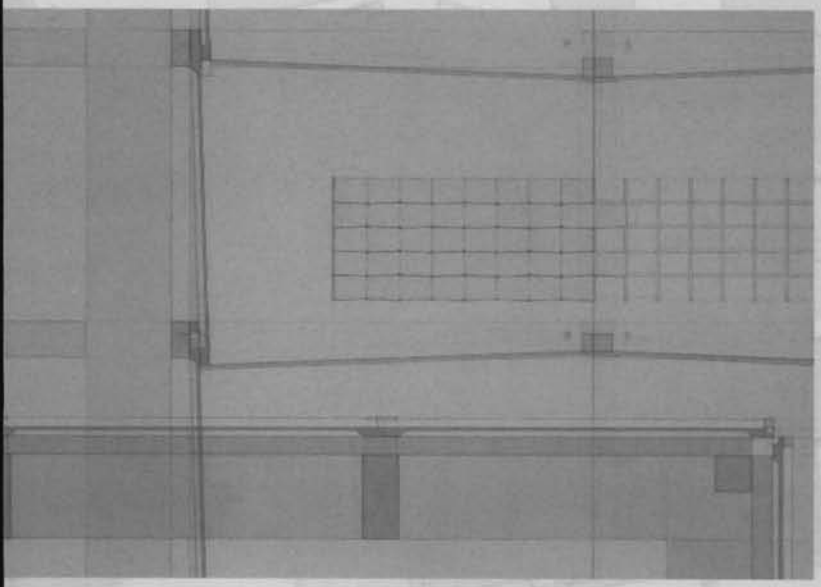
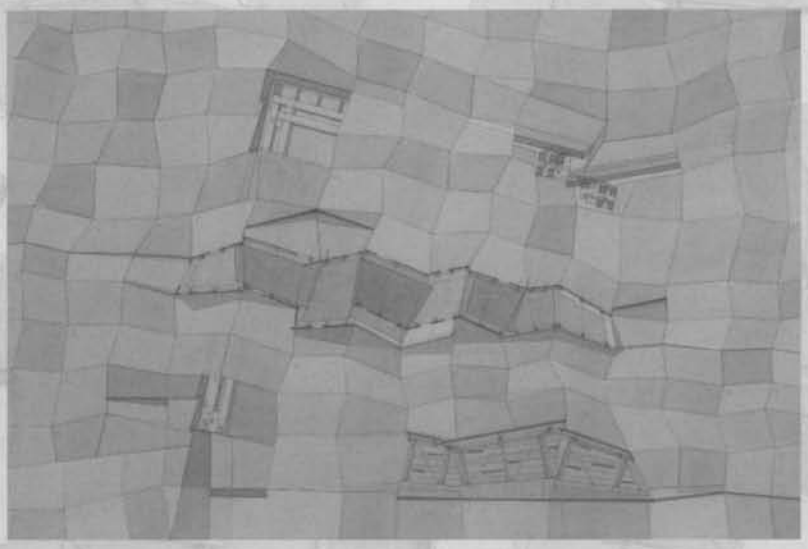
each racing
past
in a
brilliant
flash
filling my ears
with the thunder of speed.

the crevice is no thicker
than
a projected image
but its jagged length
extends
infinitely
in all directions
as it seeks out my
neighboring
specks.

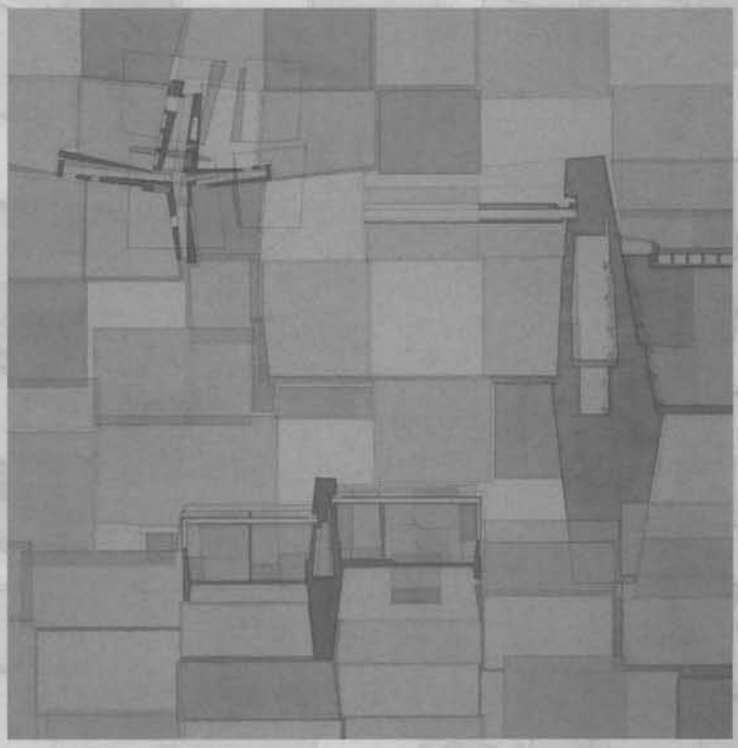


wall fragment detail



a barn among fruit trees

house for an orchard keeper



an uncut
bolt of fabric
freshly milled timbers
barrels of salt, seasonings, and grains.

for the tailor
the carpenter and the chef

each is full not with substance
but with promise

our memory holds in its depths
countless and constant tides,
the motion of sands which

contain the birth of stones
as various tiny souls
join
to become solid earth.

a proposal

The architect's work
is much closer to the
work of the potter
than the cartographer.

If the discipline is
to advance, it must
embrace the thought
that the vessels which
we create must rapidly
move away from the
diagrammatic and
towards the visceral.
An architecture which
is conceived of as
line and plane is in
danger of being
experienced only by a
cerebral and absent
subject. We must include
in our realm of inventiveness
the materiality of the
worlds we propose.
The modern could be
characterized as
(aspiring to and)
proceeding from the
all seeing point of
view, towards the
detail. Is it
possible instead
to unfold from the small.
To proliferate without
the conceit of rising
to a privileged
zenith?

fragment

The fragment is constructed of common 2 x 4 studs, translucent concrete shingles, and copper wind clips.

The invention of the translucent shingles required a great deal of trial and error regarding the mixture of the concrete, and the profile of the shingle. The design of the shingle and its form work was integrated with the process required to facilitate the releasing and casting of four shingles every day. Finally, techniques had to be learned for successfully placing, finishing, releasing and curing the shingles.

El desierto

Antes de entrar en el desierto
los soldados bebieron largamente el agua de la cisterna.
Hierocles derramó en la tierra
el agua de su cantaro y dijo:
Si hemos de entrar en el desierto,
ya estoy en el desierto.[1]

The desert

Before entering the desert
the soldiers drunk plentifully the water from the well
Hierocles poured over the soil
the water from his container and said:
If we have to enter the desert,
I'm into the desert already.[1]

Arquitetura entre Desertos e Labirintos: A Cidade como Inspiração

Architecture between Deserts and Labyrinths: The City as Inspiration

Fernando Lara

O presente ensaio usa da poesia de Jorge Luiz Borges para investigar algumas das formas pelas quais a arquitetura contemporânea lida com a questão do significado, flutuando como uma construção abstrata entre Desertos e Labirintos. Dois extremos da experiência urbana acelerada ad-infinitum, a total-significação e a não-significação, Desertos e Labirintos podem iluminar algumas das condições contemporâneas da arquitetura. Este ensaio especulativo define arquitetura contemporânea e a resultante imagem urbana como um pêndulo oscilante entre dois polos: Desertos e Labirintos. Após a exaustão do paradigma modernista, a arquitetura passa por uma crise de significado que tem sido retratada das mais diversas maneiras. Usadas metafóricamente, as descrições ficcionais dos Desertos e Labirintos Borgianos emergem como um espelho que ao mesmo tempo reflete e refrata, representa e recria imagens, sustentando um exercício de alteridade que desafia nossa definição de "cidade" como um aglomerado de diversas arquiteturas.

Cego e perdido em sua biblioteca, Borges lidava com o espaço, ora como um labirinto de estantes e identidades literárias, ora como um deserto de signos intocáveis e indecifráveis. Jorge Luis Borges é a inspiração deste ensaio especulativo com suas reincidentes imagens de Labirintos e Desertos, e suas manobras singulares pelas malhas do texto literário. Obscessivamente criando e recriando imagens

This essay departs from the poetry of Jorge Luiz Borges in order to investigate the meaning strategies in contemporary architecture as abstract constructions fluctuating between Deserts and Labyrinths. The two edges of the urban experience reduced ad-infinitum, the no-sign and the all-sign spaces, Deserts and Labyrinths elaborate a better comprehension of the contemporary condition. This speculative essay localizes contemporary architecture and the resultant urban image as a swinging pendulum between two virtual edges: Deserts and Labyrinths. After the exhaustion of the Modern Movement paradigm, architecture experienced a crisis, historically depicted by many different forms and from multiple perspectives. Used as a metaphor, Borgian fictional descriptions of Deserts and Labyrinths emerges like a mirror that reflects and refracts, represents and recreates images; sustaining an exercise of alterity that challenges our definition of "city" as an accumulation of diversified architectures.

Blind and lost in his library, Borges was able to perceive such space either as a labyrinth of bookcases and literary identities or as a desert of indecipherable and untouchable signs. Borges is the inspiration for this speculative essay with his favorite images of Deserts and Labyrinths and with his singular meandering through literature. Enclosed by creations and recreations of fantastic images, Borges re-reads

Laberinto

No habrá nunca una puerta. Estás adentro
Y el alcázar abarca el universo
Y no tiene ni anverso ni reverso
Ni externo muro ni secreto centro
No esperes que el rigor de tu camino
Que tercamente se bifurca en otro,
Que tercamente se bifurca en otro,
Tendrá fin. Es de hierro tu destino
Como tu juez. No aguardes la embestida
Del toro que es un hombre y cuya extraña
Forma del plural da horror a la manaña
De interminable piedra entretejida.
No existe. Nada esperes. Ni siquiera
En el negro crepusculo la fiera.[3]

Labyrinth

There'll never be a door. You're inside
and the keep encompasses the world
and has neither obverse nor reverse
nor circling wall nor secret center.
Hope not that the straitness of your path
that stubbornly branches off in two,
and stubbornly branches off in two,
will have an end. Your fate is ironbound,
as is your judge. Forget the onslaught
of the bull that is a man and whose
strange and plural form haunts the tangle
of unending interwoven stone.
He does not exist. In the black dusk
hope not even for the savage beast.[4]

fantásticas, Borges re-lê e re-escreve uma construção literária labiríntica. Da mesma maneira que Borges mistura influências e escolhe ele mesmo seus próprios ancestrais, este ensaio se aproveita de tal liberdade para discorrer sobre arquitetura como um ajuntamento de signos e experiências humanas, vagando entre Desertos e Labirintos. Usados no sentido metafórico para uma melhor apreensão das plurais e contraditórias imagens contemporâneas da cidade, Desertos e Labirintos podem sugerir diversas abordagens interessantes que apontem para redefinição dos nossos conceitos de arquitetura. Não apenas tendo como confortável referência os extremos conceituais que Desertos e Labirintos representam, mas ao contrário, trabalhando perigosamente na fronteira onde ambos se sobrepõem e permitem a geração de significados.

and re-writes a labyrinthical construction of literature. Much as Borges puts together influences and chooses his ancestors, this essay takes advantage of such freedom to talk about architecture as a collection of human experiences and signs in between Deserts and Labyrinths. Used as metaphors to better encompass the plurality of the contemporary urban image, Deserts and Labyrinths suggest interesting possibilities to redefine our idea of architecture. However, the idea is to avoid the comfortable extremes of Deserts and Labyrinths and instead, dangerously work on the borderline, on the frontier where both concepts overlap and allow for the construction of meaning.

Construindo uma ponte entre as imgens literárias de Borges e a condição arquitetônica contemporânea, tomamos o seguinte conceito básico: Arquitetura se faz da necessidade humana de inserção de referências no espaço. Desejo básico para todo e qualquer ser humano, referências espaciais se apresentam junto das estruturas da linguagem para permitir a elaboração das bases onde se funda e se apoia nossa experiência. Edifícios individuais, da mesma forma que a complexa reunião destes que chamamos cidade, são construídos para que tenhamos algo contra ou a partir dos quais referenciarmos a nós mesmos. Italo Calvino, outro

To build a bridge between the literary images of Borges and the contemporary architectural condition, one should consider a very basic concept: Architecture is made by the human need to insert references on space. As a basic necessity for human beings, the spatial reference comes joined to the language structure to construct the bases of our experience. Individual buildings, as well as the complex reunion we call city, provide us something against which to refer ourselves. Italo Calvino, another fiction author, compressed the idea of building as reference into a story that tells us about

autor de geniais ficções, resume tal ideia de arquitetura como referencia numa estória que nos diz de uma cidade em eterna construção. Quando indagados sobre qual plano, qual projeto guiva este trabalho sem fim, os habitantes respondiam que estavam muito ocupados, mas teriam enorme prazer em explicar mais tarde. Quando a noite caia sobre as obras, estrelada, os moradores apontavam os céus dizendo em uníssono: Eis o projeto![3]

a city in eternal construction. When asked about the plan, the project that guided such endless work, the inhabitants answered that they were very busy and they would explain later. With the night falling over the project, a starry night, the inhabitants point to the sky saying: That's the project![3]

Na tentativa de compreender a arquitetura contemporânea, deveríamos começar indagando que projeto temos seguido nos últimos tempos? Qual o plano diretor que guia cada obra individualmente e assim sendo dá forma ao coletivo de edificações e seus habitantes, que chamamos cidade? Devido à ausência de um único paradigma nos nossos dias, torna-se impossível responder com precisão a tal questão. Em substituição ao plano celestial, este ensaio sugere que cada arqutetura se insere em algum ponto entre os hipotéticos plano-deserto: ausência de referências, não-signo, pre-arquitetura; e plano-labirinto: excesso de referência, todo-signo, pos-arquitetura.

In order to try to understand contemporary architecture, one should question which project we follow today. What is the master plan that guides every individual design and shapes the collective reunion of buildings and its inhabitants called city? Due to the absence of a hegemonic paradigm in our day, one cannot precisely answer such question. In substitution to the celestial-plan this essay speculates that every building lays somewhere between the Desert-plan, the absence of references, the no-sign, the pre-architecture; and the Labyrinth-plan, the excess of references, the all-sign, the post-architecture.

> *A unos trescientos o cuatrocientros metros de la Pirámide, me incliné, tomé un puñado de arena, lo dejé caer silenciosamente un poco más lejos y dije en voz baja: Estoy modificando el sahara. El hecho era mínimo, pero las no ingeniosas palabras eran exactas y pensé que habia sido necessaria toda mi vida para que yo pudiera descirlas. La memoria de aquel momento es una de las más significativas de mi estadia en Egipto.[4]*

> A few hundred feet from the Pyramid, I bent down, scooped up a handful of sand and then, a little farther away, let it silently spill. Under my breath I said: I am modifying the Sahara. The deed was minimal, but the words, which were scarcely ingenious, were exact, and I considered that I needed an entire life to say them. The memory of that moment is one of the most significant of my stay in Egypt.[4]

A partir do insignificante gesto de derramar um punhado de areia, Borges inaugura a arquitetura. Modificando o deserto e pensando sobre tal fato, o espaço é para sempre transformado por mãos e mentes humanas. Se podemos entender o Deserto como não-arquitetura ou pré-arquitetura, devido a total ausência de referências, entendemos ser improfícuo qualquer esforço de localização e direção, já que não há signo algum que sirva de referência espacial. Borges, com seu gesto, inaugura a arquitetura. Modificando e deixando-se modificar pelo deserto, Borges inicia o exercício da alteridade. A partir de agora passa a existir um antes e um depois no tempo, um adiante e um atrás no espaço, determinados por um punhado de areia derramado. Desertos não permitem nenhuma direção ou orientação. Inscrevendo um signo, Borges cria uma possibilidade de identidade, em um só gesto mata o deserto e instala a arquitetura.

With his insignificant gesture of dropping some sand, Borges inaugurates architecture. In modifying the desert and thinking about it, the place is not the same anymore; it has been transformed by human hands and mind. If one understands a Desert as a non-architecture or a pre-architecture, due to the absence of reference, one should realize that it is impossible to take any position or direction there, since there is no other sign to reference. Borges, with his gesture, inaugurates architecture. In modifying and in being modified by the desert, Borges starts the alterity exercise. Now, there is a before and an after in time, a behind and an ahead in space, marked by some dropped sand. The desert does not allow identity, does not allow direction neither orientation. In inscribing a sign, Borges creates the possibility of identity, killing the desert and installing architecture.

Este es el laberinto de Creta. Este es el laberinto de Creta cuyo centro fue el Minotauro. Este es el laberinto de Creta cuyo centro fue el Minotauro que Dante imaginó como um toro con cabeza de hombre y en cuya red de piedra se perdieron tantas generaciones. Este es el laberinto de Creta cuyo centro fue el Minotauro que Dante imaginó como um toro con cabeza de hombre y en cuya red de piedra se perdieron tantas generaciones como Maria Kodama y yo nos perdimos. Este es el laberinto de Creta cuyo centro fue el Minotauro que Dante imaginó como um toro con cabeza de hombre y en cuya red de piedra se perdieron tantas generaciones como Maria Kodama y yo nos perdimos en aquella mañana y seguimos perdidos en el tiempo, ese otro laberinto.[5]

This is the labyrinth of Crete. This is the labyrinth of Crete whose center was the Minotaur. This is the labyrinth of Crete whose center was the Minotaur that Dante imagined as a bull with a man's head in whose stone net so many generations were as lost as Maria Kodama and I were lost. This is the labyrinth of Crete whose center was the Minotaur that Dante imagined as a bull with a man's head in whose stone net so many generations were as lost as Maria Kodama and I were lost that morning, and remain lost in time, that other labyrinth.[5]

Borges tece uma narrativa circular e sem fim para nos trazer a imagem do Labirinto, não apenas visual mas sonora e textualmente. A cumulativa adjetivação poderia continuar ad-infinitum, mas Borges transforma o labirinto espacial em outro cronológico, fechando a espiral da narrativa e nos levando de volta ao começo, para que façamos inúmeras vezes o percurso do texto. Uma vez perdidos nas malhas de palavras do texto ou nos corredores de pedra do espaço, no verdadeiro labirinto ou nas infinitas estruturas de significação, não há nada que possamos fazer a não ser percorrê-los eternamente. Não havendo saída para tal Labirinto, interessa o exercício de arqueologia cotidiana na eterna busca por significados. Arquitetura, inaugurada pelo derramamento de um punhado de areia, multiplica gradualmente os signos referenciais até aproximar-se de um Labirinto. A cidade nascera no Deserto, e crescera labirinticamente para depois morrer na eufórica virtualidade dos signos acelerados, na impossibilidade de qualquer comunicação. Como nos lembra o próprio Borges, "pensar é esquecer as diferenças, é generalizar, abstrair. No mundo saturado de Funes não há nada além de detalhes."[6] *Agora na direção contrária, a arquitetura acontece quando se inserem diferenças nos espaços saturados, redundantes e repetitivos da cidade.*

Borges weaves a circular and endless narrative to bring us the image of the Labyrinth not only visual, but textually and soundly in his report. The addition of new adjectives to the labyrinth's space could run ad-infinitum, but Borges, transforming a spatial labyrinth into a chronological one, closes the spiral narrative and sends us back to the beginning so that we run the text again and again. Lost in the nets of stones or words, into a real labyrinth or into the endless structure of meaning, one can do nothing but run through it. It doesn't matter if there is no way out of this Labyrinth, but rather the exercise of quotidian archaeology on the endless search for meanings. Architecture, inaugurated by the act of dropping sand, gradually multiplies the referential signs, becoming a Labyrinth. The city was born from the desert and grew labyrinthically, to die in the virtual giddiness of accelerated signs, in the impossibility of communication. As Borges reminds us, "to think is to forget a difference, to generalize, to abstract. In the overly replete world of Funes (the one who never forgets) there where nothing but details, almost contiguous details."[6] The direction is now the opposite and architecture happens when we insert differences in the crowded, redundant and repetitive urban spaces.

Quando o paradigma modernista começou a mostrar sinais de exaustão no final dos anos 60, o principal argumento em favor de sua superação criticava sua excessiva homogeneidade, limpeza e falta de expressão. Arquitetura moderna, diziam, carecia referências, era plana e chata como um Deserto. A resposta, mais tarde batisada pós-modernismo, pretendia principalmente adicionar aos edifícios todo

When the modernist paradigm was showing signs of exhaustion in the late 1960s, the main argumentation for its overthrow regarded homogeneity, cleanness, colorlessness. Modern architecture was said to lack references, to be flat and boring as a Desert. The answer, later called post-modernism, aimed mainly at adding many kinds of referential signs to the act of building. Survivors from the CIAM

tipo de referências. Sobreviventes do naufrágio do CIAM,[7] talentosos arquitetos transformaram sua forma de projetar, colando estrategicamente signos vários sobre estruturas ainda modernistas. Assim procedendo, foram capazes de desenvolver estilos pessoais que serviram como âncoras[8] no meio das turbulentas águas arquiteônicas. Como nos lembra Diane Ghirardo, "reafirmando o poder da forma bem como o deles mesmos como arquitetos, ao mesmo tempo em que ridicularizavam as aspirações utópicas dos primeiros modernistas."[9] A desejada complexidade poderia ser facilmente manipulada para que se alcançasse significativas contradições, e as inúmeras citações coladas aos edifícios empurravam a cidade para perto da idéia de Labirinto. Um Labirinto de identidades artificiais, no qual somos forçados a procurar deslocamentos ou rupturas dentre monótonas imagens urbanas que, como vitrines de shopping center são sedutora e ridiculamente idênticas. Uma tempestade cerebral, exacerbada irradiação de significados artificiais que deveriam provocar alguma identidade, mas incapazes de articular algo mais que apenas anti-modernismo, passa diretamente de um desértico tardo-modernismo para um labiríntico pós-modernismo. Arquitetura se depara com o Labirinto.

(Congress Internacionale d'Architecture Moderne) sinking tragedy, talented architects transformed their practice with the strategy of adding referential signs to modernist structures. By doing so they where able to develop personal styles that served to anchor themselves in the troubled architectural waters. As Diane Ghirardo reminds, "reasserting the power of form along with that of themselves as architects, at the same time that they were scoffing at the utopian aspirations of early modernism."[7] The desired complexity would be manipulated in order to achieve meaningful contradictions, and the innumerable citations attached to the buildings would push the city towards the idea of a Labyrinth. A Labyrinth of artificial identity where one is now forced to search for dislocations in the monotonous urban image that, like windows in the shopping mall, are colorfully and delightfully the very same. A brain-storming, overwhelming radiation of artificial signification that should allow some identity to happen failed to articulate anything beyond anti-modernism; it went from the Desert-like, late modernism straight to Labyrinth-like, historicist, post-modernism. Architecture faced the Labyrinth.

As respostas à falta de significado modernista variaram desde as manipuladas complexidades de Robert Venturi, passando pelas citações coloridas de Michael Graves, e chegando enfim às geometrias distorcidas de Peter Eisenman. A diferença entre Eisenman e os dois primeiros está no completo abandono de qualquer referência externa, cujo objetivo é um processo de criação isolado mas internamente coerente. Se o pós-modernismo labiríntico acreditava no poder de signos colados, Eisenman nega qualquer possibilidade de significação além dos limites do formalismo, insistindo na supressão de qualquer referência à realidade externa. Como num Deserto projetado, arquitetura deconstrutivista pretende abolir toda e qualquer referência espaço-temporal, para que possamos reconstruí-las, individual e provisóriamente. Contudo, o efeito alcançado é mais frustrante que provocante. No meio de paredes fragmentadas, o espaço percebido é muito mais calmo que o esperado. Toda energia e movimento parece ter acontecido no passado, e o resultado lembra mais um Deserto pós-apocalíptico. Tudo é estranhamento num contexto de identidade natimorta. Arquitetura se depara com o Deserto.

The responses to modernist poverty of meaning went from Venturi's manipulated complexity to Graves' colorful citations, and finally to Eisenman's distorted geometry. The shift from the two former to the latter is the complete abandonment of any external reference, towards an isolated but internally coherent design process. If the Labyrinth-like post-modernism believed in the communicative power of attached signs, Eisenman denies the possibility of significance beyond the limits of formal manipulation and, instead, stands for the very displacement of any reference to reality. Like a designed Desert, deconstructivist architecture pretends to take away all spatial and temporal references so that one can re-construct them individually and ephemerally. However, the effect achieved is frustrating rather than provocative. In-between fragmented walls the perceived space is calmer than expected. All the energetic movement had already occurred and the resultant image sounds more like a post-apocalyptical Desert. Everything is strangeness within the newborn identity. Architecture just faced the desert.

Qual das duas metáforas nos serve melhor como roteiro para a flutuante arquitetura contemporânea? Em qual direção se movem as imagens urbanas? Nas desertícas arquiteturas deconstrutivistas, como nos lembra Borges, a possibilidade de alcance de alguma

Which one of the two metaphors serves better as a guide-plan for contemporary floating architecture? Towards which one is the urban image moving? With the Desert-like deconstructivist architecture, as suggested by Borges, the possibility of meaning

significação se esconde no solo. Acumulação de poeiras e detritos, marcas de tempos passados silenciosamente decantados, à espera de alguém que os desenterre e decifre. Nas labirínticas arquiteturas pós-modernas, Borges uma vez mais nos mostra que a possibilidade de significação paira no ar. Ondas de rádio, repetição fívola e redundante de palavras, excesso de referências, fantasias obscenas de TV a cabo, flashes sequenciais de som e imagens. Em ambas as estratégias, uma arquitetura que se queira significativa não pode ter dimensão temporal. Como nas ficções Borgianas, Significado é apenas um infinitésimo instante que separa passado e futuro, permitindo que duas realidades se encontrem. O Deserto Borgiano encontra o Labirinto Borgiano no exato instante em que ato instintivo de habitar encontra o ato inconsciente de consumir, um satisfazendo e dando forma ao outro. A cidade real, com seus paradoxos e contrastes, poderia servir muito melhor como inspiração, substituindo com vantagens os abstratos Desertos e Labirintos. A cidade, certamente, é também um ponto de encontro infinitesimal onde Desertos se esbarram em Labirintos. Cada fragmento da cidade, híbrida e impura, guarda mais estórias que qualquer história, mais energia que qualquer conceito puro e abstrato. Ao invéz de mirar-se nos extremos conceituais, a arquitetura contemporânea deveria voltar-se para a urbanidade, sua própria manifestação condensada. Noutra estória, Borges descreve o Deserto como um perfeito Labirinto, um espaço do qual não se pode escapar porque ali "não há escadas para subir, não há portas para forçar, não há galerias a percorrer nem paredes a bloquear seu caminho."[10] Na cidade, o Deserto encontra o Labirinto e a arquitetura deveria aproveitar as possibilidades geradas por tão rico encontro. Mas esta é apenas outra estória.

*1. Jorge Luis Borges. "Desierto," **Obra Poetica,** (Buenos Aires: Emece, 1977). p. 623. 2. Jorge Luis Borges. "Labyrinth," **In Praise of Darkness,** translated by N. Giovanni, (New York: E.P. Dutton, 1974). p. 39. 3. Italo Calvino. **Invisible Cities,** (New York: Harcort Brace Jovanovich, 1974). p. 42. 4. Jorge Luis Borges. **Atlas,** translated by A. Kerrigan, (New York: Brooks, 1985). p. 82. 5. Ibid., p. 60. 6. Jorge Luis Borges. "Funes, the Memorious," **A Personal Anthology,** translated by A. Kerrigan, (New York: Grove Press, 1967). p. 35 43. 7. A partir dos anos 30, percebe se dentro dos CIAM uma divisao entre os chamados formalistas (preocupados com a estética) e os socialistas de outro (preocupados com a questão social). Com a crise do modernismo e o fim dos CIAM, os socialistas naufragaram levando leme e bussola (direcionamento social), enquanto os formalistas se agarraram ao material flutuante (processo de projecto) e sobreviveram vagando ao sabor dos ventos. 8. O desenvolvimento de "assinaturas" pessoais permitiu que cada arquiteto se fixasse em meio a um oceano de tendências, funcionando como uma ancora, um estabilizador para vencer as correntes (marinhas ou estéticas). 9. Diane Ghirardo. **Architecture After Modernism,** (New York: Thames and Hudson, 1996), p. 26. 10. Jorge Luis Borges. **Atlas,** translated by A. Kerrigan, (New York: Brooks, 1985). p. 88.*

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acquiescence lies on the land. Dust accumulating, signs of times past, silently composed and residing, waiting for someone to dig and decipher. With the Labyrinth-like post modernism, as also suggested by Borges, the possibility of meaning acquiescence lies in the air. Radio waves, the giddy virtuality of a repetitive and redundant world, the excess of references, the obscene fantasy of cable TV, flashes of sequential sounds and images. In both strategies, a meaningful architecture cannot have any temporal dimension. Like in Borges' fiction, Meaning is just an infinitesimal instant that divides past and future and allows for the two realities to be joined. Borges' Desert met Borges' Labyrinth where the instinctive act of sheltering meets the instinctive act of consuming, one satisfying and forming the other. The real city, with its paradoxes and contrasts, could be a more powerful inspiration in substitution for the pure virtuality of Deserts and Labyrinths. The city, indeed, is the infinitesimal meeting point where the Desert meets the Labyrinth. Every little fragment of the hybrid and impure city contains more story, more history, more energy than any pure abstract concept. Instead of looking for its ideal extremes, contemporary architecture should turn towards its condensed manifestation, the urban culture. In another story, Borges describes the Desert as the ultimate Labyrinth, an inescapable place where "there are no stairs to climb, nor doors to force, nor weary galleries to wander, nor walls to block your way."[8] In the city, the Desert meets the Labyrinth and architecture should take advantage of such encounter. But that's just another fictional story.

1. Jorge Luis Borges. "Desierto," **Obra Poetica,** (Buenos Aires: Emece, 1977). p. 623. 2. Jorge Luis Borges. "Labryinth," **In Praise of Darkness,** translated by N. Giovanni, (New York: E.P. Dutton, 1974). p. 39. 3. Italo Calvino. **Invisible Cities,** (New York: Harcort Brace Jovanovich, 1974). p. 42. 4. Jorge Luis Borges. **Atlas,** translated by A. Kerrigan, (New York: Brooks, 1985). p. 82. 5. Ibid., p. 60. 6. Jorge Luis Borges. "Funes, the Memorious," **A Personal Anthology,** translated by A. Kerrigan, (New York: Grove Press, 1967). p. 35-43. 7. Diane Ghirardo. **Architecture After Modernism,** (New York: Thames and Hudson, 1996), p. 26. 8. Jorge Luis Borges. **Atlas,** translated by A. Kerrigan, (New York: Brooks, 1985), p. 88.

All translations by author unless otherwise noted.

Boolean Contradiction

Greg Hanson

The work presented here was completed in Craig Scott's Spring Studio, 1997, at the College of Architecture + Urban Planning at the University of Michigan.

This studio will engage questions of fit between city, building and use, between program and envelope; between solid and void. It has been argued that the American city fosters a looseness of such fit. If so, can this offer constructive tactics for developing socio-spatial models.

Three kinds of use – one space of thought (furniture design), one space of production (furniture prototyping), and one space of display (exhibition of furniture to public and prototypes to potential manufacturers) – will be assembled in the city of Ann Arbor. As a means to engage the city through an architecture of multiple constituencies and experiences, the formation of a spatial – programmatic framework becomes a valuable instrument.

The studio will not proceed however from the normal conventions of site and program analysis, but through a methodological series of modeling and drawing exercises. Initial investigation will aim to find new spatial and material possibilities in this convergence of three volumes. Subsequent investigation will aim at implanting this volumetric schema into the circumstances of the site and the life of the city. How these three spaces relate to each other – their adjacency, separation or servicing – can generate particular flows of movement, new conditions of edge, boundary, and overlap (both in plan and section) as well as new conditions of skin/cladding, spaces in between and connections to site.

In taking a position toward the question of looseness of fit, the student will determine the degree to which the programmatic topology they develop dictates the physical nature, the configuration and tectonics of their architecture; or whether the building shell begins to take on a logic of its own; or rather, how strongly the influence of the site might inform the work.

3 stages:

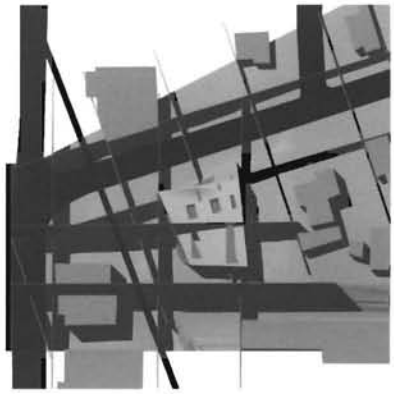
- *the double negative, the triple volume and the multi-functioning void*
- *the interpretation of site*
- *the interdependent program, the variegated envelope and the multiplicitous surface*

– Craig Scott, Studio Brief, 1997

double negative:

Two voids intersecting at 17 degrees within a 4"x8"x16" block.

Initial studies explored the double negative by treating voided space as a solid. The external form of the negative was created by combining two distinct solids that had been transformed through simple operations. The negative was then made by subtracting the hybrid object from the 4"x8"x16" block. Inherent in making a double negative is a duplicitous reading of one surface simultaneously forming two spaces. In addition, each space acts on, and reacts to, the other space, as well as to the volume of the block, thus creating a new hybrid space. By working with the voids as solids, it was possible to manipulate the form to create a completely scaleless and siteless space. The process of making not only promoted the double negative as a spatial construct for future use in the studio, but also inspired a methodology of critical inquiry: manipulation of the given elements, union of these transformed elements to form a hybrid, and, finally, the intersection of this hybrid with a given context.



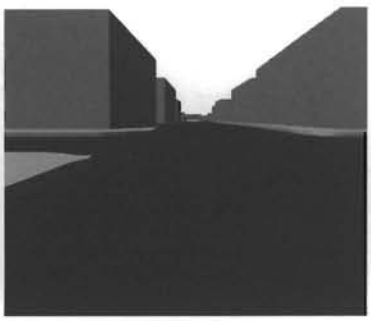
site:

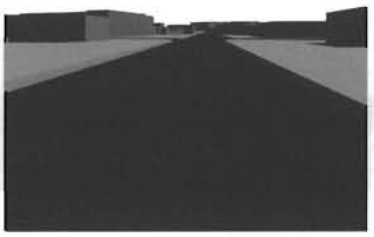
Corner lot at intersection of First and Liberty streets, Ann Arbor, Michigan.

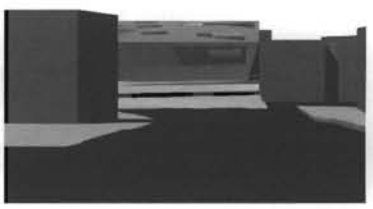
The site lies at the junction of urban and suburban densities in Ann Arbor, at the boundary between one grid and another, at the limit of one scale of building and another, at the edge between commercial, industrial, and residential occupancies. Evidence of these transitions around the vicinity of the site is apparent in many forms. Perhaps most obvious is the coexistence of two built morphologies on each side of the railroad (east edge of the site). Urban morphology is the perimeter block, fully built up to the sidewalk. Suburban morphology is the individual building, set back from the street with small front and back yards. Houses are set apart while commercial buildings tend to be party wall construction. Between these two distinct zones is a terrain of hybrid light industrial buildings which seem to fill the space between the others. Some of these 'in between' buildings have aggregated to the point of being the scale of full city blocks, but they exist outside the grid of downtown. Others are individual buildings that exist at the edge of downtown as objects, though of a totally different typology and scale from their residential analogs. In addition to these additive hybrid types are city blocks that are partially eroded and assume a figural quality similar to their aggregated counterparts.

There is also a distinct difference in spatial perception between moving through downtown and moving west of the railroad. Downtown is fairly dense and has a built edge along Liberty Street. Conversely, the suburb is more of a spatial field of individual buildings, rather than a voided corridor. The perspective from downtown is perceived as a space carved from a solid (one point perspective) while the view from the opposite direction is dominated by the ground plane with buildings set on top (two point perspective). The transition from one point to two point perspective is partially mediated by a change in elevation near the site. The rail is in a low swale in the local topography and allows for a brief realignment of visual perception when crossing.

As with other differences on each side of the railroad boundary, there is an underlying order of geometry which shifts as it passes through the site. The overall north/south grid which permeates downtown continues past the site, but Liberty Street is shifted off the grid and begins to define itself in opposition to the regularity of street blocks. The site itself holds a corner where the two spatial fields meet and the disruption of Liberty Street reinforces the reading that the site is in a zone of transition.







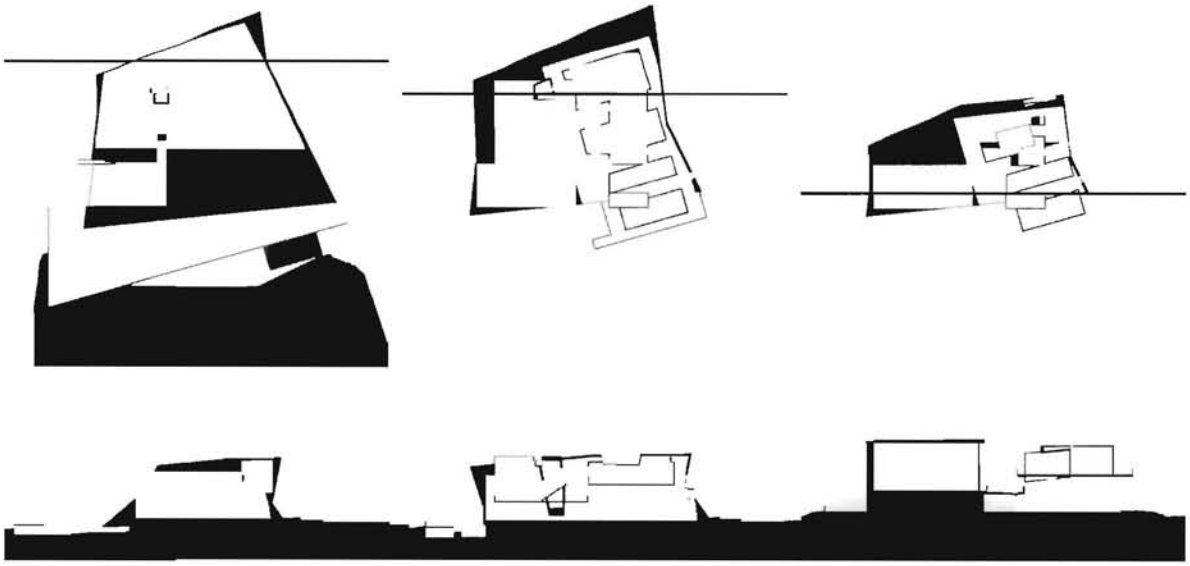
concept:

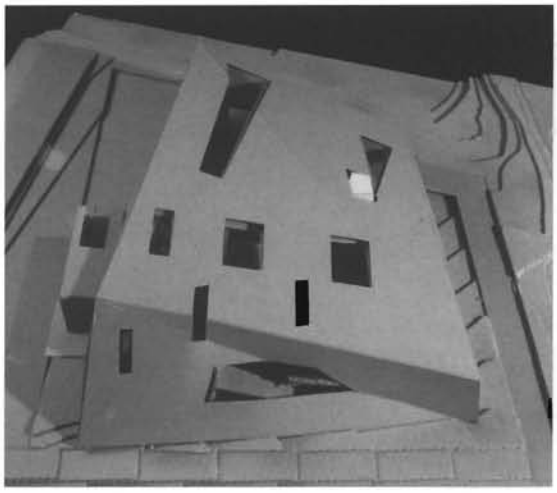
Assign programmatic volume to each given element (space of thought, space of production, space of display). Intersect programmatic pieces to form double and triple negatives (create multi-functioning space). Combine two morphologies of space-making (negative and positive) to create a new dynamic, hybrid space intimately linked to the process of its creation. Join the hybrid with the site to lock it into context.

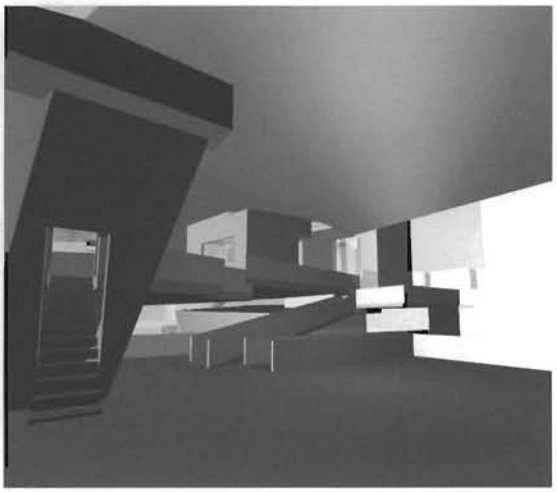
The generative morphologies are taken directly from studies of the site – negative, mass dominated space (downtown) and positive, object dominated space (suburb). The manipulation of these individual morphologies follows the methodology established by studying the double negative. The program configures the void to satisfy particular requirements with due consideration for adjacencies and sequencing. The largest spaces are required for working or viewing: the workshop, gallery, and administrative areas. The void is then created by subtracting a figured solid from a predefined shell as if the two were completely unconcerned with each other until the moment of meeting.

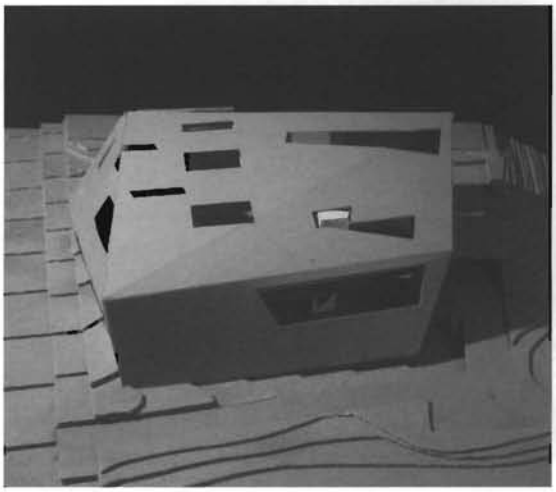
Next, the object spaces are not subtracted from a solid, instead, they are intersected shells. Ultimately, they are placed within the building envelope which has been carved out by the configured voids. By manipulating shells, instead of solids while still using the language of the double negative, the interior of the building becomes a hybrid of two morphologies.

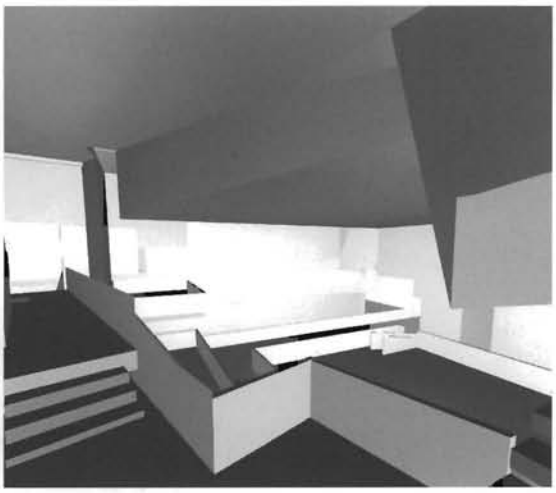
The disposition of the two morphologies within the building envelope and on the site is determined by site specific boundaries, edges, flows of movement, and adjacencies as well as manipulation of perspectival effects. The computer becomes the tool for designing within perspective views and for comparing traditional representations of section and plan to the overall design concept.

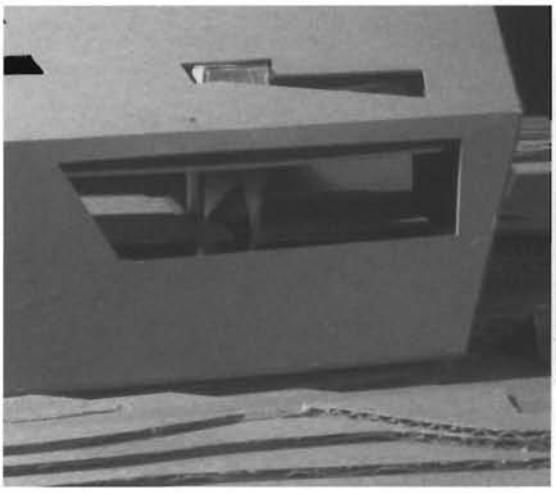


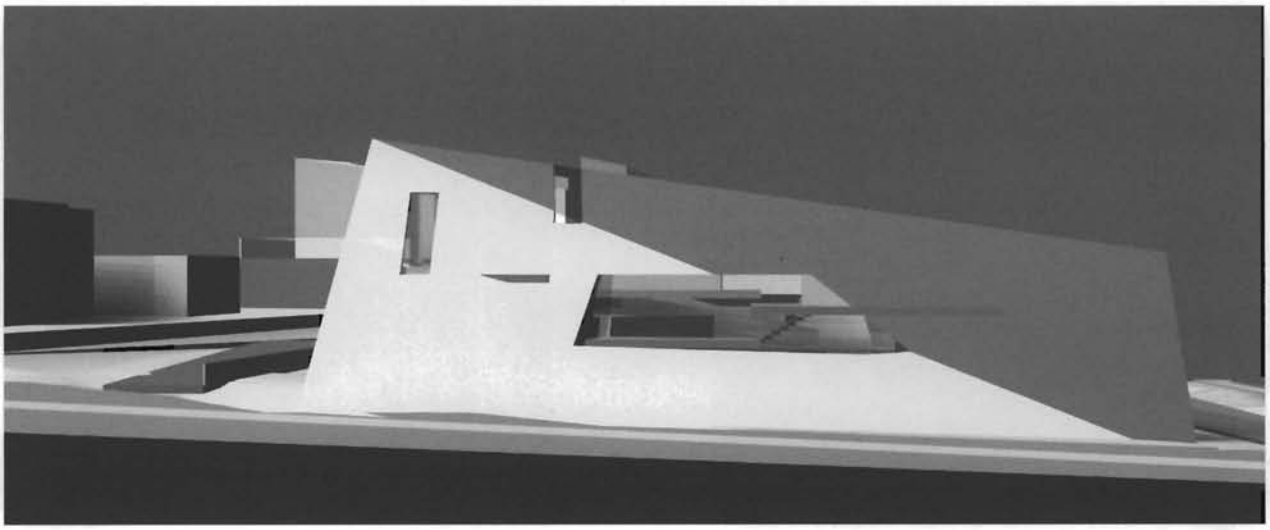


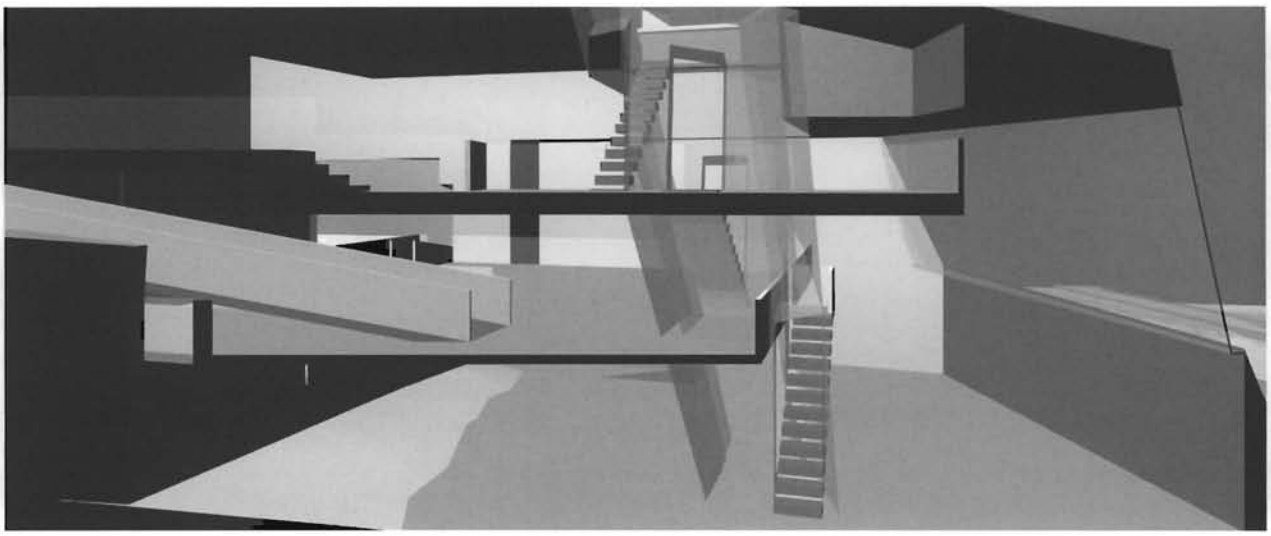












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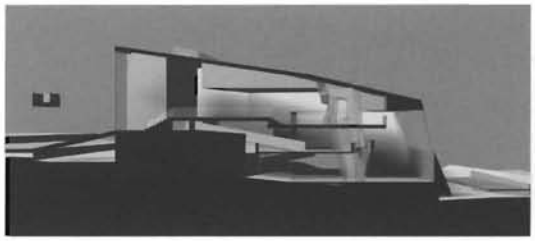
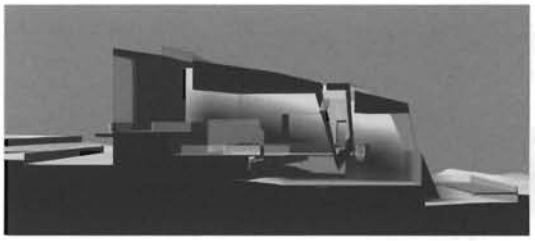
generation:



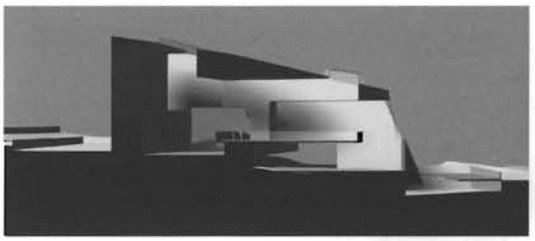
The first step in developing a formal language for design comes directly from the site specific conditions. It is generative and formative simultaneously. It is the basis for all other decisions. As with the double negative exercise, the initial assumption cascades into other moves; therefore, the methodology for physical development of the concept progresses rigorously from the first decision.

The east boundary of the site is marked by a large billboard which is visible for the entire length of Liberty Street. The building envelope, initially a rectangular block large enough to fit the program, is manipulated by a series of 'pointal' moves on the computer until it appeared flat. Perspective views are used to study the envelope while 'dragging' corners. Modifications of the envelope proceed until the building takes on the appearance of a vertical surface when seen from downtown. Additional development of the envelope accommodates other site specific boundaries and edges.



Through numerous studies it is apparent that the downtown facade could appear flat for an almost infinite number of geometries. However, site alignments and edges, and flows of movement limit the solution. In the end, by using a fixed set of of rigorous criteria, the building form becomes fixed and not simply an idiosyncratic solution, but one that is linked to and affected by its context. The methodology of manipulating the building envelope can be reproduced for any given site, but the form will ultimately be different.

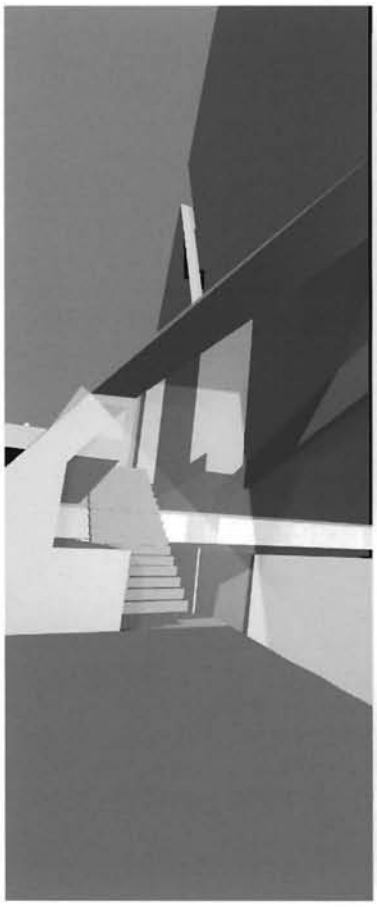
Once the envelope has been set, it remains fixed throughout the project. Openings in the envelope are made through intersecting it with internal spaces. Views into and out of the building as well as paths of movement are completely contextual and take advantage of site specific conditions. Internal space is developed by two methods: subtracting solids from the building mass, and placing intersected shells into the carved space. The space between these two types becomes becomes a hybrid, simultaneously additive and subtractive. Similar to the external manipulations, the exact location of subtraction and insertion reinforces site edges, boundaries, and flows of movement.

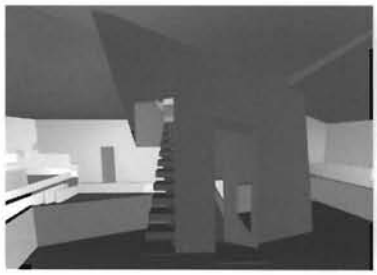


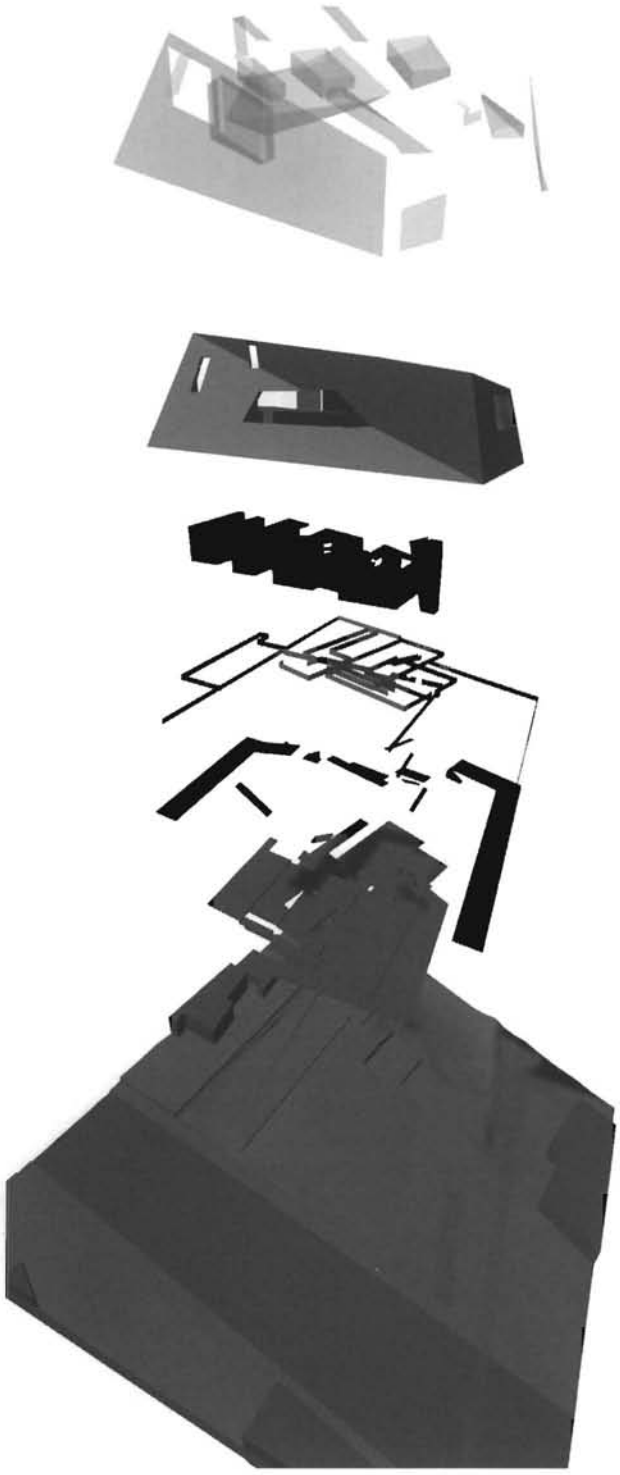
The negative, voided space of production is within the grid of downtown and develops its relationship to Ann Arbor through this alignment. The positive, object space of thought and the administrative offices run parallel to Liberty Street and views from the interior develop frontality with neighboring buildings. The gallery is formed by the meeting of these typologies. The hybrid of intersecting shells and voided mass becomes the public access gallery.

The play between one point and two point perspective refines spaces on the interior and informs how voids from the inside meet the envelope. Openings are integral to making the building as a whole, and explore the interior/exterior relationship between the two shells and the total solid. The envelope is analogous to the original study of the double negative, but it can also be read as two skins with a highly developed interstitial space.

Circulation space is interwoven with the program so as to take full advantage of changing perspective and the interior's relationship to the site and city. The main sequence of movement from Liberty Street through the gallery spaces creates a transition in geometry, scale, interiority, and use. The path is a sequence of thresholds followed by movement along edges. It begins perpendicular to the site, moves along the rear edge of the building, penetrates the building envelope at a point of thinness and transparency, moves along the gallery space, overlooks the production space, moves along the mass of the building at one side of the gallery, penetrates the envelope at a point of thickness, and ends on a terrace outside overlooking the city. The vertical circulation within the building is also a combination of movement along boundaries and through thresholds of form and use. The formal quality of the vertical stairs is seen as a genetic cross between shells and solids manipulated by perspective. Vertical movement from production creates a sequence of seeing the path and overlooking the path, passing through solid and void, ending at a roof terrace overlooking the city and the surface of the building envelope.







beginning:

The computer as a tool of boolean or binary operations is used to explore the possibility that one-to-one operations can create duplicity and even multiplicity. The computer plays an integral role in the process of designing and implementing the methodology of multi-negative/additive spaces as well as in representing those ideas. Common plans and sections are unable to provide a complete understanding of a building. Sections cannot tell the whole story of the spatial experience, but they can be used to explain the migration of formal typologies through the site. Perspectives must be constructed to fully explain the space and the sequence of movement. The ability of a computer to rapidly calculate perspectives and to make adjustments of plan and section while in perspective views is paramount to creating architecture which is hybrid, but not without context.

At its roots this project takes a position against lack of context or looseness. The looseness which gives rise to reading the zone of the rail as transitory or in between is directly challenged by combining the two morphologies in the building. In fact, it is the interconnection/interdependency of these two systems which locks the building to the site. The specificities of site inform a methodology which yields a design, but the building is more than a statement of fact, it is a hybrid. It is more than an expression of transition, it is a connection. The terrain of looseness between downtown and suburb serves to inspire dynamic spaces and forms. It is the looseness itself which can be harvested to create new flows, new edges, and new boundaries. The transition does not have to be seen as the place that is other or between. It can be interpreted as something in and of itself which is powerful and useful and exciting.

Curitiba: Hope for Developing Countries?

June Komisar

The crush of increasing urbanization is one of the most unmanageable problems of developing countries. Brazil's major cities are struggling to survive this phenomenon and the problems inherent to urban growth. As an architect, I optimistically maintain that proper planning can solve many problems associated with increased urbanization. My attitude was reinforced by Curitiba, Brazil's efforts to solve the problems of urbanization; unemployment, population growth, pollution and the quality of life, by anticipating impending changes while planning its infrastructure.

Curitiba is not known for its vistas or its culture. It does not possess a Baroque opera house like Belém or extraordinary architecture like Ouro Prêto. Curitiba is known for its social agenda. It is concerned with the social welfare of its people who live under enormous stresses of an inherited impoverished population (300,000 in the favela[1] [slum]) and the crush of population expansion. In an attempt to improve social welfare, Curitiba has been developing a physical and legislative infrastructure that has been regarded as a model for cities in the developing world. The following description and analysis of Curitiba, the "model of sustainable development," will attempt to reveal how successful the programs have been and how the infrastructure will fare in absorbing ever increasing loads of people and problems to come. This overview will describe the urban and regional planning of Curitiba. Decision-making by the planning sectors of Curitiba includes environmental concerns, population trends and economic factors. Reviewing the success and failure of Curitiba's ambitious programs can serve as a tool for assessing current conditions and for speculation about the future of urban spaces.

Today's Brazil began out of the transformation to democracy. In 1974 Tancredo Neves[2] led the democratic movement, culminating in his election to the presidency in 1985. The government under Neves was a government of compromise and conflicting goals. "Tancredo Neves was characterized by inconsistency, ambiguity and omission. For instance, his rhetoric about economic policy registered contradictory statements between reformist and conservative orientations."[3] Poverty issues and development are two of the foci which reformists and conservatives juggle. His contradictions were a result of concern for both the problems of poverty and the necessity of development. These issues are linked to population growth, increased urbanization, and limits to natural resources. Brazil has all of these growth problems. Population growth has been astronomical. In 1980 there were 70 million people in Brazil, 119 million in 1990 and over 157 million in 1995.[4] The Brazilian government projection for the millennium is a population of 165.7 Million.[5]

Curitiba incorporated in 1842 evolved into the capitol of Paraná. Curitiba is a city of over 2 million people. The population increased at a rate of 62% per year in the past five years. It may be growing so swiftly because it is a place of opportunity. Most immigrants come from the countryside, where 60% of the jobs pay less than minimum wage. Contrasted with statistics for the urban areas (with primarily industrial, service sector and trade jobs) where the average income is three to five times the established minimum wage, it is easy to see why people are migrating to the cities. The hope of a higher wage keeps them coming.

Not all migration happens for purely economic reasons. Rural areas have poor access to education.[6] The rural population is powerless as well as poor. The rural population is discriminated against, and has fewer educational resources. Chances for a better life come with a move to the city where education and better jobs await.

Race Class and Culture Paraná was a destination for immigrants from Europe between 1829 and 1929. About 130,000 settled in this state, some in Curitiba. The Euro-Brazilians are at the top of the economic ladder, where indigenous and African-Brazilians are not faring as well. Discrimination is a cause of this economic disparity; African-Brazilians with four to seven years of education earn half of what Euro-Brazilians earn with the same amount of schooling. For these poor Brazilians, living at the low end of the economic scale means a life expectancy fourteen years shorter than the life expectancy of the Euro-Brazilian population. Infant mortality is thirty percent higher.[7] As stated above, over 300,000 people live in the slums of Curitiba and the working poor are much of the rest of the population. These people have to get to work and go to the market somehow. They cannot hope to own a car. For these people, public transportation is a necessity. In the following paragraphs, I will note planning initiatives which address transportation, employment, housing and quality of life issues crucial to the well-being of Curitibans.

Urban Planning Both Ebenezer Howard's "Garden City" and the planning and the linear city concepts of Soria y Mata were concerned with public transit.[8] The Modern Architectural Research Group's (MARS) planning in postwar London designed around a central theme of public transportation with highways designed to be for buses only.[9] Elements of the MARS plan and Ebenezer Howard's plan can be seen in Curitiba.

Mayor Wilhelm and later Mayor Lerner and the Instituto de Pesquisa e Planejamento Urbano de Curitiba (IPPUC)[10] maintained high density development and public transit as priorities for many years. Lerner

articulated Wilhelm's policies by stating that "Memory is the identity of the city and transport is the future."[11] It is this legacy Curitiba enjoys today. I maintain that these planners were lucky to have a city that was compact and radial to work with from the beginning, as we will see below.

Town layout can affect transportation oriented schematism. Planners and theorists interested in the physical forms of cities have categorized city typologies. Cliff Moughtin divides city types into the central city, the star shaped city, the linear city, the gridiron city, the poly-nucleated city, the dispersed city, and the hybrid city. Regarding the gridiron city, Moughtin declared, "The grid plan... developed... as a means of accommodating the motor car is inappropriate for fulfilling the goals of sustainable development."[12] He advocated Renaissance radial symmetry, just what Curitiba seemed to already have before their planning efforts. Kevin Lynch divides city forms into three types of metaphors, The city to cosmos linkage (a centralized axis mundi), the city as a machine, and the city as an organism. Curitiba exhibits elements of all three forms of Lynch's metaphors. As a complicated 20th Century city, Curitiba can be said to share some of the qualities of several types of the typology listed above. It is becoming a polynucleated, star shaped city, overlaid on a centralized city.

This polynucleated star of Curitiba has five main transportation arteries, each divided into three parallel streets with car lanes and dedicated bus lanes. Zoning laws dictated a concentration of high density mixed use development along those routes and in nuclei which cross these major routes with feeder routes. Instead of the dendritic[13] organization of roads typical of auto era development, Curitiba has pedestrian scale elements that are connected by a matrix of road systems. The centralized city is surrounded by small neighborhoods. Neighborhoods as the IPPUC sees them, have amenities one would expect from a consciously mixed use planning effort. In contrast, Brazilia, the capitol city of Brazil, is zoned so each function is completely separate. Work, shopping, government and play each happen in separate districts.

Preservation and the City Core Historic preservation objectives are not achieved by laws but assisted by economic incentives. Rather than legislating that historic structures cannot be altered or destroyed, incentives make it profitable for the developer to build on another piece of land. The city lets the developer swap a historic property for a valuable piece of land outside the historic district where they can then build a new building. Beyond this coaxing not to destroy historic structures, I have no evidence that there is any economic incentive to restore historic structures and can only wonder about their condition. The underlying idea of preservation is sensible, but does a financially strapped city have the money to keep these structures standing? Buildings with charm and history create a sense of identity and a sense of belonging. This feeling of belonging and identifying with the city encourage people to frequent the central city. This increases business and safety.

In addition to a concern for historic preservation, the central city has twenty-four-hour (open) arcaded streets to encourage urban pedestrian activity. The city created car-less central city streets by holding painting festivities for children right on the roadway, blocking even the most stubborn traffic.

The Satellites In the 1970's Curitiba established an industrial city on the edge of town in order to attract businesses. The idea was to remove the low density sprawl of industry,[14] its pollution, and its traffic from the center of the city. Planners integrated bus routes to and from this industrial city in its layout. The problem of industry and its physical relationship to residential and mixed use settlements are crucial to the proper balance of employment with quality of life. Even in "The Jetsons"[15] their implicit answer to the problems of industry – pollution, space requirements, noise and traffic – was to raise houses onto poles (no structural or cost issues in cartoons), convenient to, yet away from industry below.[16] Their cartoon architecture is built upon the thought that the city below is not a suitable place to live. The "industrial city" assumes the same concept – convenience with separation – and executes it in a more down to earth way. Housing is separate from the industry, connected by dedicated bus routes providing quick, convenient access. You can perceive distance spatially, but you can also perceive distance temporally. The rapid bus artery in essence, closes physical distance by shortening commuter time.

The IPPUC bought land near the industrial city to be used as low income housing. Since the "value of land is largely determined by its proximity to transportation and other facilities."[17] Foresight or inside information the government had about the eventual development of the large industrial city enabled Curitiba to buy this convenient land at a cheap price. When Federal funding for low income housing was no longer available,[18] and the industrial city was in place, Curitiba began to develop this tract. Compania de Habitaçao Popular (COHAB),[19] the municipal housing corporation, helped the citizens to design and develop their (mostly owner built) houses. The worker's route buses provided access from COHAB housing to the factories. It was also anchored to the city center. One of the first projects in this tract was to build a bus station.

The Villa Rural The IPPUC incorporated a series of rural villages, satellites of the city, connected to Curitiba and the Industrial city by an artery bus route. The IPPUC conceived the "Villa Rural" to accommodate rural migrants who come to Curitiba with an agrarian lifestyle. The intent is to make use of the skills of these migrants while they are in the process of gaining access to the world economy. Village residents have enough land to continue rural farming practices. The village system appears to be a plan to keep the slums from growing with an influx of people lacking urban skills. The Inter-American Development Bank and the World Bank are providing funding for the village projects. So far, in the first five Villa Rural projects, each family was given a plot of five thousand square meters with a modest house. We will have to wait and see if these villages are fulfilling the IPPUC's original intent.

Transportation Curitiba is world renown for its efficient transportation system. As mentioned above, the transportation priorities of Jorge Wilhelm has made this possible, along with further efforts by Michael Lerner and a continuous planning effort by the IPPUC and the current mayor, Raphael Greca. The result is a public planning effort with privatized bus companies running the system. They integrated the preexisting road system with plans based on a belief that modern cities need to make public transportation a priority. Five wide avenues introduced in a 1940's building scheme led from the outskirts of town into the central business district. These planners turned the avenues into major express bus routes into the city center. The buses are very efficient due to dedicated lanes and special bus stops that aid in rapid, efficient loading. The star formation, reinforced by the industrial city and new urban settlements on the outskirts of town is serviced by concentric routes that connect residential and industrial areas. This interconnecting physical arrangement is quite different from the dendritic car-and-truck oriented roads so often designed for new development projects both in developed and in developing countries. In addition, the IPPUC gave priority to the busses instead of cars. Bicycle paths are in the process of being linked so they too can be transportation routes. The center of the city has pedestrian only areas that reinforce bus usage due to pedestrian exclusivity.

What makes this whole arrangement work is a special bus shelter that mimics the convenience of subway stations. The bus stop tube accommodates the disabled, the elderly and all paying customers, setting them up for direct loading into the bus before it arrives. With payment and access accomplished, time for each stop is reduced and the actual average speed of the bus increases dramatically. In the central business district, bus terminals were sited next to the pedestrian central city, making it more convenient to ride and walk than to drive. Pedestrian areas actually helped business as it relieved congestion. The bus terminals themselves are the key to the system's success.

As Lerner explains it, the conventional wisdom is that cities the size of Curitiba need a subway system. With limited resources, they devised the bus system that acts like a subway. Special articulated busses, 'ligerinho" with accordian joints help the system carry four times as many people as Rio's subway system. 23,000 people are transported per hour at an initial installation cost of $200,000 per kilometer for most routes and $1.3 million for the five major arterial routes. The cost of the average subway averages $100 million per kilometer (1993 prices).[40]

Planning and payment structuring are part of the secret to why the bus system works. Planning policy-locating high density housing and business along major routes-is partly responsible for the high volume and the profitability of the system. Productivity incentives add to the efficiency of the system. This is essential, because the 10 private bus companies could collude to fix poor efficiency standards without these built-in incentives. As a result, in 1993, nearly 30% of car owning Curitibans rode the bus. Nearly two thirds of the entire population uses the bus system. Conveniently

located residential areas and efficient performance makes the bus system self supporting and efficient, a necessity for a large city without resources to subsidize the system.

The Environment Curitiba's reputation as an eco-city began when flooding problems were solved in a cost effective way: turning flood plains into parks instead of allowing building to occur in flood zones. This was not a high tech expensive solution, and the solution created needed open space. There is now over fifty square kilometers of open land per resident. Environmentally friendly solutions seem to result in a win win partnership occurring almost as a byproduct of solving a different problem. Solutions to one problem, such as flooding, become connected to solutions for another problem, such as the creation of open space. Reuse of buses as classrooms and the reuse of telephone poles as building materials are only two of the ways Curitiba uses this system of solving two problems at once. The way to recycle a used bus becomes the way to create new classrooms.

Resources routinely discarded in developed countries are reused in Curitiba in creative ways. For example, Curitiba approached the garbage problems that face every city with a labor intensive rather than capital intensive approach. Mechanical garbage separation plants are expensive facilities. Curitiba has decided against investing in them. Instead, they are solving unemployment and waste problems simultaneously by using people for trash separation rather than machines. Labor intensive, rather than mechanical recycling enables the poor to sell recyclable scrap to independent or government scrap dealers. The government also swaps a bag of garbage from the favela for food, bus tokens or school notebooks, simultaneously helping the poor and cleaning up potential rodent problems in the favela. "All clean" initiatives hire the retired and unemployed to clean littered neighborhoods.

Just as the bus system is privatized, as I mentioned above, the recycling program is privatized. Privatization may be the downside of the recycling program. Privatized recycling companies practically enslave collectors by lending them a collection cart and a shack to live in. Collectors are then forced to sell to those lenders and cannot negotiate a fair price. These workers are starting from nothing. They are not in the position to negotiate and they are open to exploitation.

Conclusion In Dr. Hemalata Dandekar's lectures on modes of production,[21] she points out that the IMF and the World Bank encourage investment in technologically advanced industry. Limited resources mean that investment in advanced technology would be in leu of providing infrastructure improvements for the poor. Similarly, Curitiba has invested heavily in the infrastructure of the industrial zone in order to attract technologically advanced industry. This investment occurs while about 300,000 people in Curitiba do not have basic sanitary services. As discussed earlier, basic needs are pressing issues for these poor people. Curitiba sacrifices quality-of-life improvements for the poor for a big picture approach with a goal of long term prosperity from lucrative industry. It seems likely that powerful

coalitions of businesses are profiting nicely from a government policy that favors their interests. Curitiba needs to assess whether the bus companies and the trash recycling companies reap enormous profits at the expense of the general citizenry.

The strategies outlined above show that Curitiba is ready to absorb a large rural migration. Curitiba's planning demonstrates both the good and bad elements of privatization. Sensitive urban planning decisions like retaining the historic city, creating a pedestrian urban core, and developing an extensive network of pubic transportation are attempts to position the city for the future. Whether Curitiba is farsighted enough to be able to absorb the influx of poor, disadvantaged migrants remains to be seen, but the city seems to be facing these problems head on and tackling them in innovative ways.

One thing we can see clearly in this overview is that the city form has a synergistic relationship with the transportation system. Each needs to be planned with the other as they do not function well separately. Curitiba achieved this by grouping commercial, industrial and residential development in tight enough clusters to make busses, and bicycles efficient means for travelling from one cluster to another. Above, I label the city of Curitiba a polynucliated star shaped city. Does this form (five arteries radiating out from a core with edge communities and satelites) indicate that cities must be in this form to have a good foundation for a transportation system such as this? Research into differently formed cities with a similar planning agenda can give us more insight into this matter.

In defense of Curitiba's infrastructure priorities, the bus system benefits both the poor and the industrial base. While many developing areas introduce a dendritic road system that does not interconnect, Curitiba's transportation provides a network for people to work, play and have the options that come with mobility. It is also an open system that accepts further growth, crucial to the expected influx of people. Curitiba may be an example of Cliff Moughtin's notion that "the traditional grid has little relevance for the sustainable city of the 20th century."[22]

In Dr. Dandekar's account of Sugao, India,[23] she demonstrates that one of the most urgent needs of the poor is access to work, whether work means a large enough piece of land for farming or a city job. A full day's bus ride to the city is not adequate access to keep a family together or to maintain close enough contact to one's community to avoid detachment and homesickness. Curitiba's strength is in the provision of that access and the continued planning for that access. To quote Rabinovitch and Leitman "Perhaps the most important lesson is that top priority should be given to public transport rather than to motorized vehicles."[24] Access to jobs, to education, to community and culture are essential components of a high quality of life. Curitiba has made considerable effort in providing those resources.

1. McKibben, Bill. **Hope, Human and Wild: True Stories of Living Lightly on the Earth.** (Boston, New York: Little Brown, 1995). p. 59. **2.** Martinez-Lara, Javier. **Building Democracy in Brazil, The Politics of Constitutional Change. 1985-1995,** (USA: St Martin's Press, 1996). p. 41. **3.** Ibid., p. 41. **4.** Schneider, Ronald M. **Brazil: Culture and Politics in a New Industrial Powerhouse.** (Colorado: Westview Press, Inc. 1996). p. 139. **5.** Institute Braziliero de Geographia e Estatistica, http://www.ibge.org/english/Brasil/ brazil.htm **6.** Schneider, p. 180. **7.** Schneider, p. 182. **8.** Moughtin, Cliff. **Urban Design: Green Dimensions,** Oxford, Boston: Butterworth Architecture, 1966. p. 65, 101, 106. **9.** Ibid., p. 78-81. **10.** Instituto de Pesquisa e Planejamento Urbano de Curitiba (IPPUC) – Research and Urban Planning Institute of Curitiba) **11.** McKibben, p. 68-9. **12.** Moughtin, p. 95. **13.** Robert Campbell referred to tree-like development patterns as 'dendritic' in his lecture at the University of Michigan, September 12, 1997. **14.** It has always intrigued me that even elevator manufacturing facilities are in one story buildings. **15.** The Jetsons™, Hanna-Barbera Productions, Inc. © Cartoon Network, Inc. **16.** Woolery, George. **Childrens Television, The First Thirty Five Years 1946-1981,** Metuchen, NJ: Scarecrow Press, 1983. p. 152-154. **17.** J. Rabinovitch, J. Leitman, "Urban Planning in Curitiba," **Scientific American,** March 1996. p. 49. **18.** The National Housing Bank collapsed in 1985. **19.** McKibben p. 90-92. **20.** Rabinovitch, Leitman, p. 48-9 **21.** Hemalata Dandekar, lecture on modes of production, University of Michigan, October 1, 1997. **22.** Moughtin, p. 95. **23.** Dandekar, Hemalata. "Men to Bombay, Women at Home, Urban Influence on Sugao Village," **Deccan Maharashtra, India, 1942-1982.** University of Michigan, 1986. p. 219-31. **24.** Rabinovitch, Leitman, p. 53.

Vertical / Horizontal

Janet Fink

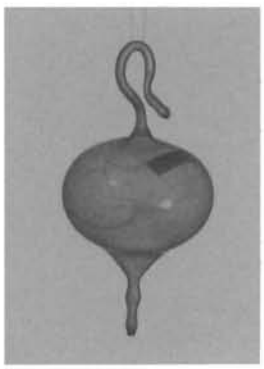
Fifth Avenue Penthouse 1992-1994
855 cu. ft. Air of New York

Marwan Al-Sayed and Janet Fink Architects
New York, New York

The initial ideas for this project revolved around the client's desire for intimacy and seclusion in the midst of the city. Located on the top floor of a pre-war building, with potentially unlimited views of Manhattan and Central Park, the apartment was a series of bland white rooms with small windows. Exploiting the hidden potential of the penthouse as a relatively freestanding structure, the renovation sought to open the exterior walls to potential views, allow the play of light to determine the character of each space, create a serene refuge from the cacophony of the city, and establish a sense of antediluvian grandeur through space, proportion, detailing, and materials.

Somewhat inspired by Paul Klee's painting **The Golden Fish** (1925) and his still lifes in which several bright objects float on a dark background, the conceptual idea for the penthouse renovation became a series of disparate volumes (zones of intensity) floating in a dark void/space/field. The blue/black walls of the surrounding building mass form the background for a few essential objects: fireplace, media cabinet, Sun Court.

The Golden Fish, Paul Klee, 1925. Oil and watercolor on paper, mounted on cardboard, 50 x 69 cm; Kunsthalle, Hamburg.



Ready-Made 50 cc Air de Paris, Marcel Duchamp, 1919. Philadelphia Museum of Art: The Louise and Walter Arensberg Collection.

An ephemeral container, the Sun Court captures and holds light, air and nothingness within the space of the apartment. Like Duchamp's **Ready-Made 50 cc Air de Paris** (1919), it is anti-function, a receptacle, void. Constructed of bronze and glass, the Sun Court establishes a vertical and mysterious connection to the sky (like a clearing in a forest) and invites the elements into the life of the apartment. Open to the sky, the Sun Court allows sun, rain, and snow to fall between the glass walls of the bronze structure and physically separates dining and living spaces. The Sun Court is also a device for measuring light and time: As an aperture to the sky, the Sun Court establishes an axis with the movement of the planets, and creates a sense of contact with the natural world, so remote from the hyper-built city. This void, descendant of roman atria, exaggerates the difference between inside and out, yet allows one to flow into the other, one to be contained within the other.

Architects: Marwan Al-Sayed and Janet Fink **Design Team:** Marwan Al-Sayed and Janet Fink with Andrew Berman, Tova Cubert, and Dan Nation **Structural Engineer:** Gilsanz, Murray, Steficek Engineers **Mechanical Engineer:** Ambrosino, De Pinto, Schmieder Inc. **Landmark Consultants:** Higgins and Quasebarth **Lighting Designers:** Johnson Schwinghammer **Acoustical Engineers:** Cerami & Associates **General Contractor:** Clark Construction Co. **Carpentry:** Ted Levine **Electrical:** CJJ Electric **Plumbing:** Anchor Plumbing **Operable Skylight:** Rollamatic Skylights **Wood Flooring:** Val Floors **Acoustic Ceiling:** Pyrock **Stone:** Lorenzoni Marble and Granite **Plaster:** Stucco Lustro Veneziano **Sun Court:** Hand Fabrication **Hardware:** Edward R. Butler Inc. **Doors Woodwork:** Mead and Josipovich Inc. **Cabinetry:** Altura Studios Inc. **Stereo Cabinet Metalwork:** Kamikaze Inc. **Painting:** John Milche **Drapery:** DFB Sales, Inc. and Edward R. Manzi **Glass:** John Depp Inc. **Windows:** Hope's Steel Windows **Window Installation:** Skyline Windows **HVAC:** AA Cold Air **Telecommunications:** Bank Data Bank Inc. **Stereo Equipment:** Innovative Audio Inc.

Photo: Bill Timmerman

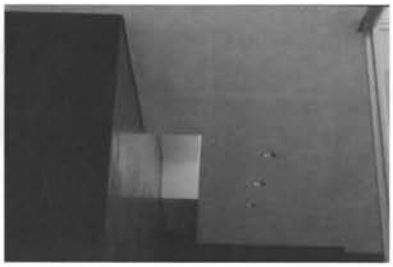


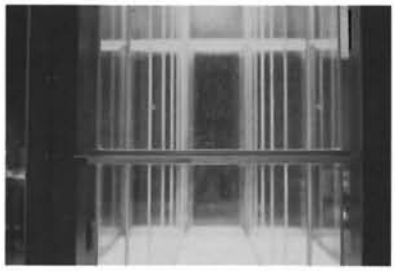
Photo: Bill Timmerman

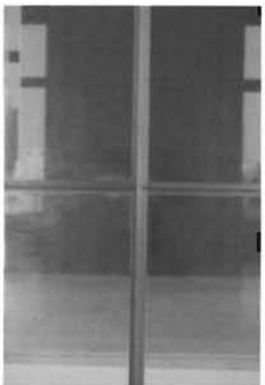
Photo: Bill Timmerman

Photo: Bill Timmerman

Photo: Tod Eberle

Photo: Bill Timmerman

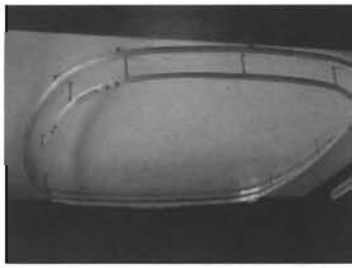




Above all, human existence

Photo: Bill Timmerman

Photo: Bill Timmerman



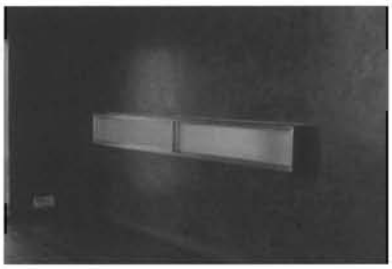


Photo: Tod Eberle

Photo: Bill Timmerman

Photo: Bill Timmerman

Because we don't know when we will die, we get to thinking of life as an inexhaustible well. Yet, everything happens only a certain number of times, and a very small number really.

How many more times will you remember a certain afternoon of your childhood, some afternoon that is so deeply a part of your being that you can't even conceive of your life without it?

Perhaps four or five times more, perhaps not even that.

How many more times will you watch the full moon rise?

Perhaps twenty.

And yet it all seems so limitless.

– Paul Bowles, The Sheltering Sky

requires stability, the permanence of things. The result is an ambivalence with respect to all great and violent expenditure of strength; such expenditure, whether in nature or in man, represents the strongest possible threat. The feelings of admiration and of ecstasy induced by them thus mean that we are concerned to admire them from afar. The sun corresponds most conveniently to that prudent concern. It is all *radiance,* gigantic loss of heat and of light, *flame, explosion;* but remote from men, who can enjoy in safety and quiet the fruits of this great cataclysm. To the earth belongs the solidity which sustains houses of stone and the steps of men (at least on its surface, for buried deep within the depths of the earth is the incandescence of lava).

– Georges Bataille, *Van Gogh as Prometheus,* 1937[1]

Campanula medium. Glockenblume. © 1998 Karl Blossfeldt Archiv Ann und Jurgen Wilde. Artists Rights Society (ARS), NY.

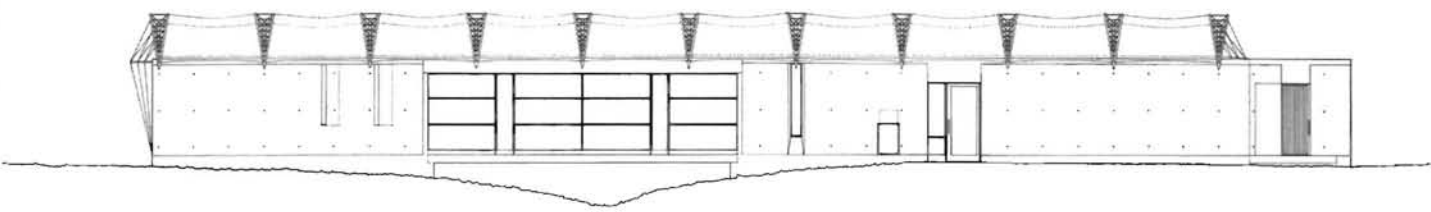
Sonoran Desert House 1997-1998
Glockenblume

Marwan Al-Sayed and Janet Fink Architects
Phoenix, Arizona

Although primarily low and flat, the urban desert site offers spectacular views to the adjacent Squaw Peak and distant eastward views to Camelback Mountain. Palo Verde and Ironwood trees, a few barrel cactus, and a field of creosote bushes sparsely vegetate the arid suburban parcel. A narrow "wash" (dry stream bed) diagonally bisects the site and harbors some animal life: a few small birds and jack rabbits.

One enters the precinct of the house with a glimpse of the lap pool and a view of the mountains to the North. A lush non-desert garden is planted in the hardscape between serene earth walls of carport and house. A lightweight tensile fabric roof structure hovers above these heavy and thick walls. Like the delicate petals of the bell-flower, the luminous roof undulates gently between lightweight metal trusses.

Exaggerating the minor but only distinguishing feature of the landscape, the house extends over the shallow wash. Archaic thick cast earth walls, rooted in the dry ground, form two rectangular volumes on either side of the wash as anchorages that support the bridge. With glass walls that open to the landscape, allowing desert breezes through the house, the living and dining spaces of the bridge engage in the quiet life of the wash.



Architect: Marwan Al-Sayed and Janet Fink Architects **Design Engineer, Fabric Roof Membrane:** Ishler Design & Engineering **Structural Engineer:** Doug Snow & Associates, Inc. **Mechanical Engineer:** Otterbein Engineering **Civil Engineer:** Atherton Engineering, Inc. **Electrical Engineer:** C. A. Energy Designs

1 Georges Bataille, *Van Gogh as Prometheus,* **October.** trans. A. Michelson (Cambridge, MA: MIT Press Journals) No. 36, Spring 1986. p. 58-60.

Work In Progress

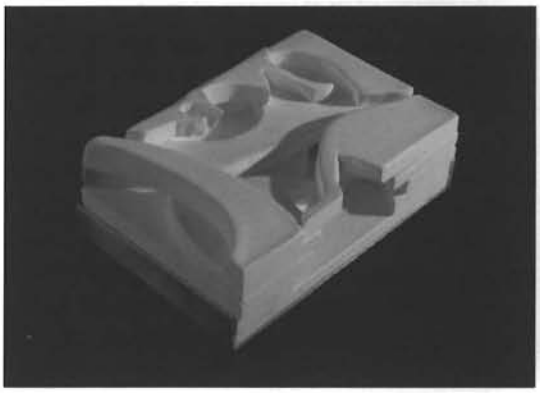
Michael Grant

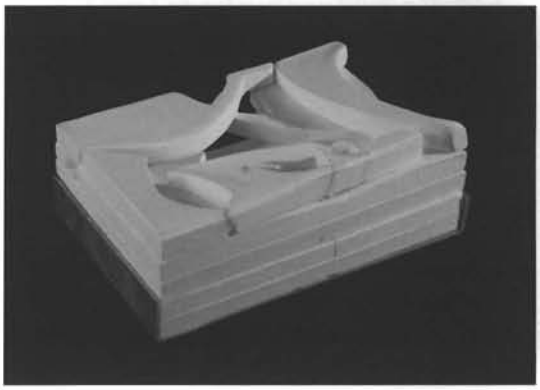
University of Michigan graduate studio,
Winter 1998, taught by Michael Grant in
collaboration with Maryann Thompson and
Charles Rose, Thompson and Rose Architects.

This studio attempts to explore strategies of resistance to recent, and essentially reductive, conceptions of architecture which have de-valued the phenomenal experience of built form in favor of a largely conceptual, language-derived understanding of meaning in architecture. These strategies re-unite the intuitive pursuit of spatial morphologies and the experiential phenomena of architecture with an on-going and complementary critique of the conditions of use which they create. Central to the studio is an understanding of architectural invention as a process which moves back and forth between an intuitive, empirical mode of exploration (making), and a reasoned, critical analysis of the artifacts thus produced.

The program for this studio is a community art center of modest proportion, sited a short distance from the University of Michigan College of Architecture + Urban Planning. The program includes studios for print-making, painting, and sculpture. The art center is to serve both the local public school system and the community at large.

The "hands-on" learning that takes place at such an institution proceeds from specific experience to general knowledge, and as such it contrasts with the more "conceptual" learning experience of a traditional academic curriculum. Inspired by this observation, the studio engaged in the production of a series of monoprints as an integral part of the design process. The student works shown here are the products of the studio's first exercise, the production of an analytic collagraph print[1] based on an observed site condition. These prints were then critiqued and transformed through a model-making process which explored a particular material, i.e. lead, wood, plaster, etc.. A building proposal and the large scale development of an element of building enclosure, a door, window, or wall section, will follow.





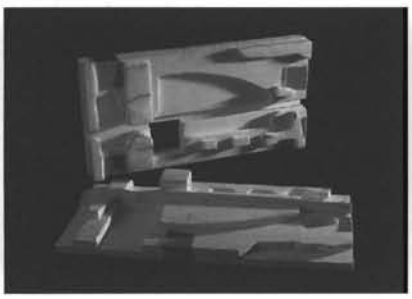
plaster models + collagraph print
Sophia Terrell

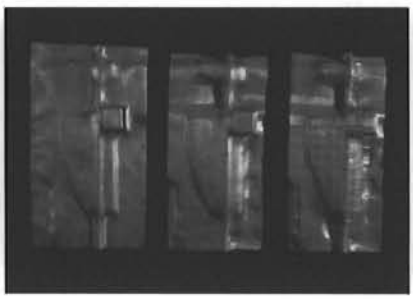
The Actual and the Ostensive

lead models + collagraph print
Jennifer Muse

Near the beginning of **Philosophical Investigations,** Ludwig Wittgenstein discusses the difference between what he calls the "ostensive teaching of words," and the actual, far more complex, "language game" by which these words achieve their meaning.[2] "Ostensive teaching of words" is the act of pointing at something, and, at the same time, uttering a word, as in pointing at a table and saying, "that's a table." But Wittgenstein wants to show that this is not how we come to understand most words, that the use of language is more like a game: a complex, social, experiential event. He wants to demonstrate that, when compared to the actual way in which we come to know a thing, the ostensive-definition model, as originally offered by earlier philosophers such as Augustine in his **Confessions**, is severely reductive. One could imagine two different strategies a parent might employ to teach a child the meaning of the word "tree." He might show the child pictures of trees in books, naming them and pointing to each type. He might read the child the definition of the word "tree" from the dictionary, and describe carefully each of its constituent parts, including in his description analogies to other, similar things that are familiar to the child. As an alternate strategy, the parent might take the child to a forest. The child might touch the trees; attempt to climb them; eat their bark; smell them; fall from them; break their branches; play in piles of their leaves.[3]

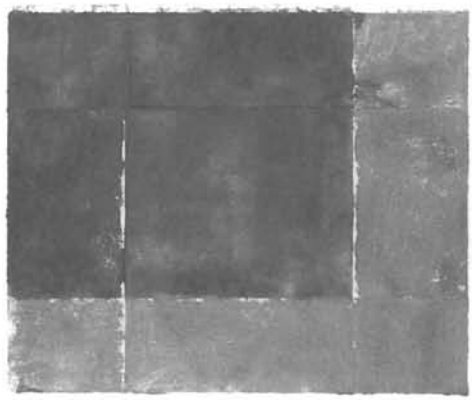
Similarly, the legacy of the semiotic preoccupations of recent, linguistically-based architectural theory seems to have been to create a condition in which coming to know a work of architecture is limited to knowing it ostensively, as a collection of signifiers manipulated in such a way that they can be "read," and meaning thereby ascribed. This preferencing of a conceptual,

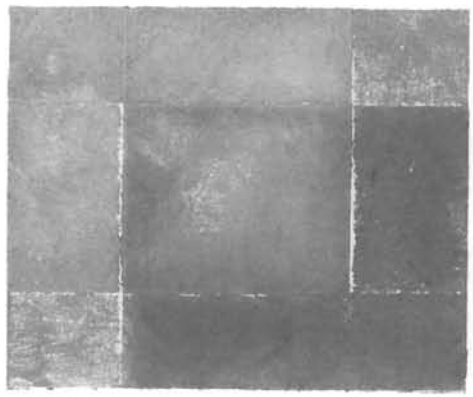




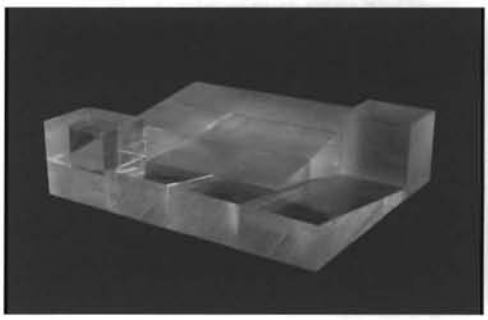
or language-derived, understanding, essentially an a posteriori, literary operation offered as a totalizing design methodology, has been detrimental to the experiential understanding of architecture. The actual phenomenal conditions within a work of architecture become obscure when a diagrammatic reading of that work masquerades as the totality of coming to know it, and thereby precludes discussion of experiential phenomena such as conditions of use. This preclusion occurs whether the conceptual reading reduces the work to a collection of re-configured typologies (the bricolage of Rowe), or to a collection of essentially conceptual operational strategies, such as the histories of sequential deformation that operate in Eisenman's recent work. Evidence of such operational strategies can be found in the design drawings of the Emory Center for the Arts. These drawings catalogue a series of deterministic operations and their resultant formal conclusions in antiseptic isolation from any discussion of their effect on conditions of use: "multiple fold, large scale fold, small scale fold, overlap condition, volume."[4] The preferencing of the conceptual over the phenomenal in architecture's current critical discourse is akin to trying to understand the tree without visiting the forest.

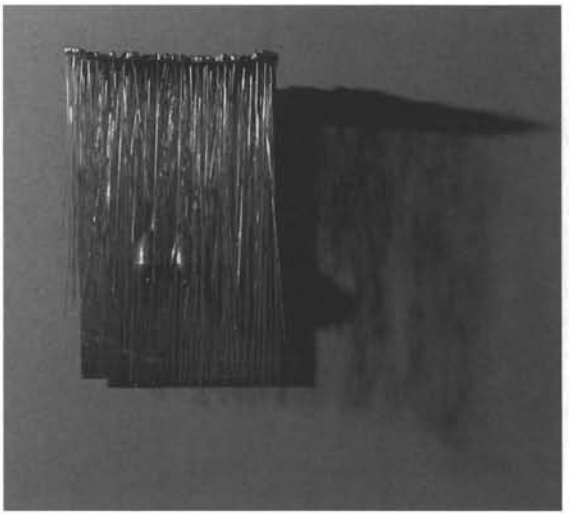
One consequence of this de-valuation of experiential phenomena has been the effective removal of usefulness as a component of the meaning of any particular architectural topology. For example, Ellen Whittemore recently described post-structuralist philosophy's failure to provide an effective framework within which to judge the value, or relative usefulness, of various urban proposals because post-structuralist theory seems to advocate, at least by analogy, the equal validity of all points of view.[5] Likewise, current ethicists have turned away from using recent philosophy as a guide in their work, whereas historically, ethics has been seen as a subset of issues existing within the larger discipline of philosophy as a whole. Similarly, in architecture, the movement away from a critical discourse that includes conditions of use has been a factor in the much-lamented marginalization of the architect relative to the construction of the vast majority of the built environment in this country. One imagines a present day architectural jury asked to critique a gun, say, or the Gutenburg press: "Yes, Johannes, the book you've





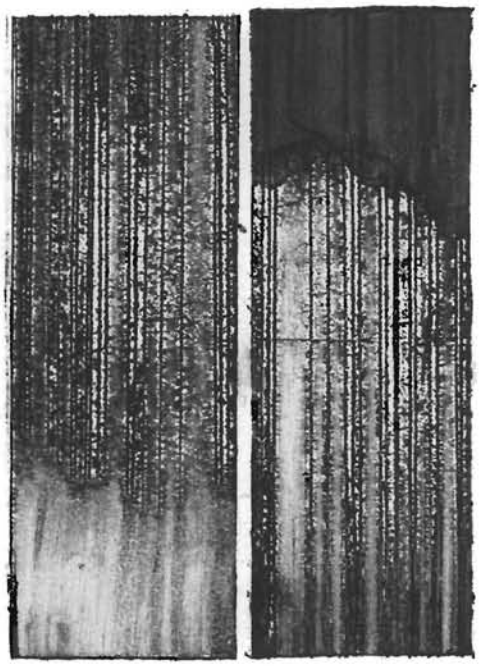
acrylic model + collagraph prints
Randall Whinnery



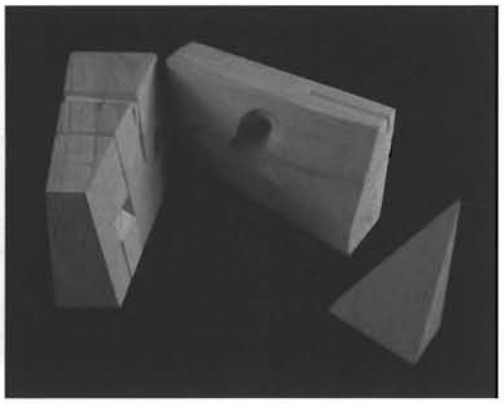


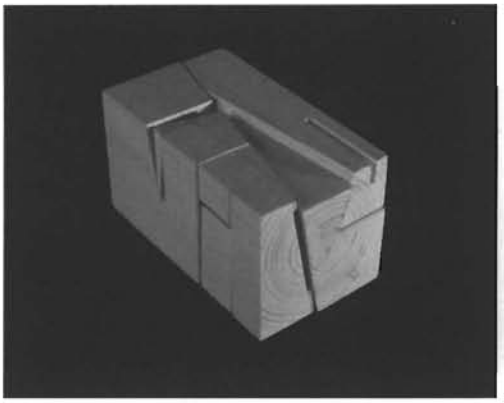
made is fine, but I feel that the symmetry of your two primary supports could become much more fragmented relative to the datum condition of the press-bed itself, and the whole thing seems to retain a nostalgia for your wine-press precedents that I find misguided vis-à-vis its equation of the ripe, juice-filled grapes with what is in fact simply a blank sheet of paper."

The concept of architectural typology that emerged during the post-modern period of the 1970's and 1980's has also tended to foreground conceptual readings of works of architecture while suppressing discussions of experiential phenomena and of architectural innovation as it affects conditions of use. When one compares the theory of types found in **Towards a New Architecture,** where typology is seen as necessary for encouraging competition and empirical refinement within a given set of understood conditions, with more recent notions of typology in which types are reduced to bodies of referential material subject to conceptual carving-up and reconfiguration as new "realities," the paucity of significant useful innovation by architects in current construction becomes understandable. It may be worth recalling that the actual development of the Gutenberg press followed the Corbusian model of types, with competition engendering improvements, first with the change from wood to iron in the 19th century, next with innovations to the pressure mechanism, which changed from a screw mechanism derived from wine presses, to a compound set of levers introduced in the Clymer Columbian press in 1817.[6] The current condition of architectural practice in America seems to recognize the post-modern concept of types as superficial, but also to deny any current equivalent of Corbusier's more empirical types-as-iterative-refinements model. A constructive alternative to this condition of "neither-



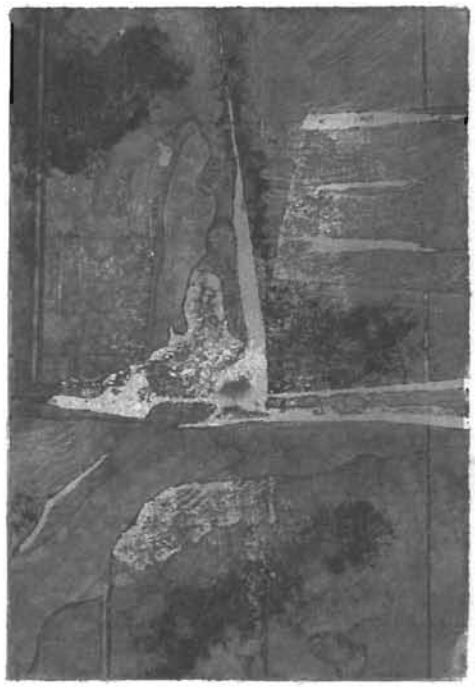
steel model + collagraph prints
Christine Rosenberg





nor" may be offered by a strategic movement away from fully-conceptualized, categorical typologies such as "rowhouse," or "basilica-plan," toward more provisional, open-ended, and descriptive types, as indicated by Koolhaas' recent positing of the "Very Large Building" as a typological entity[7], or as seen in the "wrapped building" type as developed in recent projects such as Herzog and de Meuron's Signal Box in Basil, Peter Zumthor's Kunsthaus Bregenz, Ortner and Ortner's Museum of Modern Art, and Ben van Berkel's Acom renovation, all of which involve iterative refinements to a similar set of tectonic conditions. Unlike the categorical notion of typology, the descriptive model suggested here does not view typologies as static, pre-existing, conceptual found-objects. By allowing a re-assertion of the empirical model and its accompanying questions of usefulness and innovation, a descriptive, rather than categorical, notion of typology may resist the de-valuation of experiential phenomena that results from a purely conceptual understanding of architectural typologies.

Le Corbusier's Carpenter Center for the Visual Arts offers a paradigmatic model of a project which defies such purely conceptual readings, and which can only be fully understood through experience and movement in a process similar to the experientially-based "language game" postulated by Wittgenstein. Many of the forms found in this building were generated through the intuitive investigations of the architect's painting and sculpture,[8] while at the same time, Corbusier's on-going refinement of the "five points" is continued in the brise-soliel, roof garden, piloti, aerateurs and ondulatoires. At Carpenter Center, empirical invention and Cartesian rationality are placed in the service of an intuitive, playful, and non-rational sculptural sensibility, producing such architectural



wood models + collagraph print
Randy Pease

events as the public pathway which ramps up and through the center of the building. As architecture begins to re-discover its identity as a truly constructive discipline, it may re-awaken, not to a bankrupt functionalism, but to the possibilities of an architecture which, like Carpenter Center, engages a pragmatic empiricism in the service of a radically imaginative, non-rational intuition. To realize these possibilities, architecture requires a theoretical discourse which resists purely conceptual and often reductive readings of form, in favor of experiential understandings that recognize architecture's ability to, in effect, take the child to the forest, rather than simply pointing at pictures of trees.

1. A collagraph print is a method of relief printing, in this case using water-based inks. **2.** Ludwig Wittgenstein, **Philosophical Investigations,** 3rd ed. (New York: Macmillan, 1968), p. 4. **3.** This analogy owes much to discussions with Chris Risher, Jr. during his series of option studios, *Untitled I-IV,* at Harvard's Graduate School of Design between 1990-1994. **4.** Peter Eisenman, **M Emory Games.** (New York: Rizzoli, 1995), p. 21. **5.** Ellen Whittemore, *There is a There There.* Lecture at the University of Michigan, March 13, 1998. **6.** Donald Saff, **Printmaking.** (Orlando: Harcourt Brace Jovanovich, 1978), p. 411-412. **7.** Rem Koolhaas, **OMA Rem Koolhaas.** (New York: Princeton Architectural Press, 1991), p. 165. **8.** Eduard Sekler, William Curtis, **Le Corbusier at Work.** (Cambridge, MA: Harvard University Press, 1978), p. 251.

Aesthetic Reception and Urban Spatial Practices:

The Appropriation of Art Museums as Aesthetic Objects in the City

Zeuler Lima + Vera Pallamin

Having acquired an important role in the transformation of urban landscapes and in the creation of urban identities, exhibition spaces in general, and art museums in particular, have become a prominent theme for contemporary architecture and the contemporary city. As with other urban and architectural spaces, they are usually analyzed from the point of view of forms, often limiting their understanding to the description of questions inherent in constructed elements. Such objectivist critiques do not respond to the complexity of this urban phenomenon; nor do they explore the meaning of space. The contemporary notion of aesthetic reception, however, introduces a broader perspective for envisioning urban and architectural spatial practices. The advance offered by this notion understands city and architecture to be aesthetic objects in the context of socio-cultural relations, and explores the ambiguities present in the production of space.

To understand the issues these ambiguities raise, this approach works with different planes which are intertwined in spatial practices. Our conceptual horizon for analyzing the myriad of relationships between architecture, urban situations, and culture is based on the notions of meaning and space in light of perception and reception; the proliferation of

... the meaning of space emerges from the process of its perception...

'the aesthetic' in contemporary thought; and on the support it provides to the current politics of representation. These notions nourish the arguments about the appropriation and reification of images, values, and identities by economic practices in the way urban and architectural spaces are produced.

According to the notion of aesthetic reception, the meaning of space emerges from the process of its perception, a notion opposing the traditional view, which attributes external, pre-established meanings to space, enveloping it in a totality. Important outcomes of the aesthetic reception approach are the dissolving of pre-definitions, as well as the erosion of conceptual and physical boundaries of what space is, because the realization of its meaning is open to indetermination and ambiguity. The meaning of space cannot be previously circumscribed nor is it the expression of relativism. Nevertheless, it is generated in an intermediate and converging region with no precise boundaries. It takes place in the "hinge," to borrow a term from Merleau-Ponty,[1] between space and audience, or between space, audience and the urban and architectural spatial situations in which meaning occurs.

The latter approach to space seizes not the physical presence of constructed elements, but more precisely the existence of a potential of space to be performed in the process of perception that cannot be determined a priori. In this case, we understand that reception is not synonymous to contemplation, which traditionally implies a cultivated and purified audience, but has to be reconsidered from the viewpoint of identity and alterity. The reversal from an objectivist approach implies the adoption of the notion of open reception, the transitivity of identity and the precariousness of the meaning of space, which are not pre-given qualities and which appear in situation.[2] This reversal embraces both the multiplicity and temporality of meanings and the control over different interpretations. Space cannot be reduced to the physical reality nor to the readings of the audience alone. It exists in the relationship between those two instances.

In this sense it is important to point out that the temporality or the historicity of space does not correspond to a series of successive interpretations in time, nor to the idea of collecting multiple apathetic differences. Instead, it corresponds to the continuous process of signification and re-signification that moves the meaning of space in a process of becoming, compromising its coherence, and its boundaries and, in the worst case, being

responsible for its own failure. The former illustrative character of multiplicity in time does not respond to the question of meaning, since it can only be woven or unwoven through reception. It is important to stress that space and built forms in urban situations are a constituting vector and not a constituted representation of reality, which means that the meaning of space takes place by sedimentation and not as a pre-given or pre-existent value. As we consider art museums in regard to urban space production, it is important to notice that they move in this same continuous process of signification and re-signification.

The presence of the audience in the form of alterity enhances the notion of urban and architectural space, but it also implies further investigation and needs to be characterized according to the analysis of the relations between audience and spatial situations. For instance, it is necessary to make clear which conditions those spatial situations contain in terms of social groups, cultural practices, attitudes and interests. It is also necessary to investigate the politics of representation in the creation of art museums as aesthetic objects in the city and to be aware of the fact that different agents and circuits have contrasting purposes for their realization. We may see many contradictions in the myriad of interests, roles and tactics that contaminate the spectrum of decisions that range from the concepts that embed the creation of art museums, to their insertion in urban situations.

Ultimately, the approach of aesthetic reception to space does not aim at a periscope-like gaze in search of well-finished framings of urban scenes and buildings. Instead, it investigates the constitution of urban and architectural space in their aesthetic dimension, relating it to spatial practices and not to the objective analysis of values attributed to built forms. Spatial practices can be considered in light of multiple aesthetic relations defined by different social, economic and political interests, showing the discontinuities that facilitate or hinder those spaces. The production of urban space is not isolated from the cultural debate, production and debate continuously nourish each other with their explorations.

The advance and persistence of certain forms of capitalist practices relate to the intense commodification of culture, the reification of values, and changes in the production of knowledge. They place late capitalism in the center of the contemporary debate, together with its aesthetic, representational and spatial unfoldings.

The growing tendency in the consideration of 'the aesthetic', understood as the realization of what is sensitive, has been present in different practices of contemporary culture. At the same time this intense phenomenon is expressed by successive patterns that very quickly become outdated, not as a spontaneous process of cultural resignification, but imposed by rules of consumption. Reality becomes a less relevant plane in that relation and is embedded by the sense of progress seen as "the old dream, that of improving life and reality through the introduction of aesthetics."[3]

In that kind of surface aestheticization, hedonism is the grid of cultural matrix, translated in a wish for amusement with no further commitments, and represented by an ever-changing collection of images. This practice becomes an element of seduction to consumption, providing the multiplication of offers and the plurality of combinations. If 'the aesthetic' was once considered

... production of urban space is not isolated from the cultural debate, production and debate continuously nourish each other with their exploration...

a manner or an instrument, now it is an asset or a product. We can realize, therefore, not only the persistence of a practice that implies a means and an end, i.e. consumption and production, but also the maintenance of the traditional dichotomy between object to be perceived and subject (passive and cultivated) of perception. This situation persists even though it becomes more ephemeral and dematerialized, given the nature of the relations

and the speed of occurrences in a circuit of production, consumption and exhaustion.

According to the philosopher Wolfgang Welsch, there is a second characteristic to the aestheticization of reality, different from the above but still connected to it. It relates more to the modeling and the production of 'the imaginary' than to the traditional notion of beauty. The relationship between reality, often represented by images, and 'the imaginary' is intrinsic, manipulated more and more manipulated in order to organize its micro-structures and interfere in them.

"This immaterial aestheticization reaches deeper than that literal, material aestheticization. It affects not just singular constituents of reality, but the manner of reality's being and our conception of it as a whole."[4] Nevertheless the most radical feature of this process, according to Welsch, is the epistemological aestheticization that underlies the constitution of reality *in se*. Traditional knowledge believed in the illusion of objectivism and placed aesthetics in a less important plane, whereas nowadays 'the aesthetic' or 'the sensitive' are more widely recognized as fundamental agents of knowledge and action.

Appearance, uncertainty, mobility, oscillation, instability, which are categories traditionally linked to what is sensitive, to *aesthesis,* have become intrinsic elements of scientific knowledge and also of rigorous reflections about the notion of Truth. We can find a very radical example of that epistemological aestheticization in Nietzsche's perspective, in which "the representations of reality not only carry fundamental aesthetic elements, but they also are... aesthetics in nature. Reality is a construction we create... by fictional means, through different forms of intuition, projections, fantasies, images and so on. To know is fundamentally a metaphorical activity."[5]

Scientific theories and research recognized and confirmed the presence of 'the aesthetic' in sciences, contributing to the dissolving of a form of 'hard knowledge' that reduces reality to reasoning. This approach also considers 'the aesthetic' in its relational perspective as opposed to the limited traditional categories of object and subject. In this context the conjunction between 'the sensitive' and 'the material' gives way to what has been called 'blood knowledge.'[6]

The thematization of aesthetics in these terms goes beyond the strict sphere of culture, and embraces other fields like sciences and politics. The multiplicity of meanings cannot be reduced or fixed, since values cannot be pre-established and are necessarily historical. To restrict the understanding of aesthetics nowadays to the sphere of culture would mean to fall into "theoretical provincialism," since its pluralization breaks down that equivalence.

The present perspective decisively avoids any kind of aesthetic fundamentalism that separates cultural manifestations into different planes of reality. It is important to aim at the transformation of knowledge's own character as well as at rigorous reflections that incorporate 'the sensitive' and 'the imaginary' in their procedures in order to place the phenomenon of urban and architectural space production in a broader horizon.

The praise of fragmentation in the aesthetics of post-modernity is typically associated with the incorporation and exploitation of images as assets, has serious implications in the social realm, by masking certain forms of domination. The dissection of reality into isolated fragments means, from the socio-political and economic point of view, the disconnection of complex links that produce meaningful temporal and spatial changes.

This is why spatial practices that are partially critical are not sufficiently effective to produce deeper changes in the social reality. They may lead to localized resistance, but they have limited capacity of transformation. It is in that sense that David Harvey reads Michel de Certeau's work about social practices in daily life.[7] For Harvey, de Certeau's reflection could be the basis for the understanding of the "ferment of popular, localized street cultures, even as expressed within the framework imposed by some overarching repressive order."[8] Still social practices have not been thoroughly and critically

incorporated in the thought about the complex phenomenon of space production.

Harvey also criticizes Michel Foucault in a similar way. In his analysis of infinitesimal capillary mechanisms of domination and in his rejection of meta-narratives, Foucault does not respond to the question about "the path whereby such localized struggles might add up to a progressive, rather than regressive, attack upon the central forms of capitalist exploitation and repression."[9]

One of the remarkable reactions to economic relations and cultural practices considered as a one-way process can be found in Rosalyn Deutsche's writings about arts and spatio-cultural discourses. According to her, the interest of recent culture in

Aestheticization processes intertwine and differentiate themselves in meaning and in implications according to the outcome of their fields of action.

images cannot be reduced to the fetishization of its values nor to the role of hiding its underlying reality. The recognition of critical aesthetic practices in space and art is possible only if one refuses *a priori* the notion of representation as opposed to the appearance of reality and to the reproduction of pre-existing meanings. This form of critique of representation – as explained by Deutsche – examines culture "as itself a social relation in a revision that recasts the identity of 'the social' as well."[10] We understand representation as a constituent of reality, present in the relationship between imagery, 'the imaginary', and reality that comes out from social practice. It is important to note that social space cannot be translated and reduced to single invariable images, and that the productive material forces that act in spatial practices derive from social, cultural, and artistic manifestations.

The critical line pointed out by Rosalyn Deutsche places the aesthetic notion of image according to its constitution and contextualization. Images and representation appears as cultural and aesthetic objects, as socio-spatial relations. Their realization occurs in the action of unfolding meanings and identities. Her approach focuses in the way images or representations weave those relations.

Aestheticization processes intertwine and differentiate themselves in meaning and in implications according to the outcome of their fields of action. In the sphere of consumption they influence the modeling of collective behaviors embedded in the increasing importance of assets and products. They affect ethics with the change in attitudes from rigid and wide-raging patterns to those of situational and flexible character. In urban spaces, for example, they manifest themselves in the redesign of large central areas, which are often associated with movements of social exclusion and gentrification.

These processes contribute to the sedimentation and reinforcement of a paradigm that is not necessarily renewed or reverted, but that strengthens an already existing order. Harvey supports the argument that there is no rupture, but only continuity in the meta-narrative for understanding late capitalism.

We may say that one of the senses of the production of space in this perspective is to make those processes critically evident. The critical approach poses a question to the practice of urban design, which tends to surrender to excessive aestheticization and often to translate itself merely into an exercise of forms and images. Therefore, designers conceive the built world as the container or image support for the lived world, reducing those places to what Marc Augé analyzes as being the non-places of 'overmodernity.'[11] Those non-places – either urban or architectural – deny the pertinence of social practice to the construction of space and empty the variable, dynamic and critical character of the meaning of spatial situations.

Considering that cultural practices relate to socio-economic practices, and according to the historico-geographic perspective given by Harvey, one may associate the prominence of 'the aesthetic'

with the cultural shift which occurred in the rearrangement of capitalist production at the end of this century. We perceive a significant shift in the "structure of sentiment" together with the flexibilization of the modes of accumulation, and the reconsideration of a Keynesian regulated State, even though that occurrence cannot be seen in a relation of cause and consequence.

Such transformations become evident with the acceleration of the production processes after the 1970's, which generated a complex rearrangement of organizations. Changes in the administrative system, the use of computer control, the control of information, and rationalized techniques of

... 'architecture' and 'city' are not stable referentials and 'image' is not the confirmation and final sedimentation of the existence of built forms.

distribution appear as some of the strategies to obtain higher interest and faster circulation of capital in and between cities and regions. Those changes generated a cycle analyzed by Harvey as "space-time compression," which relates to the conception and perception of space.

Among the major consequences of those transformations, Harvey highlights the "accentuated volatility and ephemerality of fashions, products, production techniques, labor processes, ideas and ideologies, values and established practices. The sense that 'all that is solid melts into air' has rarely been more pervasive."[12]

The promotion of volatility has stirred up the production of images. Their role as reified commodities, products, and assets – therefore images considered as things – becomes a source for the manipulation of consumption. Its effects are clear for example in the general information media, in the generation of informational simulacra and certainly in many sorts of urban development. This phenomenon relate to what we pointed out above concerning the manipulation of 'the imaginary' as a constituting element of reality. Images become the primary element of consumption and cultural reference without necessarily relating to the forms of social practice that do not respond to the logic of production, consumption, and exhaustion.

In the striking commodification of culture, both alterity and difference become the source of commercial benefit, immodestly exploited for the sake of profit and interest: they have also turned into commodities. The promotion of 'the aesthetics of difference' of social and local heterogeneities is not based on the intersubjective or intercultural condition for the construction of identity, but on controlling guidelines to renewed and renewable patterns and values. One promotes aesthetic qualities to obtain singularities for the market, treating them as baits ready for consumption in general, and having direct influence in the attribution of value – both monetary and cultural – to urban situations.

According to Harvey, "the experience of time and space has been transformed, the faith in the association between scientific and moral judgments crumbled down, aesthetics triumphed over ethics as a primary focus of intellectual and social concern, images dominated narratives, temporality and fragmentation took over eternal truths and unified politics."[13]

For him – and in this case also for Frederic Jameson – the prominence of fragmentation eclipses the totality of the space of late capitalism and its social reality. The notion of fragmentation in urban design enhances the distance it keeps from the modernist paradigm, by abandoning the role of an agent of social information. This fact is evident either as a contradiction to the continuity of that paradigm or as a sign of its failure. Fragmentation is also evident in a larger interest in images rather than in the situations that underlie them. This implies a visible dilation in the manipulation of 'the imaginary' as a commodity – for example, through the urban images associated with it – and a considerable contraction of social practice in giving meaning to reality.

The arguments about how the relations among imagery, imaginary and reality weave significations and how they can be manipulated have direct implications for urban space and, in particular, for the constitution of art museums as an important element in this process. It is not possible to talk about the 'image of the city' or 'the image of architecture' here, but instead we have to consider 'architecture as an image of the city.' That reversal implies understanding that 'architecture' and 'city' are not stable referentials and 'image' is not the confirmation and final sedimentation of the existence of built forms. Those relations have to be denaturalized and seen from the cultural perspective of their politics of representation. It means to confront them with the situations from where they emerge and which they transform, in the context of urban and architectural spaces.

One of the critical approaches to the museum as an image of the city relates to the fact that it became the center of considerable interest and changes from the point of view of cultural representations and urban development. The simultaneous interest by several important cities for that kind of urban investment corroborates a general sense to the politics of space aestheticization that has been systematically carried out in a global scale. It is not a coincidence that this phenomenon is so intense in different continents, as an evidence of the expansion of capital, of space-time compression, and of the need for affirmative identities in a horizon of homogenizing economic practices and of social deprivation. It fits the ambivalent relationship between particularizing discourses and a dominant economico-cultural narrative.

Together with the erosion of old spatial boundaries caused by more efficient communication and flows, the action of capital became more sensitive to local geographic and social differences in urban situations, moved by the possibility of exploring its peculiarities in the market. At the same time the interest that large corporations and the financial system have in highly equipped urban centers elevated the investment in aesthetics, culture and infrastructure to the level of high competition between cities. Actually, one may observe in those cases the growing action of external agents in local realities, which creates conflicts, mainly in the social sphere and manipulate local identities. From the point of view of architectural language, these conflicts translate the need to satisfy ransnational patterns and the tension of local values. It is not a coincidence that corporate capital prefers the apparent simplicity of minimalism to the detriment of the recognition of the meaning of local landscapes, creating images and identities that can be transferred to the urban fabric as decalcomania.

In this context, the architecture of art museums has a privileged role in the production of spatial differentiation both within and between cities. The proliferation of such projects, many times associated with the manifestation of prosperity, happens through different strategies that go from traditional art openings to the formation of strong artistic urban clusters. One may observe this phenomenon in Berlin and Frankfurt, in the unfolding of the same cultural institution into branches. For example the Guggenheim Museum in SoHo, Venice, Salzburg and Bilbao, or even the project for Mass Museum of Contemporary Art, supposed to be the largest contemporary art museum in the world, with the renovation and conversion of twenty-eight buildings of an old power plant in Massachusetts, which is a clear evidence of the gigantic and swollen features of contemporary culture.

It is important to point out that in many cases the remodeling of urban sites for museum spaces are associated with gentrification processes. This happens for example with Richard Meier's project for Barcelona, which was broadcast as a "white hope" for the city, because of its white pristine volumes inserted in the middle of the old urban fabric under process of revitalization. The same can be said about Mario Botta's project for the Museum of Modern Art in San Francisco, which is part of a larger building complex for the arts, fairs and conventions. The complex is inserted in a privileged area adjacent to the historical center and enthrones one of the largest and most controversial projects for urban redevelopment in San Fransisco.

In a growing tendency, cities invest in art museums and in the potential of their symbolic magnetism as

part of the strategies for visibility and change in their own images. The consideration of the museum as an image of the city in that context expresses less what the city has historically been than what it aspires to be in comparison to other important urban areas. This phenomenon delineates the reorganization of urban policies. Art museums enter the economics of meaning in the competition between cities, polarizing layers of recognition and institutional power and repositioning public identities.

This sort of practice in the creation of museums reveals some problems to architectural and urban design, because of its strong symbolic and aestheticizing character in the city. This situation is ambivalent and points out toward two unfolding possibilities. On the one hand, museums may generate an image for the city, considering its presence as a potential condition for aesthetic reception. On the other hand, they may have their meaning committed with a reifying kind of practice – formalist and normative – still very often attached to the objectivist notions of contemplation and monumentality contained in the approach to 'the aesthetic' as an asset or a product. This certainly is a central aspect to the advance in the complexity of city and architecture design and their commitment to spatial practices. Identity is an important aspect related to the production of space and to the action of social groups, and it should be disentailed from the notions of fixed values and constituted reality. Identity is not a pre-given image ready to be transferred, but it is an instituting element of reality, permanently raising questions about the aesthetic, cultural and social meaning of urban space.

1 The term "hinge" (fr. charnière) indicates a transitory, moving, and dialogic situation in which meaning occurs. Merleau-Ponty, M. **Phénoménologie de la perception.** (Paris, Gallimard, 1945). **2.** The term "in situation" refers to Merleau-Ponty's notion that every phenomenon takes place in a certain "situation," or "horizon," meaning that they are inseparable and that all perception is partial and temporal. **3.** Welsch, Wolfgang. "Aestheticization Processes. Phenomena, Distinctions and Prospects." **Theory, Culture and Society,** vol. 13, No.1, Feb. 1996. p. 11. **4.** Ibid., p. 5. **5.** Ibid., p. 13. **6.** We may understand the term 'blood knowledge' in the perspective of 'tragic experience' or 'tragic knowledge' which cannot be expressed inconcepts or logically proved. It implies the inclusion of 'the sensitive' or what is dionisiac, in Nietzsche's **Birth of Tragedy,** against the panacea of rational knowledge. **7.** The notion of daily life is understood as the way through which active users reappropriate the already organized space by means of socio-cultural techniques. **8.** Harvey, David. **The Condition of Postmodernity: an Enquiry into the Origins of Cultural Change.** (Cambridge, MA: Blackwell, 1989). p.197. **9.** Ibid., p.51. **10.** Deutsche, Rosalyn. **Evictions. Art and Spatial Politics.** (Cambridge, MIT Press, 1996). p.237. **11.** The term 'surmodernité' (fr.) expresses the idea of continuity and reinforcement of the modernist paradigm. **12.** Harvey, p. 258. **13.** Ibid., p. 377.

Proof of Things Invisible

Daniel Libeskind

A speech given by Daniel Libeskind upon receiving an honorary doctorate from the Humboldt Universität in Berlin on October 31, 1997.

It is a meaningful and exciting experience to be on this stage tonight to receive an award from a University which in the history of ideas, education and culture has few equals: a University where the voices of Hegel, Kierkegaard, and the pantheon of thinkers who made the world stand on its head, once resounded.

This University, centrally located on Unter den Linden between the Brandenburg Gate and Alexanderplatz, was well-positioned to witness the astonishing events of the 20th Century.

One could recall that Ludwig Mies van de Rohe designed his first glass-walled sky scraper within view from here; Yehudi Menuhin made his debut with Einstein in the audience to applaud him; Georg Grosz recorded his savage observations of Berlin on this Boulevard; and Vladimir Nabokov was here to observe "an elderly rosy-faced beggar woman, with legs cut off at the pelvis... set down like a bust at the foot of the wall... selling paradoxical shoe laces."

But what is particularly fascinating to me is the unexpected encounter between an old refrigerator and atomic physics, on an operating table called Humboldt, an encounter whose fascinating history is perhaps not over yet.

At this very University, sometime before 1934 on a cold and gray day at the end of October, similar to this one, Leo Szilard, an aspiring student from Budapest and Albert Einstein, developed and applied for twenty-nine joint patents in, unbelieveable as it appears, Home Refrigeration!

A sad newspaper story caught the attention of Einstein and Szilard one morning. It was reported in a Berlin newspaper that an entire family, including a number of young children, had been found asphyxiated in their apartment as a result of the inhalation of noxious fumes of the chemical refrigerant used in their primitive refrigerator; a chemical which had escaped in the night through a leaky pump valve.

Applying the sophisticated researches connected to relativity, the two physicists devised a method of pumping a metalicized refrigerant by electro-magnetism, a method that required no moving parts, and therefore no valves that might leak.

AEG signed Szilard as a paid consultant and actually built the Einstein/Szilard refrigerator – an astonishing Berlin object if there ever was one – but alas, these two inventors failed for musical reasons. The magnetic pump was so noisy, compared to even the noisy conventional compressors of the day, that it never left the engineering lab.[1]

The prophetic linkages which connect asphyxiation and the patenting of the modern refrigerator to a device for accelerating nuclear particles in a circular magnetic field produced a kind of nuclear pump which was instrumental in the construction of the atomic bomb.

The intertwining of gas, tragedy, inconceivable inventions and anti-semitism which finally exiled Einstein and Szilard as carriers of a theory, then deemed hostile to the "German spirit," is emblematic of Berlin and of the Atomic Age it somehow represents.

As I was thinking about what to say today I realized how difficult it is for an architect to speak about his work without the usual paraphernalia of slide projectors and images. Architecture, which is evoked only by words, makes one almost feel 'at home' in language. By surrounding oneself with language one almost comes to believe that one has escaped from the opacity of space and that what remains 'out there' is only an empty stage set. That is perhaps why most

photo: Bitter Bredt Fotografie, Berlin

intelligent people apply their intelligence and analytic powers to everything but architecture; why architecture is given over to technicians and specialists, and why one is resigned to it as an inevitable and anonymous force which will shape the cities without one's personal participation.

The experience of alienation from architecture, as a dimension of culture, should be contrasted with the stark and astonished encounter with IT – crowned-out, spewed-out into night – resistant to theorization. For then, one might see that architecture – something static and unfeeling, as all that's turned into a coming – can be interpreted, but itself continues to remain oblivious to the interpretation. It continues to live its own existence whether we share it or not.

Perhaps language and its meaning is grounded in the spaces of architecture, and not vice-versa. Consider the functions of foundation, circumcision, territorialization, openness and closure. These are all experiences of space – and of a certain kind of architecture - which provide a symbolic model and understanding of life itself. Is architecture not the quintessential 'taken for granted,' the unthinkable, the monstrous, the gender-less, the repressed, the other? Perhaps this is the point of its madness, perhaps it is your conscience: The knot of life in which what is recognized is untied. And what thinking person does not want a fire-place, a home, a Utopia, 'the way it is,' 'the way it was?' What thoughtful person is not grateful for the beams of clear lines directed by this silent ray?

What ineffable – immeasurable power of building in the city! The epiphany of the constructible is the strange sucking of the earth's axis. In the realm of architecture, ideas having stared at Medusa turn to stone. Here it is matter which carries the aura of ideas – ideas which metastatize into crystalline sleep-shapes assumed in the language shadow. Wasps, buildings, antennae sting the air, driving the sting to pass through the world of dream and death in order to sense this axis: The Earth's Axis.

All this is accomplished through technique such as drawing wherein an exiled line falls to the ground. Two parallel lines signify a wall; precisely the wall which is between the lines and is not a line. Whether this wall imprisons and releases depends on whether one is a saint or a prisoner. It is doubly illegible; twice over. In attempting to surmount the inner poles of this contradiction, architecture becomes like the plow, turning time up, revealing its invisible layers on the surface.

The power of building is certainly more than meets the eye. It is the non-thematized, the twilight, the marginal, event. But architecture forming this background is a surplus beyond obvious need: that which itself has no legitimacy in a proper foundation. This has led some to ask whether the true and the real need to be embodied at all. Whether one needs architecture or just a simulation mechanism. Whether architecture can flutter nearby like a spirit, the bell or the Internet. It cannot.

In its opacity and resistance, architecture rebels and communicates that only the superfluous, the transcendent, the ineffable is allied to us: the sky, the stars, the gods. I would like to confess my fascination for this strange activity, quite distant from the obsessive technologism, globalized marketing and withered modernism progressively eradicating spiritual life.

I would like to share with you something about the nature of the approach to architecture which I am following, through buildings which not only house exhibitions within them but as architectural works 'exhibit' the world; are indeed the 'production' of the earth. Together they delineate a trajectory which musters the letters, mortal-immortal; show the Aleph as coming after the Beit; the alphabet after the House.

Henry Adams considered the Virgin as the mobilizing form of medieval times and compared her to the dynamo, the mechanism of industrialization. Were he to write today, he would perhaps add to the Virgin and the dynamo – the Museum – as the catalyst and conveyor of reality, since this institution is seen today as a force able to regenerate areas of experience, revive histories, transform images and create a new identity.

Throughout my projects I have followed a certain path which one could name as the search for the Irreplaceable, that which was known by the pagans as the genius loci. I am interested in the unique portrayal of architecture and space of provinces, mountains, maps, ships, horoscopes, fish, instruments, rooms, stars, horses, texts, people.

photo: Bitter Bredt Fotografie, Berlin

In this labyrinth of places, one can discover the uniqueness of a human face and of a particular hand as a figure of architecture and of the city.

Lines of history and of events; lines of experience and of the look; lines of drawing and of construction. These vectors form a patterned course towards 'the unsubsided' which paradoxically grows more heavy as it becomes more light. I think of it as that which cannot be buried: that which cannot be extinguished: Call it Architecture if you want.

Berlin Museum and the Jewish Museum: addresses; matrix of light; names; echoes of the Void; intermarriage; assimilation; integration; exile; erasure; hope. What is lost in the sky, slender images as blue as shadows, vernal ice, divine ice, spring ice: They are leading a storm cloud by a leash. The music and light of Schoenberg's inaudible space, soundless bridges which illuminate the darker corners of thought.

Nussbaum Haus, Osnabruck: three arches of the Rolandstrasse synagogue, reincarnated in three excavated arches of an ancient Swedish bridge; Osnabruck; Rome; Brussels; Auschwitz; and Osnabruck again. The Nussbaum Haus, the Nussbaum Brücke, the Nussbaumgang, Ohne Ausgang; a triple dislocation in the atmosphere of a quiet town. Read it: It is only a beam; it is only light; it has the power of murmured words.

Victoria & Albert Museum, London: spiralling through William Morris' lightning rod; 'Knowledge' and 'Inspiration' inscribed on the portals; Owen Jones' Grammar of Dreams; Aston Webb's screen; the oblique connection between Constable and Cast Courts. Victorian light fractalized in an endlessly generated aperiodic pattern, de-centering the spiral and releasing innumerable directions. Passages of the spiral through the interlocking continuity of swimming light. Ciphering and decrypting English heritage lodged in the honeycomb cells of the gigantic, brick clock called London.

Imperial War Museum of the North, Manchester: conflict shattered earth; shards eassembled to trace the end of nations, but not of conflict which has never taken place on an abstract plane but in the awful trenches, in salty waters, in air suffocating with smoke. Projection; introjection; suspension; air, earth, water surrounded by Fire; where the earth curves more sharply than anywhere else; the slope becomes unexpectedly extensive, rolls down for as long as the last slave on earth is breathing.

Architecture's reality is as old as the substance of the things hoped for. It is the proof of things invisible. Contrary to public opinion the flesh of architecture is not cladding, insulation and structure, but the substance of the individual in society and history; a figuration of the inorganic and organic, the body and the soul, and that which is visible beyond.

Some would deny this substance and as a result might themselves vanish into the emptiness of "facts" which as indices of power are only the illusory ghosts of a virtual world. One must reject the emptiness of ideologies, the nihilistic obsession with the return of the same, the vacuity of systems which base the whole on its part. The road to authentic construction, just like a smile, cannot be faked for it remains insubordinate, not slave.

Architecture is undergoing an anamnesis: the struggle to remember. Let me share with you one of the most difficult personal decisions I have had to make recently, which was the decision to enter the competition for the Memorial to the Murdered Jews of Europe to be erected in Berlin. An unprecendented task: a Memorial for the world's biggest crime: the murder of 3% German Jews and 97% European Jews. A monument of shame, not honouring anyone; a monument not celebrating anything.

How can such a memorial be built? Would it only reinforce the act of forgetting? What makes it difficult for a foreigner and a Jew living in Berlin to participate in such a project?

Some will say that a memorial of the German people should not be advocated by others. Some persons in the Jewish community say, it is not our memorial, it is Theirs – but we insist that they should do it. Would such a memorial make any difference? No images, no symbols can represent the inconceivable. Only an imageless presentation with a deepening substantial presence might do it. No names of victims are appropriate here; and names of perpetrators are wholly inadequate when speaking of a crime which has a national dimension.

photo: Bitter Bredt Fotografie, Berlin

I thought of myself not as someone doing it for the Germans, or instead of the Germans; nor as an architect of just another nationality doing a German project, but rather as someone who has no single identity; himself a product of the Holocaust era.

What does it mean to be German today, after all? The monument is part of the process of finding out. The past that won't pass is not there only for Germans but for everyone else, and it is growing. Does the monument come too late? No. The generations involved in these horrific events could not accomplish it, and even had they been able to, it would not have been credible. The fifty years past are nothing compared to the history of Berlin which is not concluding a period, but opening a new one.

The peculiar site which is the seam between East and West is an emblem of a common ground and a confession – killing fields of a kind – framing the Brandenburg Gate which for fifty years, or one quarter of its two hundred year existence, has been deprived of significance. Such a monument cannot be left to the politicians, to ideologues, those who would try to tell a story with an ending. The innocent idea of the identity of state and society has long gone, destroyed by the behaviour of the German people during the Nazi time, and by the mockery of the GDR version of identity of government and its people.

The Monument is capable of enduring perhaps not because of its force and Name but because of its vulnerability; the weakness of the nameless; what was etched away by the ray-shot wind of language. For a monument is made to endure, but not as the full presence of those whose memory it bears. If there are no more masters, no sand book, and no more sand art, then this very absence not only remains, but expands. Not the full presence of the one whose memory it bears... but on the contrary what remains is a growing memory. Aren't we living in times when even being itself is a recollection? Perhaps the stratagems of architecture are already institutionalized on the principles of the transformation of Being and recollection. The monument should emphatically transforms the work into a remnant, residue, or that which remains when the process is over. This monument is capable of enduring because from the outset it is produced in the form of that which is no longer; the trace of the unborn; the exterminated human being.

The world of Berlin has been stuttered by space in which the guest, a name sweated down from the wall, a wound up in the air, stands in the time-void. Such a place is a body open for air, silence, stars: solidifies the time-void into those image gaps harbored in the slit-arteries of awareness. We travel largely the last of the sonic booms... receives us: the boosted heart pace, outside, in space, brought home to the axis of Earth.

The Spiritual in architecture is urgent, though it seems to have become an embarrassment, a rumor on the street. The spiritual, appropriated by the fundamentalist right, has been expropriated from culture and history, eliminated from discourse through which it should be reclaimed. One should attempt to retrieve the spirit of architecture, to recall its Humanity, even within a situation in which the goal and the way have been eclipsed. The erasure of history and its carriers, the obliviousness of the market economy to the degradation and ongoing genocide of human beings must be countered with a deeper awareness and action.

Architecture is and remains the ethical, the true, the good and the beautiful, no matter what those who know the price of everything and the value of nothing may say.

Contemporary architecture is split bitterness/sweetness, strictly, the ends of its smile go off into the anarchy of life, opening a paradoxical freedom.

1. Based on Richard Rhodes, **The Making of the Atomic Bomb**, New York: Simon and Schuster, 1986; Wolf von Eckardt and Sander Gilman, **Bertolt Brecht's Berlin: A Scrapbook of the 20's**, Garden City, NY: Anchor Press, 1975; Anton Kaes, Martin Jay, Edward Dimendberg, **Weimar Reader**, Berkeley: University of California, 1994.

photo: Bitter Bredt Fotografie, Berlin

Masochism in the City, A Contract with Urbanism

David Cabianca

1 Ludwig Karl Hilberseimer, German, 1885-1967, *Hochhausstadt* (Highrise City): Perspective View, North-South Street, ink and watercolor on paper, 1924, 97 x 140 cm, Gift of George E. Danforth, 1983.992

2 Ludwig Karl Hilberseimer, German, 1885-1967, *Hochhausstadt* (Highrise City): Perspective View, East-West Street, ink and watercolor on paper, 1924, 96.5 x 148 cm, Gift of George E. Danforth, 1983.991

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"The repetition of the blocks resulted in too much uniformity. Every natural thing was excluded: no tree or grassy area broke the monotony... the result was more a necropolis than a metropolis, a sterile landscape of asphalt and cement, inhuman in every aspect."[2]

How is it possible that the principles of the "Good" can still be deployed as a defensive mechanism to prop up an idea of "place," while "place" has long since been absorbed and made irrelevant? Given that the urban reality of the strip is so ubiquitous in the contemporary city, why does the strip still remain the object of derision and the focus of innumerable master-plans calculated to repair what is essentially an inoperable condition? How is it possible that this contempt for the reality of the urban condition can maintain a presence in architectural discourse while founding itself upon an out-moded definition of the Good? These questions point to an architectural discourse determined by a calcified concept of the Good; one which refuses to accept difference and uncertainty, deviance and complexity. The terms of this obsolete Good must be discredited in order to evaluate the pleasures of a contemporary urbanism. These pleasures do not conform to the conventional pleasure and pain dialectic where pleasure is identified as the absence or suppression of pain. Instead, the pleasures of contemporary urbanism are most certainly difficult, painful and ultimately, masochistic.

Many architects have yet to apprehend that the Good has been superceded by its modern equivalent, the law. In its classical conception, the Good was thought to be determined by an infinitely superior principle. With the modern conception, the law is no longer dependent on the Good, but rather, the Good itself is made to depend on the law.[1] This means that the Good no longer exists as a concept, but is now formalized by a series

3

4 The fulfillment of the promise of the Hochhausstadt: "Hilberseimer's barren, gloomy, menacing drawings prophesy a city without streets, even worse, if that's possible, than that which has actually been realized."[3]

of prescriptions: "The law no longer has its foundation in some higher principle from which it derives its authority, but is self-grounded and valid solely by the virtue of its own form."[4] No longer universally accepted but rather constructed upon an artificial ground, the Good thus instrumentalizes "Reason" in the name of the law as a defensive mechanism in order that the law may claim legitimacy. However, the legitimate status of the law is jeopardized by its very same appeal to reason. This appeal must conceal the voided center of the Good: "If men knew what the Good was, or knew how to conform to it, they would not need laws: the law is only a representative of the Good in a world that the Good has more or less forsaken."[5]

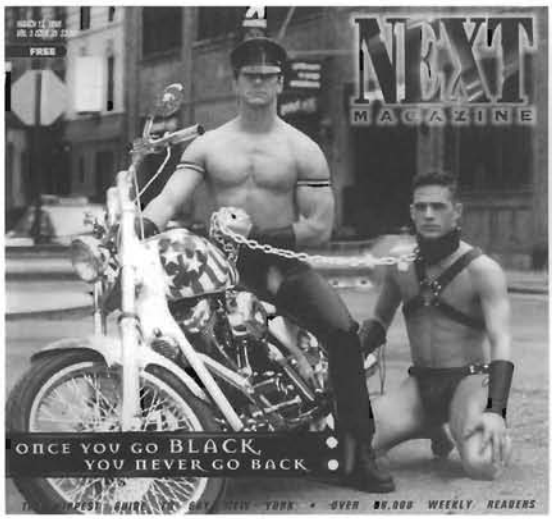
The consequences surrounding infraction or violation also determine the law's legitimacy. Since the concept of the Good is no longer universal, and is in fact arbitrary relative to "Reason," the law appeals to the will of the righteous under threat of punishment. Gilles Deleuze notes that "obedience to the law is 'best,' the best being in the image of the Good."[6] Yet the recognition of a void at the center of the Good, the absence of a higher principle, makes adherence to the proper of the best impossible: How can an adherence to the image of the best be possible if one cannot locate the image of the Good itself? An awareness that the Good exists independent of and in opposition to the nature of the individual (as individual subjects, born to free will) further aids the transfer of authority from the absolute determinism of the Good to the speculative content of the law. Obedience to the law occurs not because one desires to act in the name of righteousness, which is unlocatable, but because the repressive nature of the law denies instinctual gratification. However, as the following will attempt to illustrate, the economy of this relationship is destabilized when the pleasure of gratification is conflated with an excess of compliance with the law.

Since the law is no longer based upon an originary higher principle, but is instead a product imposed by society, obedience to the law is then a matter of conscience, a matter of contractual agreement between parties. Architecture's obedience to this contractual economy is guaranteed by the very structure of production: client agreements, contractor and subcontractor coordination, building codes, bank financing, zoning bylaws... These agreements are made between parties to (ultimately) deliver services in the name of urbanization. The urban form of the Good is founded upon particular promises of control, order and omnipotence. The Good contracts form via the law to provide a sanctioned pleasure, a pleasure which satisfies accepted conventions of experience. However, under these terms the contract conceals a double edge. Couched in a scrupulous adherence to the reasoning of its regulatory language, and under the prescription of the contract, the law

contains the seed which initiates its own downfall. Thus the law as a representation of the Good, when carried to extreme excess, negates itself. Piranesi is one such architect whose geometric contemplations cause the Good, that is to say "Reason," to destroy itself. The classical vocabulary of architecture is Piranesi's chosen form of contractual bondage. His obsessive designs for the *Campo Marzio* and *Carceri d'Invenzione* reveal the contradictions of reason which both liberate and condemn at the same time. Piranesi invokes history as pure technique and the overwhelming formal accumulation of invention ultimately reduces the concept of architecture to "empty signs."

Ludwig Hilberseimer's *Hochhausstadt,* or Highrise City, of 1924 is a further example whose excessive rationality subverts its contract with the city through the strictest submission to its bonds. The utter severity of the Highrise City, as noted by Hilberseimer, developed out of a repression which assured that "every natural thing was excluded." The extreme anguish of his comment is not lost to irony. Rather, it is a pronouncement which acknowledges the mechanism of the law, a mechanism which brings the totalizing desires of the rational–the law as representative of the Good–to its logical conclusion. The horror of Hilberseimer's design is simultaneously a cause for the exquisite pleasure of its apostatic form. The Highrise City displays a relentless acceptance of control. In Hilberseimer's own words, "the general case and the law are emphasized and made evident, while the exception is by contrast put aside, the nuance cancelled."[7] More precisely, Hilberseimer's Highrise City makes palpable the repressed desire for stimulation alternatively present in the urban metropolis. In Lacan's words, the law functions the same as repressed desire: The law cannot identify itself with reference to a content without removing the repression upon which it rests.[8] Similarly, the Highrise City cannot reveal–or name–the absence of the subject without removing the self same repression. This is to say, if the Highrise City were to display the presence of the subject, then no such repression would exist.

Hilberseimer's exclusion of the natural in his design, or by extension his repression of the subject, when examined from its opposing perspective as the excess of reason, is ultimately erotic: "Neither space nor concepts alone are erotic, but the junction between the two is."[9] Hilberseimer's subject wholly submits to the extremes of alienation, rationalization and economic reductivity already present in the modernity of the twentieth century city. His vision does not reflect the world as mere description, but rather offers a new counterpart to existing desires by fully acknowledging the wickedness of the law and consciously submitting to the violence of reason with wicked intelligence.[10] In reducing the city to pure rationality,



5 "The masochist appears to be held by real chains but in fact is bound by his word alone. The masochistic contract implies not only the necessity of the victim's consent, but his ability to persuade, and his pedagogical and judicial efforts to train his torturer."[11]
(Photograph 5 © 1997, Next Magazine, All Rights Reserved.)

The masochist must persuade, educate and train his torturer who may in fact be ambivalent towards the act of punishment. His tool is a contract arranged to formalize his desire and to ensure equal participation between parties.

6 The problem with Detroit is that there are too many buildings.
(Photograph 6, Worawan Talodsuk)

Hilberseimer exceeds the limits of the contract without destroying its terms–his city no longer merely presents an image of the "Good" but it exceeds its desire for the Good. "An excess of stimulation is in a sense erotic," and by zealously applying the letter of the law to excess, a void opens to establish a potential space for the subject's experience. Deleuze continues, "Thus eroticism is able to act as a mirror to the world by reflecting its excesses, drawing out its violence and even conferring a 'spiritual' quality on these phenomena by the very fact that it puts them at the service of the senses."[12] The sense of the erotic in the space of Hilberseimer's *Hochhausstadt* and in the modern city in general is based on the transgression of sanctioned pleasure.[13] Such a transgression explicitly recognizes its dependence upon the unfamiliar, difficult and *masochistic* pleasures of contemporary urban sprawl: vacant plazas, endless freeways, countless stripmalls, repetitive suburbs, asphalt oceans, innumerable billboards... Like Piranesi's submission to the formal excesses of the classical idiom and Hilberseimer's compliance with the rationalizing forces of modernity, the masochist overturns the threat of punishment by fully complying with the logic of the threat in advance. This complicity allows the city to act as a model from which one may rethink the terms of *pleasure* and *urbanism*. The conventional conception of the "Good" has left architecture conceptually handicapped and incapable of thinking new responses to the city. "What if we simply declare that there *is* no crisis–redefine our relationship with the city not as its makers but as its mere subjects, as its supporters?" Theorizing the city along the lines of acceptance and uncertainty affirms the exhilaration of contemporary urbanism and exhausts the potentials *already present* in the urban landscape.

By investing in the city as it exists–fragmented, dislocated, decentered–it may be possible to recognize and intervene in opportunities which have nominally remained untapped, marginalized, and suppressed. The desire for control in the city has been externally applied by architects and planners alike, but the city continues to expand and flourish *in spite of* their meager efforts: How else can one explain the persistent futility of a desire which continues to strategize ever tighter juridical regulation in a demand for order while simultaneously, the formlessness of the city continues to exceed any such imposed qualification?[14]

In contrast to the inflictions of the sadist, who, like the conventions prescribed by the master-plan(ner) imposes from without, the masochist intercepts his fate by means of an active role in his "punishment." "The masochist waits for pleasure as something that is bound to be late, and expects pain as the necessary condition that will finally ensure the advent of pleasure. It would be an error to say that the

masochist determines pleasure from pain, rather the masochist must undergo punishment first before experiencing pleasure."[16] At first gloss, the masochistic endeavor appears disenfranchised and negative. However, the masochist's strength lies in a contempt for his torturers: his apparent obedient willingness to submit to punishment conceals a criticism and a provocation. The masochist sees humor in his situation because the very law which forbids the satisfaction of a desire under the threat of subsequent punishment is converted into one which demands the punishment first and then orders the satisfaction of the desire. "By scrupulously applying the letter of the law one is able to demonstrate its very absurdity and provoke the very disorder that it intended to prevent. ...by the closest adherence to the law, and by zealously embracing it, one may hope to partake of its pleasures."[17] To accept the logic of the masochist, to sign the contract to participate in the vitality and provocation that the city has to offer, is to re-evaluate the strength and potential of the metropolitan condition.

1. Although there is not enough space here to outline specific relationships, for purposes of agency I wish to acknowledge that the core of this article relies upon the distinction made by Gilles Deleuze that masochism and sadism are not binary conditions. They have nothing to do with each other: "their worlds simply do not communicate." Gilles Deleuze, "Coldness and Cruelty," in **Masochism**, translated by Jean McNeil, (New York: Zone Books, 1989), p. 82. **2.** Ludwig Hilberseimer quoted in Richard Pommer, "More a Necropolis than a Metropolis," in **In the Shadow of Mies: Ludwig Hilberseimer**, Richard Pommer, ed. (New York: Art Institute of Chicago and Rizzoli International, 1988), p. 17. **3.** Joseph Rykwert quoted in Richard Pommer, "More a Necropolis than a Metropolis," in **In the Shadow of Mies: Ludwig Hilberseimer**, Richard Pommer, ed. (New York: Art Institute of Chicago and Rizzoli International, 1988), p. 17. **4.** Deleuze, p. 82. **5.** Ibid., p. 81. **6.** Ibid., p. 75. **7.** Ludwig Hilberseimer quoted in K. Michael Hays, **Modernism and the Posthumanist Subject**, (Cambridge, MA: MIT Press, 1992), p. 177. **8.** See Jacques Lacan's comments regarding the law in "Kant avec Sade," **Critique: Revue Genenerale des Publications Françaises et Etrangères**, vol. 191, 1963, pp. 293-313. **9.** Bernard Tschumi identifies the juncture between reason and space as erotic, "The ultimate pleasure of architecture is that impossible moment when an architectural act, brought to excess, reveals both the traces of reason and the immediate experience of space." "The Pleasure of Architecture," **Architecture and Disjunction**, (Cambridge, MA: MIT Press, 1994), p. 89. **10.** In identifying a distinction between effects, Deleuze discovers a performative value in wickedness: "Sade, in *Philosophy in the Bedroom,* distinguishes between two kinds of wickedness, the one dull-witted and commonplace, the other purified, self-conscious and because it is sensualized, 'intelligent.'" Deleuze, p. 37. **11.** Tschumi, p. 89. **12.** Ibid., p. 75. **13.** Tschumi, "Architecture and Transgression," pp. 65-78. **14.** The question concerning the conflict between architecture and urbanism has been explored by Manfredo Tafuri in **Capitalism and Utopia**, (Cambridge, MA: MIT Press, 1976), and Rem Koolhaas, "Whatever Happened to Urbanism?" in **S, M, L, XL**, (New York: Monacelli Press, 1995). **15.** Koolhaas, p. 971. **16.** Ibid., p. 89. **17.** Ibid., p. 88.

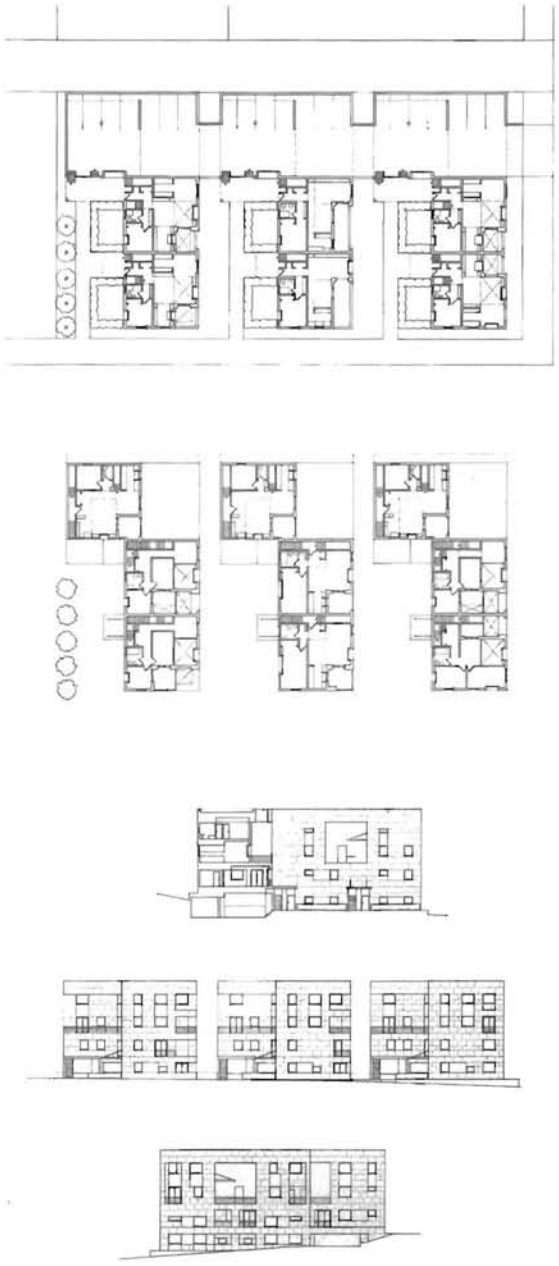
Suburbia? Housing in the New American Metropolis

Robert A. Levit

Suburbia has become a slippery term. Many competing images lurk in the shelter of this single word: Levittown jostles alongside Riverside, while all prior images of suburbia haunt the unprecedented forms of a contemporary American city that is still widely called suburban. The inertia of words that lag behind changes in the things they describe is not without parallel in architecture. Buildings that have taken shape under very different circumstances exercise a strange dominion over a present that has long since parted company from a past with which it continues to be identified. It is our contention that the preceding remarks fit very well the peculiarities of housing in the modern American city while the incertitude of the urban nomenclature is connected to the questions that dwelling raises.

In the six senior year undergraduate studios whose works are shown in these pages, the design of housing, just beyond the edge of downtown Ann Arbor, was proposed. Students considered how the changed circumstances of the contemporary suburban metropolis could instigate the reexamination of conventional housing models. Our assumption here was that housing in even traditionally more urban settings has been as affected by changes in the culture of contemporary urbanity as has been the housing in areas more properly part of the new metropolitan world. Of a somewhat less obviously speculative nature was our interest in the pedagogical dimensions connected to the issues of type and repetition, issues inherently germane to the design of housing. However, even if the former questions arising from suburbia seem to broach more immediately broad social and cultural themes, while type and repetition may seem merely issues of technique and training, such distinctions appear to us entirely deceptive. With regard to the changed circumstances of the American city these and the following issues form a necessary backdrop to any current considerations.

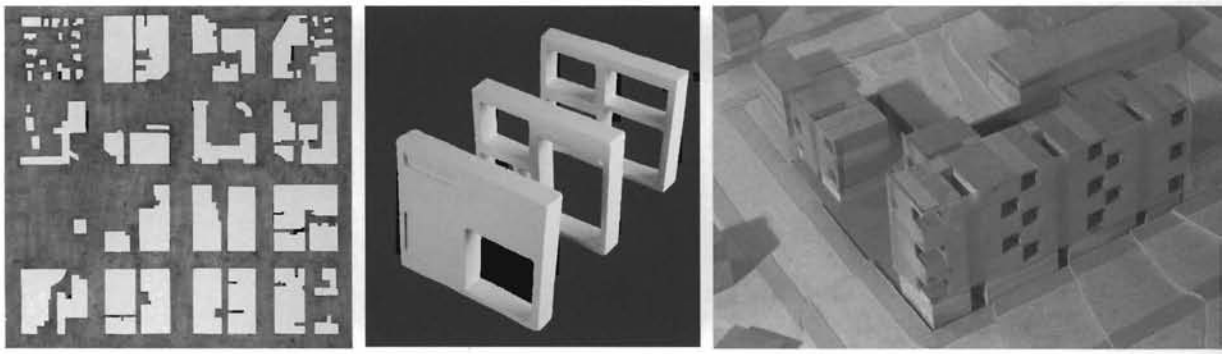
As has been widely remarked, the 1980 U.S. Census recorded what had already become apparent to many: by 1980 the dominant form of contemporary American urbanism had become sub-urbanism. The Census reported that for the first time in American history a plurality of Americans were living – not in cities, nor the



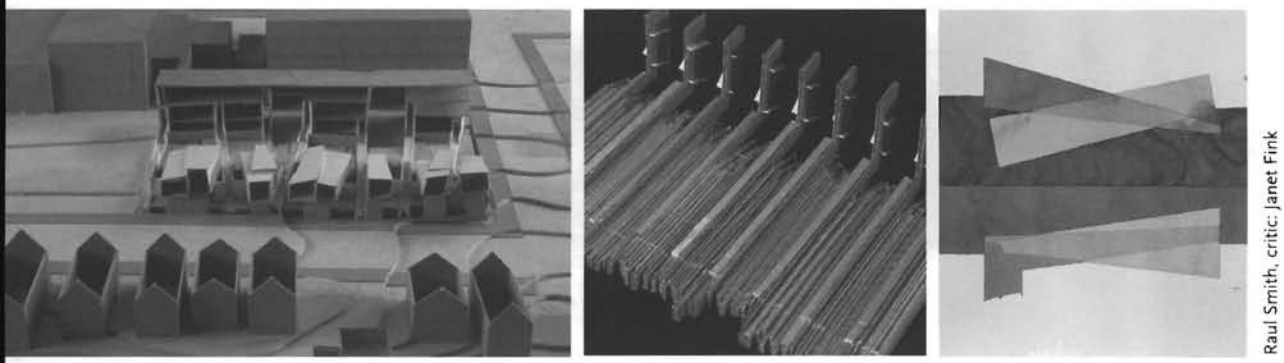
Christopher Lanave, critic: Robert A. Levit

country – but in suburbs. Yet – again, as many commentators have pointed out in the intervening years – the traditional nomenclature of city and suburb has the potential to confound our understanding of the new form of metropolitan order.[1] The term "suburb" once designated a symbiotic component of the nineteenth century industrial city, characterized by its largely singular function – residence; the form of that residence – single family houses in a garden setting; an exclusive population of well-to-do families; and lastly, by its utter dependence upon a city center, where jobs, shopping, entertainment, labor and production all remained fixed. Over the course of its nearly century and an half history, the suburb has radically changed character. All of the functions that once had remained rooted in the city centers have flowed out to the suburbs, creating garden city environments that now include factories, office complexes, theaters, shopping, and, most importantly from our point of view, a much more diverse resident population. The suburb of the affluent middle-class nuclear family has been replaced by the suburb of mixed classes, and ethnicity (to some extent), and diverse living arrangements. Housing has developed to accommodate not only a less affluent market, but also the living requirements that no longer are defined by the nuclear family's grouping of mother, father, and children.

In spite of these well recorded changes in the make-up of the suburb, what we have noted is that the ideology of the suburb – or, at least, its architectural dimension in the ideal of the single family house – has established itself as a persistent presence even where this house has been replaced by more dense forms of dwelling. The ubiquitous suburban condominiums that clump together many units in the form

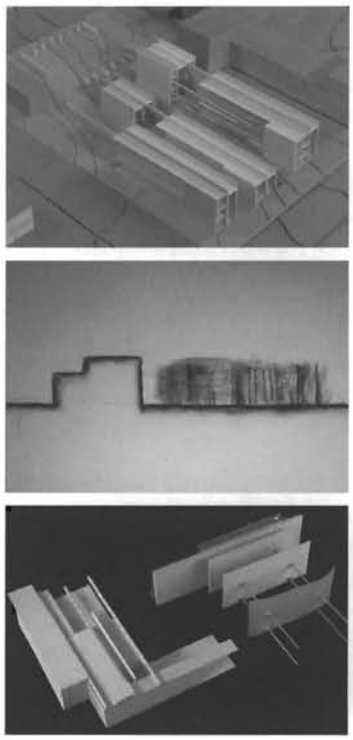


Carla Swickerath, critic: Janet Fink



Raul Smith, critic: Janet Fink

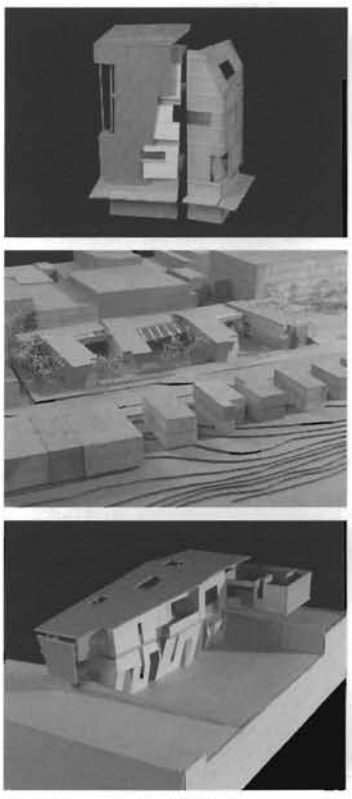
of a dwarf villa are obvious symptoms of the powerful reign the single family house exercises over housing even when simply reduced to a form of iconography. The condo-clumps provide a more economical form of multi-unit housing than possible in the detached house; yet, in them we see an insistence on the image of the single family house, and particularly upon the presence of the attached private garage. What is remarkable here is the degree of amenity willingly sacrificed to a symbolically fixed image of residence. In smaller units aggregated at moderate densities the ratio of garage to unit grows while the asphalt of driveways proliferates. The generous contact between interior space and landscape associated with the detached house gives way to the symbolism and convenience of the attached garage. The site planning of closely spaced but separate unit groupings erodes further prospects for an inhabitable landscape. The proximity of separate multi-unit 'villas' to each other squeezes out the semi-private space of gardens or porches associated with the private house while, at the same time, the insistence on the form of the detached house freely disposed in a landscape precludes any more effective landscape strategy, based either upon collective organization of apartments or upon a reconsideration of the type of the unit itself.



Dave Lin, critic: Will Wittig

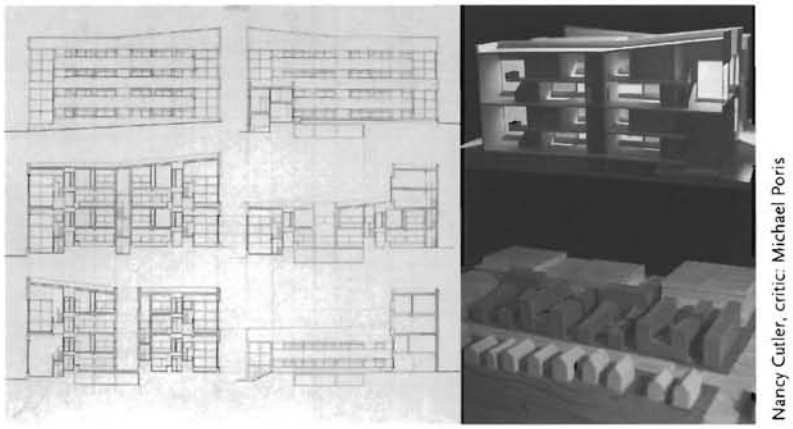
While peculiar but economically successful compromises pervade newly developed lands outside traditionally urban areas, urban housing itself is subject to competition from its new subdivision rivals. Multi-unit housing being built within urbanized areas, at densities that have in the past been characterized by traditional apartment typologies, are now arising in the guise of suburban cluster forms. Obviously the image of the suburb has taken root in the popular imagination almost regardless of traditional urban/suburban boundaries. It has done so, at a moment when that very traditional ideal of suburbia has already ebbed so far from reality.

If the preceding paragraphs offer a glimpse at certain paradoxes of what has been called the 'post-suburban' condition; and, if these raise a set of concerns within which to consider contemporary issues of housing, it may now be appropriate to raise a few points about housing that do not depend so immediately upon suburban or post-suburban questions. We have considered typology a necessary body of knowledge and methodology in the design of housing. Yet, we are aware of the dubious regard in which type is currently held and feel prompted to remark upon its insecure status. Rafael Moneo, musing at the end of his famous article

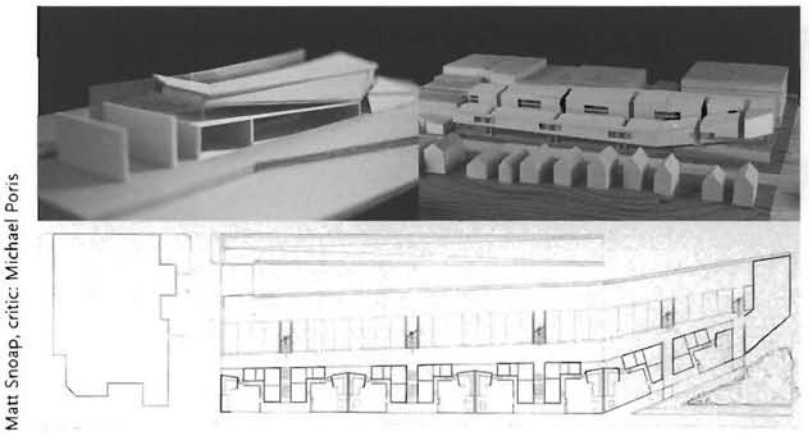


David Moon, critic: Will Wittig

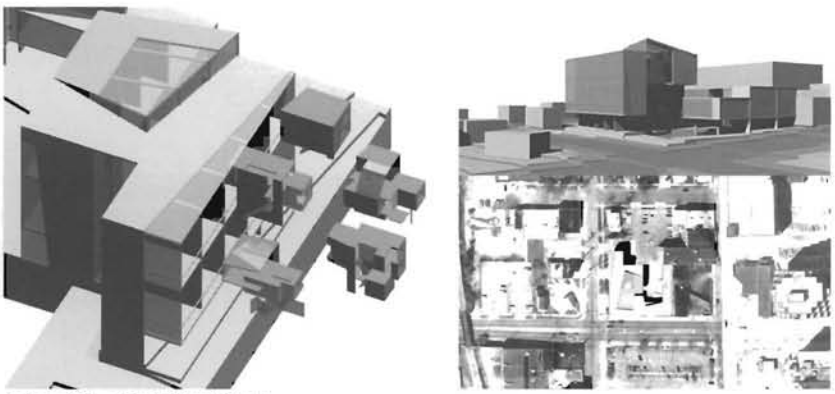
On Typology, wondered if typology as a means of knowing and producing architecture had become impossible under present circumstances.[2] Prior to the eighteenth century 'discovery' of type – which is to say, prior to the eighteenth century theoretical articulations of type, type had guided the making of tools and architecture without, presumably, ever stepping to the forefront of the architect's or artisan's consciousness. Artifacts and buildings were made or designed through a process guided by a knowledge of customary forms, yet the categorical generality to which type corresponds never became the intended matter of an artifact's appearance.[3] The moment type was theorized it was as if the very ground of thought had tried to obtrude itself into the light of day. That which had been the substance of architecture, the particular *manner* of a realized type – the logic of its style – had given way to the contemplation of invisible principles of form. Inevitably such thought could have no visible form since mental categories do not correspond to any actual object in the world. The eventual desire to make the invisible grounds of thought – the categorical abstractions of type – appear in the world required recourse to customary symbols of pure thought – that is a-material spheres, cubes, cylinders, and cones. Aldo Rossi's neo-enlightenment sympathies led to the production of an architecture of these 'absolute' geometries. For all of the power that resides in Rossi's project, its apparent removal from the contingencies of the world; from the questions of modern technique; its aloofness from the panoply of new formal and visual experiences; and its apparent inflexibility with regard to program suggested an architecture removed from life. Moneo describes what amounts to a crisis. It may be, in fact, that the attempt to produce an architecture of pure types camouflages the pervasive inability to believe that any style of architecture, that is, any manner of architecture's appearance could ever again seem necessary.



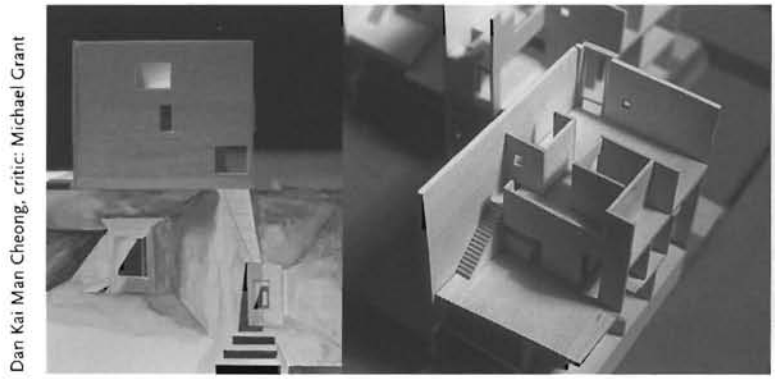
Nancy Cutler, critic: Michael Poris



Matt Snoap, critic: Michael Poris



Jr-Gang Chi, critic: Michael Grant



Dan Kai Man Cheong, critic: Michael Grant

What is pertinent to our current considerations is Moneo's suggestion that type's last role would likely be in housing. While the singularities that forego direct concern with type are possible in one-off institutions where the question of appearance is inexorable, housing by necessity is repetitive. Its repetitions and the almost scientific logic of its dimensional constraints and patterns of accommodation make the knowledge of type and the taxonomy of its various formal patterns an indispensable tool to the methodology of its design. By contrast one can imagine the aggravated irrelevance of both 'personal explorations' on the one hand and, on the other, of neo-*avant-garde* forays into fluid space when placed in the context of necessarily finite and repetitive housing units. In a peculiar way, where the indifference of type to actual appearance is a terrible lacuna in the body of almost all architecture, it seems an acceptable, and possibly desirable one in the context of housing. Housing establishes the pattern of the city – even when suburban – and is only later secondarily implicated in questions of style. Such neat closure on the subject is obviously somewhat illusory. The image of housing is of great importance, it is merely our contention that this image may be more productively postponed than it might be in other areas of architectural concern.

The studio exercises were set up in such a manner to first raise the important subject of type prior to entering into the particularities associated with a real site. In the context of an abstract exercise it was possible to explore the different 'genetic' patterns of housing and their implications both for the character of units, on the one hand, and for the urban form on the other. Our first exercise asked that students explore two different typological patterns for each of two different densities (20 and 40 units/acre on an half acre site) in order to familiarize them with both the feel of different densities and the range that different typological solutions could produce. In this exercise they became aware of that complicated chain reaction that exists in housing that links the smallest scale of domestic considerations to the large scale shaping of the city.

The sites given for the final projects were both half acre sites at the western edge of downtown Ann Arbor, where the commercial fabric of Main Street trails off into neighborhoods of single family houses. In these projects the apparently independent and somewhat technical problems connected to typological aspects of housing quickly came

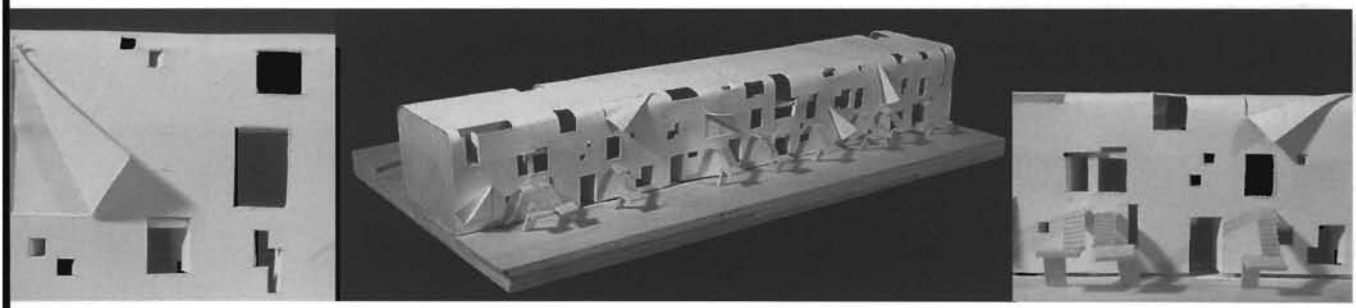
back upon the broader problematic of residence in a 'post-suburban' setting. The distinction between collectivity and the separate identification of each unit; the relation of each unit to an on-site parking space; the location, aggregation, sequencing and layering of thresholds; and the designation of landscaped territories, either in the form of elaborate private terraces or shared gardens, all became issues orchestrated through the manipulation of types. Units themselves were reconsidered from the point of view of traditional room hierarchies: traditional bedroom relationships were substituted by more flexible patterns of occupation while the requirements of live/work environments were allowed to reorder thresholds and sequences.

By addressing issues connected with the persistence of the suburban ideal in the post-suburban condition in more structural terms, that is at the level of typological organization, the studios sought to simultaneously accommodate 'criticism' of the city's traditional urban form made from the suburban perspective while resisting the ultimately anti-urban *and* anti-suburban forms of current development practices.

Dave Teare, critic: David Cabianca

1. Robert Fishman, **Bourgeois Utopias: The Rise and Fall of Suburbia,** (New York: Basic Books, 1987), Joel Garreau, **Edge City: Life on the New Frontier,** (New York: Doubleday, 1991), Kenneth T. Jackson, **Crabgrass Frontier: The Suburbanization of the United States,** (New York: Oxford, 1987). 2. Rafael Moneo, "On Typology," ***Oppositions,*** vol.13 (Summer 1978): p. 22-45. 3. It is important to distinguish here the desire to make the abstraction of type appear from, for instance, prior Renaissance interests in making manifest the underlying orders of nature. The proportions that Wittkower describes in Palladio's villas are not held to be manifestations of building types but an orchestration of the building's geometry according to cosmic principles of order.

Kyle Mathews, critic: David Cabianca



Detroit's mass to void...
rhythm to melody

Steven VandenBussche

Woodward Avenue is an element in the urban fabric of Detroit that could potentially begin to connect and structure the deteriorated downtown and define ambiguous edges/boundaries between the city and the suburbs. I intend to communicate my perceptions of Woodward Avenue as the main connector of downtown and suburbia and to analyze how they relate-not relate, associate-disassociate, connect-disconnect, join-divide the greater deteriorated downtown with the suburbia of Detroit. Historically, Woodward Avenue has been the site for many transformations in the city occurring while it was developing, changing, and deteriorating. It is the main artery between the city's downtown and its sub-urban condition. I attempt to understand only a fraction of the city's political, cultural, racial, economical struggle. It is my intent to identify Woodward Avenue's potential to become a revitalizing artery for Detroit as a city and place. We should recognize and learn from Detroit's evolution and use the knowledge as a foundation to react to and upon which to build.

Woodward Avenue's Line of Time: Woodward Avenue was one of many roads that was to organize the 'place of Detroit.' Original plans for Detroit never envisioned Woodward as a primary road of the city. The initial masterplan by Augustus Woodward saw Detroit as the gateway city to the Northwest Territories, a city of rich character and interesting spaces. The master plan attempted to incorporate smaller nodal spaces around which buildings could be organized. However the plan was abandoned because of the complexity of the layout and economical issues. The unfulfilled Woodward plan was incorporated with the traditional city grid, although the grid was not preconceived. As the city developed on both sides of Woodward, the grid was devised as it grew which led to the staggered "mesh" that exists today. The city then developed and grew about Grand Circus and the linear Woodward path. Slowly, the city extended further north, away from the industrial areas at the river's edge. This growth continued with the addition of a train line down Woodward. The train car was added to allow for more efficient and convenient circulation to downtown, so that people could live outside downtown proper but still have access to the city.

Woodward Avenue continued to develop, becoming more commercial than residential. As people continued to move north out of the city, this main artery of circulation became more prominent. Detroit essentially grew and deteriorated about the primary line of Woodward Avenue. (fig. 1) With the invention of the automobile, the city of Detroit

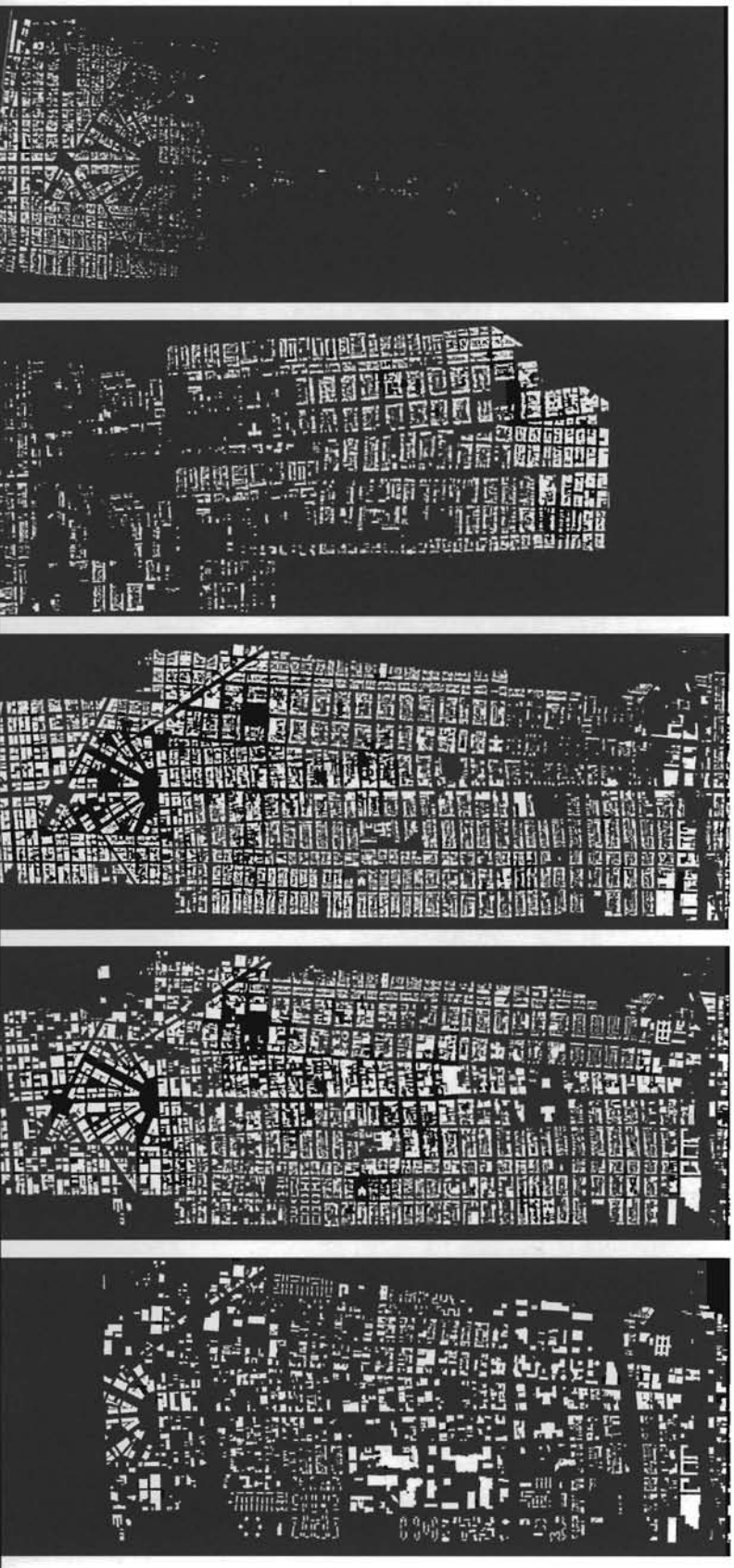


Figure 1: **History of the line** – figure ground maps from 1853-1994 showing the development of the city and the relationship to Woodward Avenue.

became the epitome of the modern industrial city. Barnett describes in *Fractured Metropolis* that the new forms of transportation, railways and automobiles, developed a new form of segregation. "Innovations in transportation created a new kind of geographic segregation. The poor continued to live within walking distance of mills and factories, and the rich in their mansion districts. The lower classes took street railways from new residential neighborhoods on the expanding edge of the city, and the upper middle class took trains from suburban areas that had grown up around railway stations..."

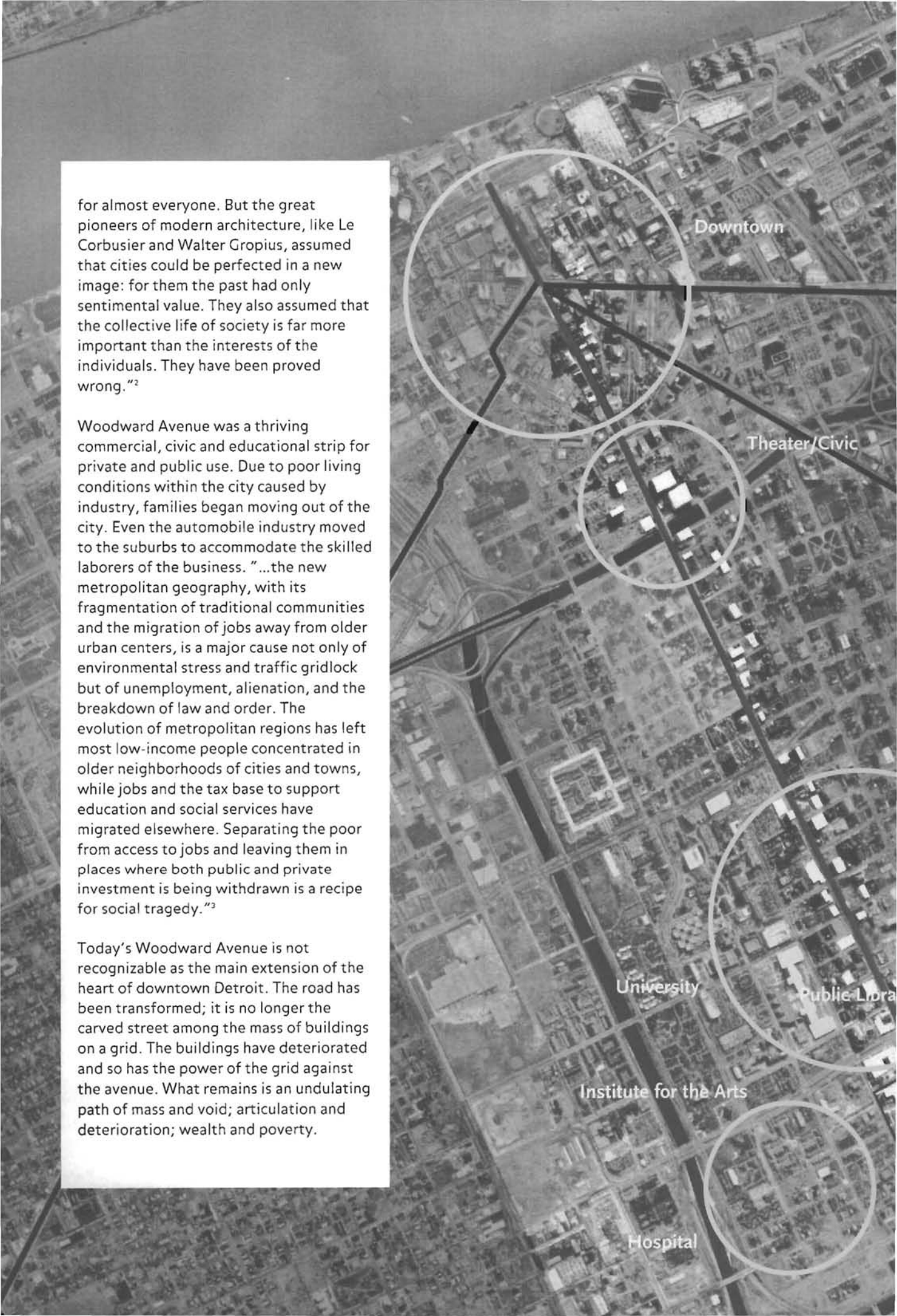
History became obsolete in a city powered by the first corporate giant, Ford Motor Company. Woodward Avenue was then a moving link that allowed further development. By the fifties Detroit had grown into a metropolis of industry and mobility. Detroit inspired additional inventions in industry and technology. This created the need for wider roads stretching through Detroit out to its suburban perimeter, allowing large forms of glass, steel and concrete buildings to emerge. "The modernist revolution in architecture had been needed because of innovations in technology: steel and concrete frames, elevators, artificial light, air conditioning, walls of glass. In the same way cities changed because of new forms of transportation and the potential of a good life

Figure 2: **Re/Defining the line** – Always an infinite, dimensionally sporatic line, never a place... Space for interaction between persons fails to exist, only by vehicle.

for almost everyone. But the great pioneers of modern architecture, like Le Corbusier and Walter Gropius, assumed that cities could be perfected in a new image: for them the past had only sentimental value. They also assumed that the collective life of society is far more important than the interests of the individuals. They have been proved wrong."[2]

Woodward Avenue was a thriving commercial, civic and educational strip for private and public use. Due to poor living conditions within the city caused by industry, families began moving out of the city. Even the automobile industry moved to the suburbs to accommodate the skilled laborers of the business. "...the new metropolitan geography, with its fragmentation of traditional communities and the migration of jobs away from older urban centers, is a major cause not only of environmental stress and traffic gridlock but of unemployment, alienation, and the breakdown of law and order. The evolution of metropolitan regions has left most low-income people concentrated in older neighborhoods of cities and towns, while jobs and the tax base to support education and social services have migrated elsewhere. Separating the poor from access to jobs and leaving them in places where both public and private investment is being withdrawn is a recipe for social tragedy."[3]

Today's Woodward Avenue is not recognizable as the main extension of the heart of downtown Detroit. The road has been transformed; it is no longer the carved street among the mass of buildings on a grid. The buildings have deteriorated and so has the power of the grid against the avenue. What remains is an undulating path of mass and void; articulation and deterioration; wealth and poverty.



The masses which make up the physical energy of the city have shifted in many different directions as Girouard points out in **Cities and People**. "Individual cities are in trouble, as some cities always have been, because they have lost the main purpose for which they came into existence, and have not found adequate new ones."[4] The automobile industries boom and bust characteristics have led many people into social and economic turmoil. The industry must not be the one to keep this city's character alive. It is the city's people that give life to the character of the city.

Re/Defining the Line: Detroit's Woodward Avenue contains many of the same features as other downtown areas such as a central downtown court (Grand Circus), a theater district, a University, a public library, an institute for the arts, museums (African-American Museum), and a hospital (fig. 2). These major pieces are all closely connected to the core of Woodward, so what's missing?

This question cannot be answered with a single solution, rather, a combination of solutions which still only begin to solve the problems. However, what has always been lacking in the weathered mesh of Detroit is a sense of place and a reason for that sense of place in the "community" of the city. We can only learn from our mistakes in history; the automobile industry brought victory to some and defeat to many. The migration of immigrants brought new opportunities and struggles still present today, including their rich heritage from which we can learn. With the strife of the automobile industry, there arose a new development of cultures and a portion of musical history. Detroit's evolution has characterized two very permanent histories for the city: an industrial/technological history and a musical heritage. My question is: From understanding history, can we characterize and give new meaning to the city of Detroit? Nan Ellin writes, "If the city is redefined, so the process of urban growth – or urbanization – and the life-style of city dwellers – or urbanism – must also be defined."[5] Urbanity exists only in extreme levels (high and low income) in Detroit and can only be equalized by creating economic and housing opportunities for people of all classes of society within the city. One way of achieving these opportunities is by redefining the line of Woodward Avenue and giving it historical and cultural identity as well as commercial, economic and public flare. The existing components of the city that struggle to maintain it's presence. Figure 3 identifies possible proposals for new and future spaces that could redefine the city. These buildings, spaces and places identify possible areas of public attraction and identity. This plan proposes new public green space, social-interactive public buildings, mixed use zones and multi income housing districts. "...ones

Figure 3
Composing the line
– Locations of new and future buildings and spaces.

Legend:

1. Proposed Cultural Park of Detroit
2. Proposed Mixed-Use (Brush Park Market District)
3. Proposed Cultural Museums
4. Existing Theater District
5. New Athletic Stadiums
6. Proposed Public Train
7. Proposed Mixed-Use (Musical Heritage District Jazz & Blues Clubs)
8. Proposed River Park
9. Existing University & Art Institute Zone

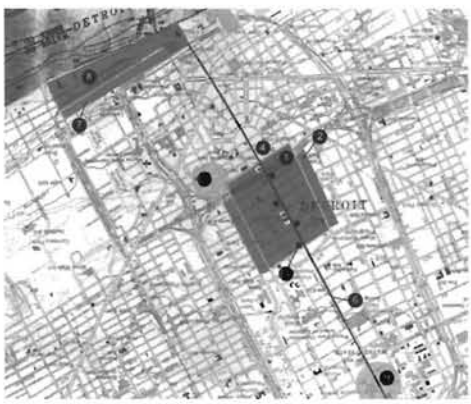


Figure 4: **Edges –** I-75 near Woodward Avenue looking towards Brush Park district, cutting through the spatial line/link of Woodward Avenue, Brush Park district and downtown.

way of life, Gans said, has less to do with whether one lives in the city, the suburbs or the countryside, than with such factors as social class, life cycle stages, and rates of social mobility, unless people are not free to make choices."[6]

Composing the Line: "A setting will convey either clarity or ambiguity, meaning or senselessness, stimulus or monotony, pleasure or distrust. The sensuous function is as important as the demands of circulation or of use. Its requirements may not coincide with technical demands and a solution must be found which satisfies each of them, or sacrifices all of an equal degree."[7] Lynch offers solutions to city problems by the way in which we perceive and have a sense for the space and places of our built environment. In his book, *The Image of the City*, Lynch defines major features that comprise a city.

The ideas are primarily empirical in that they rely on the senses and perception. Many of Lynch's ideas revolve around the idea of the perception of space as one moves through it. In many cases, the city of Detroit historically related to this idea of movement through space at a rate that was unknown to man/woman at the time of the automobile's invention and its evolution. "...It is seen, not as a single view but in sequence over an extended period of time while the observer himself is in motion."[8]

The way the city is used today is very much about the way we move through it in an automobile. The properties that make up the composition of a city, in Lynch's terms, consist of paths, edges, districts, nodes and landmarks. In Figure 4, I defined a significant edge of the Woodward artery which divides the downtown proper from the existing Brush Park district. This edge clearly separates the downtown from the once thriving residential district of Brush Park. Instead of glorifying this edge I propose to modify its nature as an edge in the area surrounding the Brush Park district. (fig. 3)

The idea is to span a park over I-75 to reconnect the proposed Brush Park Market District to the downtown proper. The current voidness of the Brush Park district poses potential for a large green space for the city. Figures 5 and 6 capture the existing for this area, acting as a major green space to the incredible scale of the existing cityscape. This makes a defined edge of Woodward Avenue more like a nodal space, a 'place' of visual dramatizes and a place of rest. A proposed public train accommodates people living, working, and schooling within the city and revitalizes Woodward Avenue as a major path of circulation. This path would then connect to other districts of downtown such as the proposed Musical Heritage District on the river and the

Figure 5:
Places/Nodes –
Windsor Avenue near John R. Avenue looking south to downtown.
View showing potential seperation and connection to the cities skyline.

Figure 6:
A dramatic visual link to the downtown cityscape; possible static green space for the cities composition.

The repetitive act of moving in a car from point to point, on and over, in and through, with continuous moments of stopping and starting, looking near and seeing far, all culminate into a sequence of time called auto blur...

We perceive the manipulated factors of our environment because we are taught to yield, stop and go, however, all else is up to interpretation, ignorance, displeasure, comfort...

The given forms and elements of rhythm, meter, and time mark and measure the moments of our experience. What can be subtly made to follow or even control a visual interaction/ communication with the street and our bodies?

Figure 7: **Auto Blur** – Moving about the line.

existing University and arts district. These ideas are structured around the Lynchian properties of urban space. By creating these different places, it is possible to identify them with landmarks so a person can identify his or herself with an area. "When man dwells he is simultaneously located in space and exposed to a certain environmental character. The two psychological functions involved, may be called "orientation" and "identification." To gain an existential foothold, man has to be able to orient himself; he has to know where he is. But he also has to identify himself with the environment, that is, he has to know how he is in a certain place."[9]

Woodward Avenue's line of rhythm, meter, melody and time: "Except in special cases where he attempts an air of mystery and doubt, he makes sure that his spaces are well defined, unambiguous in form, and clearly joined at well marked transitions. If the space is to have rhythm and directed movement, then the rhythm and direction will be supported by the form of all visible elements."[10] The procession down Woodward Avenue is characteristically a linear one; from point to point, things occur that repeat in a measured sense. Others undulate with a dynamism equal to that of a melody in a line of music. Lynch states that moving linearly through space will create rhythm and direction. Music is another linear composition that is structured of major properties of rhythm, meter, melody and time. These properties are present, in some sense, in the perception and experience of a space through movement. Music is just another type of movement specifically relating the audible senses, where exploring space and form through architecture and urban design is a specifically visual sense. By developing the character of spaces explored in Figure 3 with the empirical notions of movement through space, the experience of Woodward Avenue organizes a sequence of spaces to experience visually and interact with physically. "...One is drawn toward another kind of organization: that of sequence, or

temporal pattern. This is a familiar idea in music, drama, literature, or dance. Therefore it is relatively easy to conceive of, and study, the form of a sequence of events along a line, such as the succession of elements that might greet a traveler on an urban highway. With some attention, and proper tools, this experience could be made meaningful and well shaped."[11] "The sequences along a path," that Lynch suggests are my interest in the development of Woodward Avenue between downtown and the sub-urban Detroit. Each successive sequence attempts to contain a certain interest and perception of a underlying infrastructure or rhythm, sensitivity to the site of the deteriorated urban grid or meter, variation and precision in form and space or melody, and time. "Sequences are not only reversible, but are broken in upon at many points. A carefully constructed sequence, leading from introduction, first statement, and developing to a climax and conclusion, may fail utterly if a driver enters it directly at the climax point. Therefore it may be necessary to look for sequences which are interruptible as well as reversible, that is, sequences which still have sufficient imageability even when broken in upon at various points, much like a magazine serial. This might lead us from the classic star-climax-finish form to others which are more like the essentially endless, and yet continuous and variegated, patterns of jazz."[12]

1. Barnett, Johnathan, **The Fractured Metropolis,** (Harper Collins, 1995). p. 101. **2.** Ibid., p. 185. **3.** Ibid., p. 114. **4.** Girouard, Mark, **Cities & People, A Social and Architectural History,** (New Haven: Yale University Press, 1985). p. 378. **5.** Ellin, Nan, **Postmodern Urbanism,** (Blackwell, 1996). p. 246. **6.** Ellin, p. 247. **7.** Lynch, Kevin, **Site Planning,** (Cambridge, MA: MIT Press, 1962). p. 57. **8.** Lynch, Kevin, **Image of the City,** (Cambridge, MA: MIT Press, 1960). p. 114. **9.** Nesbitt, Kate, **Theorizing a New Agenda for Architecture,** (Princeton Architectural Press, 1996). p. 423. **10.** Lynch, **Site Planning,** p. 57. **11.** Lynch, **Image of the City,** p. 113. **12.** Ibid., p 114

Urban Rivers

Suzanne Irwin, Elizabeth Kruska + Robert M. Beckley

When you put your hand in a flowing stream,
you touch the last thing that has gone before
and the first of what is still to come
– Leonardo da Vinci

Historically rivers have served as the origin of many cities. Subject to flood and often swampy, the river was nonetheless a navigational access and the source of water and power. The urban river connected the highways and paths of the land to the navigable channels of water. Rivers functioned both as the gateways to other places, known and unknown, and as a source of continual renewal of both supplies and the human spirit. In the mid 1800's rivers became an essential element to industry which altered the form of the city.

Chicago River – Photo: Robert M. Beckley

In the same way that rivers mold and shape the natural landscape, society has altered and formed the landscape of the urban river. Dredged, filled, channeled, bridged, tunneled and even reversed in its flow, the urban river has been sacrificed to changing images of the city's role. Having passed from the bucolic sites of forts and trading posts, to the polluted home of industry and warehousing, to prime sites for entrepreneurial developers, to untold opportunities for creating a unique public amenity, the urban river is a powerful element in the formation of both the image and the functionality of the city. The most difficult decision for most cities is what direction to take in developing the river; to whom should this development cater; what form should the river presume; and who should be financially responsible for its transformation?

The riverfront has taken on new meaning and new vitality in the recent past. The city's role in society is being redefined and the river as an elemental part of that city must also be reconsidered. To test our hypothesis that urban rivers have played important roles in shaping the character of cities in the past, and will in the future shape urban form, three cities have been selected as case studies that share similarities and differences in their relationships with their respective rivers. Chicago, San Antonio and New Orleans each began with the river at the center of their development and it plays an important role in the personality of the city. We will explore the history and character of each of these cities and then explain what they have in common, how their contrasts inform us, and explore what the future might hold for each. Furthermore, we will extract from these case studies lessons for the treatment of the urban river in other cities.

Figure 1 – Daniel H. Burnham's vision for the Chicago River from The Plan of Chicago, 1909. Courtesy Chicago Historical Society

Chicago

Figure 2 – Plan of Chicago, Illinois, 1834. Courtesy Chicago Historical Society

In less than two hundred years the Chicago River has been transformed from the muddy site of the city's first trading post to a fully developed urban river whose edges are now multi-dimensional and support some of the most expensive real estate in the Midwest. The river now closely resembles an urban boulevard, surrounded on each side by buildings, with plazas opening onto its open spaces and roads crossing it smartly marked with handsome gateways, (fig. 3).

This transformation of the Chicago River has occurred in several discernible stages each of which led to its present form.' The transition from a trading post (1779) to the location of Fort Dearborn (1804) took only a quarter of a century. In another fifty years (1850-60) the river became a dock and industrial area with distilleries, flour mills and iron works whose commerce was dependent upon the river. During this same period (1852) the Illinois Central Railroad began to control the junction of Lake Michigan and the river while the city council adopted resolutions to raise the city above the level of the water to ensure proper drainage. By 1858 the city had succeeded in raising itself out of the mud. After the Great Fire of 1871 speculators began a massive reshaping of the character of the area along the river. By the 1890's docks constituted nearly two thirds of the fifteen miles of navigable river and the southern edge was a crowded market district. Despite the river's utility as an avenue of commerce, the river was crossed by forty-one bridges, which tended to interrupt the boat traffic.

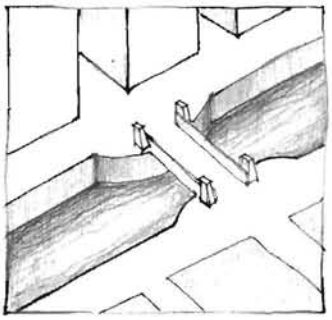


Figure 3 – The relationship between the city and the river. Drawing by Suzanne Irwin.

Rapid growth north of the river saw more bridges being developed and the conflict between surface and river traffic increased. This conflict inspired the creation of tunnels to carry surface traffic under the river at Washington Street (1869) and La Salle Street (1871). Soon the sixteen foot depth of the river could no longer accommodate the twenty foot draft of the ever-larger sailing vessels being used on the Great Lakes, (fig. 6). The increase in boat traffic encouraged the building of docks elsewhere along the shores of Lake Michigan. By the end of the century, the center city's increasing value as a location for office and retail activity was already forcing light industry to the periphery of the downtown. Bridge improvements tended not only to be an obstacle to using the river for shipping and commerce, but they allowed office and retail activity to leap-frog the river and expand to the north. This forced traditional water front uses to other areas of the city. From 1890 onward shipping on the Chicago River began a steady decline.

The period from 1900 to 1925 saw dramatic changes in the function and shape of the Chicago River. A proposal to connect the South Branch of the Chicago River with the Des Plaines River by constructing a twenty-eight mile canal was implemented, reversing the flow of the river. A shipping channel from Lake Michigan to the Gulf of Mexico was thus opened and Chicago's sewage began to flow south, rather than into Lake Michigan. Following construction of the canal, improvements to the Chicago River included dredging and dock reconstruction which widened the channel to 200 feet, necessitating the construction of new bridges, (fig. 4).

Figure 4 – Chicago River and Wacker Drive, 1931. Courtesy Chicago Historical Society.

The power of the planning authority became diluted during this period. However, improvements to the Chicago River were part of the Plan of Chicago sponsored by the Commercial Club of Chicago and co-authored by Daniel H. Burnham and Edward H. Bennett.[2] The Plan of Chicago envisioned a river which would be lined with new high-rise office buildings and multi-level access on either side with handsome bridges, (fig. 1). Both the river and the lake were viewed as open space amenities complementing the increasing density of the city. A multi-level boulevard, Wacker Drive, was proposed in 1917 to replace South Water Street which then separated the river from downtown. The proposal for Wacker Drive was to create a multi-level roadway along the edge of the Chicago River and its South Branch which defined the northern and western edges of downtown.[3] The first of a series of bridges to be built as a part of this development was the Michigan Avenue bridge completed in 1920. It emulated the Alexander III Bridge and its embankments along the River Seine in Paris, completed in 1900.[4] At either end of the bridge four monumental towers were built giving the bridge a clear definition from the boulevard at either end. Flanking the bridge abutments were grand staircases leading down to the river, clearly forecasting the river's future as an aesthetic amenity.

Even as the Michigan Avenue bridge was being built, proposals were made for the construction of new buildings. The Plan of Chicago envisioned open plazas at either end of the bridge. The Wrigley building, designed in 1919 and completed in 1922, honored this plan with distinction with an imposing tower at the northwest corner of the intersection of Michigan Avenue and the Chicago River. This building, like the bridge itself, began to architecturally articulate the river edge, with a clear definition given to the part of the building which lay between the street level and the river edge. The building itself formed the edge of the river at this important intersection.[5]

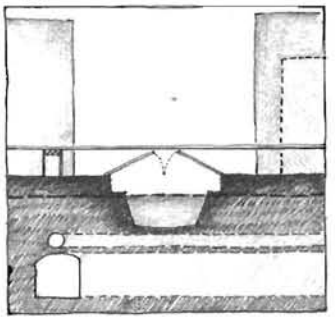


Figure 5 – The sectional relationships of the river to the city. Drawing by Suzanne Irwin.

The period after WW II saw the continuation of commercial interests in the development of the North side of the river. Industrial uses had been entirely driven from the area west of Michigan Avenue and soon the area to the east of Michigan Avenue was to be similarly developed. Urban Design Guidelines, which were established for this section of the river, did not have any authority and relied on the good faith of the developers who had projects along the river to implement these guidelines. Unlike Wrigley, present day developers seem less inclined to consider the fabric of the city or the presence of the river when making their grand gestures.

Management of the riverfront continues to be frustrated because of conflicting jurisdictional responsibilities. The "Chicago River Urban Design Guidelines," adopted by the Department of Planning and Development in 1990, is symptomatic of declining public authority, resources and will, relying instead on private entrepreneurial interests to address the importance of the riverfront. Nonetheless this vital open space in a densely packed city is now seen as an amenity and the potential site for a scenic walkway which could knit together disparate parts of the city.

Figure 6 – View of San Antonio River from St. Mary's Street Bridge, 1900. Courtesy San Antonio Conservation Society.

Figure 7 – Flood damage caused by the 1921 flood of the San Antonio River, Navarrow Street Bridge, 1921. Courtesy San Antonio Conservation Society.

San Antonio

Initially founded as a mission site, San Antonio has grown into one of America's most significant cities. The development of the San Antonio River into a park created a long tradition of a linear public space which provides a source of commercial development as well as a restful place for the public to occupy.

San Antonio was founded in 1691. Near that site was founded one of the first of several Spanish missions in the area, which later became an important American fort, the Alamo.[6] San Antonio was developed around the "Law of the Indies" which governed the layouts of Spanish settlements. Among other things, it stated that every town should be at a high elevation, surrounded by arable land, water, fuel and timber. The cities needed to have space to spread symmetrically in all directions. The Law of the Indies also stated that every inland city must be located on a river and should have a central plaza placed in the center of the town with each of the four corners of the plaza pointing to one of the four cardinal points. Following the guidelines almost perfectly the city was founded on the large horseshoe-shaped bend on the San Antonio River.

The horseshoe bend area flooded in 1921 after a major storm, (fig. 7). The estimated losses were $2 million. Because of these major losses, and the prospect of the river flooding again, city leaders wanted to pave over the river, making it into a sewer. However, city engineers came up with the idea to create a cutoff channel to avoid flooding again. Citizens who owned land on the river were given the opportunity to vote on this measure. Of the 107 land owning citizens, seventy-six voted and seventy-four were for the preservation of the river. It is exceptional that the public so powerfully shaped the development of the river into the city's greatest amenity. The twenty-one block area was beautified into the park now known as Paseo del Rio over an eighteen month construction time in 1939 as a Works Progress Administration project. It features rock retaining walls and walkways, several picturesque pedestrian bridges and considerable landscaping.

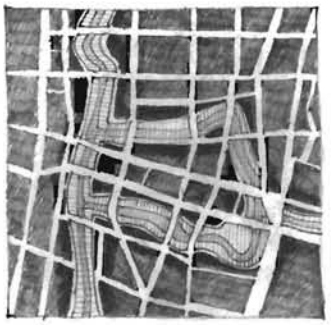


Figure 8 – Diagram of the river and the river walk within the city. Drawing by Suzanne Irwin.

The river runs directly through the city, therefore, it is not an edge, or a border of anything. Since the park is located twenty-five to thirty feet below street level and because the river corridor is easy to cross on one of the nineteen bridges, the river park is well integrated into the city. The corridor is sixty to one hundred feet wide at river level and approximately one hundred to three hundred feet wide at street level, (fig. 11). The river itself is thirty to fifty feet wide and the walkways along the river are six to eight inches above the water level and are not separated from the water by railings.[7]

The 1.2 mile stretch along the San Antonio River has a park-like setting. The Paseo del Rio is developed in four different areas; the architectonic area, which is the newest; the activity area, which hosts artistic productions and displays; the sylvan area, which highlights mature trees and few buildings; and the natural-intimate area. All of the plantings in these areas are fully matured. It should also be noted that because the

Figure 9 – View of the San Antonio River Walk from street level. Courtesy The San Antonio Visitor and Convention Bureau and The Atkins Agency, San Antonio.

Figure 10 – River Walk at present. Photo: Robert M. Beckley.

park lies in a corridor that is twenty-five feet below street level, it maintains a relatively constant temperature year-round and has a higher level of humidity due to the river than the city above. This factor makes it a perfect setting for one of the largest botanical gardens in the United States. The climate allows semi-tropical plants to thrive in this unique environment.[3]

The clear original basis for developing the San Antonio River in the Paseo del Rio area was to prevent a flooding disaster like the one that happened in 1921. The development, more importantly, provides an unique public park for citizens and tourists alike. Because it is located very near the Alamo, visitors often go to the river to relax during their visit. Because the Paseo del Rio is conveniently located and is an interesting and inviting environment, citizens often choose to walk along the river en route to their destinations rather than to walk along the streets. Also, the park's location in the middle of the city contributes to its popularity among city employees who often enjoy the park during breaks from work. Access to the park is primarily pedestrian. There are approximately fifty staircases, most of them winding or visually appealing in other ways, leading down to the river corridor. The diversity of uses and environments along the river walk fosters a diversity of users, including tourists, citizens, and people of all ages. There are several restaurants, outdoor cafes, and nightclubs in the Activity Area. Specialty shops are also popular in the park. A boat ride is another way to experience the river walk allowing visitors to experience the city from the river, (fig. 9).

The park's design reflects the Southwestern style which is prevalent in the city. The constant temperature of about seventy-five degrees Fahrenheit makes it a comfortable place to visit. Most of the plantings are mature and allow shade and isolation from the busy city above. There are signs along the walkway giving the location and the history of each area, though there are very few signs advertising the river walk at street level.

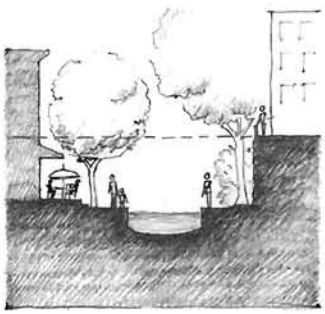


Figure 11 – The sectional relationship between the river and the city. Drawing by Suzanne Irwin.

The public amenity of the river walk in San Antonio is a long-standing tradition that differs greatly to the more common uses of a river exclusively for transportation or industry. When examining the success of Paseo del Rio, it is easy to see a beautifully developed park that is cherished by the city residents. However, it is important to remember that the park has existed for nearly seventy years. Development of the popularity and the tradition of using a place takes time to establish itself just as the time it takes for the vegetation in the park to mature. This park is used equally by citizens as well as tourists and it provides an excellent refuge from the city. The attitude of the citizens toward any riverfront development should be elemental in the design process as should the understanding of the citizen's attitude toward the river in general. Though there are not many signs indicating the location of the Paseo del Rio, finding it is not a problem. This physical readability indicates a strong presence of the river and of the river walk in the city. The diversity and the quality of the activity, the unique environment, and the strong tradition of the Paseo del Rio gives citizens and visitors alike a strong motivation to utilize the public amenity of the river walk.

Figure 12 – A view from Jackson Square out onto the levee and to the river. Photo: Moriah Kosch-Miller.

New Orleans

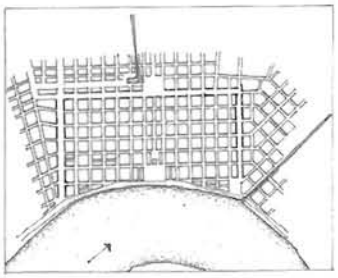


Figure 13 – Sketch Map of New Orleans based on 1835 Maps. Drawing by Suzanne Irwin

New Orleans, almost 280 years after its founding on a natural levee at "the center of a striking crescent-shaped bend"[9] continues to have a tenuous relationship with the Mississippi River. The Mississippi, which supplies the city with its economic sustenance and provides it with a natural amenity, looms precariously behind what is now an engineered levee. This levee acts as the stage for a battle between public and private interests. The river for New Orleans is at once an edge, a center, and linear zone of evolving activity.

New Orleans was founded in 1718 by the Frenchman, Bienville, as a colonial outpost for the French Empire. The location at the mouth of the Mississippi River was considered to be a crucial port between the Gulf Coast and the Central North American Continent. Bienville was very aware that the importance of the river frontage was not only in the access it provided to commerce, but also its beauty and its value as a public amenity. He felt that the development of each of these aspects of the river would be critical if the city of New Orleans were to become a prominent city.

The plan of the city, recognizing this dual importance of the river frontage, established Jackson Square at the center of the city which was enclosed by Saint Louis Church at one end and opened onto the river at the other end. This configuration recognized the river, the levee, and all the activities that occurred there as an elemental and celebrated part of the city, (fig. 14). Just as in Medieval town squares where the status of the church and the government house were substantiated by their position on the public square, New Orleans manifests the importance of the river with its prominent position on Jackson Square. Whereas the institutions which are represented by the church or the government house are relatively clear in the medieval town square, the Mississippi River represents and hosts a multitude of institutions and activities. The dichotomy of these institutions and activities shaped the evolution of this vital element of New Orleans and is the host to the battle between public access and private enterprise.

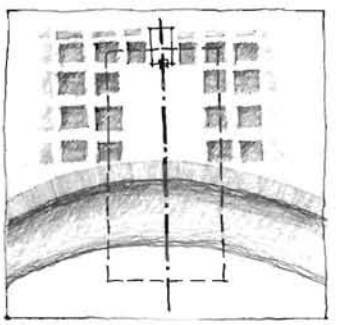


Figure 14 – The city, the square, the levee, and the river. Drawing by Suzanne Irwin.

Just after the signing of the Louisiana Purchase, a court case tested the dual uses of the riverfront. The legal battle illuminated the differing values of the Americans and the Creoles toward the ownership and the priority of use of the levee and the riverfront. The Creoles believed that the riverfront was public land that should contribute to the overall public good. This contribution included safety, health, and commercial well being. Edward Livingston, the former Mayor of New York who had moved to New Orleans, fought for the right to build a private port on the levee thus excluding the public access. This port would block the public from using a large portion of the levee that up until this time had been a lively, chaotic mixture of commerce, recreation, and entertainment (fig. 16). The Creoles fought to maintain the right for the "common citizen to take an evening walk, the right to enjoy the freshness of the river air, and the agreeable view of the water and the country beyond."[10] They claimed the image of New Orleans would be damaged by Livingston's privatization. They stated that "the delightful aspect of the harbor and the city, which extends itself along the river in a

Figure 15 – The river and the levee. Photo. Moriah Kosch-Miller.

regular semicircular form, with elegant houses"[11] along the levee would be lost. The Creoles saw the potential of the riverfront to have layers of activities that coexisted harmoniously – they desired a rich and active public realm. The Americans desired control of the commercial potential of the riverfront and exploitation of the riverfront.

Figure 16 – Depiction of New Orleans as seen from the Marigny Plantation, 1803. Courtesy of Chicago Historical Society.

This court case was just the beginning of a long battle between public and private usage of the riverfront and it wasn't long before the American's desire for privatization began to be realized. The complex, multi-layered activities which were hosted by the river and were placed so prominently and intentionally on the public square of New Orleans was replaced by the singular use institution of commerce and industry. Where once the levee was a combination of "a handsome raised gravel walk, planted with orange trees,"[12] and an active place for importing and commerce it soon became a barrier between the city and the river. The city of New Orleans became "cloaked behind the levees and the railroad and occupied by the wharves, warehouses, and commercial enterprises of an industrial city."[13] What was represented by "Jackson Square with all cross streets of the Vieux Carré opening up to the quay along the river"[14] was not realized in the evolution of the riverfront development. The center of the city became privatized.

This trend continued with the introduction of more and more intensive uses along the riverfront with more wharves and private dock facilities. Eventually the railroad placed another barrier between the people of New Orleans and the Mississippi River. In 1968 a Historic Preservationist group lead opposition to an expressway which would have "confirmed in concrete the gash between the city center and the water front."[15] The river would have been separated even more from the public if this expressway would have been built. The idea that the river was a natural and beautiful amenity that should be accessible to the public was once again becoming important to the people of New Orleans. After the expressway proposal was defeated, several developments began to reclaim the riverfront for public access and enjoyment, (fig. 12). The 1968 comprehensive plan for the Vieux Carré encouraged the riverfront area to be developed with the uses of housing, commerce, and tourism as a priority and emphasized the need for the Vieux Carré to be connected with the riverfront. The inter-relatedness of the river and the Vieux Carré became an important aspect of future development.

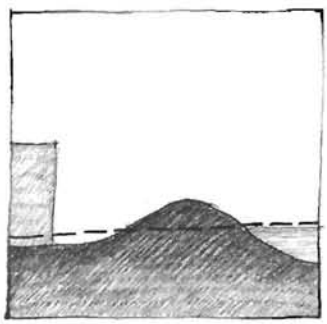


Figure 17 – The sectional relationship of the river to the city. Drawing by Suzanne Irwin.

In 1984 New Orleans hosted the World's Fair and sited the celebration on the riverfront. This intensified the budding interest in the riverfront as it allowed visitors and residents alike to once again walk along the riverfront. Rediscovering a forgotten treasure, future development recognized and respected this treasure. The development of the Rouse Company's River Walk Place established a new way of combining commerce and public access to the river. This company purchased the air rights of one of the wharves and built a retail development above the working water front. The public could stroll along the river along open balconies and watch the workings of commerce below.

Conclusions

Chicago, San Antonio, and New Orleans have different connections to their respective urban rivers, yet similarities exist. Each city began at the river's edge because the river supplied it with access, power and water. In the case of New Orleans and Chicago, the commodity of commerce and transport dominated river usage for many years. San Antonio grew with the fresh water and protection supplied by its river. All three cities viewed the river as an amenity for commercial endeavors. Early development of the rivers of Chicago and New Orleans supported the industry that sustained the growth of these cities. Yet in the midst of industrial squalor the vision of the river as an urban amenity became clarified. The Plan of Chicago featured the river as an amenity. In San Antonio the public voted to build the Paseo del Rio. In New Orleans the historic preservationists stopped the raised expressway from blocking the rivers edge. These efforts symbolize the public's desire to access the urban river and to create spaces in which to view and to enjoy the natural amenity and mystery of the riverfront.

An increasingly persistent theme through the developments of the riverfronts in these cities is the importance placed on the ability of people to experience close and personal contact with the river environment. The primal attraction of the river is similar to that of the sea shore where people flock to occupy the edge between land and water. The urban riverfront presents its own primal edge between nature and the man-made environment. How can the urban river assume its proper role in helping to define the character of the city?

First, the success of future urban design efforts must allow the public to access the river on many levels. The public must be able to understand the river's position within the city. The gateways along Michigan Avenue in Chicago which monumentalize the act of crossing the river, the position of the Mississippi River and the Levee at one end of Jackson Square in New Orleans, and the way the buildings of San Antonio address the long standing tradition of the Paseo del Rio, each speak to the importance of the river to the fabric of the city. The built form of the city should respect, reflect, and communicate the prominence of the river, (fig. 18).

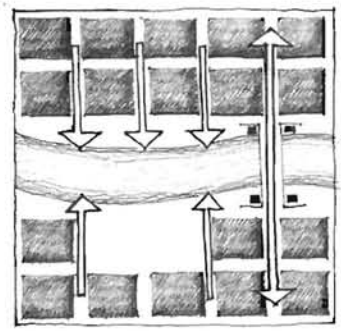


Figure 18 – The river's position within the city. Drawing by Suzanne Irwin.

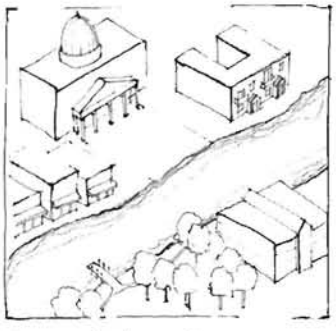


Figure 19 – The diverse and active uses along the river. Drawing by Suzanne Irwin.

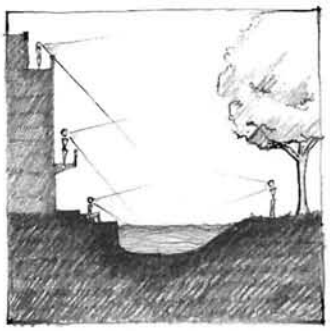


Figure 20 – The river must be accessible. Drawing by Suzanne Irwin.

Secondly, the river must be incorporated within the activities of everyday life. The uses along the river must be diverse and active. Historically when the riverfront was used for a single use such as industry, the decline of that use in the society created a decline in the image of the river and in the stewardship of the river. The four distinct areas of the Paseo del Rio in San Antonio encourage four distinct, yet compatible, activities and this diversity has stood the test of time in the almost seventy years of this development's life. Along the riverfront in New Orleans, the purchasing of the wharves' air rights and the development of public commercial space along the top of the levee allows a layering of uses, both industrial and more public oriented commercial. Again diversity of uses maintains a more sustainable pattern of activity, (fig. 19).

Lastly the river must be attainable simply by allowing a person to walk to its edge. Whether this edge be built up with hardscape, with sculpted landscape, with the reintroduction of natural landscape, or a combination of all three; the edge must be negotiable by the individual, (fig. 20). Development of the urban river can create a unique environment within the density of the city or at its edge, which relieves both the rigid pattern of man-made development and the cultural pattern of disassociation. The river is still a source of renewal for these cities. Where they once renewed supplies for a growing city, they now renew the spirit of the most important assets to the city, the people who sustain the city. As Leonardo da Vinci reminds us, the urban river embodies the past, the present, and the future. Urban design efforts which address the river should also reflect and embody this timeless element of the city.

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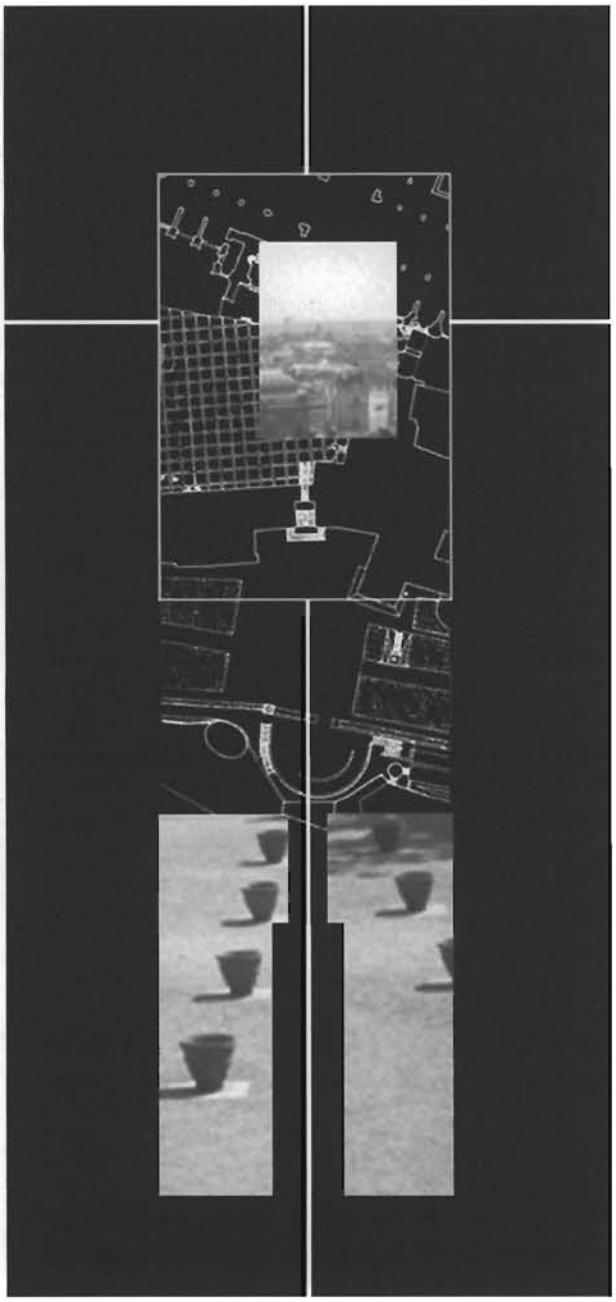
Josef Plečnik's Bull Stair and the Re-presentation of Prague

Craig Borum + John Comazzi



The strength of Prague as a place depends first of all on the felt presence of the genius loci throughout; practically every old house is simultaneously ground-hugging and aspiring... as an urban totality Prague is distinguished by the contrast between earth and sky. Thus the steep hill of the Hradcany castle (Prague Castle) contrasts with the horizontally extended cluster of Old Town, and the castle itself gathers the local character in its long horizontal lines over which the Cathedral of St. Vitus rises vertically towards the sky.... Is there any other city in the world where the character is thus concretized in one single veduta which comprises all environmental levels from the landscape down to the articulation of the individual buildings.

– Christian Norberg-Schultz[1]

The frame, then, has something of the window about it, just as the window is a lot like a frame. The painted canvases are portholes of ideality which are perforated in the mute reality of walls. They are openings of illusion into which we can peer, thanks to the beneficent "window," the frame. On the other hand, a corner of the city or countryside, seen through the square outlines of the window, seems to split off from reality and acquire a strange palpitation of the ideal.... Note the fact that this tinge of unreality grows as the distance between the arch or window and whatever scene is visible beyond it increases. Because of that, we do not perceive the intermediary planes, and the actual roads by which we might arrive at those scenes remain hidden to us.

– José Ortega y Gasset[2]

Plečnik's Bull Stair is sited in a corner of the Prague Castle's Third Courtyard. The castle sits on a promontory across the Vltava River from the Old Town of Prague which spreads out along the floor of the river valley. The castle is thus afforded spectacular views over not only the city below but Bohemia beyond. The stair connects the completely enclosed world of the castle with the south gardens which extend the length of the castle and offer the panoramic views of the city below. Plečnik takes advantage of this location and the simple program of vertical circulation to give structure to the vista in remarkably unexpected ways.

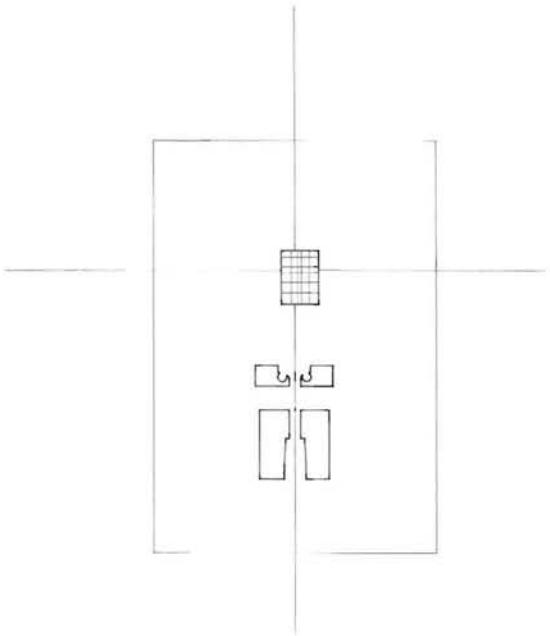
Plečnik's use of the stair as a frame opens the possibility of exploiting the tensions between surface and depth. Whether window or painting, the bounded view abstracts the captured image, removing it from its broader context. Within the spatial structure of the stair the captured image seen through the frame has the potential of becoming almost painting-like, assuming the traditional tensions between the surface of the canvas and the illusion of space, but in the case of the window the tension between the reality of the canvas and the illusion of the depth inverts the relationship to one where the surface becomes illusion attempting to deny the reality of the layered view. This conceptual reversal establishes a theme of inversions which constantly confounds conventional expectations.

The Human Condition I, René Magritte, 1933. Courtesy of Schneede, Uwe M. **René Magritte: Life and Work.** (Woodbury, NY: Barron's Educational Series, Inc., 1982).

A quick look at *The Human Condition I* by René Magritte might serve to illustrate the relationship between canvas and window. Magritte creates tension between that which is represented and that which is representing. An image, when rendered in a naturalistic way, has traditionally been seen as creating the illusion of space which dematerializes the surface of the canvas. However, when Magritte juxtaposes a rendered canvas against the view which has apparently been represented, the canvas within the painting can only be read as essentially flat. This flattening simultaneously imbues the view seen through the window with a heightened sense of spatial depth. As soon as the observer becomes aware of this strange juxtaposition, he or she becomes aware of the relationship of the canvas on the easel to that of the larger painted image which includes canvas, easel, and window, thus collapsing all into a heightened state of flatness.

In the case of the Bull Stair, Plečnik uses the frame as an analytical device to edit elements from view in order to lay bare the foundational underpinnings of the city captured within the frame. He does this by manipulating the spatial readings of the elements caught by the frame as well as subjecting the frame to any number of geometric transformations. The result is an experience fraught with contradictions and multiplicities created by an intensely articulated visual orchestration.

Here, the sequence, linear procession, and structured views which the stair subjects upon even the casual visitor conspire to create the physical and visual threshold between the interiority of the castle and the horizontal expanse of the city beyond. Through this threshold a greater understanding of the relationships of the urban structure of Prague is revealed.



The Horizon and The City:

This visual sequence begins as the stair offers a literal window to the horizon and thus initially establishes the participant's awareness of an exteriority outside of the inner sanctum of the castle. This window, as part of the existing building through which the stair descends, presents the city as a framed image thus isolating it from its immediate context and thereby highlighting its impact as a singular view to a world beyond.

The window captures only a segment of the distant horizon, excluding the foreground and middle ground which drops off down the steep castle hillside. The bright image seen against the unlit interior brick wall coupled with the lack of any visual layering of foreground or middle ground tends to compress the image until the view of the horizon appears to sit upon the wall like a framed postcard view of the city. This compression and collapsing of the space between the horizon and the window in the castle wall results in a fluctuating reading of the horizon contained within the delimited boundaries of the castle, thus allowing a visually composed connection between the architecture of the castle and the city, well beyond the actual confines of the castle's perimeter.

Plečnik intensifies this collapsing of distance between the city and the castle by subtly revealing a glimpse of the intermediary planes between observer and observed. By framing a portion of the gardens receding in perspective through the opening below the window, he takes full advantage of the potential power in the dynamic juxtaposition and inversion of deep space (city) and shallow space (gardens). With a simultaneous recession of the oblique lines of the potted plants in the garden visually extending the space outward, and an advancing of the flattened, orthogonality of the framed city view, Plečnik synthesizes a sophisticated composition of spatial layering and fluctuation. Ultimately, he frames and orders the existing relationships between castle, garden and city in such a manner so as to dislodge them from the realities of their actual spatial configuration and re-presents them in an analytical arrangement. In a sense, Plečnik offers a broad profile of the relationships between the visitor and an alternating telescoping and collapsing context of castle, garden and city, relationships upon which the ensuing promenade offers greater insights.

The Diptych of Garden and City:

As the sequence continues, the emphasis shifts from the horizontal datum as orienting device to that of the diptych across the vertical axis. Upon reaching a moment of repose on the first landing, the participant faces the structure of an ensuing switchback stair. Plečnik composes an ordered framing of the existing view thus emphasizing the intrinsic juxtaposition of the castle gardens on the left side of the Ionic column to the city beyond which fills the frame to the right. The architect cleverly exploits the structure of the stair as a symmetrical ordering device to offer this analytical diptych composed of the dialectical relationship between city and garden. By juxtaposing the deep space of the city and horizon with the nearness of the gardens, this diptychal framing directs a simultaneous extension of space out to the city, drawing inward the adjacent landscape. It is through this fluctuation between the near and far of garden and city, that the role of the stair as spatial condenser is brought forward to the observer.

It is interesting to note that in this bilateral reading of the view across the Ionic column, the city and horizon, drawn forward and collapsed in figure 1, reverses in its juxtaposition to the shallow space of the garden and thus thrust into a receding, perspectival depth intensified by the increased size of the frame to allow a spatial layering to exist through the introduction of the middle ground. This tendency towards spatial inversion and fluctuation throughout the sequence emphasizes a dynamic rendering of the inherent complexities and relationships experienced through the vista.

Figure 1: (opposite) View into the Bull Stair from the Third Courtyard

Figure 2: View from first interior landing, juncture between first straight run of stairs and the beginning of the switchback

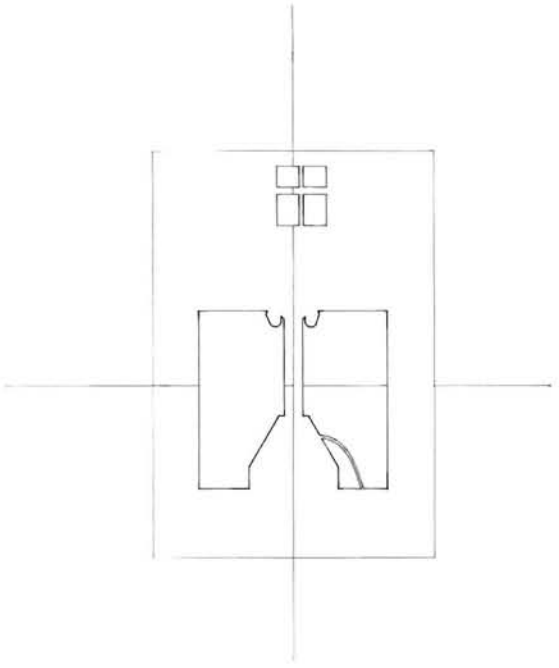


Figure 1a: (opposite) Diagram of collapsed view

Figure 2a: Diagram of the diptych between deep and shallow space

Figure 3:
View of panorama from balcony landing.

Figure 4: (opposite)
View into the switchback of the stair, and inverted view.

The Wandering Eye:

To continue the sequence, the viewer must now shift off-center, and begin the descent of a switchback stair. The structure of this stair is such that it forces the viewer to constantly negotiate the center but denies movement along the central axis, thus temporarily dissolving the vertical diptych and offering a reconstituted view of the scene beyond. However, it is not until the first landing/balcony that the observer moves beyond the perimeter of the castle and the frame disappears. Here the scenographic panorama unfolds in its entirety. At this point, the compression of framed space releases, freeing the eye of the observer to meander in depth through a series of visual cues. Allowed a sweeping moment of repose, the observer's eye moves and digests the fully reconstituted vista. Plečnik, however, does not fully relinquish his directorial hand. Beginning with the delamination of the stair's facade from that of the existing castle wall and moving to the design and placement of a garden pyramid, Plecnik subtly reorients the spectator's view from the axis of the stair to that of the dome on St. Nicholas and subsequently to the Vltava River, the Old Town of Prague, the Region of Bohemia and the horizon beyond.

The Inverted Internal Structure:

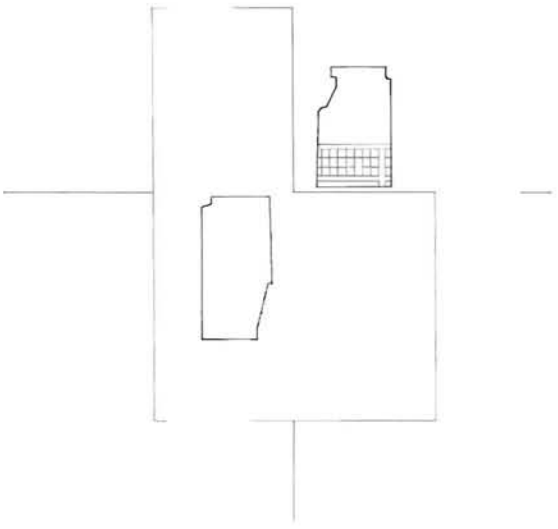
As the procession continues, the participant turns along the switchback, where he or she finds the moment of visual repose of the unencumbered view thrust into Plečnik's disorienting dynamism. By employing the inherent structure of the stair, Plečnik dramatizes the geometric transformations used in the descriptive configurations of the sequential views composed throughout this promenade. Here, he utilizes a Mycenaean column (which inverts the taper and entasis of the classical column), the bilateral shearing intrinsic within a switchback, and the exposed underside of the stair (which repeats the the configuration of riser and tread) to exaggerate a dynamic splicing and inversion of the visitor's orientation. It is as if following an unencumbered, objective panorama of the city, Plečnik forces another disruption in the visitor's orientation to be followed by a series of analytically composed reconstructions of this view, offering a newly ordered understanding of the contextual and contingent relationships inherent within the site. The viewer's consciousness divides, and in order to resolve this predicament, he or she anxiously, without choice, moves onward.

Plečnik's use of Greek and Mycenaean references extends far beyond mannerist gymnastics, but in this case, one can surmise the use of a Mycenaean column as exaggerating a buoyant inversion of the balanced forces within the columns thrust. The forces of shearing and displacement acting about the stairs central vertical axis accentuates the dynamic thrust along this same axis. By rendering the underside of the stair identical to the top surface of the treads, as well as visually shearing the apse along the back wall of the stairs volume, he achieves a forceful use of biaxial inversion adding to the energetic transformations within the space. But while these forces stimulate an energy about the vertical axis, Plečnik also employs a fluctuation in depth through the dynamic layering of round (column and apse), cubic (stairs) and flat (interior wall) surfaces within.

Figure 5:
View from interior landing looking toward garden.

Figure 6: (opposite)
Diagram showing the horizontal surface of the courtyard cascading down to the surface of the garden and below the elements constructed of kopanina agrillite.

Figure 5a:
Diagram of the shear within view.



Shearing the View:

As previously suggested, this clever use of internal shearing and disjunction dislodges orientation and gives piecemeal restructuring in the form of calculated, analytical renderings and re-presentations of the vista. Reaching the next interior landing, the visitor turns along the switchback and confronts another composed reading of the external relationships, again, by means of the internal structure of the stair. However, here, within the diagonal symmetry of the frames, the use of a shearing force about the center axis of the stair further elaborates on the relationship between garden and city. By transcending the reality of contextual proximities within the actual view, this shift offers a rendering of qualitative difference from that seen in Figure 2. Here Plečnik revisits the theme of garden and city with the added displacement about the horizontal axis, creating associations with directional concepts of below and above, foundation and sky, the earth and the heavens, the sacred and the profane.

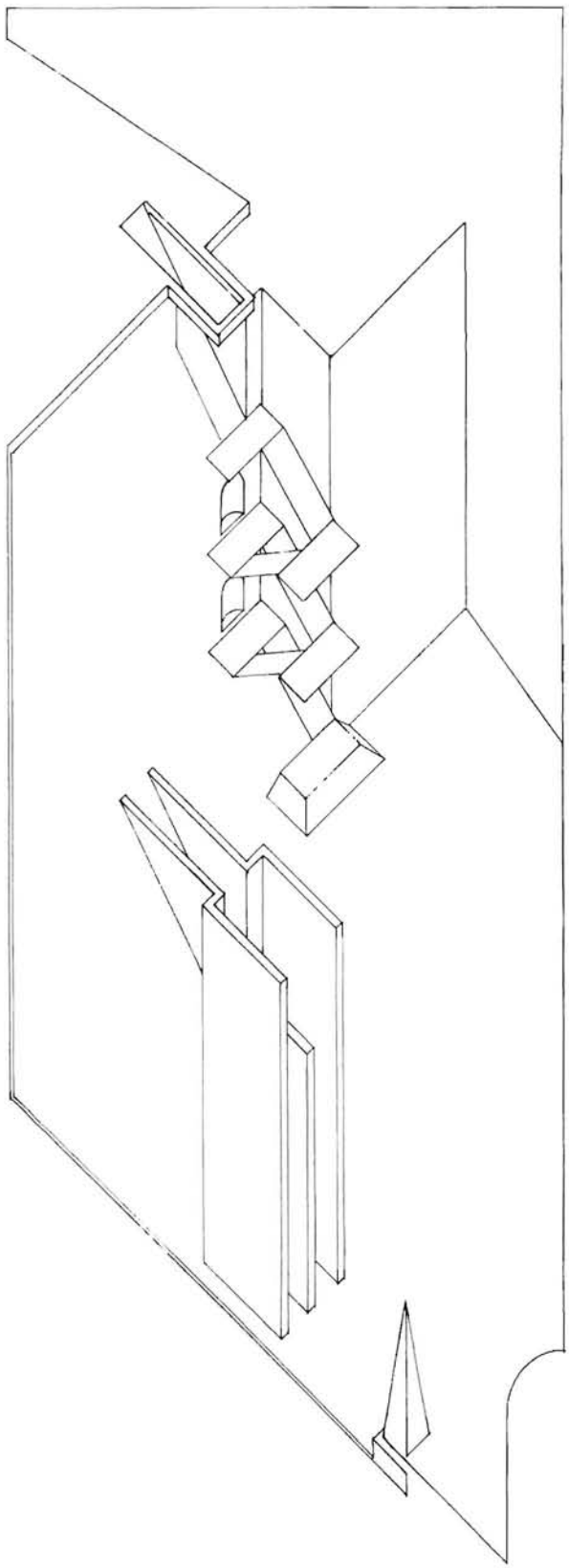
> *The threshold is the limit, the boundary, the frontier that distinguishes and opposes two worlds--and at the same time the paradoxical place where those worlds communicate, where passage from the profane to the sacred world becomes possible.*
>
> *– Mircea Eliade*[3]

Material Extension and Projection

The repetition in use of particular materials within the structure of the stair, the upper courtyard and out into the garden emphasizes the stair as the threshold which weaves connections between castle, garden, and city. This material link develops along two distinct manifestations respective of both exterior spaces.

As the participant descends into the initial, straight-run of the stair, Plečnik affirms the stair's role in transversing the horizontal datum of the ground plane in the third courtyard by continuing a band of the paving granite into and around the interior of the stair shaft at the height of the original datum plane. He then uses the same granite material for the cascade of steps and landings which ultimately spill out into the lower garden. These material consistencies of granite extend the surface of the castle interior allowing the participant to continually reconstitute the original ground plane throughout the vertical promenade.

Plečnik achieves what might be called a material projection between the stair and the garden/ city primarily through the dressing of the interior vertical surfaces of the stair, thus creating a material link which acts to extend the spatial boundary of the stair to encompass both garden and city. Plečnik lines the surface of the stair shaft with kopanina agrillite stone, the same stone as that used for the drum of the dome of St. Nicholas, seen immediately beyond the castle wall.[4] This repetition of material creates a visual connection and an implied space between the two surfaces. Plečnik reaffirms this link with the design and placement of a garden pyramid, again surfaced with the same material and meticulously placed so as to reorient one's vision in the direction of the dome which is off axis from that of the internal axis in the stair. This visual junction simultaneously extends the space of the stair outward while drawing inward the realms of garden and city, placing the visitor within that space.



The reading of this small intervention is simply in an attempt to reveal the power of insights achieved through the ordered structuring of space. In the case of the Bull Stair, this space is a threshold, but a threshold between places beyond the realm of Prague and the Castle. The places framed, presented, re-presented and projected by this stair, are places within the human condition that transcend their physical contexts and speak to ways in which architecture makes the world manifest.

> *The world thus made present is a construed world, a product of human intellection. Although constituted from the observable facts of a natural world by people aware of their history, it must draw away from both nature and history, allowing its own structure to take these contingent conditions into account while offering a more compelling sense of order than they are capable of... Therefore, the most profound understanding of our world is possible only when we might have invented-or reinvented-that world. This is the task of the architect. It is a task carried out in public, as it demands an audience that is equally engaged in the performance.*
>
> *– R. D. Dripps*[5]

It must be noted, that these images used within the article, both drawings and photographs, are somewhat deceiving in the sense that they insufficiently present these views as only these media can. Drawings and photographs cannot fully encompass the viewer, as does architectural space, and thus these techniques limit the participatory oscillation which actually occurs between observer and observed. For example, the sheared, inverted and diptychal restructuring of the panorama results in tensions which impart their own dynamic forces upon the eyes of the viewer. Engaging the view with a physical jostling of head and eyes, the viewers elicit the tensions and forces between the presented view and the structure of the stair itself. It is with these tensions that one becomes consciously aware of his or her role in the workings of the stair, its promenade and the views it presents.

> *Architecture can be observed both from a distance and internally (close-up); we can become internally ingested by it, become part of its interior. Instead of just being an outside observer or an outside spectator, we can become part of its very interior organism. We become physical, organic participators; we become enclosed. . . It is all made up of a series of outside fragments and inside fragments.*
>
> *– John Hejduk,* ***Mask of Medusa***[6]

In this sense, the architecture and its mode of operation fully encompass the participant. Throughout the sequence, the entire ensemble of both site and stair elements visually and physically impacts the visitor gaining further articulation by a host of subtle material links between inside and out.

1. Christian Norberg-Schultz. **Genius Loci: Towards a Phenomenology of Architecture.** (New York: Rizzoli, 1980). p. 81-82. 2. José Ortega y Gasset. "Meditations on the Frame." trans. Andrea L. Bell. *Perspecta.* vol. 26. (1990) p. 189. 3. Mircea Eliade. **The Sacred and the Profane, the Nature of Religion.** Trans. Willard R. Trask. (New York: Harcourt Brace & Co., 1959). p. 25. 4. Vladislava Valchářová. "Technical and Material Features of Plecnik's Work," **Josip Plečnik: An Architect of Prague Castle.** (Prague: Prague Castle Administration, 1997). p. 324. 5. R. D. Dripps. **The First House: Myth, Paradigm and the Task of Architecture.** (Cambridge, MA: MIT Press, 1997). p. 32. 6. John Hejduk. **Mask of Medusa: Works, 1947-1983.** ed. Kim Shkapich. (New York: Rizzoli, 1985). p. 313.

Image Credits:
The plan used in the collage is take from Tomas Valena. "Courtyards and Gardens: Interventions in the context of Prague Castle," **Josip Plečnik: An Architect of Prague Castle.** (Prague: Prague Castle Administration, 1997). p. 270. All drawings and photographs by the authors unless otherwise noted.

This investigation and reading of Plečnik's Bull Stair was inspired in part due to Jason Young's mention of the stair as a "vision machine," as well as the cummulative investigations of the University of Michigan Spring Studio in Prague, 1997.

Cinecittà, the city in movement

Catherine Seavitt

The city of Rome: the Eternal City. How does one describe this city, any city, in imagination, in reality, in spirit? The description of the city takes place through movement, through space and time, through circulation. By moving through cities, by living in cities, whether in our imagination or our physical presence, we create them, we recreate them, we map them with our minds and bodies. Then they become real, and they exist in space, time, and spirit. In ancient times, the foundation of a city was considered a sublime, sacred act. The creation of a city, its siting, began with the description, the drawing through walking, of a circle about a sacred zone. The cinematic vision of today also creates a mapping of the city, a creation and recreation for the viewer, drawn through the director's temporal movement of the camera through urban space.

Three creations of the same city may be discovered through an analysis of three directors' cinematic representations and mappings of Rome : Roberto Rossellini's *Roma, città aperta* of 1946, Michelangelo Antonioni's *L'eclisse* of 1962, and Federico Fellini's *Roma* of 1971. The same circle may be drawn in many ways, for each one of us describes our cities as we move through them, as we circulate around them. The city is open to interpretation.

Roma, città aperta *Rossellini, 1946*
"Every evening I stroll around Rome without leaving this room."

> *We are at the mercy of our condition. We travel in it day and night, doing whatever else we do, shaving, eating, making love, reading books, working at our jobs, as though those four walls around us were standing still; but the uncanny fact is that those walls are moving along without our noticing it, casting their rails ahead like long, groping, twisting antennae, going we don't know where... It is a very uncertain part to play, and sometimes, looking out the window after a fairly long pause, we find that the landscape has changed.*
>
> – *The Man Without Qualities*, Robert Musil'

Roberto Rossellini's classic *Roma, città aperta* is a landmark film of Italian neorealism, and in itself created many of the myths concerning this movement. A film which captured the tragedy of the Italian experience during the Nazi occupation, events were not shot in the studio but on the streets where they had actually occurred, using black market film stock and documentary footage. Rossellini addresses the occupation of the city, the city as subject, and presents a dual vision of Rome through the occupiers, the German officers, and the occupied, the Italians, particularly the Partisan Resistance. This double image of the city is developed through an interior view, seen from within the Gestapo Headquarters of the Nazi officer Major Bergmann (Harry Feist); and through an exterior view, seen from the streets of the Italian Partisans: the priest Don Pietro (Aldo Fabrizi), the leftist leader Manfredi (Marcello Pagliero), and his friend Francesco, a typesetter who is engaged to a working class Italian woman, Pina (Anna Magnani).

For Major Bergmann, the city exists only as a map, as an abstraction, which he analyses from the protected interior of his office at the Nazi headquarters on Via Tasso. A large plan of Rome tacked to his wall shows the city divided into fourteen zones, in accordance with the Schroeder Plan. The city remains controllable when mapped, abstracted, scientifically divided into parts. Even Bergmann's search for the Partisan leader, Manfredi, is a cold and economically efficient endeavor. Rome exists as a network, as a web of fine lines within which the Partisans are distributed. By efficient and abstract plotting in his office, the German spider pinpoints his prey, dispatches his troops, and returns with his target. Officer Bergmann is a *flâneur* of the interior, strolling in the city, but not in its streets: he is not the nineteenth century dandy like the poet Baudelaire, immersed in a crowd. He strolls in Rome, but only in his room, his interior, through artificial reproductions of the city – his divided map, his stack of street photographs. Abstract and introspective – Bergmann's city is flat, lifeless, frozen in time.




Circulation and movement in the city involves only an inspection of this stack of photographs through a magnifying glass : scale is reduced; time is captured; the city is flattened and silenced into two-dimensional abstractions, facsimilies. Yet this is Rome – scientific Rome, occupied Rome, under the eye of the occupier who does not experience the city physically, but as a poised vulture, circling above the city. He pinpoints his victims, keeping his hands clean and his fingernails well-manicured. Bergmann is blind to sensation and physicality, as is evinced by the two doors which lead from his office: one to a chamber where Manfredi is tortured to death by Gestapo officers without betraying his cause; the other into a parlor where Bergmann retires to play cards, the sound of the piano and the clink of the wine glasses drowning Manfredi's screams of pain in the next room.

Rossellini presents another view of Rome, an exterior view, the Rome of the streets, the open city. He films directly on the street, in the Roman neighborhood of the Prenestina. The Nazi search for Manfredi and Francesco takes place in the apartment building where Pina lives, in its stairwells, its corridors, its courtyard. Bergmann's efficient troops leave the abstract interior world of the Via Tasso headquarters and enter the open city. The spider pinpoints its prey, seizing the apartment building, herding its residents into the courtyard, searching its rooms. Pina is with the others in the courtyard – it is the day she is to be married to Francesco. Suddenly she sees he has been captured, about to be taken away to a work camp in the back of a German truck. The worlds collapse – the distinction between the abstract city and the real city of the streets vanishes. Pina runs. In defiance of the soldiers, she breaks free from the courtyard and bursts into the street, into the open city, after the truck. And she is shot and falls, the seminal fall of Anna Magliana in the street, in the Via Montecuccoli. For she crosses the line between the two cities. The abstract city pushes a pin into a map, focuses a loupe on a photograph, economically deploys its troops, and enters into a real city, a zone of space, of inhabitation. Pina interferes: she enters the street which should have been empty. She is will and passion, movement and life, and she interferes with the economy of the plan. Cool and calculating logic has eliminated the flesh and emotion of the city street.

Yet Rossellini's film concludes with a symbolic vision of hope, after the tragic moment of Don Pietro's execution by firing squad. The children of Rome are standing together on a plateau overlooking the city: having witnessed the assassination, they turn and walk away. Framed by the dome of Saint Peter's, they are walking toward Rome, Rome the open city, the city of streets.

L'eclisse *Antonioni, 1962*
"You're already here!"

> *So let us not place any particular value on the city's name. Like all big cities it was made up of irregularity, change, forward spurts, failures to keep step, collisions of objects and interests, punctuated by infathomable silences; made up of pathways and untrodden ways, of one great rhythmic beat as well as the chronic discord and mutual displacement of all its contending rhythms. All in all, it was like a boiling bubble inside a pot made of the durable stuff of buildings, laws, regulations, and historical traditions.*
>
> – *The Man Without Qualities*, Robert Musil[2]

With the filming of *L'eclisse*, Italian film moved beyond neorealism: Michelangelo Antonioni was one of the directors who began to develop a new poetic and abstract style. Here he composes the city of Rome almost as a protagonist – the city as a landscape with objects, a ground against which figures move. Antonioni presents the simple story of an encounter: the meeting of Vittoria (Monica Vitta) and Piero (Alain Delon), the development of their relationship, and their final forgotten rendezvous, set against the poetic foil of Rome. Like Rossellini in *Città aperta*, he also creates a dual city, one of chaos, commerce, and history, juxtaposed with another of silence, emptiness, and modernity. The film begins with the end of an affair between Vittoria and Riccardo (Francisco Rabal). Vittoria moves away from the glazed view from Riccardo's window at the residential EUR district of Rome, which frames her with its mushroom-shaped water tower, and then into the chaotic world of the Borsa, the Roman Stock Exchange, embedded within the ruins of the Hadrianeum temple in the historic center. Looking for her mother at the Borsa, she instead meets an energetic young stockbroker, Piero, caught up in the frenzy of capitalism. He telephones other markets for tips, bullies his clients for payments, and seems to be stimulated only by the machinery of the exchange board, with its randomly changing white bands of letters and numbers. During a rare moment of silence at the exchange, a pause of respect for a deceased colleague, Antonioni shows the two separated by one of the huge columns of the Borsa. Time is money, Piero whispers to Vittoria as he leans to her from behind the column; one moment's pause could mean the loss of millions.



Though she is rather put off by his materialistic approach to life, Vittoria and Piero's relationship slowly develops, set against the landscape of the EUR. This is the modern Roman suburb, a residential district south of Rome which evolved within the redeveloped site of Mussolini's projected 1942 *Esposizione Universale di Roma*, the fair which was canceled because of World War II. The vast expanses of this "new Rome," shown by Antonioni in aerial views, are broad, clean, tree-lined,

and empty, a complete contrast to the historic center. Here Vittoria and Piero meet, at an anonymous street corner in the EUR, a zebra-striped intersection at the site of a half-constructed *palazzino* apartment building. The first meeting: he is early, but she is already there, waiting. Their relationship evolves from this banal intersection at the white fence, at a deserted construction site in the modern suburb.





Later, she meets him at his office : he forgets the Borsa, takes his phones off their hooks. They think only of each other. As Vittoria leaves and the two embrace, they promise to see each other again that evening, and the day after, and the day after. They plan a rendezvous at the same corner in the EUR. But when the specified time arrives and Antonioni's camera awaits them at their usual meeting place, neither Vittoria nor Piero appears. Instead one sees only the objects and characters associated with the spot where the two had previously met, and for seven minutes the camera watches the landscape of that corner as dusk falls into night. A woman passes, pushing a baby carriage; a man crosses the street; the gardener turns of the lawn sprinkling system; the barrel of water at the corner of the fence slowly drains. A bus turns the corner and a man descends, reading a newspaper with a headline proclaiming *'Peace is weak.'* Neither of the two arrive. It is a portrait of the suburb as night falls. The film ends with a sudden close-up of an illuminated street lamp, its artificial white light flooding the screen.

Antonioni's Rome is a landscape of chance encounters, of chance meetings, of the rendezvous which may or may not be kept. It is chaotic or empty, historic or modern, the framework within which people and objects live. The city is a site of memory and forgetfulness, of home and work, of relationships with others. But, as Antonioni shows, it is also a protagonist, existing as a figure in its own right, not only as a neutral ground against which figures move. It is the true city in motion, the transforming, changeable city.

Roma *Fellini, 1971*
"The first image of Rome was a centuries-old stone."

> Automobiles shot out of deep, narrow streets into the shallows of bright squares. Dark clusters of pedestrians formed cloudlike strings. Where more powerful lines of speed cut across their casual haste they clotted up, then trickled on faster and, after a few oscillations, resumed their steady rhythm. Hundreds of noises wove themselves into a wiry texture of sound with barbs protruding here and there, smart edges running along it and subsiding again, with clear notes splintering off and dissipating.
>
> – *The Man Without Qualities,* Robert Musil[3]

In his film *Roma,* Federico Fellini creates yet another city : in fact, a series of cities, cities in time, which together form his cinematic invention of the city. Fellini seeks Rome from three different perspectives: a little boy's memories of the image of Rome, gleaned from his experiences in school and at the cinema; Rome as it appeared to a young man from the provinces arriving to the city in 1939; and the 'objective' picture of the Rome of today, presented by Fellini the director, as he makes a documentary on the Eternal City.

To discover Rome, the image of Rome, Fellini uses the theme of arrival – arrival to the city from the outside, the coming to Rome – essentially, the traffic conditions. His portrait of Rome begins with its first image : a stone with an inscription reading ROMA 340, the mythical date of the founding of the city, of the paving of the Forum. The first event of arrival is that which faces a group of schoolboys, reenacting Julius Caesar's 49 BC crossing of the Rubicon, the river which historically divided the southern territory of Gaul from the Republic of Italy. The schoolmaster indicates a small stream, proclaiming *'This is the Rubicon,'* and describes Caesar's Latin declaration *'the die is cast'* as he marched on Rome with his troops : the moment which marked the transformation of the Roman Republic into that of the Empire. Taking off their shoes, the boys obediently wade across, led by the schoolmaster who proclaims *'To Rome!'*

But what is the image of Rome, the image of the city? For the schoolboys back in their classroom, it is a series of slides of Roman monuments: Santa Maria Maggiore, the Arch of Constantine, the tomb of Cecilia Metella on the Appia Antica, the basilica of Saint Peter's, the Monument of Vittorio Emmanuel II

(Mussolini's Altar of the Fatherland, to which the boys applaud wildly). Apparently Rome is but a series of monuments in stone, images transformed into light and projected onto a screen.

The second perspective of Rome is that perceived by a young man from the provinces, arriving by train in 1939 to the chaos of Stazione Termini. Handsome, clean-cut, dressed in a white suit, his refinement appears completely out of place in the tough, aggressive, crowded city. Bombarded by images, advertisements, demands for cigarettes, offers of hotel rooms, taxis, and girls, he smilingly, bewilderedly declines his offers politely. Finally making his way out of the station and crossing the street to the tramline which will take him to his boarding house, he jumps aboard the packed tram, naively gazing in wonder at the world of Rome, the Big City, as he hangs from a strap.

Fellini moves forward to the Rome of today, to his own filming of a portrait of the city. He asks aloud the question of today's impression of Rome upon the visitor, who arrives by car from the highway, and then must take the unavoidable GRA, the *Grande Raccordo Anulare*, the ring road which circles the city at a ten kilometer radius from the Capitoline. Entry into Rome, this eternal problem, is poetically and ingeniously filmed by Fellini and his camera crew as a circuit around this road, the GRA, from day into night, in the rain, from the entry by tollgate to a standstill caused by an inevitable traffic jam. Now the images of Rome are the sights seen along the road, through the windshield of the director's station wagon. From prostitutes holding umbrellas to a pair of hitchhikers to a cluster of hippies gathered around a campfire, the roadside objects leer at the camera. A two-wheeled cart and a riderless horse pass between the cars; a busload of rowdy soccer fans zooms past, hollering *'forza!'* and insulting the fans of the opposing team. A cattle truck overturns, and is engulfed by flames as the cows lie in pools of blood on the highway. The *Polizia Stradale* chase Maoists on mopeds. A worker's strike causes such a backup that the cars have come to a standstill, and here, to a symphony of honking horns, Fellini pans to the Coliseum at the culmination of this tremendous traffic jam. Yet this is not the real Coliseum of the historic center, but a fake one, constructed from paper and plaster in the enormous studios of Cinecittà, the Mussolinian Hollywood southeast of Rome. Traffic has come to a standstill in the face of the illusory image of history.



As *Roma* begins with the entry of Julius Caesar through the symbolic crossing of the Rubicon, it ends with the roaring exodus of a gang of motorcycles, crossing the Tiber River from Trastevere on the night of the Festival of Noantri. From the Ponte Garibaldi, the gang progresses through the now empty streets of the left bank of Rome, circling its monuments: the Capitoline, the Roman Forum, the Piazza Navona, the Spanish Steps, the Coliseum. No longer is Rome seen as a series of slides, but from the viewpoint of this speeding convergence of motorcycles. Having sped through Roman history, they exit the city through the Porta Ardeatina and roar into the night along the Via Cristoforo Colombo. The motorcycles invade this trajectory, the modern Roman road built by Mussolini as the axis linking Rome to the EUR and continuing onward to the beaches at Lido di Ostia. From the Rubicon to Rome to the Mediterranean, Fellini creates a traffic history of Rome, the city, a transforming image based on the evolution and fluxus of movement.

Fellini's use of the ring road *autostrada*, the GRA, seems poignantly appropriate as a metaphor for his description of Rome, his cinematic creation of the city of today. For as in the foundation or mapping of the ancient city through the drawing of a circle, the description or mapping of any city today involves the same process of *movement*. Movement through, movement around – not necessarily with the same type of geometrical precision required in the tracing of an arc, but a physical or imaginary movement through whatever we define as City. In fact, it is only through this movement, within this description, that each one of us comes to know a city – whether the Rome described by the filmmakers Rossellini, Antonioni, or Fellini; the Rome of today; or any city in the world. For the city as a concept is *open*, open to interpretation and invention, a link between our experience of the physical world and the creative filters through which this world is perceived.



1. Robert Musil. **The Man Without Qualities,** trans. Sophie Wilkins. (New York: Vintage International, 1995). p. 28. 2. Ibid., p. 4. 3. Ibid., p. 3.

Photo Credits Antonioni, Michelangelo. **L'eclisse.** 1962. Fellini, Federico. **Fellini's Roma.** ©1972 Ultra Film S.P.A. All rights reserved. Rossellini, Roberto. **Roma, città aperta.** 1946. Courtesy Kino International, New York, NY.

Art Nouveau Architecture in Prague as an Expression of a New Czech Identity

Katherine Wheeler

Art Nouveau architecture in Prague was a physical manifestation of Czech identity, particularly Czech desire for, and success in, industrial and cultural independence from the Austrian empire. The end of the nineteenth century was a chaotic time with new political and artistic ideas battling tradition as a violent surge of nationalism directed against Habsburg rule peaked. Architecture in Prague became a symbol of the search for a new political order and national expression. The scenographic nature of the Art Nouveau re-presented the city as a stage on which the drama of nationalism played itself out through daily life. In addition, new buildings in the Art Nouveau aesthetic created a coherent urban fabric blending well with existing structures. Reflecting the westernization of the city, the development of a *fin-de-siècle* style of architecture in Prague drew on European artistic movements such as the British Arts and Crafts and French Art Nouveau (fig. 1). Some scholars suggest that this turning to non-Austrian models for inspiration to be in itself a revolutionary act in that it denied Austrian cultural dominance and aligned Prague with a contrasting political system.[1] Art Nouveau celebrated Czech culture and history while simultaneously creating a "modern" architecture.

Opportunities to express this wave of nationalism occurred in the international exhibitions and, more importantly, the large scale reconstruction of the infrastructure of Prague. These extensive building efforts effectively reshaped entire districts of the city, creating an image of Prague as a "modern" center for art and culture. The first large scale physical manifestations of this patriotism in the

Figure 1: Detail on building on Jungmannovo Square. (Photo: K. Wheeler)

Figure 2.
National Theatre.

1870-80's were the construction of five major public buildings – the National Theater, the Czech Polytechnic Institute, the Rudolfinium Palace, the National Museum, and an addition to the Gothic landmark, the Cathedral of St. Vitus. These buildings were still stylistically historicist and, with the exception of the Cathedral, predominantly neo-Renaissance in character (fig. 2). The view of historicism, however, was not that of copying of a previous manner of decoration but was part of the evolutionary development of style. Jan Koula, a Czech architect who bridged the historicist and Art Nouveau movements, notes that historicism "refines the architect's imagination and provides the basis for his further development."[2] This is not to say that there were not those who were against historicism outright, but that elements of previous architectural styles – the neo-renaissance and the neo-baroque in particular – are clearly evident in early Art Nouveau buildings.

It was the international exhibitions of the 1890s that provided an opportunity for the break from historicism. Built at the edge of Prague, the first of these international events was the 1891 Jubilee Exhibition of Countries of the Kingdom of Bohemia. As Germany did not participate, the exhibits focused primarily on Czechoslovakian technology and industry.[3] Here Czech modernism focuses not on the outward appearance of the structure but the technological advances in construction. The Palace of Industry demonstrates an attempt to incorporate the technological advances of iron and glass while simultaneously adhering to historical forms in its lively neo-baroque decoration (fig. 3). Bedrich Münzberger (1846-1928) designed the form and ornamentation while Frantisek Prásil with the First Bohemian Steel Works, designed the "modern" iron and glass structure hiding underneath.[4] While the effect is somewhat incongruous, it points to the desire for a new beginning through technological advances but still maintaining a connection to the past.

Also important was the influence of an idealized Czech rural folk tradition. At the base of each tower of the Palace of Industry, tile mosaics depict dancing maidens in rural settings. Four years later the 1895 Czecho-Slovak Ethnographic Exhibition, held on the same site, continued the promotion of Czech nationalism with a further emphasis on traditional vernacular forms. The erection of an entire rural village on the exhibition grounds reiterates this focus on local traditional architectural forms and construction techniques.[5] Looking to the past and to folk traditions was simultaneously both in conflict with, and a source for, the development of a new style. These vernacular traditions provided an outlet for the expression of an idealized Czech national heritage and history.

It was not however until the 1898 Architecture and Engineering Exhibition where the meeting of the traditional with the desire for a new architecture of the time came to a head. The Non-Sense pub by Jan Koula reproduced, in an almost postmodern fashion, the jumble of styles that historicism had wrought. A contemporary critic writes:

On one side, there is historicism, on the other, its negation (absolute if possible), that is, modernity, and between the two is this kind of happy medium that some people have found, to safeguard patriotism in art.... All progress depends on a successful evolution of tradition and ossified formalism with respect for the old, but desire for the new.[6]

The public did not yet see full modernism with its total lack of historical and vernacular references as representational of Czech identity. It still strived for something new, but was not wholly ready to release its grasp on its past. The debate though had begun and soon the focus was on the development of a "new" and "true" architecture for the time.

Nationalism as a movement was not without its own complexities and detractors. The objective of the expression of an individual nation in some circles expanded to the expression of person as an individual, and specifically that of the artist. Similar tendencies also occurred in the fields of literature and politics. In 1895 a group of young radicals published the "Czech Modernist Manifesto" incorporating theories of morality with aesthetics and politics. Focusing on the concept of national self-awareness, they promoted the individuality of the artist as the key to the cultivation of the "whole, real identity."

We want truth in art, not the truth that photographs things from the outside, but the honest, inner truth that can only be known to its bearer – the individual person.[7]

Needless to say the members of the group who signed the manifesto had little in common with each other except for theories of their own individuality, so as a cohesive movement they were ineffective. What they had done, however, was to raise the position of the artist to that of the great creative genius.

Figure 3: Palace of Industry, 1891. (Photo: K. Wheeler)

Figure 4:
Novaku Department Store, 1902-3, by Osvald Polivka. Mosiac representing Commerce and Industry by Jan Preisler. (Photo: K. Wheeler)

The communication of these new ideas was through channels opened through the foundation of new societies, journals and schools exposing designers to both the theory and execution of the new style. The Mánes Union of Artists provided a number of opportunities for exhibition, and the journal **Volné smery** (Free Directions), first published in 1896, carried many articles on modernism. In 1898 the Manés stated in the **Volné smery** that modernism was "a simple step forward in the natural evolution of art."[8]

The School of Applied Art in Prague, founded in 1885, included three faculty members who made a great impression on the next generation of young artists – Friedrich Ohmann (1858-1927) as Professor of Architecture, Celda Kloucek (1855-1935) as Professor of Decorative Sculpture, and Josef Václav Myslbek (1848-1922) as Professor of Plastic Arts. Kloucek introduced ornament based on natural motifs while Ohmann taught the decorative principles of the neo-baroque.[9] The School's attention to the decorative arts reflected the influence of the British Arts and Crafts tradition which elevated the role of the artist and the status of decorative arts to that of "fine art." Integral also to this movement was the elevation of the vernacular and folk traditions.

At the School of Applied Arts the plastic nature of the surface was of primary concern in study of architecture. The facade of the building was in a sense a "blank canvas" which sharply contrasted with the agglomerative configuration of historicist elements that had previously held sway. Early Art Nouveau architecture drew its forms from nature with the primary objective being a unification of the work through design.[10] Even with the inclusion of historical elements, nature's bounty in the sinuous lines of flora and human figures formed the basis for design. The line was imbued with the force and power of nature evoking an emotional response bordering on the sublime or surreal reflecting the influence and ideas of the Symbolist movement. But, unlike the manifestation of nature in French and Belgian Art Nouveau, the *fin de siècle* style in Prague did not typically exhibit asymmetrical designs. Duplication of decorative motifs was rare, yet the continuity of expression and overall form

created an unified appearance with neighboring structures. The hold of the historical traditions was still strong.

The U Nováku department store, designed by Osvald Polívka with mosaic design by Jan Preisler, is a perfect example of a typical Art Nouveau structure in Prague (fig.s 4, 5). The symmetrical facade appears as though it is literally stretched across the building. Rural wildlife – in particular frogs and lizards – appear to crawl across the stucco skin of the facade. The allegorical theme of the mosaic on the central portion of the building depicts Commerce and Industry within an idyllic vernacular setting.

The forum for exchange established by the schools and journals would have had less urban impact if opportunities for construction had not also been available. In 1873 the purchase and demolition the city's Baroque fortifications provided extensive areas of land for redevelopment thus having an economic impact on the planning of the city. The high purchase price of this land from the Viennese military forced the city to subdivide it into lots and sell to developers.[11] In addition, from 1893-1902, under a massive urban planning initiative, the city demolished extensive areas in Old Town – in particular Josefov, the Jewish "ghetto."[12] The new plan widened and regularized the streets destroying much of the medieval fabric of the neighborhood (fig. 6). The availability of the land and the political and economic ability to build, produced an opportunity for the construction of Art Nouveau architecture – the current style and expression of the national image – throughout the city.

Prague, later than other major European urban centers, underwent rapid population growth and industrialization during the late nineteenth century and early twentieth century with Bohemia becoming the industrial leader of the Austro-Hungarian Empire. The city's crumbling infrastructure desperately needed modernization. The populace fiercely opposed an initial plan for reconstruction which included the

Figure 5:
Detail of Novaku
Department Store
Photo:K. Wheeler

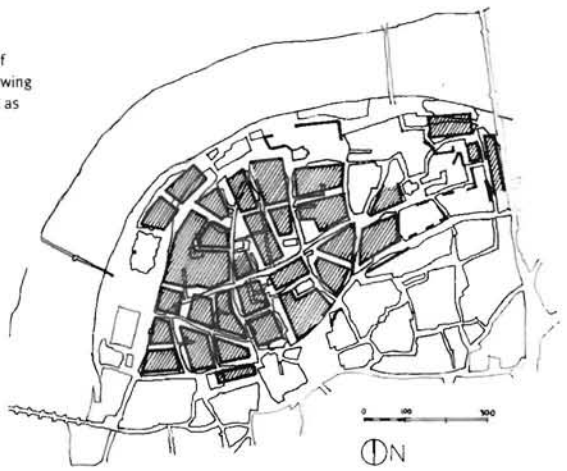


Figure 6:
Plan of Josefov indicating extent of reconstruction Drawing by Kevin Aalderink as per illustration by Rotislav Svacha

creation of a grand boulevard from Wenceslas Square to the Letná Plain as it destroyed too much of the urban fabric. Joseph Sakar modified the plan in 1902, focusing on the creation of smaller squares and more modest promenades in an attempt to preserve the scale and impression of the city. It was through the rebuilding of the city in these urban planning initiatives that the Art Nouveau became the fabric within which earlier historic landmarks resided.

The flat quality of many of the early Art Nouveau buildings was a result of two important and complementary factors. During the redevelopment of Prague, buildings were often stripped only of their exterior shells, providing access for installation of new services. Far from having total control on a project, the architect only designed the facade with the builder controlling the development of the plans and structure of the building as required. Josef Fanta (1856-1954) lamented this situation in 1899 in the journal **Volné smery**. He states:

> *In Prague it is still accepted that the architect's task is, at best, to design the facade, and that if the building contractor or developer requires collaboration with an architect, it is most often because of the facade. At the most the architects' work extends as far as the passageway.*[5]

Secondly, stucco, paint, and ironwork were much less expensive than carved stone and appealed to cost-conscious developers. In most cases Art Nouveau architecture in Prague, until its second decade of the century, was not the "total work of art" as it was in France and Belgium, exemplified by such works as Guimard's Castel Berangér which included designs for interior spaces and furnishings. It did however create a singular backdrop which unified the city under a mantle of Czech "modernism."

The major exceptions to this "skin-deep" approach were larger scale public projects. The Main Railway Station, designed 1898-1909 by Josef Fanta (1856-1954), is the largest Art Nouveau building in Prague.[14] Fanta's decoration is a mixture of the three-dimensionality and symmetry of the neo-baroque and the linear and natural motifs from the graphic arts. Large dramatically posed figures at the first level of the towers break free from the planar surface of the facade adding movement at the spring point of the great arch and dynamism to an otherwise static design. The domed main entry hall features large expressive allegorical figures welcoming travelers through the arched openings. Located on a slight hill and oriented to the city, the Main Station became a landmark of Prague's image as an urban metropolis in western Europe.

The recently restored Municipal Building by Osvald Polivka was a "Temple of Art" housing gallery spaces, concert halls, restaurants, offices and a casino (fig. 7). Built over a period of nine years from 1903-12, it is the culmination in many ways of the Art Nouveau in Prague. However, by the time of its completion designers had already begun to explore new expressions of modernism and some contemporary critics found it too historicist. The lacy iron and colored glass canopy creates a protected entry and drawing the eye to the mosaic by Karel Spillar depicting an allegory of "Prague Life" with flanking statues representing Humiliation and Rebirth of the Nation.[15] The proportions and massing of the building are the influence of the work of the French architect, Charles Garnier, whom Czech architects idolized in the nineteenth century.[16] The interiors are opulent with each room a work of total design executed in glittering glass and tile mosaics, expressive murals, elaborate wood and metal work, and exquisite lighting. It represents a high point in Art Nouveau architecture defining a Czech national interest and pride in the arts.

Figure 7:
Municpial Building,
Obecni Dum
Photo: Raul Smith

A second, and final, stage of development of the *fin-de-siècle* style in Prague indicates an attempt to elevate the importance of structure and function over that of decoration in the role of architecture. Foreshadowing this move, Frantisek Salda, the literary critic, writes in 1903:

> *We are turning away from convoluted imagination and accumulated formal conventions, and going back to essential,* simple and functional forms, *away from falsehood and pretense and back to honesty and solidity, from cosmetic ornamentation to structure and skeleton and from the secondary to the essential and original....*[17]

The Vienna Secessionists, in particular the work and theories of Otto Wagner, provided a new influx of ideas. The Secessionists, like the early Art Nouveau artists in Prague, began as an attempt

Figure 8:
Central Bay of the Peterka Building by Jan Kotera, 1899.
Photo: John Comazzi

to rebel against what Carl Schorske calls "classical Austrian liberalism."[18] Influence also came by way of the "Wagnerschule" which Ezio Godoli notes is in fact a separate, but related, movement to the Secessionists.[19] It could be argued – and further research should be done – as to whether the primary influence of the Secessionists is through the Wagnerschule.

Jan Kotera (1871-1923), a student of Wagner, was one of the most important architects in Prague, transitioning from the *fin-de-siécle* style to modernism in the form of Czech functionalism. In 1900 he published his "Manifesto" in **Volné smery** echoing many of Wagner's theories. He writes:

> *Space and structure shaping must be the reason of a new movement, not the shape and form of decoration, since the first is the truth proper, whereas the latter is an expression of the truth. New shapes can therefore arise from a new purpose, from a new structure, adapted to the site...*[20]

The relationship between plan and elevation mattered, and thus the role of the architect mattered in the development of the building as a whole. With the goal of an architecture based on function, form and structure, historical eclecticism and ornamentation was no longer valid. The purpose of ornament in architecture, he noted, was therefore to illuminate "mass defined in clearly constructive terms."[21]

In addition, Kotera felt deeply that the social and political aspects of architecture, in particular worker's housing, were critical issues for further investigation. Drawing on the works of Berlage and Wright as well as Wagner, he led the transition from Art Nouveau to a more stripped-down, less decorated modernism. Historicists saw these new influences as void of national character, placing Prague again under the suppression of Austria. Mosaic, stone, and paint ornamentation on the buildings told allegorical stories of the Czech nation's heritage.

One of Kotera's most famous Art Nouveau works and his first work upon his return to Prague, is the Peterka Building, 1899, in Wenceslas Square. Composed of three elegantly proportioned vertical pieces, the center bay bows slightly outward as though compressed by the outer bays (fig. 8). A more austere quality expressed in large expanses of blank surfaces reflects the influence of Wagner.[22] The spiraling motifs at the second level draw the eye to the upper stories of the building and balance the weight of the sculpture in the central bay. The strong, gestural figures at the upper level are by Josef Pekárek and Karel Novák and accentuate the more linear and controlled decoration elsewhere.[23] The figures are similar to thousands of figures inhabiting the facades of Art Nouveau buildings throughout the city. Dynamic and weighted, unlike many of the ethereal *fin-de-siécle* elsewhere in Europe, they are the tireless watchmen of the Czech people and their culture.

Prague's urban fabric is knit together by the Art Nouveau. The *fin de siécle* style came at a critical juncture in Prague's history. It manifested quintessential Czech experiences of nature, traditions, and the sublime with representations in stone, glass and tile. In striving for the "new" and "modern" in architecture, it directly reflected political and ideological trends and a desire for independence from Habsburg rule. While architects typically focus on the "next steps" in the development of Czech modernism – Cubism and Czech functionalism – this early Czech "modernism" is worth closer examination. A brief review of guidebooks and Rotislav Svácha's catalogue of Prague's architecture by street reveals the vast amount of the city which was constructed at the turn of the twentieth century.[24]

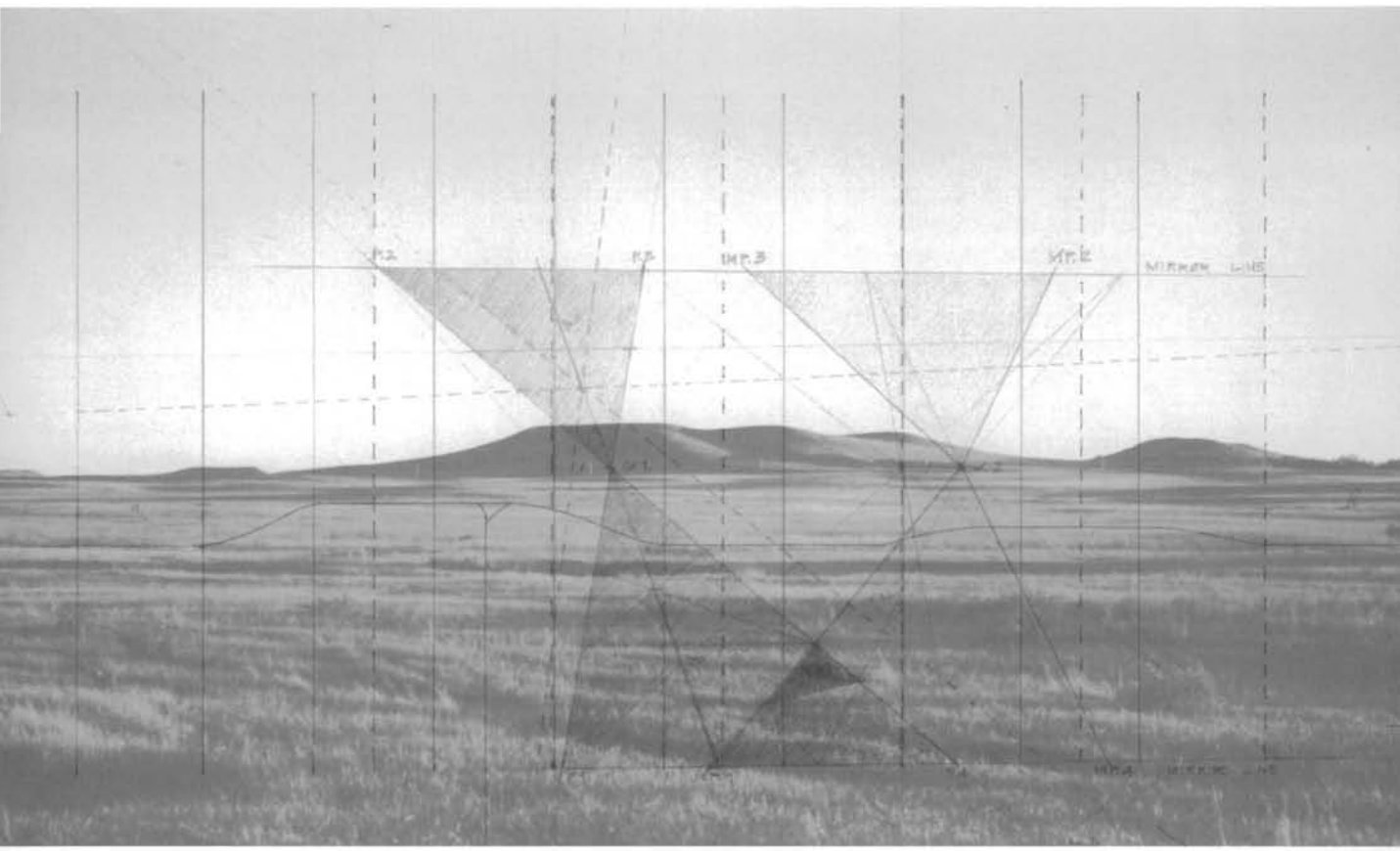
Ultimately it was the oppression of the Austrian rule that compelled Bohemia to redefine itself within the culture of western Europe. As Ivan Klíma, the Czech writer, notes, "But to my mind it was not freedom that most influenced the shape of and the spirit of Prague, it was the unfreedom, the life of servitude, the many ignominious defeats and cruel military occupations."[25] This repression instigated ardent nationalism with a clear desire for a new beginning. Art Nouveau architecture provided the opportunity for an unified approach that would represent nationalistic ideals yet not detract from the historic fabric of Prague, which had by the nineteenth century already garnered the titles "The City of a Hundred Spires" and "Magical Prague." Fervent nationalism created the *fin-de-siécle* image of Prague, and while individual monuments may stick out in one's mind it is ultimately a continuity of the context that creates the impression of the city.

1. Peter Wittlich, **Prague: *Fin de Siècle*** (Paris: Flammarion, 1992), p. 22. 2. Rostislav Svácha, **The Architecture of New Prague 1895-1945** (Cambridge: The MIT Press, 1995), p. 43. 3. Wittlich, **Prague: *Fin de Siècle***, p. 29. 4. Wittlich, "Art Nouveau in Czechoslovakia," **Art Nouveau/Jugendstil Architecture in Europe. Architecture and Protection of Monuments and Sites of Historical Interest Series.** ed. Dr. Hans-Dieter Dyroff. (North rhineland/ Westphalia: German Commision for UNESCO and the Academy of the Chamber of Architects), p. 37. 5. Rostislav Svácha, **The Architecture of New Prague 1895-1945** (Cambridge: MIT Press, 1995), p. 61. 6. Ibid., p. 46. 7. Ibid., p. 13. 8. Ibid., p. 65. 9. Anna Masaryková, "Czechoslovakia: The Secession in Eastern Europe," **Art Nouveau Architecture,** Frank Russell, ed. (New York: Rizzoli, 1979), p. 218. 10. Wittlich, "Art Noveau in Czechoslovakia," p. 40. 11. Svacha, 19. 12. Wittlich, "Art Nouveau in Czechoslovakia," p. 37. 13. Svácha, p. 25. 14. Wittlich, **Prague: *Fin de Siècle***, p. 104. 15. Ivan Margolis, **Prague: A Guide to Twentieth-Century Architecture** (London: Artemis, 1994), p. 46. 16. Svacha, p. 39. 17. Wittlich, **Prague: *Fin de Siècle***, p. 137-9. 18. Carl E. Schorske, **Fin-de-Siècle Vienna: Politics and Culture.** (New York: Vintage Books, 1961, reprint 1981), xxvi. 19. Ezio Godoli, "Austria: To The Limits of a Language: Wagner, Olbrich, Hoffman," **Art Nouveau Architecture,** Frank Russell, ed. (New York: Rizzoli, 1979), p. 231 20. Wittlich, "Art Nouveau in Czechoslovakia," p. 41. 21. Svacha, p. 49. 22. Marie Vitochová, Jindrich Kejr, Jirí Vsetecka, **Prague and Art Nouveau** (Prague: V Ráji Publishing House, 1995), p.11. 23. Ivan Margolis, **Prague: A Guide to Twentieth-Century Architecture** (London: Artemis, 1994), p. 82-3. 24. See Svacha, p. 472-543 passim. 25. Ivan Klíma, **The Spirit of Prague,** trans. Paul Wilson (New York: Granta Books, 1994), p. 40.

mirroring, nesting, scaling...

Craig Scott + RoTo Architects

graduate architecture studio



site analysis: Juthathip Techachumreon

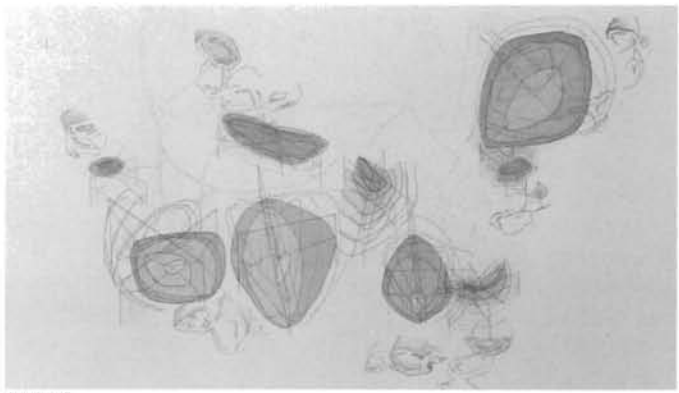
Work from a graduate architecture studio taught collaboratively by distinguished visiting critics Michael Rotondi and Clark Stevens of RoTo Architects, adjunct assistant professor Craig Scott, a former member of RoTo Architects who led the studio at the College of Architecture and Urban Planning in Michigan, and visiting critic Jim Bassett, a RoTo member and on-site architect at Sinte Gleska University, Rosebud, South Dakota.

The work of this studio aimed to help provide a base of research for the making of new architectures for inhabiting the Lakota landscape. The studio project addressed the relationship between building, landscape and a people's cultural practices through interpretation and analysis of the place and its inhabitation. Lakota cosmology is imbued with the notions of mirroring, scaling and nesting as part of a multi-scalar ordering system that informs the reading of place and site, binding together different scalar realms, from living unit to prairie to region to sky. The strong horizon of the vast Dakotan landscape reinforces the Lakota's belief in patterns of movement and rest on earth being reflected in the skies, as it acts as a plane mirroring the land and air. Reciprocity between such site phenomena and Lakota practices offered supporting material to the development of an architecture that attempts to translate, record, and synthesize a place and culture.

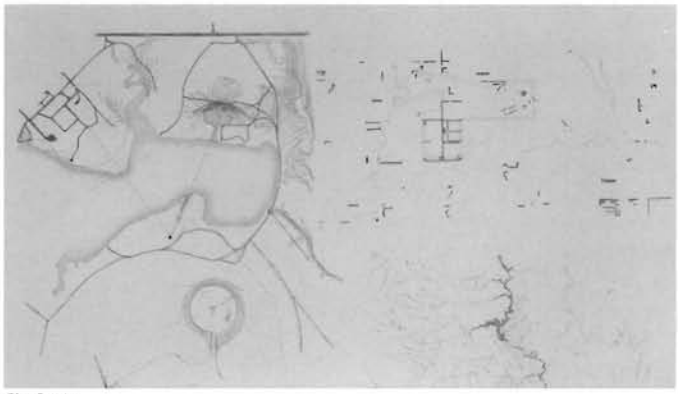
A recent restructuring of Federal funding for housing has resulted in an opportunity for the Sicangu Lakota people of Rosebud Reservation to improve their housing stock. Increased responsibility and authority in the building of new housing will enable them to create strategies that will better reflect the values of their culture, and provide for educational and economic development. The studio project was sited at the new campus and environs of Sinte Gleska University, the nation's first and oldest tribal university. The campus is an on-going building/site design and planning project being carried out by RoTo Architects.

In addition to providing useful research for the Lakota people, the studio sought to expose the students to the kind of collaborative working process that has been central to the work of RoTo Architects.

Pedagogically, the aim was to promote the opening of new avenues of investigation through a design process which is both open and rigorous. Thinking and making were to be as simultaneous as possible. Improvisation and analysis aimed toward a process of structured intuition – encouraging students to find connections and correspondences among the various forces at work around the project, including: histories and practices which have or might yet impact the nature of the landscape; cultural backgrounds of the people, available technologies of construction;

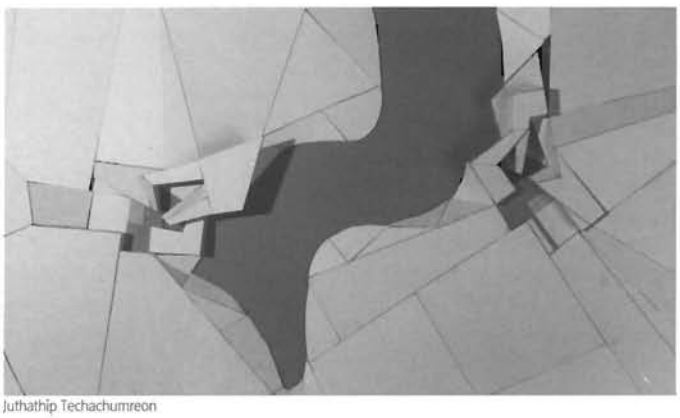


Amy Lovell



Gina Brown

Sophia Terrell



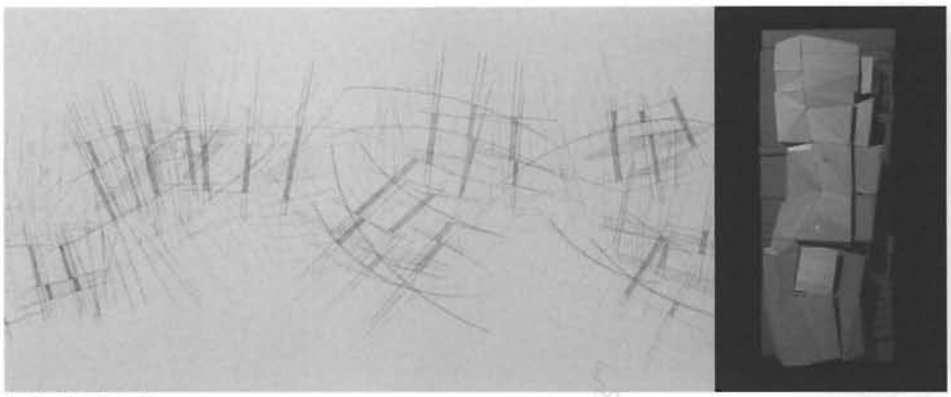
Juthathip Techachumreon

physical characteristics of the site; as well as more ephemeral spatial and temporal dimensions.

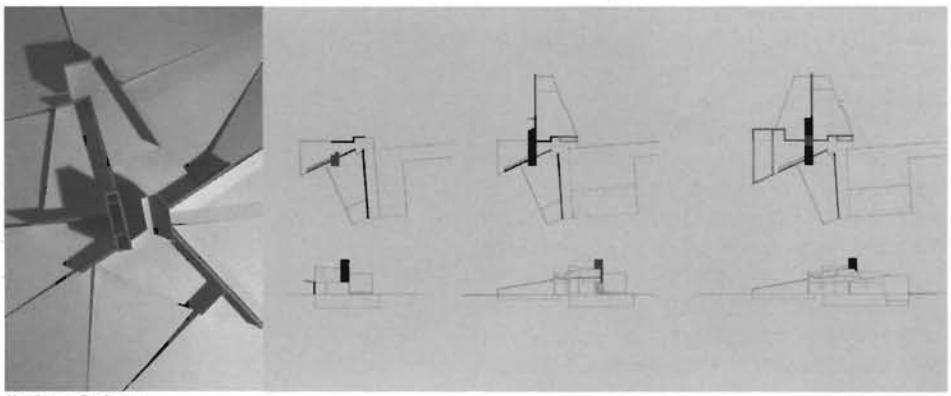
The work of the studio was divided into two components. An initial exercise was developed prior to visiting the site, in order to allow students to develop an abstract understanding of the landscape and history of the Lakota people before being exposed to the actual current conditions of the Rosebud Reservation.

The objective of this three week exercise was to first establish, diagram and re-map the spatial/volumetric ordering systems of the site at multiple scales. Students were then asked to suggest a three-dimensional transformation of a portion of the site through the spatial reading of existing conditions as understood through earlier analysis. The goal of this transformation was to identify or propose an event or ritual that would be supported by a minimal architectural intervention in the site and form a provisional closure of the analytical site readings; i.e. to extrapolate from the natural and mythological character of the place a conceptual logic, such that the "next step" proposed by the student seemed inevitable in form, material, and function.

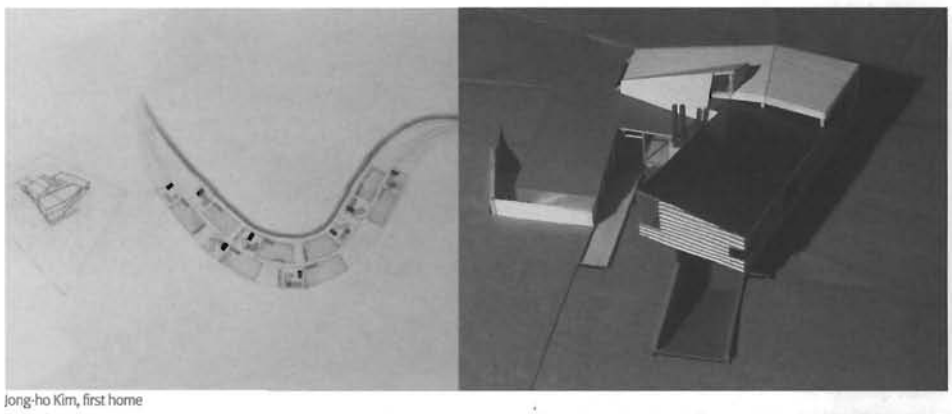
It was posited to the studio that the mythologies which emerged from their own explorations could be as relevant as those that had existed there for hundreds of years, provided that investigation aimed toward establishing a critical framework through which the



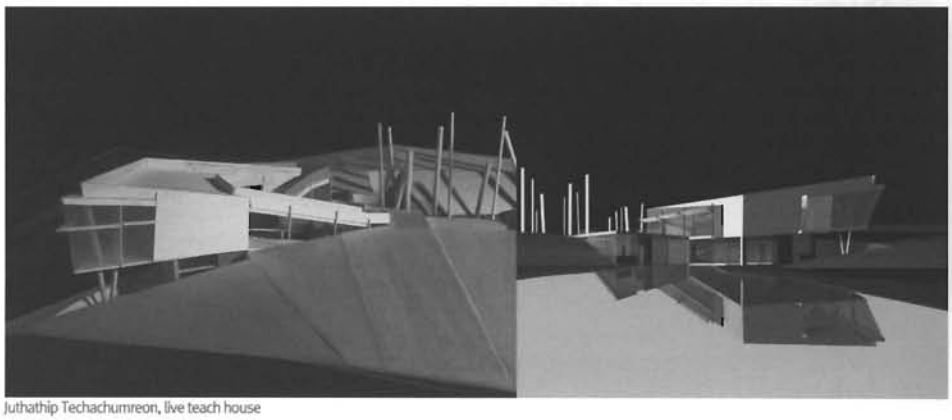
Amy Lovell, student residence



Gina Brown, first home



Jong-ho Kim, first home

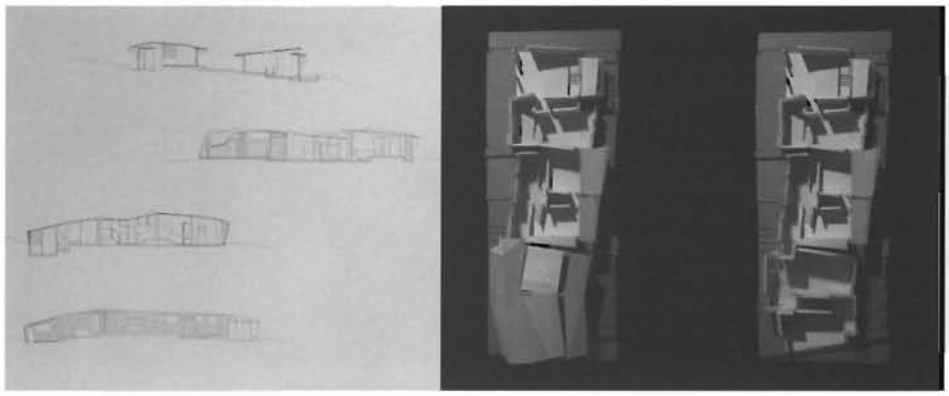


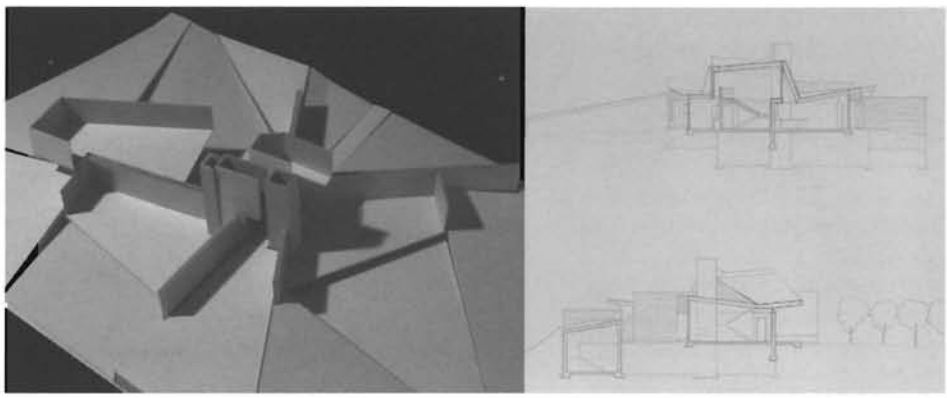
Juthathip Techachumreon, live teach house

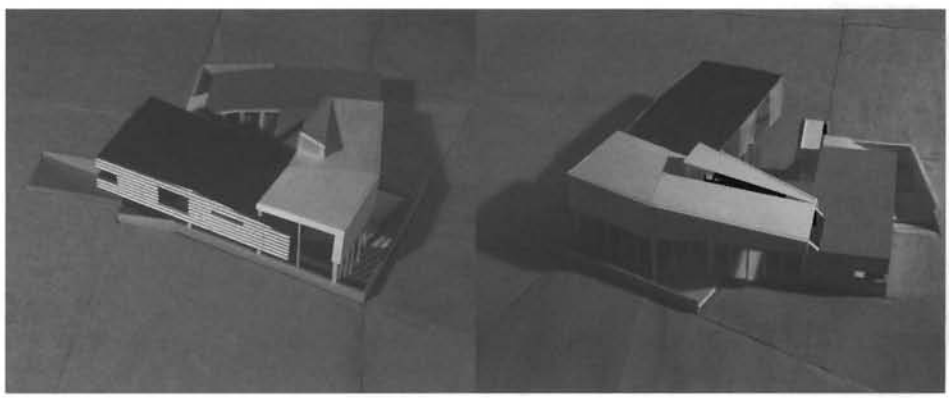
physical and social facts of the place could be positioned vis-à-vis their work.

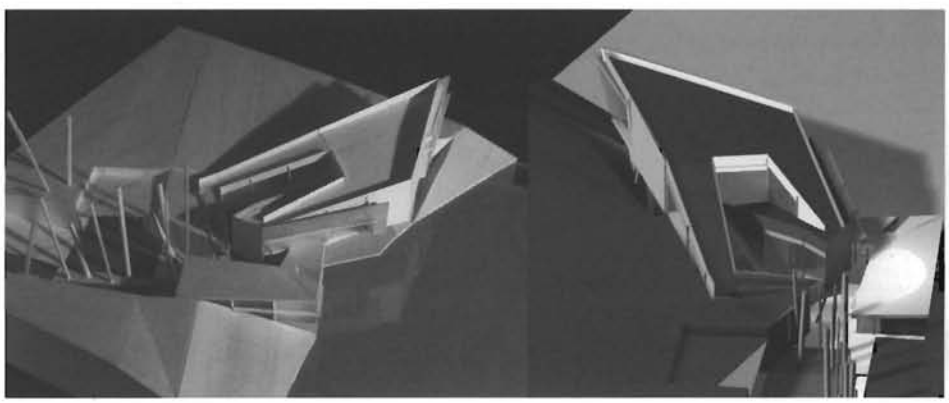
The opportunity to test the results of initial research arrived with a trip to the Rosebud Reservation. The students were encouraged to look for evidence of their earlier abstract discoveries in the actual landscape, then to expand, transform and alter the logic of their diagrams and mappings based upon the new perceptions of the site. During this trip, students met with members of the community and heard and saw for the first time the difficult social and technological problems associated with life and shelter on the reservation. Stories of difficulty were balanced by the humor and hopefulness that is typical of the Lakota. The studio learned of the ways in which the use of the contemporary HUD housing stock has been modified to reflect the values of traditional Lakota kinship (Tiospaye) relationships. This situation, along with information gained as to what the immediate housing needs of Sinte Gleska University are, prompted the division of the studio's next phase of housing research and design studies into three broad categories: live/teach dwellings for faculty of Sinte Gleska University, multi-student residences, and first homes for young adults starting new families.

In keeping with the collaborative emphasis of the studio, each of the three groups were encouraged to act as mini-studios whose additional collective research was pooled, thus engendering a kind of cross-fertilization between their site readings,





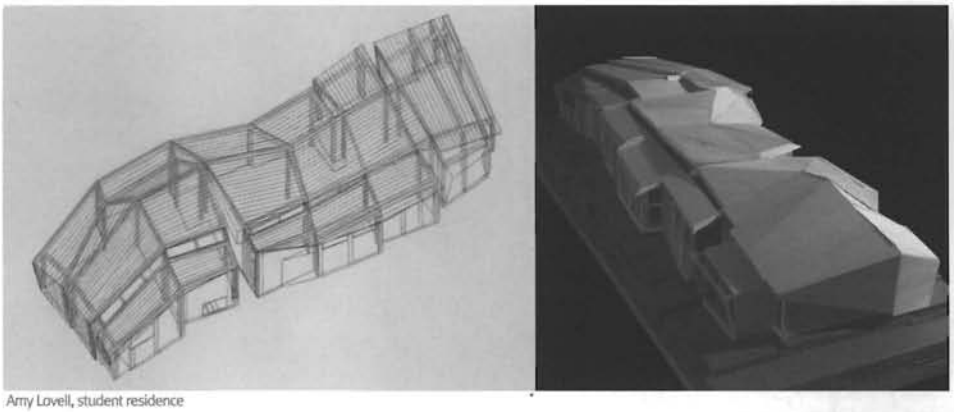




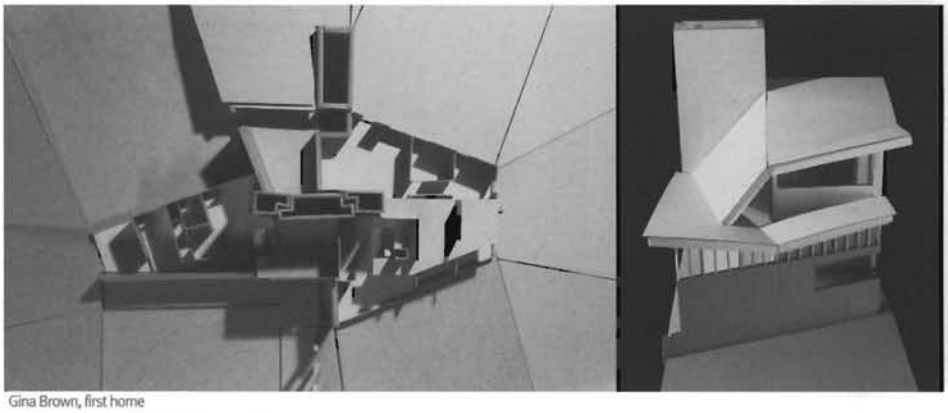
mappings and concepts. A specific program or size for each of the three types was not given. Instead, the students were asked to draw from the collective research of the studio and make critical proposals that reflected their notion of "what the site would bear" when confronted with the specific human and cultural requirements of the dwelling type.

As the projects developed, students were challenged with questions concerning both their work's relationship to earlier abstract concepts and logics established in the studio, and the more concrete issues which surfaced in the development of their architectural propositions: the degree of the architecture's prototypicality with respect to site-specificity (in methodology as well as in the object); evolving strategies for unit multiplication and growth over time which consider the transformative affects on the place; proposing building tactics which ensure constructability with the means at hand; deploying configurational strategies that reflect Lakota notions of community; and developing space-making sensibilities which address the specific socio-spatial practices of the Lakota people.

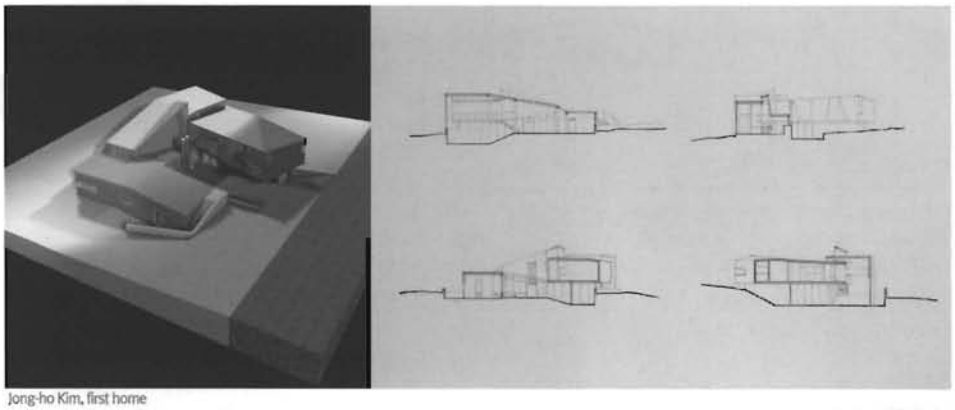
– Craig Scott + Clark Stevens



Amy Lovell, student residence

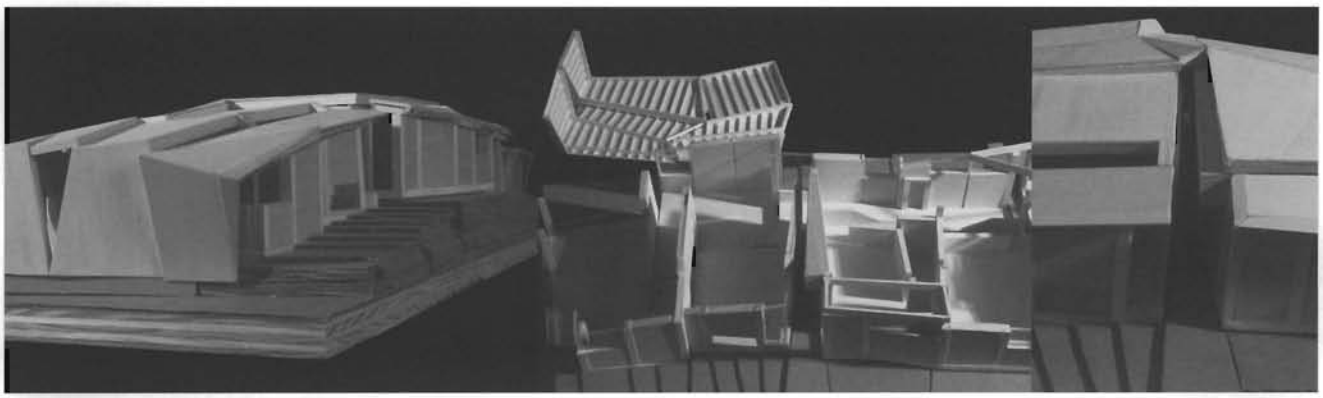


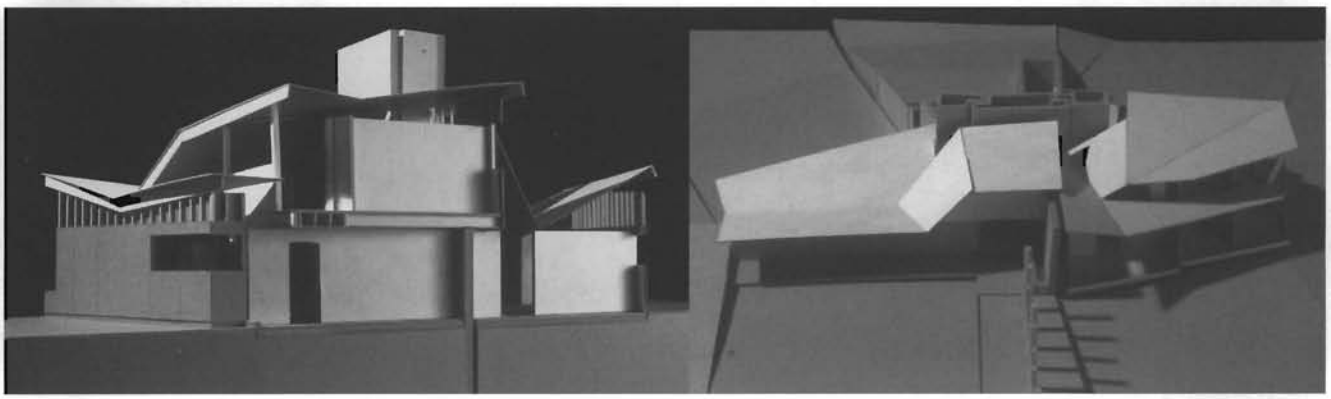
Gina Brown, first home

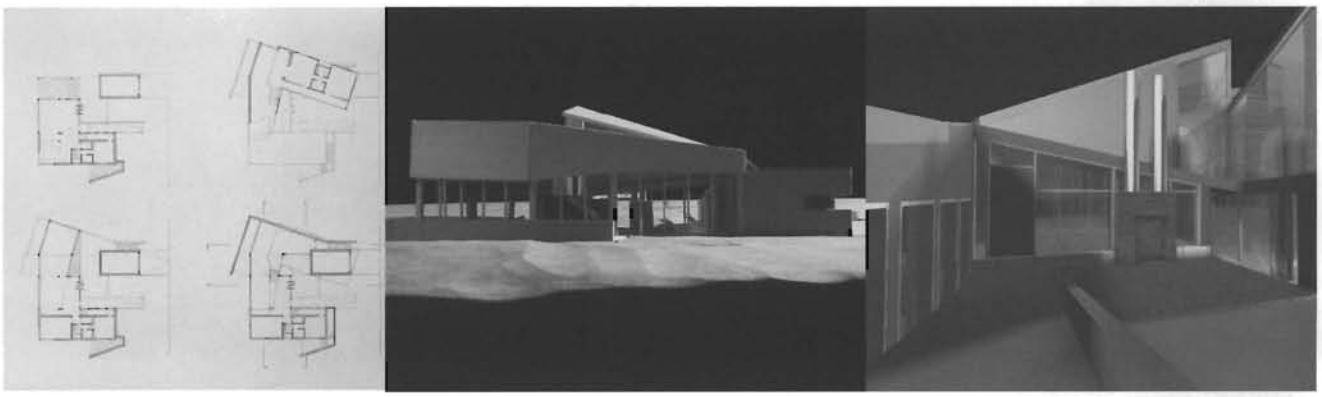


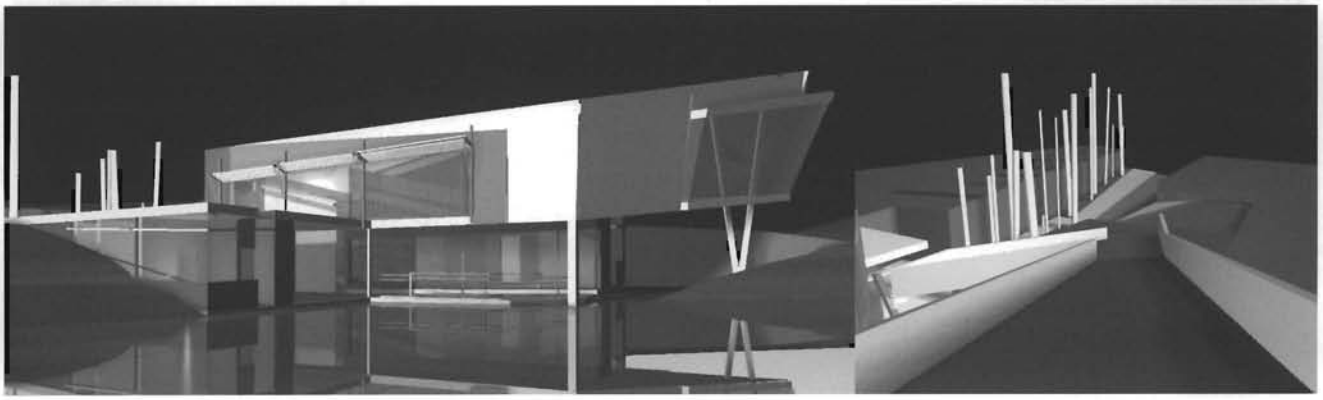
Jong-ho Kim, first home

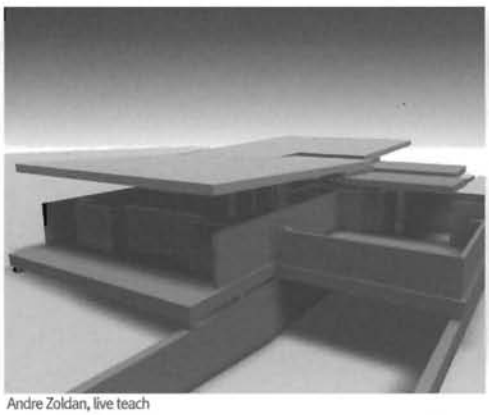
Juthathip Techachumreon, live teach house





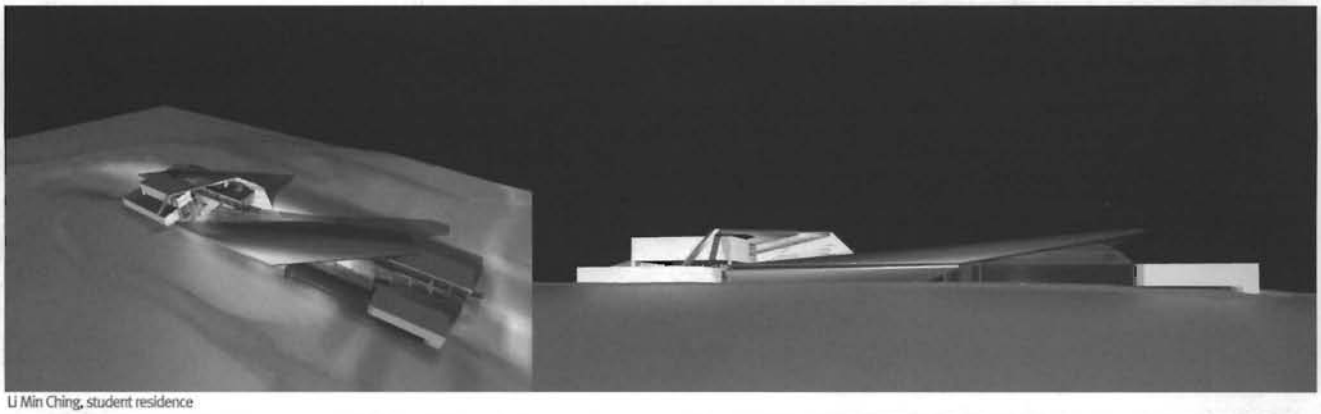




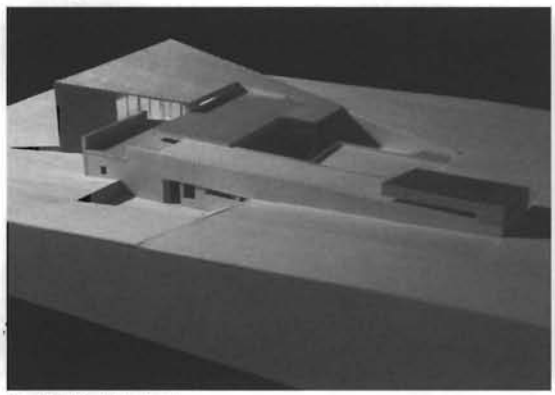


Andre Zoldan, live teach

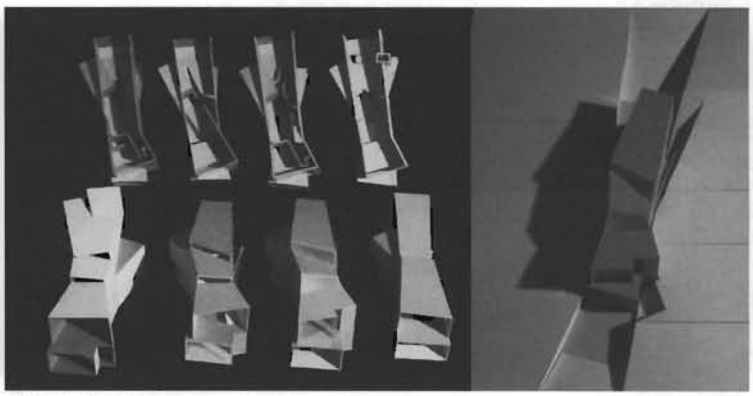
Nancy Chow, student residence



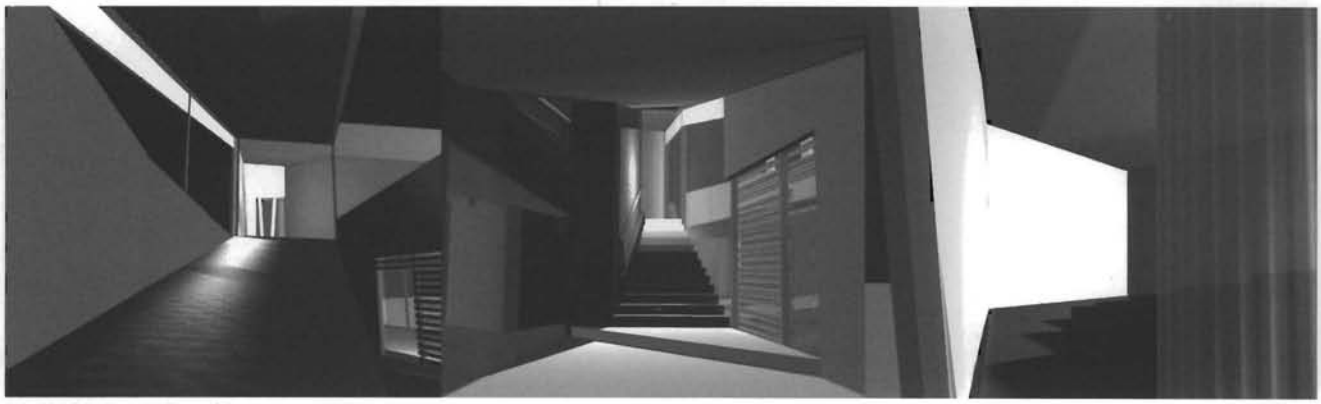
Li Min Ching, student residence



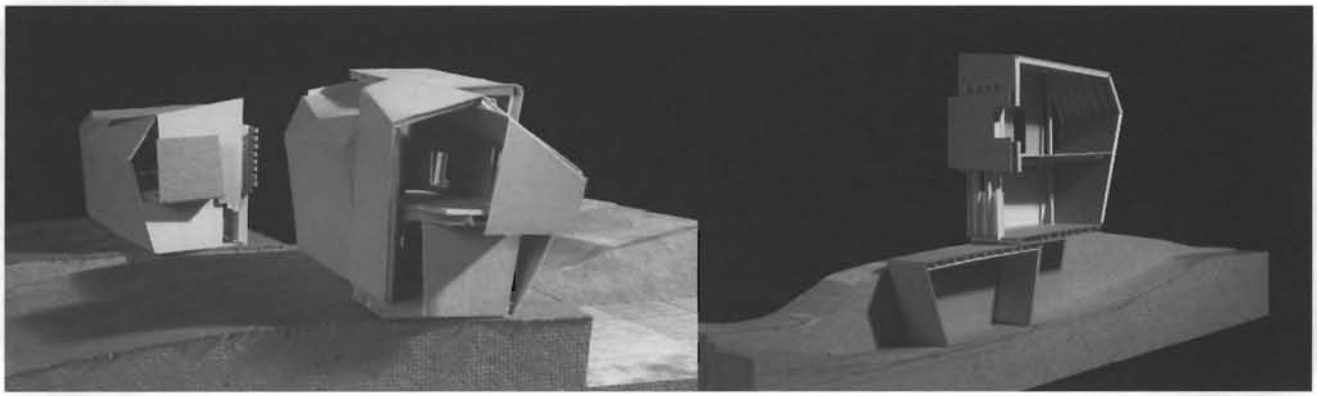
Donald McDonald, live teach

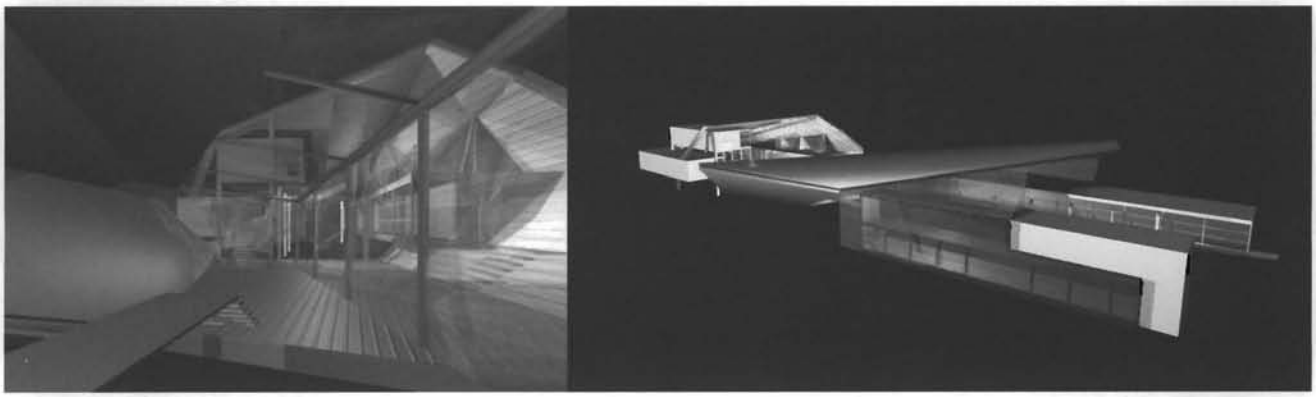


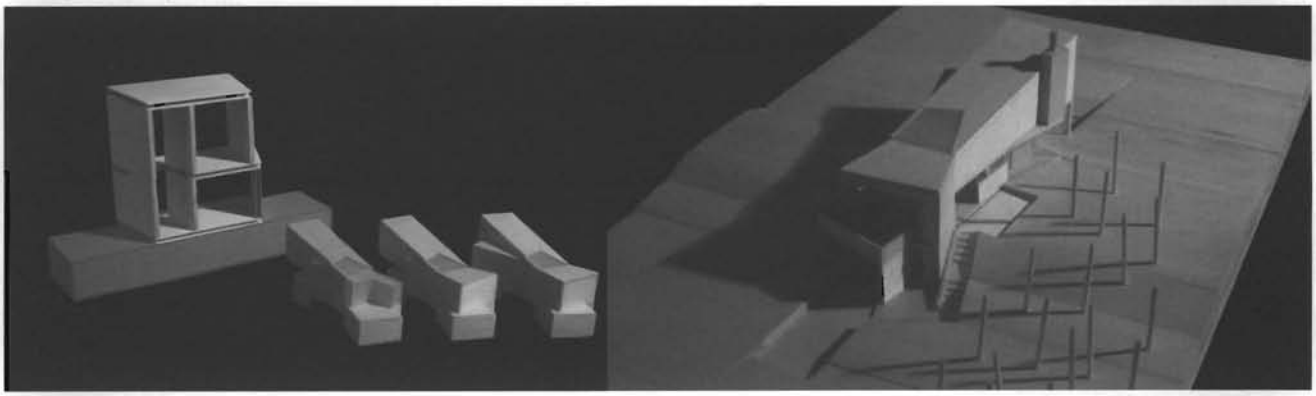
Erik Lee, first home

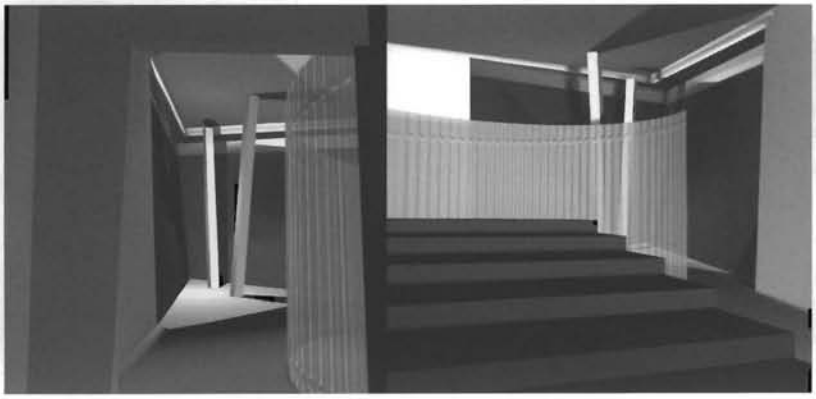


Juthathip Techachumreon, live teach house









Christine Reins, live teach

Instrument/Institution:
Supreme Court of Iceland

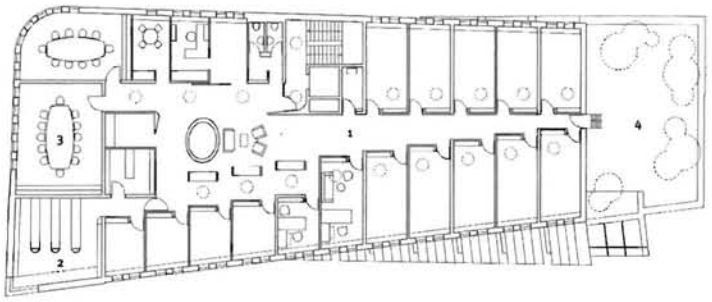
Annette W. LeCuyer

The stark beauty of the volcanic landscape and the tenuous hold of life upon that landscape are strikingly obvious in Iceland. Here, human culture is set against a backdrop of overwhelming scale where time is measured by the slow tick of the geological clock. The new Supreme Court in Reykjavik, designed by Studio Granda, is finely attuned to this extraordinary context.

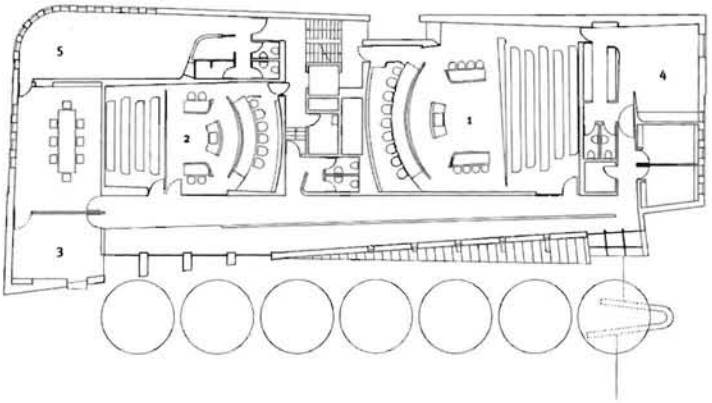
Located on the crest of a hill in the heart of the city, the site is flanked by the State Ministries Building to the north, the National Theater to the east, and the former National Library to the south. The placement of the Supreme Court building tight to the north and west boundaries of the site both strengthens the definition of the streets and creates a garden to the south which unifies the adjacent cultural institutions around a new civic space. To the west, the open grassy hill looks over the city and working harbor to the broad expanse of the Atlantic beyond.

The apparently simple bar building is subtly distorted by the gravitational pull of contextual forces at this important edge between city and nature. The west face of the building is taller and wider to match the scale of the flanking civic buildings, and the east end lower and narrower to adjust to the immediate context at the rear of the National Theater. The curved northwest corner provides the release from framed view to panoramic vista of the horizon. The taut northern and western facades, well-mannered in urban terms, are articulated by a heavy plinth of rough-hewn basalt with lighter pre-patinated copper cladding above. The stone becomes smooth-sawn and rises to the full height of the building to emphasize the public entrance at the southwest corner. In contrast to these urban moves, the copper cladding on the south facade is pulled away from the bar and inflected to meet the tilted grass plane of the new garden.

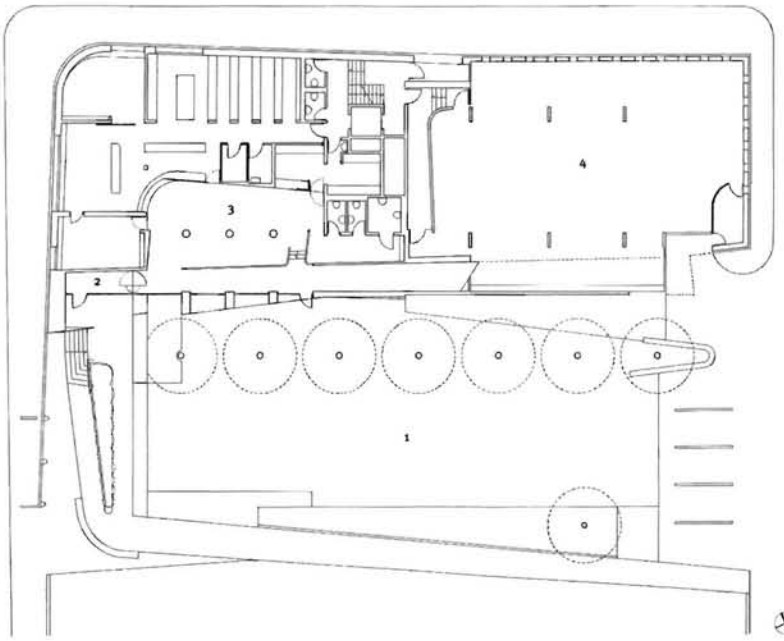
Like the Town Hall for Reykjavik, completed by Studio Granda in 1992, the Supreme Court is an architecture defined by public promenade. This journey begins with the approach up the hill from the city below. At the site, a meandering ramped path carries visitors into the entrance void formed by a plane of stone rotated perpendicular to the face of the building. Once inside, turning to pass by a reception area and cafe at ground level, the ramp rises along the entire length of the south facade, then turns again and continues its ascent to the courtrooms. The ramp generates a split longitudinal section which is both efficient and generous; each space can take on a section proportional to its size and significance, and a surprising array of volumes is achieved within a modest building envelope. Within the building, two programs interlock in section around the courtrooms. The public functions served by the ramp are on the south side of the building at ground and first floor levels, while the private judiciary functions, discreetly served by stair and elevator, occupy the north



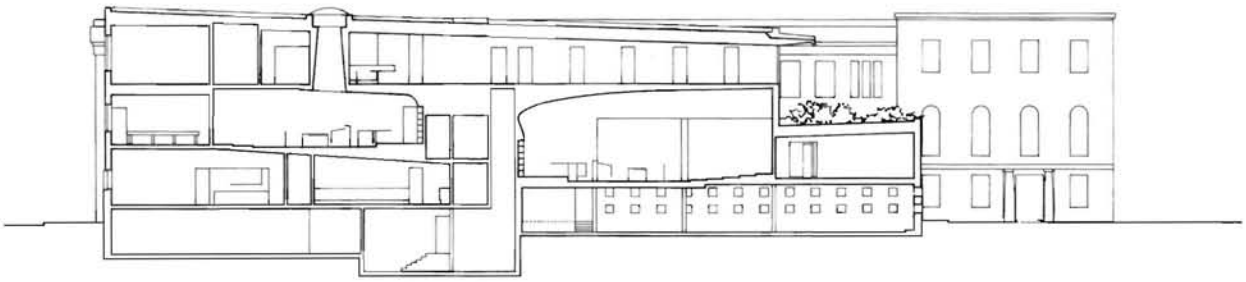
Second floor
1 offices
2 library
3 meeting room
4 roof garden



First floor
1 large courtroom
2 small courtroom
3 President of the court
4 lawyers' lounge
5 judges' lounge



Ground floor
1 garden
2 entrance
3 reception/coffee bar
4 parking



portion of those levels and the entire second floor. Intimidating axes, symmetry and frontality have no place here; the informality of the route and ease of access reflect the character of public institutions in this thoroughly modern, closely knit democracy.

Internally, the fair-faced concrete armature of the building is clad with carefully articulated layers of oak and plaster. Each finish is incomplete, eroded to reveal the layer beneath. Like clothing or wind-blown drifts of snow, the finishes assume ever softer contours, transforming the courtrooms in particular into richly sculpted volumes. This distinction between the obligations of the inner and outer surfaces of the building recalls such distinguished precedents as Asplund's Gothenburg Law Courts and Aalto's church at Imatra.

Office windows are dealt with pragmatically as punched openings which conform strictly in both proportion and placement to the repetitive module of the copper cladding. More significant apertures break the module and dramatize the transition from outside to inside – narrow slivers of light along the ramp, the prismatic fracture at the landing and, finally, the inward-looking courtrooms themselves. The large courtroom is indirectly lighted through a recessed fissure in north facade, and the small courtroom is unexpectedly daylit by an elliptical shaft which punctures the second floor to reach the sky.

Complementing its affinity with landscape, the promenade is a carefully calibrated cultural journey from city to encapsulated courtroom, from the jumbled complexity of society at large to the focused minutiae of the legal case at hand. This extended processional route into an introverted interior seems particularly significant – even comforting – in the context of a vast, treeless landscape which offers no natural shelter.

The office floor has generous views in all directions, reconnecting the judges and their staff to the outside world. Here, too, there are surprises. The concrete light shaft of the small courtroom is the focal point of the reception area, and the tapered corridor terminates with a tall narrow window aligned with the giant scupper that channels water from the sloped copper roof onto a planted roof at low level.

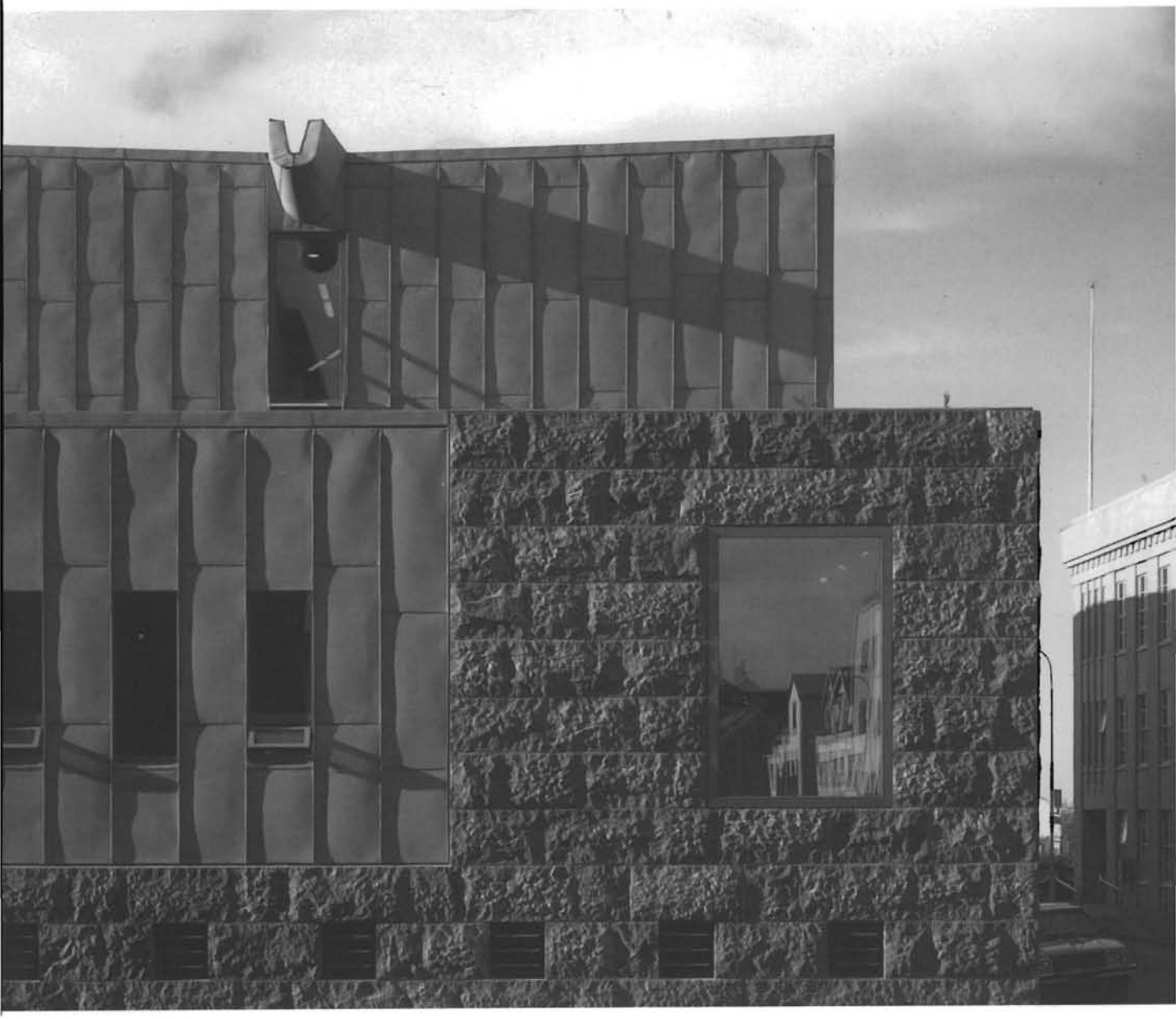
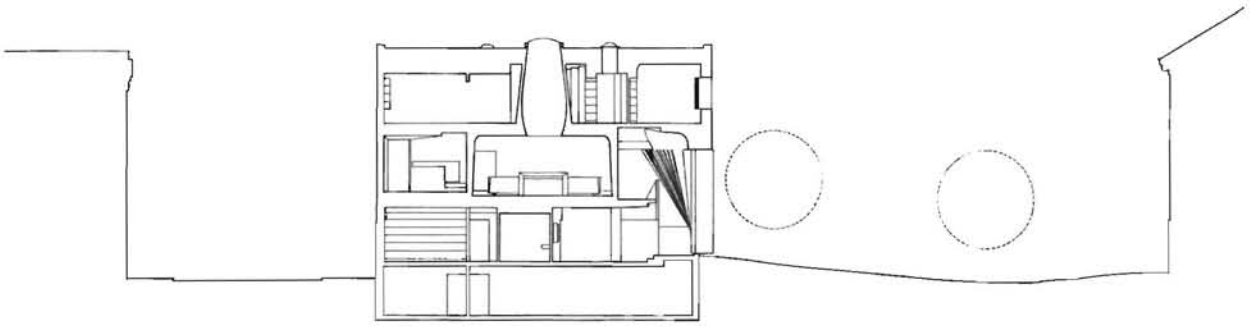


photo: © Dennis Gilbert, VIEW

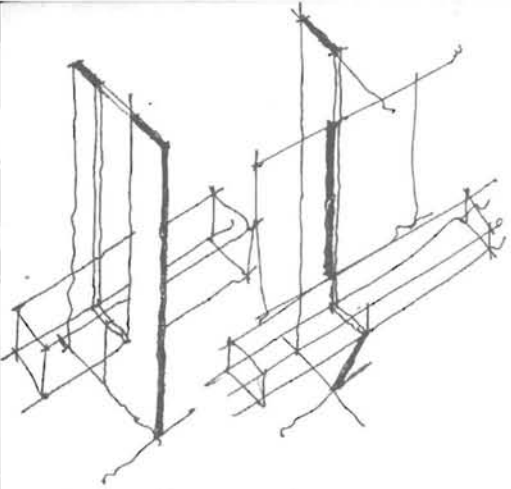


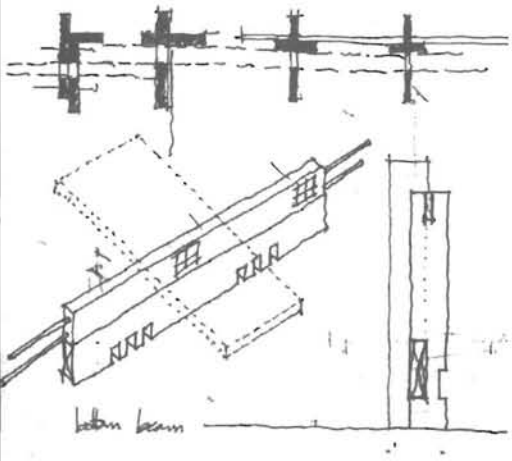
The Supreme Court is as much landform as building, an extension of the grassy basalt outcrop on which is it perched. The visual weight and horizontal emphasis of the earthbound stone plinth contrast sharply with the verticality of the lighter copper volume above. Within, the sedimentary nature of finishes and the surprising fissures and crevasses through which light is admitted augment the natural character of the building. Like the island, the building is spare, and softness is revealed only at the level of fine detail – in the sinuous quality of a steel plate balustrade or the sensuous way in which a hand-hold is eroded in a sliding wood shutter. The standard of workmanship is superb, and it is clear from the finesse and subtlety of the details that the relationship between architects and craftsmen has been a creative one.

It is an assured building which is conceptually rigorous and well-crafted in its making. The architects have registered the fine nuances of a society face-to-face with the elements in this northern latitude. The building is a sensitive instrument which both intensifies the perception of nature and cocoons man from it. As a public institution, and the highest court in the land, it is an apt reminder of human frailty. At once tough and poetic, it is deeply rooted in the nature of this very particular place.

Dreams and Other Realities, the 1998 John Dinkeloo Memorial Lecture at the College of Architecture – Urban Planning, was delivered by Margrét Hardardóttir and Steve Christer of Studio Granda. Founded in Reykjavík in 1987, Studio Granda has built an international reputation upon the realization of competition-winning schemes for the new Reykjavík City Hall, a house in Germany and the recently completed Supreme Court of Iceland. Their lecture has been published as part of the Michigan Architecture Papers. This review was first published in **Bauwelt** in October 1997.

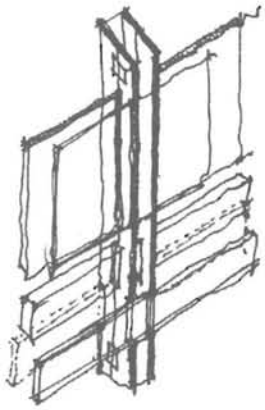
photo: Sigurgeir Sigurjónsson



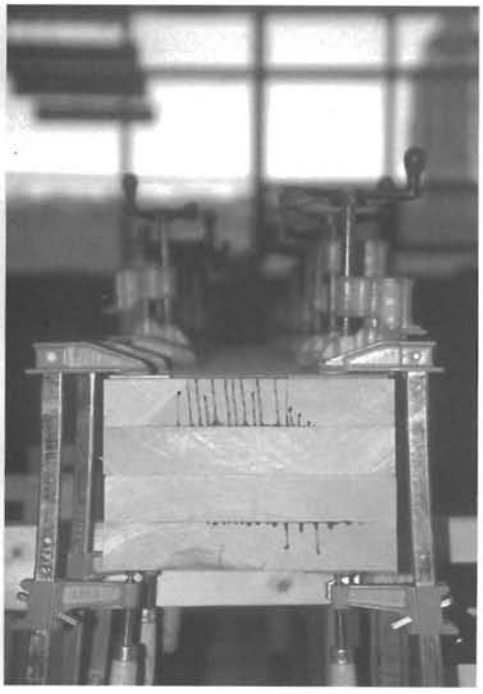


0.0" Tolerance:
East Computer Station

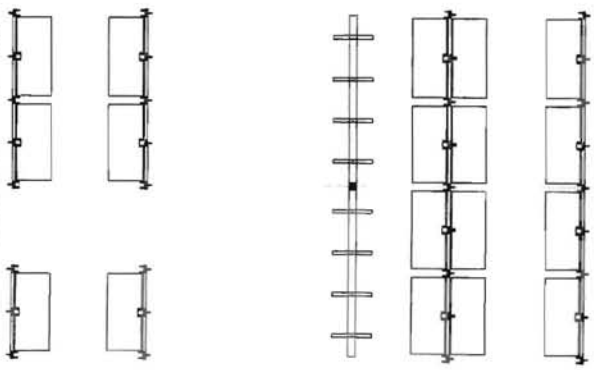
Anselmo Canfora



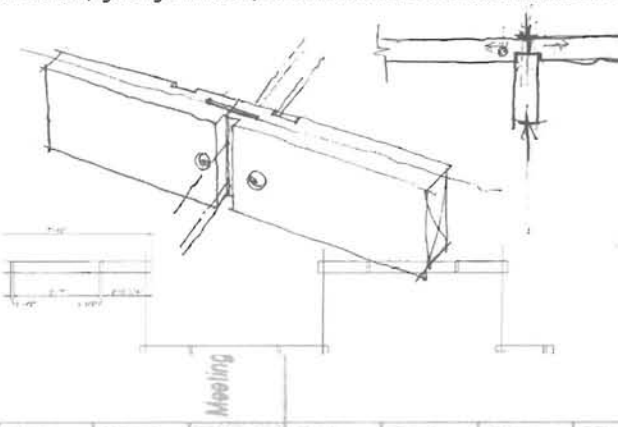
A new computer facility in the architecture studio at the University of Michigan College of Architecture + Urban Planning, designed by Anselmo Canfora and built with the considerable efforts and collaborative spirit of four students: John Comazzi, Michael Lee, Brian Rebain and David Stockwell. Melissa Harris, as the Interim Associate Dean, initiated and implemented a college-wide program to improve the physical disposition of the architecture studios and support areas. In response, the east computer facility assumed a mixed-use program as a general computer support area, as well as, a specified classroom/studio space. Through a series of tectonic gestures, the design assumes a high level of transparency in an attempt to maintain visibility across the open studio environment. As a pedagogical endeavor, the project empowered a group of architecture students with the opportunity, and ultimately the responsibility, to experience the process of realizing a design within six weeks.



program: thirty computers, one scanner static



computer consultant: bill manspeaker; **electrical work:** joel foos, dick curtis, george kildau; **aluminum fabrication:** mike brul



Sun	Mon 2	Tue	Wed	Thu	Fri	Sat	Sun	Mo
14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28

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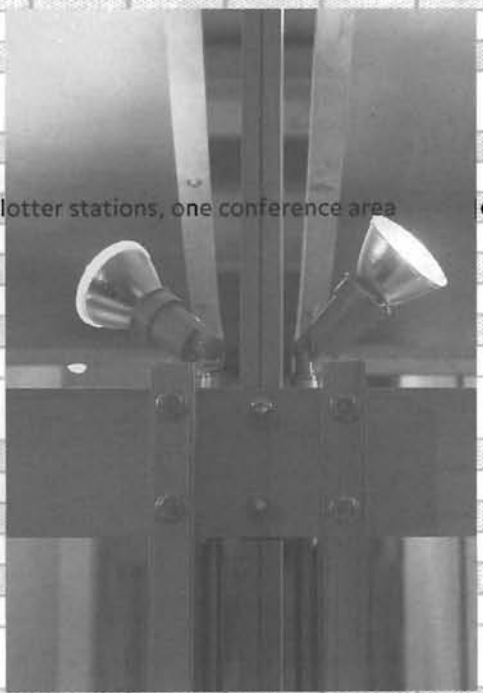


printer/plotter stations, one conference area

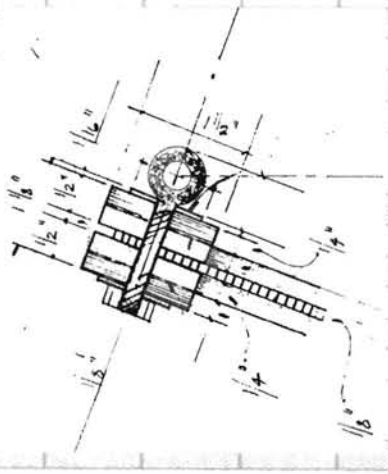
considerations/requirements: general and classroom use, visibility through

Third Floor Construction

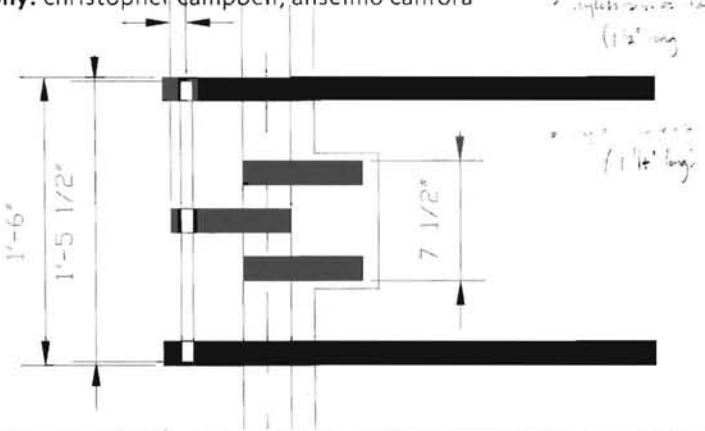
Name: Brian Rebain	Mon	Tue	Time
Project Task	14-Jul	15-Jul	
	Mon	Tue	
Project Task	21-Jul	22-Jul	
	Mon	Tue	
Project Task	28-Jul	29-Jul	
	Mon	Tue	
Project Task	4-Aug	5-Aug	
	Mon	Tue	

steel fabrication: bill patton; **structural consultants:** stephen rudner, shannon sipperley; **wood consultants:** bill geschwender, m

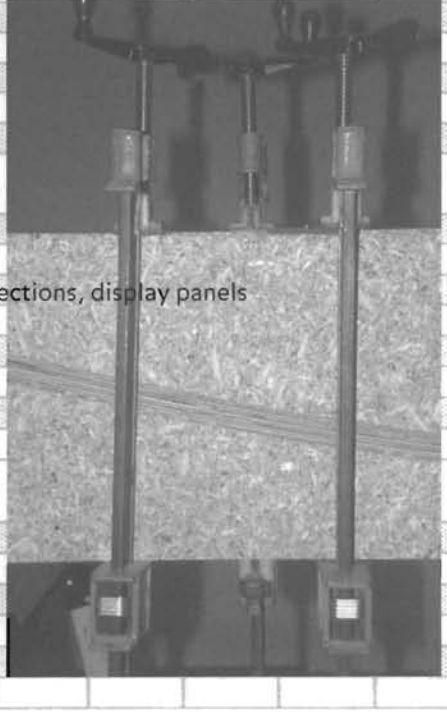
computer cluster, east-west access to east crit space, wire management, light distribution and diffusion, air circulation, demoun



tic, gerald weston; **lighting consultant:** gregory altland **photography:** christopher campbell, anselmo canfora

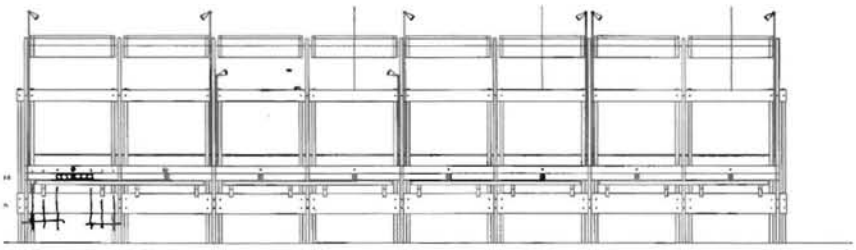


materials: s4s poplar, steel, aluminum, natural birch veneered plywood and particle solid core doo



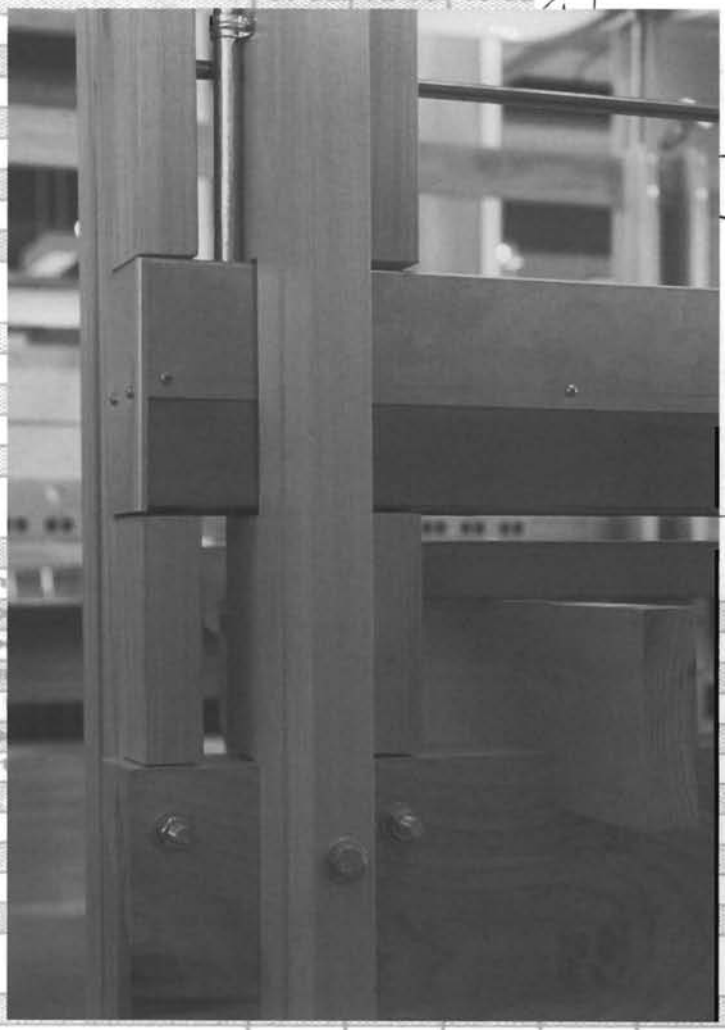
onnections, display panels

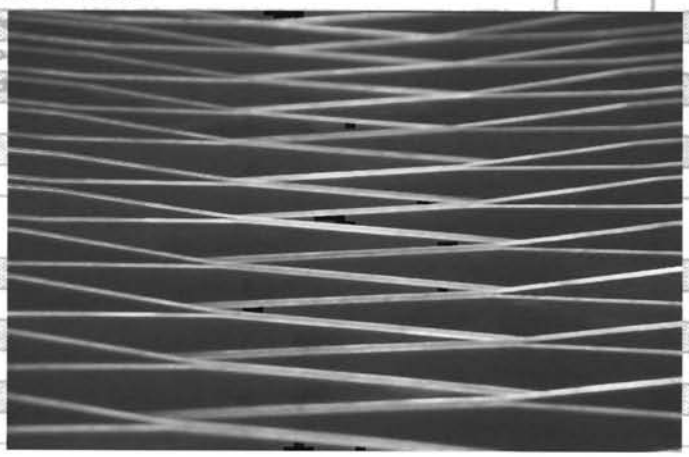
Item No.	Description	Qty. Length	Tot. lin. ft.	Rough Bd.Ft.
1. ✓	Computer Station(s): primary beam Classification: S4S Poplar Member: 2 x 10	26 @ 10' See ditched sheet no. 3 → ±256'	260'	2 x 10 / 12 1.67 435 bd.F
✓	Computer Station(s): top beam Classification: S4S Poplar Member: 2 x 6	13 @ 10' 16 @ 8' → ±128'	130'	2 x 6 / 12 1.00 130 bd.f
	Computer Station(s): work surface supports - 'full' Classification: S4S Poplar Member: 2 x 6	16 @ 6'	96'	2 x 6 / 12 1.00 96 bd.ft
	Computer Station(s): work surface supports -'half' Classification: S4S Poplar Member: 2 x 6	24 @ 8'	192'	2 x 6 / 12 1.00 192 bd.f

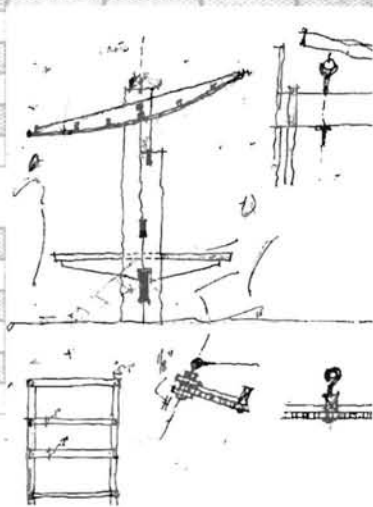


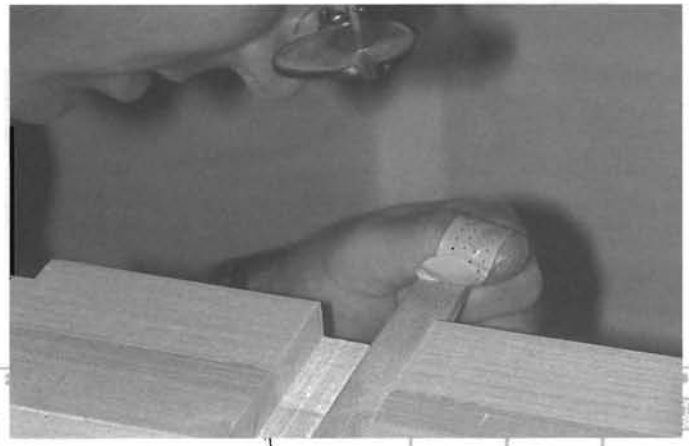
Spline 'C' Computer Workstation(s) East Elevation

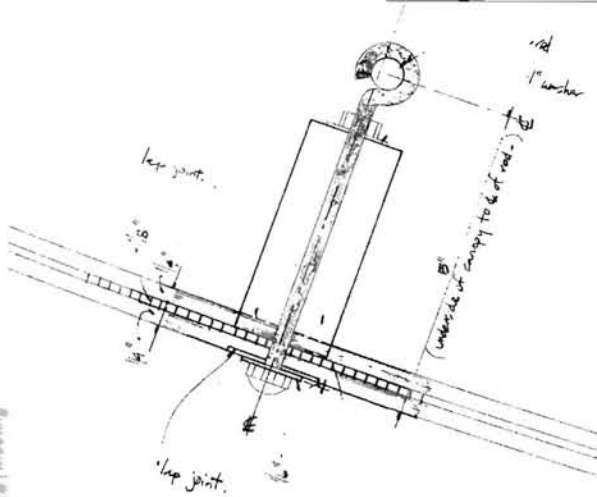
bending grade birch veneered plywood, homasote, clear polyurethane sealant, plastic resin glue, sandpaper

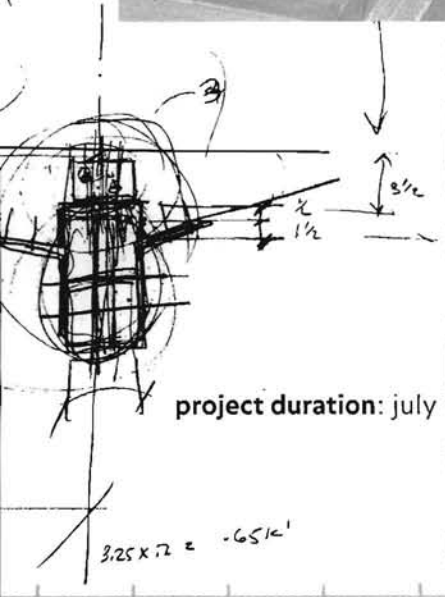












project duration: july 14 to august 31

Item No.	Description	
4. ✳	Computer Station(s): p Item: birch veneered m Dimensions: 4' x 8' x 1	
5. ✳	Canopy: framing Classification: bending Dimensions: 4' x 8' x 1	
	Canopy: framing Classification: S4S Po Member: 2 x 4	
7a.	Low Height Partition(s): framing Classification: S4S Poplar Member: 1" x 4"	40 @ 10'
7b. ✳	Low Height Partition(s) - 6': panel(s): Item: birch veneered mdf panel Dimensions: 4' x 8' x 1/2"	6
	Credenza Partition: framing Classification: S4S Poplar Member: 1" x 1"	192 @ 6'
9. ✳		

12

Coming into Trajectory

Bryan Brown

The work presented here was completed as part of Master's Thesis at the College of Architecture + Urban Planning at the University of Michigan. The thesis committee consisted of Jason Young, Assistant Professor of Architecture; Melissa Harris, Associate Professor and Interim Associate Dean; and Kent Kleinman, Associate Professor of Architecture.

Detroit – a city with an uncanny urban fabric. The city is empty – overwhelmed by grassy fields and crumbling infrastructure. Everywhere you look buildings are falling apart.

> *...the city itself, for that matter, is no less liable to being seen through. All the empty informational space of graphs and charts represents what used to be here (people, dollars, cars, households, and on and on) and what is not here any more. And this translates into a physical transparency as well: empty lofts, abandoned houses, neighborhoods where no neighbors any longer obscure the view. There are derelict properties, and lives, of every sort that nobody wants to own up to, or support, and that 'the city' sooner or later is forced to absorb institutionally, first through defaults, and then, eventually, by demolition.*
>
> *"The debris of [Detroit's] vibrant past," wrote staffer for the Los Angeles Times, "vacant, burned-out homes, decaying, abandoned buildings, long-empty factories-is being bulldozed away under massive city demolition and land clearance program designed to deal with a free-fall plunge in population."*
>
> *– James Risen quoted by Jerry Herron*[1]

Surface Study – photographs of the *surfaces* of the city as an investigation of the changing spatial conditions that the city creates

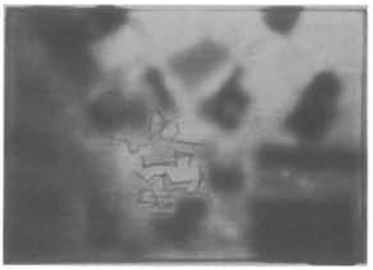
An investigation of how one is to build in Detroit, the work is an exploration of process, a way of working, that was inspired by the thoughts of Gilles Deleuze. The following text was written as a beginning point for the project:

> *Movements, at the level of sports and habits, are changing. We have long put our faith in an energetic concept of motion: there is an external point of support, which implies that the body is the origin of its own movement. Running, putting the weight, etc. involves effort, resistance, with a starting point, a leverage. But we observe that the motion nowadays defines itself less and less on the basis of the use of a fulcrum. All new sports-surfing, windsurfing, delta-wing flying(...) – are of the type 'meshing into an existing wave.' That means no longer having a source of effort as the starting point, but a way of coming into trajectory. The way you allow yourself to be swept up in the motion of a big wave or of a rising column of air, 'arriving between' instead of being the origin of the effort, that is fundamental.*
>
> *– Deleuze*

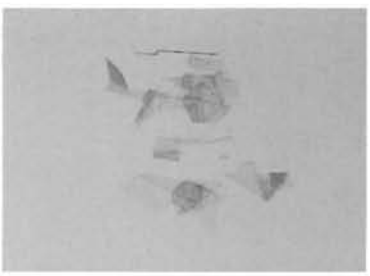
This thesis aims to develop an architecture through the coming together of two conditions or forces that have formed Detroit, similar to the way windsurfing occurs through the coming together of wind and water. Detroit reveals itself and is visually formed through two forces which have powerful and overwhelming visual spatial potency. The first force is the void, and the second force is the surface that makes the void. Void and surface are a starting point, a leverage into the investigation of 'space,' architecture. Therefore, I will develop a process using void and surface to create an architecture. However, the process should create an architecture as though no longer having a source of effort as the starting point, but a way of coming into trajectory.

Deleuze's text helped visualize an approach to the design process for this project. He argues that windsurfing exists only through "a coming into trajectory" of two forces, i.e. wind and water. The development of the design process for the project was based upon this notion of something no longer having "a source of effort as a starting point." During the process, I constantly referred back to the text, using it as a tool to insure an orderly progression. The process was linear, a sequence of steps developed one after the other, each step reflecting back upon the previous step.

Void Study – Here the void of the city is cast into a piece of translucent plastic to develop a way of seeing beyond the figure ground relationship of the city to the void.



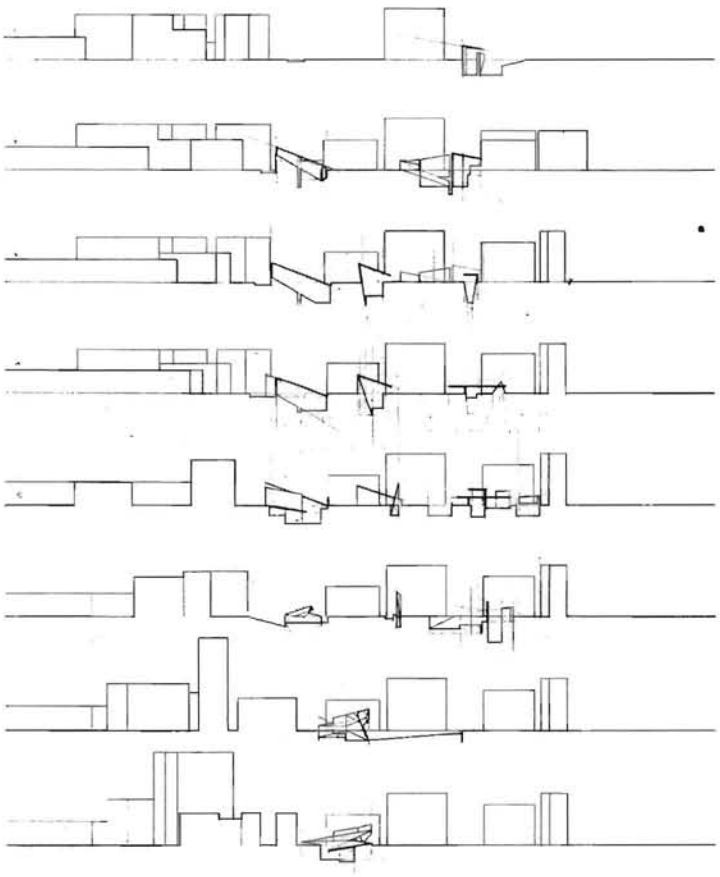
Cast Analysis – Light shining through the cast reveals radiating buildings – redefining the void. The cast study unsuspectingly defined new spaces in the void that are thought of as architectural.



Drawing Analysis – The lines take on a spatial quality that are then developed more completely. In this model/drawing, spaces and building sites are defined.

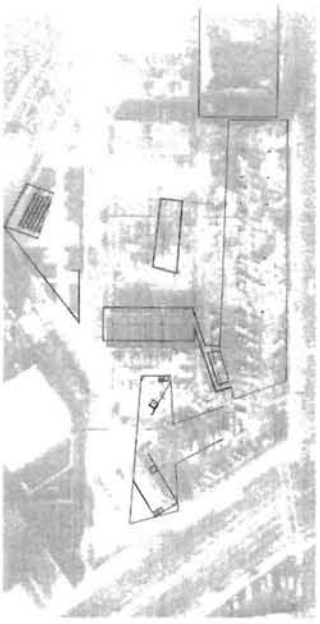
The program for the project, an architecture school, is composed of a series of distinct parts. Different programs are dispersed as separate components, each coming together at the crit space. Circulation around, through, and between the different parts of the school is critical. Streets, sidewalks, people and cars are integrated into the process. Spaces are shifted and edited. The circulation around and through the building is negotiated and is translated into the three dimensional form of the building. Movement pushes development in a sectional way. Walkways are facades, walls are floors, ceilings are walls – folding upon itself, the building constantly reveals its section.

Three-dimensional investigation was critical to study the program. Models and drawings place the elements of the program in their proper locations. Area studies and massing models alternate in importance as they uncover events encountered in the spaces created.



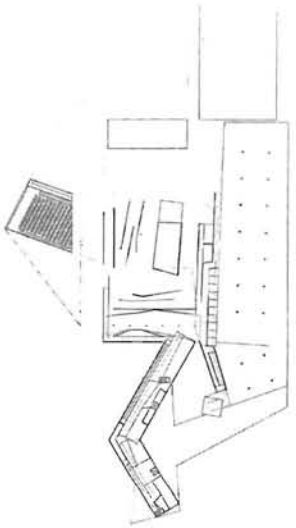
Site Sections – Drawn with a single line, the section challenges the form of the building and suggests the necessity of certain materials. These drawings force the issue of the buildings scale and the relationship between public and private spaces.

Crit Space – The crit space is the central focus of the school. All spaces penetrate into this volume. The building forces a person, traveling from one program to another, to pass through the crit space, forcing interaction with critiques.

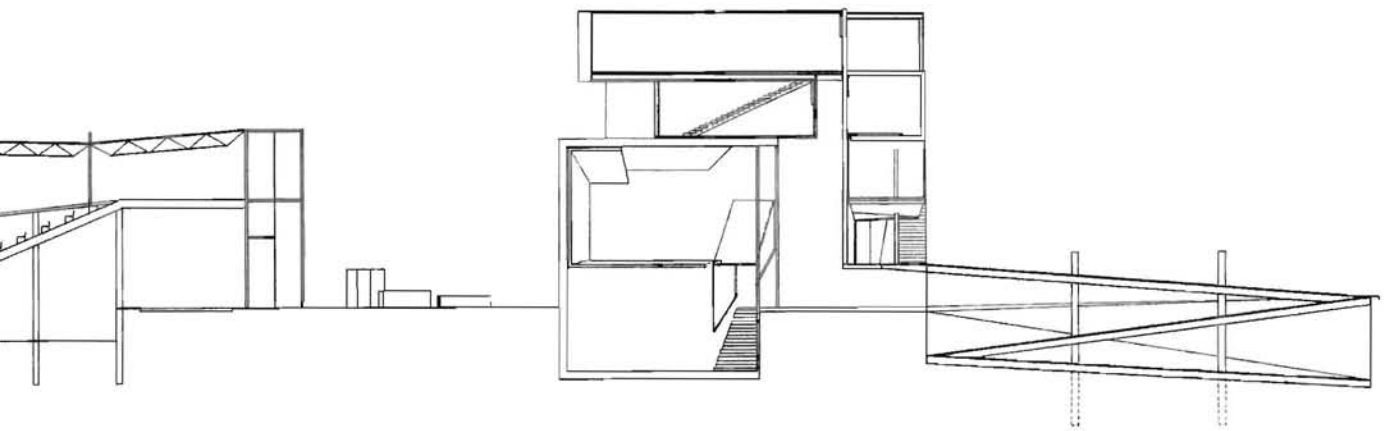


Created from an abandoned art gallery, the crit space is the object into which other parts of the program collide. Each end of the building receives other pieces of the building. The existing block walls remain and the floors are removed, creating an empty box, within which another volume or object is positioned to seem as though it floats inside. The relationship between the two elements creates a tension between being in the inner object or outside the object, in the residual space. When circulating through the space one has to choose whether to pass through the inner object, or along side it. Furthermore, one has the option of whether to have a crit inside the inner object, or on top of it.

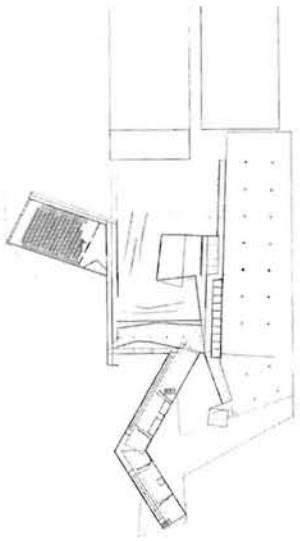
The Studio – Studio spaces are located in a slightly-bent bar shaped volume. It is a four-story concrete slab building. The monotony of this large volume is broken down by the relationship between the ceiling and the floor. The ceiling is a separate construction. Pieces of the ceiling fold down to become wall and continue down to become floor. The studios are therefore defined by the location of the ceiling, wall, and floor. All the studio spaces are defined differently, ceilings drop and fold lower than one another, or fold down to create boundaries.



Two elevator shafts and two stair wells penetrate all floors. Another series of circulation devices help movement through the building. There are a series of ramps that hang along the entire side of the building. The energy of movement along these ramps can be registered from the street. These ramps are the facade of the building, they criss-cross each other and hold up the glass skin of the building.



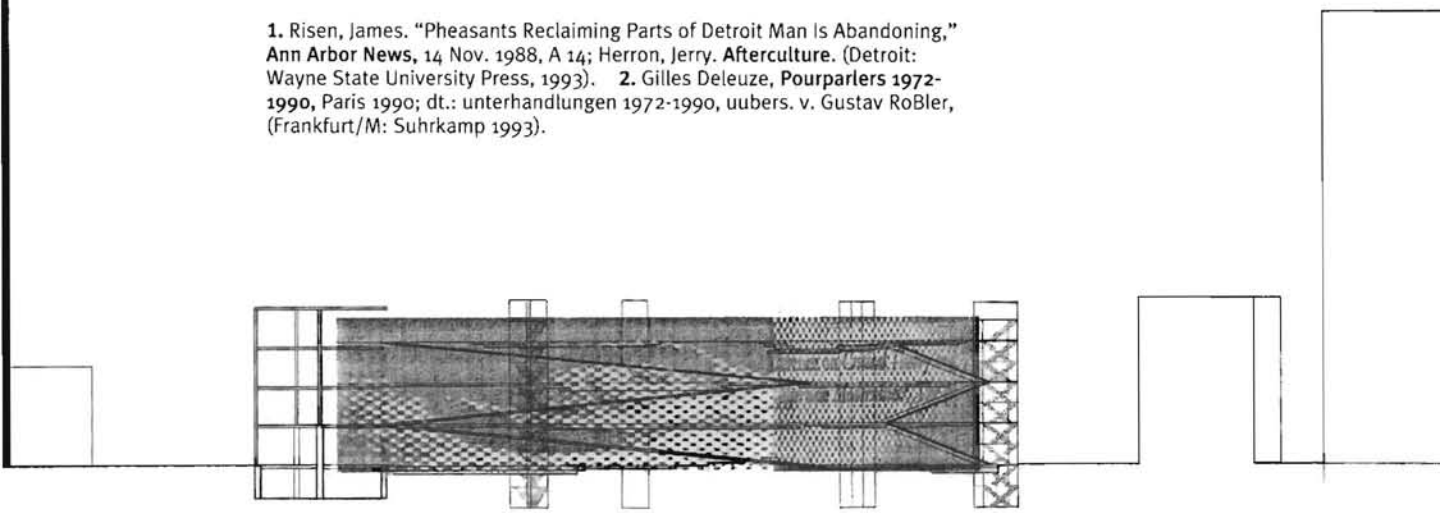
Administration/Shop/Labs/Parking Structure – These four elements of the building are an extension of a three level parking structure. The surface of the parking structure continues beyond the edge of the parking lot and becomes the first floor of the building. The surface wraps, folds up and becomes the wall and continues to become the ceiling. This continuous material wrapping allows for a deep sectional quality to the building. Moving through this part of the building one passes many different material changes.



Lecture Hall – The lecture hall is assessable in many ways. The public sidewalk brings circulation into the lobby of the lecture hall. There is a choice of how one moves into the lecture hall, one either enters from the crit space extension space or one steps of the sidewalk and continues up a ramp. The transition of going from public zone to a private zone is subtle, there are no sudden shifts. The ramp is easily assessable because the ground slopes gently, making an easy transition up into the lobby.

The sectional qualities of a lecture hall impact the location of this piece of the program. Since the lecture hall's section is at an incline, the potential for not affecting any of the current traffic flow is possible. The building launches from one side of the street to the other, sloping across the passing street, connecting to the crit space.

1. Risen, James. "Pheasants Reclaiming Parts of Detroit Man Is Abandoning," **Ann Arbor News,** 14 Nov. 1988, A 14; Herron, Jerry. **Afterculture.** (Detroit: Wayne State University Press, 1993). **2.** Gilles Deleuze, **Pourparlers 1972-1990,** Paris 1990; dt.: unterhandlungen 1972-1990, uubers. v. Gustav RoBler, (Frankfurt/M: Suhrkamp 1993).



Biographies

Robert M. Beckley

Robert M. Beckley is Dean Emeritus and a Professor of Architecture and Urban Planning at the University of Michigan. He is an Adjunct Director of Urban Planning, Smith Group: Urban Solutions Studio, Detroit. He received his BS Arch from the University of Cincinnati and an MArch from Harvard University GSD.

Craig Borum

Craig Borum is an Adjunct Assistant Professor of Architecture at the University of Michigan and directed the University of Michigan Prague Spring Studio in 1997. He was the 1996-97 Walter B. Sanders Fellow. He is a registered architect and received his BS Arch and MArch at the University of Virginia.

David Cabianca

David Cabianca is the 1997-98 William Muschenheim Fellow at the University of Michigan. He received his B.E.S. from the University of Manitoba and an MArch from Princeton University. He has previously taught at the University of Manitoba, and his professional experience includes working for Michael Graves.

Anselmo Canfora

Anselmo Canfora is a Visiting Assistant Professor of Architecture at the University of Michigan. He received his BS Arch from the University of Illinois, Urbana-Champaign and an MArch from the University of Michigan.

Caleb Clauset

Caleb Clauset received his BS Arch from the University of Michigan in 1998. He has designed several books for the College of Architecture + Urban Planning at the University of Michigan.

John Comazzi

John Comazzi received his MArch from the University of Michigan, 1998, upon completion of his thesis work researching architecture as an optical device. He received his BArch from the University of Virginia. He was a student in the University of Michigan 1997 Spring Studio in Prague.

Janet Fink

Janet Fink is the 1997-98 Walter B. Sanders Fellow at the University of Michigan. She received a BA in architecture from the University of California at Berkeley and an MArch from Columbia University. A registered architect, she formed a partnership in 1992, Marwan Al-Sayed Janet Fink Architects, one of six firms to win a Young Architects Award from the Architectural League in 1996.

Michael Grant

Michael Grant is a Visiting Assistant Professor of Architecture at the University of Michigan. He holds a BS Arch from the University of Virginia and an MArch from Harvard University GSD. He is a registered architect who has worked with Thompson and Rose architects, Koetter, Kim + Associates, and Robert Kahn Architects.

Gregory Hanson

Gregory Hanson is a dual-degree MArch + MSE candidate at the College of Architecture + Urban Planning and the College of Engineering at the University of Michigan. He holds a BS in Physics, from Middlebury College, Vermont.

Suzanne Irwin

Suzanne Irwin is a MArch candidate in Architecture and Urban Planning. She received a BArch from the University of Tennessee. She is currently working for Angelini & Associates Architects, Ann Arbor, MI.

June Komisar

June Komisar is a PhD student in the College of Architecture + Urban Planning at the University of Michigan researching Brazilian architecture. Prior to studying at Michigan, she received her MArch from Yale University and practiced as an architect in Boston, Hartford and San Francisco.

Balthazar Korab

Balthazar Korab trained as an architect in Budapest, and graduated from the École des Beaux Arts in Paris. He worked with Le Corbusier and Eero Saarinen. He is also an internationally renowned photographer of architecture and landscape whose work has been exhibited and published worldwide.

Elizabeth Kruska

Elizabeth Kruska is an undergraduate student in the University of Michigan School of Natural Resources and Environment. She is also actively involved in the University of Michigan's Undergraduate Research Opportunity Program.

Fernando Lara

Fernando Lara is a PhD. candidate at the College of Architecture + Urban Planning at the University of Michigan, sponsored by CAPES Foundation. He is an Assistant Professor at Pontificia Universidade Catolica de Minas Gerais, Brazil.

Robert A. Levit

Robert A. Levit is an Assistant Professor of Architecture at the University of Michigan where he teaches design and history/theory lecture and seminar courses. He received his MArch from Harvard University GSD and subsequently worked in the office of Álvaro Siza. His writing on Siza has been published in the US, England and Brazil.

Annette W. LeCuyer

Annette W. LeCuyer is an Associate Professor of Architecture at the University of Michigan where she teaches design and construction. She graduated from the Architectural Association, London, and has practiced architecture both in the US and Europe. She writes regularly for architectural publications in Europe and North America.

Daniel Libeskind

Daniel Libeskind is a principal in Daniel Libeskind Studio, Berlin. He received his BArch from Cooper Union, New York and a post-graduate degree in the history and theory of architecture at the University of Essex. His credits consist of a long list of distinguished awards and projects, including the completion of his winning competition scheme for the extension to the Berlin Museum. He was also the 1995 Raoul Wallenberg Lecturer at the University of Michigan.

Zeuler Lima

Zueler Lima is a Visiting Scholar at the College of Architecture + Urban Planning at the University of Michigan. He is also an Assistant Professor of Architecture and a PhD candidate at the University of Sao Paulo, Brazil.

Vera Pallamin

Vera Pallamin is an Associate Professor of Architecture at the University of Sao Paulo, Brazil. She is also a post-doctoral student at the University of California, Berkeley and Universita degli Studi di Firenze, Italy.

Michael Rotondi

Michael Rotondi is a principal in RoTo Architects and was the Director of the Southern California Institute of Architecture from 1987 – 1997. In 1976 he formed the partnership Morphosis which continued until November 1991. His works have been recognized with more than forty design awards including fifteen from Progressive Architecture and nineteen from the AIA.

Craig Scott

Craig Scott is a Visiting Adjunct Assistant Professor of Architecture at the University of Michigan. He received his BS Arch from Syracuse University and an MArch with Distinction at Harvard University GSD. He is a registered architect and has worked with Morphosis, RoTo Architects and Brian Healy Architects.

Catherine Seavitt

Catherine Seavitt received her MArch from Princeton University. She received a BArch from Cooper Union, New York, and a BS Arch from the University of Michigan. She has worked as an architect for the structural engineering firm of Peter Rice in Paris, and won the 1997-98 Rome Prize in Architecture.

Anatole Senkevitch, Jr.

Anatole Senkevitch, Jr. is an Associate Professor of Architecture and Assocate Professor of Art at the University of Michigan. He holds a PhD in Architecture History from Cornell University, an MArch from the University of Virginia and BS Arch from the University of Texas. He specializes in History and Theory of Modern Architecture and is the author of several books and scholarly journal articles on Russian architecture.

Clark Stevens

Clark Stevens is a principal in RoTo Architects. He holds a BS Arch from the University of Michigan and an MArch with Distinction from Harvard University GSD. A licensed architect and visiting faculty at the Southern California Institute of Architecture, he has collaborated on numerous award winning designs. In 1995 he was selected one of America's top 40 designers and architects under forty.

Carla Swickerath

Carla Swickerath is an MArch candidate in the College of Architecture + Urban Planning at the University of Michigan. She received a BA in English Literature with Distinction and a BA in the History of Art with Distinction from the University of Florida.

Thompson and Rose Archictects

Maryann Thompson and her partner Charles Rose are visiting critics at the College of Architecture + Urban Planning at the University of Michigan. They were honored with the 1997 national AIA Young Architects Citation. Their firm, based in Cambridge, MA, is best known for their design of the Bartholomew County Memorial for Veterans in Indiana and the Atlantic Center for the Arts in Florida.

Steven VandenBussche

Steven VandenBussche is an MArch candidate at the College of Architecture + Urban Planning at the University of Michigan. He received his BS Arch from the University of Michigan.

Katherine Wheeler

Katherine Wheeler is a Visiting Assistant Professor at the University of Michigan. She received a BArch with honors from the University of Tennessee and an MArch from the University of Virginia. A registered architect, she has worked with Peter Waldman, Bill Sherman and Kvell Corcoran Architects, P.C.

Will Wittig

Will Wittig is the William A Oberdick Fellow for the 1997-98 academic year at the University of Michigan. He received his MArch from Cranbrook Academy and a BArch from the University of Kansas. He is a registered architect and partner at Crossings Architecture, Detroit.

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