Engaging the "L"
Seeking a Sensitivity Towards Authenticity

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Abstract

As innocent observers of the world around us, we have an instinctive reaction to the natural qualities of the places we encounter. A place that leaves a lasting impression on us is able to orient us to our larger environment and to augment the continuity of the life of the immediate surroundings. A desirable place is also able to respond to the basic needs of its users and to reveal the tactile experience of that place.

This thesis proposes that an architectural design can develop out of an experiential understanding of its setting. One can become equipped with a sensitivity towards the genuine artifacts of a given situation. But, one must also uncover the intrinsic actions of a place. By revealing patterns in the relationships among the forces of the city, the immediate site, and the program, the resulting architecture can build on existing conditions by intensifying their already built-in associations.

Inspiration for an architecture of this type can perhaps be found within ordinary occurrences in the everyday world. The commonly overlooked detail around us often has embodied in it a set of authentic relationships. Once these are discovered, a potential strategy can be developed to display their intuitive familiarity and accentuate similar relationships within an architectural problem.
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     effect when I needed it the most.

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Contents

The Thesis itself is composed of six major parts . . . .

- Section One describes a set of issues which provided the initial impulse for this study. A set of historical events of particular concern to the Chicago architectural scene are also discussed. Also included here is a brief explanation of the importance of the elevated tracks to the city of Chicago.

- Section Two presents the subject of "authenticity" and how it can be linked, directly or indirectly, to design.

- Section Three describes a set of experiential observations in Chicago. A new perception of space in the city is introduced. A brief description of State Street applies this new perception.

- Section Four discusses a set of design intentions. Issues of the larger site context and smaller building interactions are described.

- Section Five presents design proposals as they evolved thru the design process.

- Section Six briefly sights some final thoughts and questions raised by this investigation.
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Introduction
Growing up in the suburbs of Chicago my only city experiences in my childhood were the special trips downtown to the museums, to Grant Park, to the Sears Tower, to a Cubs or Bears Game, or to eat original Chicago Style Pizza. Of course I was amazed at the sight of the skyline as the anticipation of arriving in “The Loop” heightened. But because my trips were only a few per year, I understood the city only as a sort of theme park. To me it was an attraction like Disney World because the experiences in the city were so incredibly different from my everyday suburban life.

It wasn’t until last summer when I was able to experience the city daily. I began to draw from my previous encounters with others cities, . . . Boston and Paris in particular. My comprehension of Chicago was more objective. I was able to compare its layout and patterns of space to those in Boston and Paris. I began to realize how unique it is.
Chicago's relentless grid street system is easily perceived by all as the obvious infrastructure of the city. It's "world's tallest buildings" also have an immediate impact on one's arrival there. The interaction of these man-made artifacts with the Chicago River, Lake Michigan, and the coinciding monumental park system provides Chicago with an identifiable character.

But unique to Chicago is the Elevated Tracks. As one of the first elevated transportation systems to be built in the U.S., it is also one of the only elevated systems which remain today.

The rebuilding spree that hit Chicago after the Great Fire of 1871 had rendered it a metropolis. By the early 1880's, a system of surface trolleys had wrapped its way around the city. Because the principle means of urban mobility in the city was the various horse-drawn cars and cable lines, "the Loop" soon began to add to the congestion of Chicago's streets. So, in 1887, construction of the elevated Union "Loop" began.
As of today, the 'L' is seen as an eyesore to many Chicagoans, but it has a civic importance on many levels. For instance, the term "the Loop" has come to be known as the entire downtown of Chicago. It includes towering financial activity, cultural activity and educational activity all in one district. But the 'L' is significant because it provides a physical landmark-like definition of the heart of the city. Also, the elevated tracks provide a second horizontal reference zone in an urban context of vertical canyons of skyscrapers. It is a sort of second ground level raised up toward those in the towers way above the street. The 'L' also marks the passage of time during the day in the city. From high above the street the consistency and frequency of the passing train rattling its structure below you becomes almost soothing. On the street level, its deafening noise causes you to abruptly cut off a conversation as you marvel at this animal rumbling thru the downtown, ominously over your head. The L's physical presence and importance in the city is perhaps just as civic and monumental as the government buildings, public plazas, theaters, and museums.
The vehicle for this investigation of authenticity will be the design of an 'L' station in Chicago. The design will connect a train stop on the elevated tracks and a subway station running perpendicular to the 'L'. Between these two lives State Street, the bustling main spine of "the Loop", thriving with cultural, educational and commercial activity. It is also an avenue of great Chicago civic and historic architectural value. The challenge will be to turn this node in the city to a place of civic importance.

By intensifying connections to other places in the city (Wrigley Field, museums, the river, the lakefront, outlying neighborhoods, etc.) the station can assume a responsibility to enhance one's experience and placement in the city. The station can also continue to define the physical boundary of "the Loop". The site at Lake Street is significant because it is a northern 'anchor' of State Street. The station will need to take on a similar civic importance as the new Harold Washington Chicago Public Library will as the southern anchor of State Street. Within the station itself, the interchange within three levels (elevated tracks, street, subway) must be revealed. A continuity of space between the three systems can connect them. Also, the structure has the opportunity to do more than just hold up the tracks and platforms. It can help to define the experiential qualities of moving thru the complex. The building should also reveal the tactile qualities of the environment and clearly express the station's structural and mechanical systems.
Situation / City

The past and current architectural situation in Chicago provide a great testing ground for my ideas about authenticity.

For Louis H. Sullivan, the World's Colombian Exposition of 1893 in Chicago was a "white cloud" that cast a "white shadow" over the American architectural scene. Images of 'classical' architecture enveloped magnificent cast iron and steel structures to create "palaces" exhibiting the technological advances and future aspirations of the American culture. This event was significant because it not only turned its clock back to an architectural precedent of the past, but with the nature of a World's Expo, it projected that this was to be this image of the future. Sullivan warned us when he later wrote, "The damage wrought by this World's Fair will last for 50 years from its date, . . . if not longer."

The fair's mastermind, Daniel Burnham, followed with his vast Chicago Plan of 1909. This urban design hallmark of the 'city beautiful' movement transplanted boulevards and monumental axis from Imperial Rome and Haussmann's Paris. This American Beaux-Arts provided models for the civic architecture of museums, city halls, and libraries through the 1920's. It was a time when American architects and clients were searching for an endorsement of European culture while their avant-garde counterparts overseas were looking to America as a paradigm for modernity.
With the solving of basic structural and fireproofing problems in skyscrapers by 1920, the emphasis switched to the stylistic covering, the symbolic function of the building in the cityscape, and the corporate image. Because of this, The Chicago Tribune Competition in 1922 immediately gained international attention. The newspaper wanted “the most beautiful office building in the world.” The first prize was awarded to a neo-Gothic design by Raymond Hood. This “white cathedral”, projecting knowledge and enlightenment to all tribune readers, revealed only the verticality and height of this new building type. It expressed nothing of its innovative structural system or the technological advances of the time.

This reoccurring theme in Chicago architectural thinking recently resurfaced in 1989 with the announcement of the Chicago Public Library Competition's winning entry by Thomas Beeby. A classical Beaux-Arts architecture (with references to Henry Labrouste's Biblioteque St. Genevieve and Charles Garnier's Paris Opera House) was chosen for the underlying principle, organization and image of the new 'state-of-the-art' library center.
These projects illustrate how Chicago, thru its architecture, feels the need to turn back to an earlier time to establish authenticity in the eyes of others. Chicago suffers from a "loss of innocence," says Stanley Tigerman, Chicago Architect-Historian-Writer. "And therefore it is uninterested in and skeptical about abstraction. Anything not comfortably referential and familiar is put a safe distance away."

Chicago has a 'second city' mentality. It is always looking to either the east or west coasts, trying to receive recognition as a cultural and architectural center in the U.S. But each time this city forges ahead (illustrated in the work of Sullivan, Wright, Mies, or even the realization of the Sears Tower) it seems to fumble its opportunity to set a lasting precedent. It is unfortunate that the natives of this city combat their insecurities by focusing on a past epoch, simply copying the historic principles and styles of others. By recognizing their present situation of who they are and how they build, Chicagoans will shift their focus to an innovative architecture. If they communicate this architecture faithfully and honestly they will earn the acceptance of others they are seeking.
CHICAGO
Thesis Presentation

In the following chapters, the thesis presentation will first discuss the issue of authenticity as it applies to designing in a context of a city, and developing an architecture that reveals all the essential elements which provide a rich experience of that architecture. It should be noted here, that these ideas can also be applied in a landscape, rural, or less built environment. But for the purpose of focusing the investigation, only the city will be mentioned.

Following that general discussion, the thesis will describe a set of observations particular to the city of Chicago, and how they might be applied in the design.

Next, the site will be discussed, concentrating on a set of urban intentions to be fulfilled by the station. A set of architectural intentions will also be mentioned, focusing on the elevated experience, the subway experience, their link to each other and to the street experience.

Next, the final design proposal will be communicated thru drawings and models.

A conclusion will try to discuss the ways in which the design might have fallen short of fulfilling intended expectations. It will also reflect back upon this experience called "Thesis" pointing out stumbling blocks which hindered the investigation.
Authenticity
"Since ancient times the genius loci, or 'spirit of place', has been recognized as the concrete reality that man has to face and come to terms with in his daily life. Architecture means to visualize the genius loci, the task of the architect is to create meaningful places, whereby he helps man to dwell."

- Christain Norberg-Schulz, Genius Loci
Authenticity in the Experience of a Place (City/Site)

Certain facets of a city or site exist which, standing on their own, can at times be very poetic. It is up to the architect to control those primary forces and to utilize them to reveal the context. This can be achieved by developing a sensitivity towards how the mind moves through a city and puts itself in various places in space.

Instead of applying a scientific analysis to each situation, one must make more qualitative observations directly engaging the plain, 'dumb' facts of the architectural environment.

In *Genius Loci*, Christian Norberg-Schultz describes our "everyday life-world" as consisting of concrete "phenomena". "It consists of people, of animals, of flowers, trees and forests, of stone, earth, wood and water, of towns, streets, and houses, doors, windows and furniture. And it consists of sun, moon and stars, of drifting clouds, of night and day and changing seasons. But it also comprises more intangible phenomena such as feelings. This is what is 'given', this is the 'content' of our existence."

These gut feelings are associated with the way we experience a given environment. They are non-verbal, intuitive reactions to our surroundings.
Therefore, important questions to ask in a given place are:

- How does one orient himself in the environment? (north-south-east-west, up stream/down stream, distance from the ocean, etc.)
- How do I associate with those things I can’t see but know exist from memory? (landmarks, public plazas, urban parks, a river, a lake, an ocean, another district in the city, etc.)
- What are possible perceptions of space given the structure of a city?, of a site?
- What are the geometrical patterns or typologies of space in a given district of a city? (i.e., typical densities, rhythms, and even materials of a certain area)

These questions beg you to look beyond the passive existential elements, or artifacts of a place. They begin to force you to address the active existential elements or actions of a place. By observing these kinetic forces one can understand how the underlying structure of a city is experienced in different ways. Then, we can postulate how that can affect a given site and what associations the architecture can intensify.
By revealing the tactile qualities of the built environment an architect can directly engage one's non-intellectual and unconscious feeling of a place.

In “Towards a Critical Regionalism” Kenneth Frampton stresses the tactile as an important dimension of built form because it appeals to our wide range of sensory perceptions: “...light/dark, heat/cold, the feeling of humidity, the aroma of a material... The importance of the tactile resides in the fact that it can only be decoded in terms of the experience itself.”

By increasing our awareness to the sound, smell, and texture of a place our first hand experience of that place will be deeply rooted in the explicit realities of that place. Frampton continues, stating, “Tactility and the capacity to arouse the impulse to touch returns the architect to the poetics of construction.”
G. H. Pingusson
Mémorial de la Déportation
Paris
One must also display a perceptual "rightness" of a building's structure. Our experience of a building is enhanced if we can visualize the operating forces of nature. Therefore, the tectonics of the building's structure must reveal how it supports excessive loads and resists the action of gravity.

In "Peter Behrens and the AEG", Stanford Anderson defines the German concept of 'tektonik' as "...the activity that raises construction to an art form," adding, "the functionally adequate form must be adapted so as to give expression to its function." For example, a brick wall which is "hung" onto a concealed primary structure can intensify this perception. In this non-load-bearing wall, mortar can be replaced with nylon spacers. Also, the bricks do not have to be corbeled for stability. A simple stacking can reveal its non-structural nature.
The mechanical and structural systems in a building can also help to build a spatial experience. By defining territories for movement, potential closure, and openings, they can come into direct contact with the user.

A building should also reveal and integrate all aspects of the program. The structural form, mechanical systems, and spatial definition can all simultaneously signal one how to use the building.
Otto Wagner, Post Office Savings Bank, Vienna
In the culture of the early 20th century, artists Alfred Steiglitz, Paul Strand, and Edward Weston were among the first to experiment with the camera as a media for art. They tried to restore, through their photographs, the lost sense of the “real thing”. The positive virtues of the machine were celebrated as they attempted to reconnect the worker with the thing made. In reacting against their culture of imitation, these artists sought to use the new technology of their time as a means to create more authentic works of art that were themselves, “real things”.

These photographers were interested in our direct perception of their subjects, not in an analysis of them. Perhaps the reason they were so successful was because the camera was able to display the genuine aspects of their environment and project that as a new art form. They would probably argue that “beauty is in the eye of the beholder” and everything around us worthy of artistic meaning. In his book, *The Real Thing*, Miles Orvell describes the attitude of the master/innovator Steiglitz... “He didn’t look for ‘aesthetic’ or ‘photogenic’ subjects, because his subject was life, and for him, as for Whitman, a blade of grass was a miracle.”
Paul Strand, "From the 'El"
The following set of photographs, combined with those found in the previous section, display genuine authentic relationships. As images of situations that often confront us in our experiences of everyday life we have an intuitive attraction to their intrinsic qualities. At an initial glance each is easily communicating its function in a clear and direct way. For example, A fire escape stair shows us its self-stability and its lightness which is required in order to cling onto the end of a building somewhat effortlessly. A framing system is needed to support thin panes of glass. The expansion joint allows for movement and shifting in a road surface or bridge with extreme temperature changes.

What makes these images extra intriguing is their ability to not only communicate the basic operating forces of nature, but to establish many meanings with maximum economy. They become authentic constructive art forms.

For example, in the first photo, the lightness of the fire escape reveals the strength and stability of the building wall. Simultaneously, the quality of the light penetrating the fire escape is cast on the wall, revealing the lightness of the stairway. In the second photo, one understands the frame as structure and the translucent glass as infill. Therefore, when the glass is removed in a random way, a third relationship is established in a system of only two objects . . . transparency.
The result is each quality (opaque frame, translucency, transparency) each retains its own integrity. In the third photo, the expansion joint, thru its shape, is allowing for movement in two directions. It also allows for a spatial exchange between the two sides while keeping the bridge's structural integrity intact. Finally, it reveals its delicate fingertip-like quality of resisting the tension forces.

These images are perhaps appealing because they are often a variation of a familiar type (i.e. expansion joint, transparent window with frame, stairway) and therefore immediately catch our eye due to their distinguishing differences. Therefore at times, their uniqueness ties into our definition of an authentic thing.
City Observations
“The art of a people is a reflex or a direct expression of the life of that people... one must become acquainted with that life in order to see into the art.”

- Louis H. Sullivan, 1924
In Chicago, the grid of the city can have a tendency to dominate one's perception of the environment. Streets run north-south or east-west orienting you towards Lake Michigan or towards the suburbs in the three opposite directions. Within the Loop itself even an address number tells you a general location in the city by the number of blocks from the corner of State and Madison (i.e., 200 E. Adams means two blocks from State Street towards the lake). The buildings and street system reinforce the grid organization. But variations in heights and variations in plan sizes of the buildings randomly produce intricate three-dimensional spaces.

As one moves through Chicago, your eye is constantly attracted upwards, back, and through to the taller buildings in the distance. At times your eye moves diagonally across many blocks, continuing up and thru space. This three-dimensional diagonal in your mind introduces a new way of perceiving space in Chicago. One understands the street system as the main organizer and life-line of the city. However, the rigidity of the grid is de-emphasized by the intriguing experience of moving through the city in your mind.
This new perception also breaks down the grid structure of the city as one physically moves up in the city. The rectilinear landscape remains, but it opens up and many different depths of space are encountered. Because the city 'loosens up' at higher elevations, it allows you to experience the city more three-dimensionally. Spaces between groups of buildings create "urban rooms" high above the street in which you can imagine yourself occupying. These intricate spaces extend beyond and develop independently from the Chicago grid. Below you, the streets, the river and the elevated tracks reintroduce the grid system as a way of making connections to other parts of the city. But the perception of the "urban room" dominates over the rigid grid system at these higher levels. As you move even higher, the experience becomes more oriented towards a panoramic view overlooking the entire city. The extended view dominates the experience, but the perception of the "urban room" still faintly exists.
15 Stories Above Street

30 Stories Above Street

60+ Stories Above Street
2/19/91

"Urban room" extends beyond the organization of the city.
The two most prominent and culturally active avenues in Chicago are known to be State Street and Michigan Avenue. Michigan Avenue is most widely known to tourists as the cosmopolitan counterpart to Fifth Avenue in New York, or the Champs Élysées in Paris. But State Street is more reminiscent of the heart of downtown Chicago. Its commercial and retail activity is equal to Michigan Avenue's and it has an historical precedent as a center of commerce in Chicago. Also, its architectural heritage reads like a catalogue of historical Chicago buildings. State Street also has many important civic activities flanking it. All of Chicago's government buildings are within one or two blocks of State, the theater district is at its northern section, DePaul University, the Auditorium Theater, the new Public Library, and the Art Institute are all near its southern end.
In terms of the experience of walking along it, State Street’s scale is generous to the life of a pedestrian. The heights of its buildings are generally lower than the neighboring context. It sits in a kind of urban ‘valley’ between the high-rise office towers of the southwest Loop and the buildings that rise up on southern Michigan Ave. to get a view of Grant Park. In contrast, the more flashy, high fashion atmosphere of northern Michigan Avenue is sandwiched within a mountain of recent high-rise development. Here, it is the linear boulevard of shops and condos which dominate the experience. On State Street, your ability to read space three-dimensionally is potentially higher and your eye is able to connect to other parts of the city much more easily.
Design Intentions
“Every problem contains and suggests its own solution.”

- Louis H. Sullivan, 1924
As the station at State and Lake Streets exists now, the Chicago River (just one block away) is visually cut off from State Street. The new station should persuade pedestrians from the south to make that connection in their mind if not physically. This cognizant access to the river would:

- encourage activity to spread to the river and Wacker Drive
- strengthen the connection of State and Northern Michigan via the bend in the river
- allow one to orient and connect him/herself to Lake Michigan (a virtual ocean for a midwesterner!).

Traditional elevated stations cut off a view of the tracks and platforms from the street it is crossing. It would be interesting to see trains arriving as they appeared between the buildings. The mass of people pouring out of a train could activate the street environment if the platforms were revealed.

The Chicago Theater is an important city landmark and has the potential to activate the site at night. But of primary importance to this study is the potential of its sign and marquee to define a space within the long expanse of State Street. Within this civic space the two directions of the train lines can be revealed. This "urban room" can also define the extended territory of the station above ground.
Existing Condition

Revealing Elevated Platforms

"Urban Room"
View looking north towards the site
View towards the Chicago River
View looking south towards the site
View of State Street from the "L"
Station

The design will attempt to connect an elevated station over Lake Street to a subway station running beneath State Street. The two stations will become connected physically, formally, experientially, and spatially.

The underground world can be revealed by an "animal" that breaks through the street surface to support the tracks above. The different levels will become physically connected by the flow of forces through the mega-structure. When one descends into the depths of the subway, they realize what they saw at the street level was only the tip of the iceberg. These supports can also reveal any changes in the nature of the underground world to those on or above the streets.
As the train rumbles through Chicago, the experience of riding on the elevated tracks is primarily a panoramic one with views opening up in all directions. To achieve a sense of arrival, the elevated station can have a constrictive change in the experience of the urban space. One can imagine riding the ‘L’ with open vistas in the Loop to arrive at a secure, sheltered, comfortable place above the street.

In a subway train, the experience can be reversed. Riding in a tube underground for a few miles can become claustrophobic. Therefore, to achieve a sense of arrival, the subway station should be experienced as an explosion of the space of the underground tube. A generous public space underground can alleviate one’s perception of being in a constrictive, cave-like place. Light can then penetrate into this place, perhaps even reaching the platform below.
The "urban room" idea discovered in the larger city context can perhaps be utilized in connecting all three levels of the station (subway, street, elevated). Just as in the city, a vertical visual link can orient the passengers (perhaps even diagonally) in their new environment. The question "...where do I go next?" happens within the process of buying tickets or transfer passes, and reading city transit maps. Therefore, the places where you make this visual connection should be from the ticket booth area of each station. It will be less important to link both platform systems directly.

The physical structures supporting the street, elevated tracks, elevated station, etc., will attempt to reveal the flow of forces they are resisting. They will try to give expression to their structural function. These structures will attempt to define the space, becoming an enclosure system simultaneously.
View of State Street from the "L"
Design
"The purpose of architecture is to move us. Architectural emotion exists when the work rings within us in tune with a universe whose laws we obey, recognize and respect."

- Le Corbusier, Vers une Architecture, 1923
5/22

AUTHENTICITY

SPACE & ARCHITECTURAL EXPERIENCE TIED TOGETHER.
LE SPIRE ETN,SYNCHEE = VIEW OUT WHICH IS FRAMED BY STRUCTURE
• Elevated Mezzanine and Elevated Platforms
• Link from Street to Elevated Mezzanine
• Link from Subway to Elevated Mezzanine
• Link from Street to Subway Mezzanine
• Structural Walls, Columns, and Subway Platform
• Structural Walls
• Subway Train Passages
Conclusion

The images associated with the "real thing" are intriguing because they "feel right" and seem to belong to a particular place. Similarly, the arguments concerning authenticity have a poetical attractiveness, but they project no concrete or highly practical iconic form for an architectural solution. They can only be indirectly applied to a given problem. It is hard to sit down at a table and say, "I am going to design an authentic thing." Instead, you can only look into a reference's underlying associations and attempt to utilize similar behaviors in your design.

With these images in the back of your mind, it is easier to concentrate on the real facts of a place. And they can help you to develop a conscious attitude towards how a particular city is perceived, what will influence the immediate site, how a building is constructed, and how it will live after completion. But in the end, I discovered one falls back to your own style and way of working. The finished product can be read as applying sensitive decisions with respect to a city/site/program, but it can only earn an "authentic" label after it is transformed by the inhabitation of its users.
Looking more specifically at my project, I regret not getting to the smaller details. The city analysis and site constraints tended to dominate the study. The site is a prominent location within the city, but it was unforgiving. The restrictive size of State Street and tightness of the surrounding environment limited the possible connections, organization, and scope of the new station. Solving the functional connection between the street and two stations (stairs, elevators, handicap access, ticket control) proved to be a problem only a computer program could solve. This was disappointing because this connection (which does not exist now) was not of primary importance to the thesis idea. A different site might have allowed me to focus more on the building systems and the tactile qualities of the architecture. So, as everyone always says . . . I am finally ready to start my thesis now that I am done with it.
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