architecture and the interstitial
...between space and event
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an architecture thesis prepared by David M. Combs
architecture and the interstitial: 
... between space and event

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acknowledgments

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selected readings

- books and articles
  - Modjdeh Baratloo
    *Angst: Cartography*
  - Bernard Tschumi
    *Manhattan Transcripts*
  - Bernard Tschumi
    *Question of Space*
  - Bernard Tschumi
    *Sequences*
  - Roger Trancik
    *Finding Lost Space*
  - Robert Venturi
    *Complexity and Contradiction in Architecture*
  - Louis Kahn
    *Between Silence and Light*
  - Mario Gandelsonas
    *The Urban Text*
  - Philip Nobel
    *LOT/EK URBAN SCAN*
introduction
I would like to take this opportunity to explain the process through which my thesis was produced, along with some issues I explored and positions I took along the way and finally how I grounded my ideas in a great exploration and learning experience.

The approach I took at the beginning of the thesis was not one of a predetermined project type. It was rather an exploration of theories and ideas that I felt pertained to connecting people, place, and event. I wanted to create an entire set of tools that would allow one to create their own sense of place. At this time I was certain this topic was immense and generic in its context, but it was a topic that allowed for focused exploration. The real challenge began when I started narrowing down the topic to a possible thesis project. Through weekly meetings with Pam and hours of conversation with Bob, direction and guidance was given to the project.

I began by exploring the numerous branches and tangents of people, place and event. Issues such as: why spaces become lost, what functions should be given to interstitial space so that space becomes a place, and how can spaces be designed to serve multiple functions? Many times I criticized myself for being unfocused or jumping around and not pinpointing an idea. Mostly it was my lack of knowledge and failing to have a concrete theory about the subject matter, that made my search seem so sporadic. Each new tangent that I discovered was amazingly as interesting as the one before. Although each piece in itself was very important, as a whole the layers of information would eventually read as one. I found this process to be more interesting in helping me understand architecture and the context that surrounds us.

By taking a step back and understanding the context of Ball State University,
Muncie and the Midwest, it led me to exploring the Cartesian grid of the Midwest as an ordering device. Slowly an overriding theme of "grids" appeared throughout all of my explorations. This soon became my "bag" of tools, from which I developed a kit of parts to create architecture that would ultimately give students, faculty, and staff associated with Ball State University, their own environment. An environment within the confines of the University that would allow me as a user to have some say in what my environments and spaces look like.

"It is a decision coming from commonality that you choose a place out of all places to build a place where others can also settle. It is a very important decision of the same importance as the positioning of a Greek temple amongst the hills of all the hills, this hill is chosen for the temple and then all the other hills beckon to it as if bowing to this decision. You do not see the hills now except as respecting the decision of the placing of this eulogizing building, which is remarkable in that it has never been there before."

(Louis Kahn: Between Silence and Light.)
background
Inspiration for this thesis did not come from the recognition of a special place but from just the opposite, the unrecognized, unclaimed, and hidden spaces within our everyday destinations. Interstitial spaces: What is the purpose of these spaces? Are they left over, lost or just space that is simply in-between? These interstitial spaces are unclaimed, unused, in a sea of surrounding forms. They become passages, voids, and “go-betweens” that often go unnoticed and unclaimed. Can these leftover voids provide an infrastructure for connections, a system that allows for varying activities to occur? Can these spaces of non-existence become places that others will revere and recognize? Interstitial space is essential as it creates a linkage between users and their surroundings. It becomes more than a void. It provides a connection from one place to another. The intent is to provide users with an experiential sequence of memory, thought, and events. Is it possible to have no lost space? Is it desirable for all lost space to be found or should some remain lost?

The overlapping area between indoor and outdoor spaces on campus needs a new definition, a new understanding of its boundaries and relationships. Every university has an amazing amount of leftover, unused, and in-between space that becomes unnoticed and unchanged over time. I define these spaces as undesirable areas that are in need of development, spaces that have no positive impact on the surroundings or its users. They are the leftover, unstructured landscapes at the base of every building, dorm, dining hall, or the unused plazas away from the flow of pedestrian activity on campus, or the parking lots that nearly take over and separate the connection between the university and residential areas, or the spaces along the edges of roads that nobody cares about maintaining, much less using. These interstitial spaces have become lost, negative, and disconnected. They contribute to a lack of perceivable edges of form on campus.
Identifying and activating interstitial space is a difficult design problem and particularly challenging in densely built urban areas. I examined spaces that are normally overlooked or underutilized, focusing on intervening spaces—the relatively small and narrow areas that occur between other things. Interstitial spaces occur in diverse situations and contexts. Some respond to unusual or particular program conditions, many are linear and involve connections and linkages, while others are leftover bits and pieces. Often, these spaces occupy the margins of infrastructure or are part of building structures. Interstitial spaces may be vertical as well as horizontal, autonomous as well as highly integrated.

My interest lie among these interstitial spaces leftover by the massive buildings on campus. The ultimate goal of this design investigation is to explore spatial design applications including figure-ground, connections, place, as well as to develop some possible design principles that can turn lost or in-between space into positive and active places that fulfill physical, social, and cultural functions.

The "in-between" space is a place created and spatially defined by the relationship between buildings and outdoor spaces. Therefore, in-between space has a form-giving role in any context and is a container for different functions. So the focus of this design challenge was to explore aspects of "in-between" space, while developing a design that responds to contextual design issues, public spaces, people and their relation to social, recreation, and learning environments.
Muncie, Indiana is located in the east central portion of the state. The city's center was once home to thriving corporations that produced products ranging from canning jars to the wire fencing used on farms. Over the past 20 years Muncie lost many of the companies that provided good paying manufacturing jobs. The presence of Ball State University has since began to dominate the city's economic base as well as its character.

Long before it was a city, the Muncie area was home to the Munsee or Wolf Clan of the Delaware Indians. The Delaware Incians, after whom the county is named, established a tribal town along the White River. Munseetown, from which Muncie took its name, was located within the present boundaries of the city. When natural gas was discovered nearby in 1886, Muncie attracted industries from all over the U.S. and was the center of glass and steel manufacturing in the state at one time. Five brothers from the Ball family brought their glass manufacturing plant from New York in 1888 and it lasted until 1998. The Ball Corporation world headquarters was located here in Muncie. Ball Hospital, a major medical referral center, and Ball State University were also the result of the Ball brothers commitment to the development of Muncie. The Ball Family bought the land and donated the school to the state. Ball State University
opened in 1918 as the Eastern Division of the Indiana State Normal School in Terre Haute. Ball State University experienced dramatic expansion during the 1960s and 1970s, reaching a current enrollment of approximately 18,000 students.

As the focus of my thesis was narrowed and clarified, a great deal of time was spent developing a set of rules that would inform my design decisions. I organized my exploration of interstitial space into four phases: phase one — mappings and site identification, phase two — analysis, and design recommendations, phase three — conceptual/schematic design, and then finally phase four — design development. By phase four I noticed there were no breaks or separations within the phases, as each decision led me to the next and the transitions were so gradual and graceful they were hardly noticed, allowing the design process to become a very rich experience.

The mappings, site identification, and analysis were a critical analysis of the overall urban layout and context of Ball State University. This phase continued throughout the entire process and paralleled the other phases. An extensive examination of space relations and the programmatic needs on campus become the determining factor in creating the functions within the program. The program ultimately becomes a “crossprogram” of functional spaces that are not
housed on campus at this time. By "crossprogramming" I simply mean hybrid, multiple functions programmed into one space.

Conceptual / schematic design began upon identifying a specific site on Ball State's campus. The first stage of the conceptual design included a series of spatial studies in response to the context and site amenities. The spatial studies included, mappings, models, and drawings, of which were developed through the relationship of people and place. By developing a mixed-use facility, I ultimately created a culturally rich environment on campus. The idea was to provide a place where students can convene to create their own space, their own atmosphere, and most importantly a space people can call their own.

Design development began once the kit of parts for the design was resolved. This phase ultimately took the design of the building to the next level of understanding. By the next level, I simply mean working through all the details so the viewer can clearly read and understand the concepts interwoven in the project.

"Architecture has always been as much about the event that takes place in a space as about the space itself. The Columbia University Rotunda has been a library, it has been used as a banquet hall, it is often the site of university lectures; someday it could fulfill the needs for an athletic facility at the University. What a wonderful swimming pool the Rotunda would be! You may think I'm being facetious, but in today's world where railway stations become museums and churches become nightclubs, a point is being made: the complete interchangeability of form and function, the loss of traditional, canonic cause-and-effect relationships as sanctified by modernism. Function does not follow form, form does not follow function — or fiction for that matter — however, they certainly interact. Diving into this great blue Rotanda pool — a part of the shock.

(Bernard Tschumi)
Space planning began from the requests and needs of the Colleges on campus, students, faculty, and staff. The multi-use facility is a composite of spaces "crossprogramming," which have been forgotten and left out of the overall planning of the curriculum. These spaces might not seem important but are important on a personal / in-between level. The spaces or zones can be broken down into three categories, each referring to a degree of temporality. The three types of spaces are temporal, semi-temporal, and non-temporal. Temporal spaces refer to spaces that might come and go day by day, such as lounges, work carrels, and gallery areas. Semi-temporal spaces refer to space that might have a life span of two or three-weeks or possibly a semester. These spaces include areas such as offices, scholar residences, and computer labs. Non-temporal spaces refer to spaces or zones that are permanent and don’t have the flexibility the other spaces do. Non-temporal spaces include stair / elevator towers, stair / HVAC core units, and bathrooms.

If shock can no longer be produced by the succession and juxtaposition of facades and lobbies, maybe it can be produced by the juxtaposition of events that take place behind these facades in these spaces. If "the respective contamination of all categories, the constant substitutions, the confusion of genres" — as described by critics of the right and left alike from Andreas Huyssens to Jean Baudrillard — is the new direction of our times, it may well be used to one’s advantage, to the advantage of a general rejuvenation of architecture. If architecture is both concept and experience, space and use, structure and superficial image — non-hierarchically — then architecture should cease to separate these categories and instead merge them into unprecedented combinations of programs and spaces. "Crossprogramming," "transprogramming," "disprogramming;" I have elaborated on these concepts elsewhere, suggesting the displacement and mutual contamination of terms."

(Bernard Tschumi)
The nine square menu was developed through a traditional style program, each space was categorized into specific zones. These zones included education, recreation, administration, and service spaces. Once the functions were developed, they were molded into a comprehensive "crossprogram" of spaces. Then tabbed as public / temporal, semi-public / semi-temporal, or private / non-temporal spaces.
Tschumi's theories on architecture, developed in the 1970's through gallery installations, texts and "advertisements", focused on contemporary society's disjunction between use, form and social values, rendering any relationship between the three to be both impossible and obsolete. His thoughts on disjunction led to the design of the Parc de la Villette in Paris. The Parc consists of 35 red "follies", sport and recreation areas, playgrounds, a science and technology museum, and a music center. Tschumi was in charge of planning, in addition to the design of the follies, and superimposed three ordering systems: the points of the follies, the lines of the paths, and the planes of the sport areas. This network questions the order that is inherent to architecture with a superimposition that attempts to bring together three non-related systems. The process and arbitrary result ignore the basic tenets of architecture throughout history—composition, hierarchy and order. Each folly is based on a cube and deconstructed, according to rules of transformation (repetition, distortion, superimposition, interruption and fragmentation), without any functional considerations.

"Architecture only survives where it negates the form that society expects of it. Where it negates itself by transgressing the limits that history has set for it."

(Gerhard Tschumi)
FTL Happold is a firm specializing in the design and engineering of permanent and temporary tented and deployable structures. Proposed here is a portable, recyclable skyscraper, intended for temporary use on vacant urban sites for durations of six months to three years. This twelve-story building with forty-eight rental spaces has a total construction schedule of six weeks. The challenge was to create an entire building with scaffolding, standard clip-on floor planks, standard clip-on construction industry elevators, stackable toilets, and a double-layered fabric curtain wall. All of the infrastructure, power supply, water and waste lines, and mechanical systems; is housed in truck trailers occupying the first floor of the building at ground level. These components are standard, modular, and reusable making the entire building recyclable. The building can be assembled on a flat site without foundations and still resist wind forces. Such a portable and easily erected structure could help cities damaged by war and natural disaster.

"Many people consider the fabric-clad scaffolding that envelops the facades of so many buildings to be a necessary evil of building repair and maintenance. We consider it to be temporary, additional, usable, rentable real estate."

(Todd Dolland)
In this museum of African History, a single architectural concept represents the brutality of the slave trade and the excitement of trans-Atlantic exploration. The structure, a monolithic element suspended between earth and water, is entirely made of shipping containers. Jutting out into the ocean or penetrating into the land, it is a truncated link between Africa and the Americas. The containers, used here as symbols of global trade and movement as well as oppression and confinement, are inscribed with the names of the different destinations typical of both slave trade and discovery journeys. The building is designed to achieve a monumental value. At a territorial scale, it marks the earth/water edge at the western most point in Africa. At the urban scale, it intrudes into the fabric of Dakar from the ocean. At a more experiential level, it takes visitors on paths through spaces that modulate the intensity of their experience. The container is the basic constructive element of the structure. As a "Spatial Brick," it is used for its inner space as well as to delineate larger areas. As a self-supporting modular element, it has been pierced, stacked, and combined to meet the functional requirements of the program. Layers of these containers, corresponding to layers of function, interlock with one another to form a self-contained horizontal prism. The experience of the museum is at once spatial and emotional.

(Philip Nobel)
precedents

the urban text

The geometric grid is the basis of the American city, particularly in the Midwest, providing a support for urban forces to play and produce specific urban plans. As opposed to the "unmarked" or neutral geometric grid, the urban grid should be seen as a field of energy marked by geographic, historic, economic and cultural forces. These conflicting forces distort and fragment the grid and therefore stop the uninterrupted flow of movement implied in the geometric grid.

Mario Gandelsonas applies a process of visual drift to the plan of Chicago. He uses the mechanical eye of the computer in a "delayering" process to read the plan of the city and to discover the system of urban notions (the city block) that are specific to the American grid.

Gandelsonas explores the spatial relationships between the physical and abstract realities in the Chicago River area, the One-Mile Grid and its subdivisions. By highlighting these anomalies and idiosyncrasies of the grid the moments where its regularity falters, he establishes a narrative of Chicago's urban text.

These four drawings describe the basic material used in the computer studies of the Chicago plan: the street layout, the Chicago River, the one mile grid and the drawing that results from combining all three layers.

(Mario Gandelsonas)
ANGST: Cartography is a conceptual/analytical study of the Gowanus Canal area in Brooklyn, which maps a metaphorical relationship between the area’s industrial ruins and the fictional city of a literary text by Italo Calvino. Through the use of thirty-six maps inspired by the Calvino text, drawn over maps of the existing Gowanus site, ANGST: Cartography serves as a simulated guide to both the city in the text and the Gowanus Canal area.

Cartography is the art, or science, of making maps. The map is an iconic representation that leads to illumination, but it is enlightenment that does not necessarily simplify or explain. To illuminate is to depict, and there are many possible depictions (and maps). A consequence of illumination is the revelation that occurs when physical fact and observation intersect with imagination and invention. The map describes a place as well as this process; the cartographer both replicates and conceives.

These images mark no particular resolution between the oppressive facts of place. Rather, they provide another iconic system to represent the site. Most places are becoming patterns of human intervention and never quite develop into a comprehensible “sense of place”.

(Modjdeh Baratloo)
analyses
analyses

. ball state university

. Interaction: the relationship between building mass and open space. Open spaces and voids can be constructed and construed as positive space as long as there is a well-integrated spacial design with the surrounding built form context.

. Space - event connections: the organization that connects the students to the university, the buildings to their site lines, directional flows of movement, organizational axis, or boundaries. Connections can be implied rather than physically describe.

. Place as concept - experience: a space with the potential of connecting things, and it only becomes place when it is given a contextual meaning derived from cultural or regional content.
. Directional flow of pedestrian paths and roadways. 
   (Destination - based)

. Privatization of public space 
   (Volleyball court, BBQ grills)

. Changing use of space 
   (New architecture)

*Why does space become unused and un-noticed?*
What function should un-used / un-noticed space be given to become a place?
. Physical function: lost or in-between space has to be given a form that has an integrated relationship between solid, building mass and void open space.

. Social function: the most important elements in place making are people, place, and event. Spaces have to be designed to allow these elements to merge into unprecedented combinations.
thesis site and model
Cultural function: un-used / un-noticed space should be designed to fit into the existing cultural context and greatly enhance its own critical sense of place.
drawing

concept
- mass and void
- degree of temporality
drawing

- site plan and grid overlay
- building plans
drawing
temporal units
gallery display unit
work carrel unit
semi-temporal
semi-temporal
Each 16' x 16' module unit supports a specific function. Each function has a certain degree of temporality and a specific zone to where it can be placed among the tartan grid structure. The modules do not lend themselves to the context of a normal programmatic space, although all of the modules are interlocking and interchangeable for the ease of access and maximum flexibility. The modularity of the units allows for the overall composition of the building to take on various mass and void configurations. Which allows the building to provide a temporal aspect. Along with the flexibility of the spatial organization, the system creates a strong visual and physical connection between other buildings on campus.
. drawing
making
making

building model
making

section model
There are three threads in architectural design conversations that should be woven together: People, Place, and Event. These threads give a space that experiential and conceptual quality, that specific identity that one feels, knows, and sees. People, place, and event become linked, connected, and joined in our everyday network of movement and space.

The first of the three threads is people. People have the opportunity to bring life into a space, but without place and event, people cannot make ordinary space have a sense of place.

The second is place, place is the physical environment in which people interact. Without a physical environment, whether indoors or out, a space could never become a place.

The third is event, event is an incident, an occurrence: a particular item in a program, but for a space to become activated, an event has to occur. Events have their own logic, their own momentum, but can not act independently.

Ultimately each person creates their own perception of place, each person has their own values and judgments, but if one of the threads is missing, that place is likely to fail. People, place, and event are the connecting elements in creating that sense of place. All three are needed, no more no less.


Tschumi, Bernard. *Questions of Space: Lectures on Architecture*.

Tschumi, Bernard. *Manhattan Transcripts*.


