Narrative Representation in Architecture

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Abstract

This booklet explores the term "architectural narrative", which applies a mode of describing architectural events by representing, perceiving and organizing the spaces and signaling design intentions. The booklet discusses the relationship between narrative and architecture, and narrative thinking as a mode of architectural creation. The first part introduces how the methodology can be considered a form of representation, how it illustrates the relationship between storytelling and architecture, and how the two areas influence each other. The second part shows three categories of projects which explored architectural narrative to describe the space and events. In these projects, architectural narrative served the study of body movements, the life of an object, and virtual technology for the design of space.
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Introduction

“A narrative is a communicative relation which is often conflated with straightforward understanding of what a story is. Narrative is a particular form of representation implementing signs and how it is necessarily bound up with sequence, space and time.”[1]


“Narrative enters architecture in many ways, from the conceptual ‘messages’ it is made to stand for to the illustration of a design through models, drawings and other representational forms.”[2]


Narrative is a literary genre in which the story is reappeared sequentially in time and space. The literature story is a narrative process that arranges activities to show the story theme so that the reader gets connected with the activities and feels the theme. By the end of the 20th century, narratology had been integrated into diverse areas beyond the scope of linguistics. The narrative concept advocates a shift from "symbol/element as the core" to "semantic/relationship as the core", and gradually becomes an interdisciplinary concept.[3] The narrative combines with architecture as well. Architecture has turned from emulation metaphor to show the ambition of transmitting message and emotion. The architectural narrative supports a change from the symbol element as core to the spatial relationship as the core. It becomes an interdisciplinary area and influences
architectural concepts. Similar to the narrative in literature which the operation is shown through the activities and the text, the architectural narrative provides a strategy to make a building tell the story of its functions, feelings, background and design ideas through the interactions of its spaces and events.\footnote{[4]}

The narrative combines strategy, imagination and creative events for architectural creation. Architecture and the potential interior spaces provide the narrative with stories. The two influence each other. The scene of site environment, streets, circulations, corridors, private gardens, balconies and so on in the design phase becomes the potential narrative spaces in the architecture to describe how the events can behave. Such spatial image is reflected to the designers, and becomes an expected scenario for future users. Although the story may no longer exist physically in its ecological environment, the building material can be the attachment and carrier for the story to reconstruct inside an architecture, and activate the existed relationship between people, spaces and the implied stories. The narrative of the space can serve as an integrated and optimized meaning for the relationship, by applying relevant concepts and strategies to effectively organize the identity, experience and cultural information of the architecture within its context.

Thus, the architectural narrative can be a structure of expressing, recognizing and organizing space and signaling design intention. This structure can be reflected in the following three categories of studio projects: spatialized time; space and event; technology and narrative.
Many museums use the timeline of exhibitions to introduce the visitors into the spatialized time. The life of the exhibits is spread into a plane and applied as the visiting route. The time periods are indicated on the lobby indicators, brochures and each level front walls and everywhere to make visitors engage in the designed circulation. The spaces are modified to be harmonious with the emotions provided by the exhibits. With the actions and context, the events naturally happen in the space. The life of exhibits is spatialized.\[6\]

Literary works create clue relations in the narrative elements of sequential perception, while architecture can perceive the order relations of physical spaces in the process of experience. The difference is that architecture often organizes and arranges a series of context relations and horizons that can be perceived through concrete experience. However, the representation of literary narrative space is not in the form of material, but an abstract text system. In other words, architecture is not the text of fictional life, but the carrier of real or future life. In the studio projects, the system drawings help to understand the life cycle of products without a direct linkage between the reviewers and the life time. However, when the product is engaged with a building or with the city, the spatial relations are perceived. The relations become more clear when a physical three-dimensional model is built to illustrate the design project.
1.1 | Food Hub -- Milk's Life Cycle

The project starts by studying milk as a typical production from production to packaging to consumption to the afterlife. The whole process is represented by a system drawing step by step, including the functional spaces required by the milk production. Then the entire life of milk is transformed into a layout to organize the milk factory's horizontal and vertical plans. The architecture becomes three-dimensional with the activities of the milking process. At this step, the architecture lacks circulation for people. So we add two other circulations. One is the workers' circulation which crosses with the milk production process. Another is a top-level circulation for visitors to look down into the factory to learn the process without disturbing the production. The visitors would meet with the milk production as the consumers.
New York State is the second most densely populated state in the U.S. with 14,765,000,000 lbs of milk produced, which is 17.09% of the U.S. production. The top dairy products in NYS include:

- Cottage cheese: 186,193,000 lbs (1st)
- Sour cream: 262,734,000 lbs (1st)
- Yoghurt: 669,254,000 lbs (1st)
- Cream cheese: 280,070,000 lbs (30.8% US production)
- Milk: 14,765,000,000 lbs (3rd)
- Cheese: 801,262,000 lbs (4th)

Food for Cow

The normal size of the milk package is 1 gallon, but the overall consumption of milk is decreasing. Therefore, we started to ask if the size of the package is reasonable, and what kind of package size can minimize the waste?

Energy
Generator
Fertilizer
Electrivity
Gas
Fuel

Top 5 Dairy products in NYS

Opportunities
- Extend shelf lives
- Use the bioenergy made from the material of processing stage.
- Predict the supply and demand and react to markets, distributing how much milk should be used to produce byproducts like cheese.
- Provide better ways to store the amount the household would drink in 2 weeks and the potential leftover.

Consumer profile and packaging size

System Drawing

- Reduce food waste
- Increase consumer satisfaction
- Provide better ways to store and distribute milk
- Extend shelf life

System Drawing
Detailed Drawing
We study compost which is organic waste that can be broken down into a nutrient-rich, soil-like material and produce energy during the decomposing process. We select banana as a typical compost to see how the entire life of banana engages with the urban city. We create a system drawing of bananas and link each step back to the city. In this way, the audience feels more connected since the urban city is closer to their daily activities than the life cycle of a banana.
1.3 | Design Actions in Existing space

The Performing and the Media Arts class in Arts & Science College is one of my Territory of Investigation courses. The class works to analyze the body performance in a built environment. The body movements are represented by points, lines, planes and volumes abstractly at the first place to see how the basic drawing elements can interact with on a paper as the space frame. Then using the body to perform some real spaces to study the relationship between body performances and three-dimensional spaces. Although the movements are not like daily behaviors, the body performances do highlight or active the understanding of the space.
Basic Drawing Elements in 2D Space

Points and Lines
Lines and Volumes
Combination of points, lines and volumes

Combination of planes, lines and points
Body Performance in 3D Space

Tracing arched boundary

Connecting lines with arched spaces by arms

Linking two parallel walls by inclined arms
Body Performance in 3D Space

Body repetition in the open area

Body mirroring with an anchor point

Body mirroring in a open space
Space and Event

Architecture can be degraded to superficial symbols or forms when people are only keen on the aesthetic perspective of the building. Then there’s not a big difference between the architecture and the installation. The space and events inside architecture are sacrificed. When architecture serves as something more than appearance or function and creates events for users, the space inside becomes meaningful and emotional. The original architectural form provided a shelter for people to rest on at the beginning. Various architectural types have been developed along with the development of human beings. No matter how the building improves and how the construction technique is advanced, it cannot change its people-oriented center and essence. In addition to meeting the functional requirements for users, providing a suitable physical environment and ensuring safety, the architecture should also be responsible for showing the relationship between itself and its meaning.[6] I want to recall what might have been a diluted exploration of architecture interior experiences, using the narrative method to explore the characteristics of each building and the story of its interior spaces as the dominant design concept. When architecture creates resonance with people’s behaviors and activities, it becomes a human-oriented place rather than an abstract space. The space can become meaningful and memorable when people engage with the events inside the architecture. The architect can solidify the dynamic experience and time from events into space and shape real life and real memory in the space. “Whatever space and time mean, place and occasion mean more. For space in our image is place, and time in our image is occasion.” [7]
2.1 | Interactive Condom Pavilion

Condom as an unrecyclable waste is considered to be used as a symbol of sex to signal gender equality. A pavilion is built to dissolve the gender boundary and encourage pure communication within the specific environment we provided. Based on the light quality, high malleability and high resistance to friction characteristics of condoms, the pavilion arranged with condoms is flexible that can be reshaped by interacting with people and the wind.

The pavilion has three layers of condoms. The bottom layer of condoms attached to the ground and filled with water provides gravity. The middle layer with three to four condoms as a unit is at the height level of pereion and genitals to remove gender identifications. The top layer filled with hydrogen responds to the surroundings and environment.
Interactions between Pavilion and People
Structure of Condom Layers

First Layer:
Mixer Condoms as anchor

Second Layer:
Different density for different modules

Third Layer Type A:
Movable 4-direction top layer condom

Third Layer Type B:
Movable 4-direction top layer condom

Third Layer Type C:
Fixed top layer condom

Structure Layer:
We use straws to tie the condoms together, the condoms on the same vertical ordinate are tied together as one module.

2nd Layer: Condoms Filled with Air
Taking advantage of the deformable characteristics of condoms, we have created a deformable space. The shape of the space depends on the actions and states of the people inside.

Tight to Loose Experience
We put different density condoms to create different atmospheres in the pavilion.

4th Layer: Condoms Filled with Water
Using the gravity to hold the floating condoms above the grid system.
2.2 | Disabled Senior Center

After finding out the very low ratio of housing for disabled people on the market, we highlight the ramp as a core concept for the housing to signal that the building is for disabled people. We did five different personas as potential residents to study the possible daily routines and the required functional spaces. The primary circulation is laid at the center of the building and interacts with all the shared spaces, including multi-purpose rooms, corridors, lobby, community center, etc. We apply warm colors and soft materials to create a friendly and attractive environment to encourage the residents to interact in the shared spaces and the ramp to create the events inside the architecture. When the customized events and spaces combine as one served for the residents, the housing will be meaningful and cozy.
Massing Strategy

Open the Corner

Ramp Connection

Lobby setup

Communal Kitchen Attached to Ramp

Multipurpose rooms Attached to Ramp

Design Development Drawing

Isometric Drawing
Typical Floor Plan (3rd Floor)
With the development of technology, digital device takes more and more time in our daily life. The virtual world’s impact is growing. Architectures are considered as long-lasting, visible and touchable buildings in the urban space. However, what if the space in the virtual world can also be designed in the future? Some attempts of applying virtual technology in physical building successfully promote the interactions between visitors and the expressed environment. Virtual technology can reproduce the designer’s intended expression in a visible way that is more concrete and direct to connect the visitors with the emotions implied by the spaces. It’s like showing explanations for an artwork, or describing with simple diagrams. The interactive installations which overlay virtual on physical spaces make the virtual world more perceptible and experiencing. Digital technology enhances the theatrical element within architectural space. It changes from a simply functional object to a representational tool.
3.1 | Contactless Library

By starting to think what can be a safe and innovative space offered for a library-lover under the pandemic situation, the keywords are selected: contactless, away from other potential gathering spaces, enough sunlight and wind and new borrowing mode. The site is chosen at an abandoned parking lot near the river on campus. The event here is walking around and using Bluetooth to connect to the selected book, previewing the book on a shelf screen, borrowing it by sending the digital version to your digital device, and sitting at the stairs to read the book. The narrative representation is by putting myself into the site and interior space video to test the interactions between the event and the space, as well as the natural environment. Then the rational building form and other details can be determined.
Section

Storage for digital books
Reading Area
Solution two: Horizontal division
Reveal your deep souls by sharing thoughts of a book to your future significant others. Invite him or her to the book sharing party. Use the events as excuses and schedules to have a different and memorable Valentine’s Day.

Because of the immutable characteristics of the monuments within a rapidly diverse environment, lots of the confederate monuments are taken down at Richmond. People lose the respectful thoughts that the monuments implied since the historical memory is no longer touched by the generations nowadays. The symbol of history represented by the monuments physically is not accordant to people’s perceptions and memories. Invented from the historical monuments, contemporary monuments should be a new platform to retain people’s collective memories and be rapidly diverse as the environment be. We reserve the forms of historical monuments and add interactive installations. For example, the debris wall is added with digital screen bricks to maintain the original form, but has a contemporary way to express feelings. The historical elements and virtual social media coexist.

3.2 | Monument Virtual Reactivation
We can think of Revealing these hidden memories
We can think of an Actively Changing monument
We can think of a Platform to share our ideas
The monument never changes but our world changes
The Social Network is a tool to communicate

The monuments can also become a tool to convey our opinion

Learn how to participate >

Communicator
Share your opinions with other people
Collector
Upload your feelings and contribute
Receiver
Interactively show your thoughts
Display
Also, see how others think about it
Not all memories are visible or have a physical form.

We can think of Revealing these hidden memories.

The monument is used as a tool to convey our opinion.

We can think of a Platform to share our ideas.

The monument never changes but our world changes.

We can think of an Actively Changing monument.
Cover the Graffiti with Social Media Comments
Reestablish Monuments as a Social Media Projection Screen

Site: Robert E Lee Statue, Monument Avenue
Program: Stamp Rally / Howard Brookner
Festival: Martin Luther King Day / Robert E. Lee Day
Date: 9:30 AM, Monday, January 18, 2021
Context: African American Equality, Confederate general Memorial

Display Content: The popular checklist in open during stamp rally activities, with color indication. A real-time clock circle recorded the popularity of different nodes for the events.

Activities: Stamp Rally is the activities designed for MLK Day and HELL Day. Since these two feature events are on the same day, the display content on the large screen provides the visiting information at Richmond. This screen works as a tourist reception center during Stamp Rally Day. It promotes locations other than Robert Lee Status in Richmond, by providing multi-layer views about black and confederate history.
Detailed Drawing

Site: Robert E. Lee Statue, Monument Avenue
Program: Social Media Posts
Festival: Juneteenth / Jubilee Day
Time: 10-11 AM, Saturday, June 19, 2021
Content: Civil Rights Movement, African-American Equality
Display: Curated Popular Tweets on Twitter or popular linked posts from Facebook and Instagram near Richmond Monument Ave.
Activities: During Juneteenth day, which is a holiday celebrating the emancipation of those who had been enslaved in the United States. At Richmond, a Freedom Celebration Festival will be held on this day since 1986. It reflects Richmond and Virginia’s special rich history about slavery and emancipation. This year, 2021, with the global pandemic, Freedom Celebration switched to virtual. Through the platform on Facebook, Youtube, and Twitter, feature performers called attendees enjoying the party in their backyard. At the same time, real-time posts and performance are displaying on the public screen.
Reestablish Monuments as a Social Media Projection Wall

Although the past year is not perfect, it provides new possibilities for virtual world.
Detailed Drawing

Site: American Civil War museum, Trentgar St
Program: Stamp Rally: Rankling / Christmas Celebration
Festival: Christmas
Date: 11:00 AM, Saturday, December 25, 2021
Content: National Holiday
Display Content: The festival and ranking of the victory joined Stamp Rally
Activities: The helpful place to check in during stamp rally activities. Christmas celebrations are marked by decorations and exchanging of gifts. If you don’t know how to decorate your home or how to pick gifts, check the position media screen here, they will be helpful. If you have nice ideas, please post your pictures or thoughts on the larger screens. The media screen will make them as the new part of memory.
Bibliography


