THE PERSISTENCE OF THE SENSES: MATERIALITY, PRECEDENT AND NARRATIVE IN COMMUNICATING HERITAGE

Lohren Deeg a, Sean Rotar b, Sean Burns c

a Department of Urban Planning, College of Architecture and Planning, Ball State University, Muncie Indiana, USA.
b Horticulture and Landscape Architecture, College of Agriculture, Purdue University, Lafayette Indiana, USA.
c Department of Architecture, College of Architecture and Planning, Ball State University, Muncie Indiana, USA

Introduction

Heritage implies a rootedness, a connection to past people and ideas, and a foundational understanding of the long threads of culture in a place. Because of this implication, heritage thinking is often difficult for students to achieve in a contemporary culture focused so heavily on the popular, the transitory, and the disposable. To anchor their design work in a larger context of heritage, designers must make a connection with the heritage of a place and communicate that heritage through the narrative that drives their design work. Designers must generate deep understanding of heritage through observation and analysis of the characteristics that make an object, place, building, or landscape unique, as well as the particular context that surrounds the designed element and infuses it with meaning. It would be a mistake, however, to assume that communicating heritage through narrative implies that designers must be firmly and literally reliant on the forms and structure of the past, as in the manner of the academic classicism of the Beaux Arts. Rather, connecting to heritage and communicating heritage through narrative in a contemporary design idiom relies on a different set of processes and outcomes.

While heritage begins with understanding the cultural past, designers must also be able to translate that understanding into original forms that nevertheless remain rooted in heritage and to communicate an understanding of heritage through the meaning created by spatial narrative. In design education, form and narrative are often joined through the understanding of materiality. The materiality of creative work is fundamental to how environmental design students experience, analyze, and interpret designed space and its meaning, whether framing the concept and potential of designed landscapes, buildings, or communities.

In its best incarnation, however, the ways in which we experience and connect with the heritage of designed objects and spaces involves all of the senses in direct
experience. An authentic experience of a designed environment is not achieved solely by visual elements, as it is a dialogue between user and the environment through bodily interaction, identification, and memory. For many designers, the choice and use of materials tells this story by engaging the senses through the tactile and intangible poetic statements inherent in the materials themselves. As part of the process of creating sensory experiences in designed objects and spaces, students find the act of touching, crafting, and making a valuable and necessary cognitive link to the experience of natural and constructed spaces. Material understanding and imagination are required for a student to begin to interpret the narratives contained in painting, philosophy, history, and biography; when applied to design projects, they provide opportunities for the student to engage in rigorous design thinking, connecting concept to matter. This thinking also contributes to the cognitive connection between the representation of human occupied spaces, surfaces, and phenomena in two dimensions. This is a well-accepted continuum in the education of the designer, whether it is on the surface of paper, a tablet, or a personal computer screen. Students are tasked with designing space through media that spends most of its life in two dimensions.

Sensory information as a means to design within the context of cultural heritage

The great cultural achievements of landscapes, buildings, cities, and sculptures engage the senses in multiple ways. It would be wrong to think that two-dimensional art is a poorer experience for the senses. Rather, the experience of a painting or drawing is usually much more than mere sight. Paintings engage the other senses through their materials and through the spatial context of their gallery settings. While research in the field of visual perception suggests little difference between representation and reality for assessment purposes, the authors hypothesize that cognitive and emotional engagement with completed artwork leads to the creation of meaningful content in constructed works, either as a generative force, or in reinforcing a narrative. The temperature or smell of an art gallery can be arguably as endemic to the learning experience as information in a book or article. Inversely, in a design process, these sensory experiences instill powerful memories in the act of making. Students apply critical thinking skills in the interpretation of the constructed environment and subsequent design projects within it. The curiosity and awareness students gain from the study of cultural heritage in the form of paintings, literature, narrative, and others create three outcomes:

- A broader cultural context for students’ design processes to exist.
- A design process fueled by inquiry, analysis, and rigor, not formed in a vacuum.
- An expectation for spatial narrative in the constructed environment, whether it be in the form of a great building, a vibrant landscape, or a stimulating urban district.

Cultural and historic narratives as a context for design

Narration is a powerful form of discourse that offers possibilities and devices for students in the field of environmental design to teach a story of a relationship or interpretation of an artifact through the form, sequencing, and materiality of a designed environment. Research indicates that a narrative is comprised of four basic elements: situated-ness, event sequencing, world-making/world disruption, and the subjective awareness associated with conscious experiences. These procedural conditions can be utilized to construct a story-world that structures and communicates aspects of an experience.

A story-world, as a concept of narratology, is a reconstructed world evoked by narration that offers a suggestive mindset with implied properties of a place, or setting, for the recipient. Research in the field of narratology prevalently suggests that either factual or fictional stories may serve as the foundation of a story-world. Opposition to this belief argues that the assumption of a recreation of true facts through narration devalues the interpretive ability of the narrator. As such, it is important to qualify a story-world as a created world non-inclusive of factual reality and distinguish the real world of exclusive absolute truths as a referential world.

In the separation of these domains, a story-world may potentially offer flexibility of expression, creativity, and personality to the narrator and an escape from the referential world to the recipient.

For literary narration, text and language are distinctive, yet dependent, devices. Text assumes the primary role of defining the intended message of a story-world; whereas, language is the delivery vessel for communicating the message and may be influenced by other various strategies such as typographical formats, the presence and positioning of space on various pages, and graphic illustrations. Combined, these devices offer a recreated virtual world to the reader with explicit messages and implicit interpretations of the story.

These fundamental principles of world making derived from literary narration can be employed by architects and planners to narrate a story of cultural heritage through the designed environment. Heritage serves as the medium through which identity is created, nurtured, and preserved and the identities of individuals and societies are continually in a dialogue with the built and shaped environment. This exchange, while staged in the referential world, becomes the language to create an authentic and personal story-world throughout the continuum of life. Aarati Kanekar describes that in the creation of architectural meaning,

[...] syntactic devices contribute towards the constitution of social or cultural relationships, the accommodation of activities and programmatic requirements, and the delivery of functional performance.

---


Kanekar continues to explain that architecture’s representation of meaning is influenced by symbolic forms, as well as through perceptions of syntactic relationships that are generated as one moves through a space. The narrative elements of situated-ness as a relationship between context and circumstance, event sequencing, world-making/world disruption activated by unexpected events, and the subjective awareness of conscious experiences are presented, discovered, and interpreted by means of ephemeral messages within this dialogue.

The cultural narratives inherent in the form and materials of great buildings, neighborhoods, and landscapes influence thinking for emerging designers as well. For example, the Staatsgalerie of Stuttgart by Stirling and Wilford works as a narrative timeline of heritage (Fig. 1) as it connects two neighborhoods along a hill with a public pedestrian promenade.

Fig. 1. (Clockwise, from upper left). The Staastgalerie Stuttgart by Stirling and Wilford makes clear historic and material references to ancient ruins, promenades, cornices, the allegory of the hut, and Le Corbusier’s Five Points in the form of a linear narrative as it connects two urban districts.

Source: photos by first author.

---

ibidem.
Metaphors for several built works throughout western history communicate the elements of the timeline, with references to ancient ruins, travertine marble cladding, the allegory of the primordial hut, an open-air rotunda court, exaggerated cornices, brightly colored steel-tube railings and mechanical details of the Pompidou Center, and Le Corbusier’s Five Points. These references are featured in a sequence of exterior spaces knitting two urban districts together along a slope. These ideas speak to the ability of constructed examples to reinforce an implied narrative, and the value of storytelling in the design process. The project exhibits a timeless quality because of its references to several periods of time, and serves as an interdisciplinary precedent for landscape architecture, urban planning, and architecture in its formation of public space, promenade, and urbanism.

Analysis, synthesis, and application by Students

In the first group of example projects, students investigated a painting located at a university-managed museum of art. The museum houses artifacts from a number of local philanthropic sources and is connected with the industrial heritage of the city and region in which it resides and thus contributes to the narrative of place. Methods of inquiry included a literature review, drawing a chosen painting from observation, and a diagram/overlay method using tracing paper. Students were able to investigate several objective aspects of the work, including line, shape, value, and color temperature (Fig. 2).

Fig. 2. Student Elena M’Bouroukounda interpreted Kurt Seligmann’s painting Migrants by methods of observational drawing and a series of overlays, each extracting a layer of compositional information from the work.

Source: photos by first author.
Students then studied the compositional relationships in the work, focusing on hierarchy, rhythm, repetition, symmetry, and balance. Finally, students analyzed the subjective elements of the painting, including, mood, gravity, tension, and others, as they designed a hypothetical architectural space influenced by the painting. Student Elena M’Bourokounda remarked,

> In the analysis of the 1955 painting *Migrants*, I noted that the painting explored issues associated with conflict, loss of identity, and belonging. [...] There came a recognition that similar emotions [can potentially] reside in all individuals. [...] In a way, a translation of another’s piece is the creation of one’s own fiction, with a basis in one’s own emotional reality [via] the imagination.  

To discern the clarity and learning that students are experiencing here, the authors have observed that direct experience is vital in addressing the range of learning modes that students in environmental design possess, including visual, kinesthetic, auditory, and others. In its early incarnation, this project relied on reproductions of renowned paintings. In these reproductions, scale, details, textures, and subtleties may be lost or changed, which often affected the students’ perception. Recently, the list of paintings for this project was altered to consist entirely of paintings that hang locally to facilitate the deep understanding that comes through extended access and direct experience. This decision also allowed the students to appreciate the scale of a painting, as well as fine details of brushwork, luminosity, chroma, and other details typically lost in reproduction. An awareness and understanding of a painting’s materiality and emotive qualities also became crucial to the students’ translations. As student Julia Voigt remarked,

> The thing I most tried to capture in the design was the tension, harshness, and uncomfortable-ness of the painting. I attempted this by utilizing harsh angles. [...] The areas of release in the painting were translated into translucent panels that allowed the viewer to look into the model.  

Ms. Voigt’s design intentions were informed by both her literature review and graphic analysis of the assigned painting and were reflected in her project with analytical diagrams and scale models (Fig. 3).
In a second group of example projects, graduate students read the biographies of two notable historic figures and then expressed the story arc through the design of a narrative pedestrian bridge. The project encouraged students to translate their research of a documented, or implied, relationship using character personification techniques as a means of world-making. While the bridge was designed to explain a chosen message of intangible heritage from the designer to the user, it still carried the responsibility of functioning as a bridge. Therefore, students assigned meaning to a designed landscape that served as the setting for the bridge and provided a common element that related to each of the historical characters. The manipulation of materials at select instances as well as the means by which the embodied forms of the bridge engage, neglect, or react to one another and the landscape speaks to the translation of the documented and implied relationships of the characters. This narrative pedestrian bridge provided a vehicle for students to represent the heritage of historical characters and their relationship through the user experience of the design element.

The career-change graduate-level architecture students assigned this project came from a variety of undergraduate majors, and each brought unique knowledge to the assignment.
Students were encouraged to use their previous knowledge to reconsider how a recounted story could be narrated through the design of an object within a created field. Using this knowledge, each student considered the bridge as a methodical journey, by which narrative cues were embedded wordlessly and expressed spatially within the performance of the bridge and landscape. Ultimately, these suggestive links to the story’s intended meaning were proposed for discovery to the bridge’s users as a means to encourage investigation and engagement along a recreated story-world.

Student Justin Martin, whose design of a bridge featured a story of an implied and interpreted relationship between Joan of Arc and Napoleon Bonaparte (Fig. 4), spoke of the challenges and learned outcomes of the project.

As I began to learn more and come to understand the people in my story, it was interesting to see each character develop into a material, and ultimately into a bridge that began to truly embody the characters. I feel that this method of research and representation helps to give strength and meaning to the design in a rewarding way. Along the process, I found it a personal challenge to achieve a representation of the characters as a material and form in a manner that would support the intended narrative expression honestly.

---

9 Justin Martin. e-mail message to third author, February 25th, 2015.
Case Study: A narrative bridge of Denis and Margaret Thatcher

Student Kirstin Baum designed a pedestrian bridge for Denis and Margaret Thatcher to convey a message of the various obstacles and choices made by the figures throughout their interwoven lives (Fig. 5). To express the story of two modern-day figures so influential in the cultural heritage of England, the student chose to conceptualize the bridge as a timeline with a pairing of personified forms, representing each historical figure respectively, progressing in the same linear direction. As such, event sequencing became a critical procedural condition for the designed narrative of the story. References were made to specific events along the timeline and expressed through the behavior of the forms and the engagement, or neglect, of the bridge within this undulating landscape setting.

As the story of Denis and Margaret Thatcher unfolds, the focus of the narrative is negotiated between the individual figures along the path. The two characters begin as contrasting elements at unequal elevations amidst the landscape to reference each individual’s associative relationship in society during their youth; Margaret emerges from the earth as a daughter of little wealth and notoriety, while Denis originates above the ground as a more prominent and established figure. As Margaret’s political status and prowess rises, the personified forms engage
and become interwoven. Shortly after this union of forms, the student designed a volatile sequence of events to suggest the internal emotions of the couple associated with a documented breakdown in Denis’ life. Here, each of the paths are obstructed as the users are presented with a choice to continue through the turmoil or withdraw from the linear journey forward. These events signify a moment of transformation of the characters, after which the roles of Denis and Margaret are redefined; Denis’ path continues as a supporting element to cradle Margaret’s path, which begins to increase in mass and protective enclosure. Student Kirstin Baum reflected upon the value of experiential design to convey a message of cultural heritage:

The narrative bridge project was a great way to learn about how we, as future architects, can use the experience of space to communicate a story. Translating how a character’s life journey can be embodied by form through manipulated elements and principles was a meaningful way to understand what designing space is all about. In my project, the character’s life together involved one person’s rise to success being dependent on the other’s support and was very much a linear progression. However, the project’s divergences occurred vertically along the bridge to allow for the introduction of separate experiences of space, representing different life events, while still moving forward along parallel paths.\(^\text{10}\)

**Conclusion**

Design projects that address the context of cultural heritage through materiality and narrative are perhaps more necessary in our time than in any other. In an age of rapid access to countless images stored in an ethereal, global, technical landscape such as the World Wide Web, the ability for students to engage narrative and materiality through direct sensory experience is vital. An active dialogue within and through a design process can and should address these phenomena.

Referential and narrative design processes allow an insight and connectivity into an author’s interpretation of a culture’s heritage. A story is created, retold, extended, and expressed as spatial experiences to encourage an audience’s comprehension through participation that is governed by the engagement of all five perceptual senses. It is important to note that these processes of design are not intended to suggest that past traditions, legacies, and customs are a “life” to be narrated as part of an “afterlife”. Instead, an appreciation and understanding of the events, peoples, and places specific to a time are nurtured to allow the lineage of a cultural heritage to be continued through the present and into the future, without a break from the past.

\(^\text{10}\) Kirstin Baum. e-mail message to third author, February 25\textsuperscript{th}, 2015.