Somnium: A Fort for War and Peace

An Honors Thesis (Arch 401)

by

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Abstract

Preservation, put simply, is an act of keeping the past alive. In hopes of reviving an abandoned nineteenth century fort, the 2013 CRIPE/ ACSA competition called for design solutions, invoking the slogan, “Preservation as Provocation”. As fourth year architecture students, we were given the opportunity to collaboratively engage in extensive research of the fort’s historic past, develop our own stance on preservation, and iteratively design a feasible and winning solution. Analyzing my own competition work, I record the process and thinking behind developing an individual position in historic preservation and leave behind a manifesto of sorts for future students of design.

Acknowledgments

I would like to thank my studio professor, Kevin Klinger, and Vinnie Montesano for their input and collaboration in both this thesis and the CRIPE/ASCA competition.
Author's Statement

Last semester (Fall 2012), I took part in the Cripe Architects/ACSA (Association of Collegiate Schools of Architecture) competition entitled "Preservation as Provocation". This competition was meant to serve as a capstone project for fourth-year architecture students to illustrate our best undergraduate design work. For this project we had the option of working collaboratively with a partner so my studio mate, Vinnie Montesano, and I chose to tackle the competition together.

1) The initial outline for this project called students to investigate Castle Pinckney (an abandoned and historic military fort located on Shutes' Folly Island in the harbor of Charleston, South Carolina) and to reimagine the site with the ultimate goal of preservation in mind. My partner and I went through a rigorous process to research the history of the site, to formulate a stance on preservation, and to develop a design that would not only fulfill the competition requirements, but challenge the way in which the fort and island could be restructured as an integral part of the Charleston community with the addition of a performance/exhibition center. For my honors thesis I wish to use our work in this competition project as a means to further analyze and document our personal methodology for preservation (combining historical context, nature, technology, and a humanistic approach) and how we went about creating a successful collaborative design. The final outcome will be presented in the form of a manifesto with diagrams, pictures, and representation of the final project.

2) The personal importance of this thesis stems from the fact that the competition project represents a personal philosophy of architecture that has been continually developed through various projects and design studios. I see architecture as an art that performs as a physical interface for human interaction; it is then through technology and humanistic perspective that the architecture gains an experiential verve to it. My expectation is that the final paper will stand as a drafted representation and understanding of how this philosophy took form in existing sketches, iterative study models, diagrams,
and final drawings of this project. This will help me to better understand and communicate how I approach design problems.

3) The specific target audience of my thesis paper will be students of design and those interested in the preservation and repurposing of historical sites. Ultimately, this paper will present a philosophy/methodology that has been carefully researched, analyzed, and effectually implemented.
**Somnium: A Fort for War and Peace**

*Introduction*

As fourth year undergraduate students in Ball State University's College of Architecture and Planning, we were invited to participate in a two-part competition sponsored by The Association of Collegiate Schools of Architecture (ACSA) and Cripe Architects and Engineers during the 2012-2013 academic year. The Cripe competition was open exclusively to fourth year architecture students at Ball State while the ACSA competition invited students internationally and from multiple disciplines. Both employed a shared project statement: *The competition challenges students to rethink Castle Pinckney, an abandoned early nineteenth century fort situated on a coastal island within the Charleston, South Carolina harbor.*

This project began as a unique experience for me because it was the first competition in which I chose to work with a partner. From the early days of the competition, our studio professor, Kevin Klinger, urged many of us to work collaboratively. Since design is such a subjective and personal field, I typically enjoy working by myself as it is often difficult to find the right people to collaborate with; however, through the progression of this competition, I quickly discovered that collaboration can lead to a more intricate and polished final product: something more successful than what could have been achieved if I were to have worked independently. In my case, it also did not hurt to select a partner that I was able to interact with on a daily basis. My roommate, Vinnie Montesano, and I have lived together in the dormitories for the past three years and have shared many of the same design studios. We regularly critique each other's studio designs and openly discuss architectural ideas so the decision to

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1 "Castle Pinckney: Preservation as Provocation" April 2, 2013
work jointly on the competition was only natural as we were essentially provided with a veritable “think-tank” in which to mold our design.

With a partner selected and the outline for the competition given, there were many steps that we had to carry out in order to develop a successful design. Since the competition was based on the preservation of a historically rich site, we needed to obtain a body of research for both Castle Pinckney and the city of Charleston. After establishing this base of research, we then looked to formulate our stance on preservation that would direct a strong course for our intended design. Additionally, there were certain ecological and environmental considerations of the site such as erosion, seasonal flooding, and inclement weather that needed to be examined. The discourse in hand charts the early formulation of these historical, environmental, and contextual elements, as well as their convergence through the design process. In the end, what will be apparent is a personal manifesto on preservation derived from my four-year undergraduate study in architecture.

Digging into History

It was clear from the beginning that the project statement included a requisite for understanding the historic nature of the site and its surrounding context. Although only a small group of students received the opportunity to visit the site first-hand, the rest of us were given multiple resources to develop a general understanding of Castle Pinckney and Charleston, South Carolina. Perhaps the most useful of which was a research text entitled Castle Pinckney: An Archeological Assessment with Recommendations compiled by Kenneth Lewis and William Langhorne of the University of South Carolina in 1978. This document provided was a
comprehensive outline of the castle’s history while also making recommendations on the best methods for archeological excavation of the site.

In order to give a brief history of Castle Pinckney and its significance, it is important to start with the city of Charleston. Located on a harbor inlet along the Atlantic Coast of South Carolina, Charleston saw marked interest during the early colonial period as a vital seaport for the trading of crops and goods. The economic prosperity of the city brought about the need to establish a means of security. To the south and northwest of the city lie two rivers which empty into Charleston Harbor. The harbor’s narrow opening, along with its two small islands, provided the perfect location in which to fortify the city from naval threats. Shute’s Folly Island located just 2,500 ft. off the city’s shore was then established as a site for fortification.

According to Lewis and Langhorne, the island fortification went through six major periods of occupation. The first of which began with an earth and timber structure made to serve during the American War of Independence. This fort saw little action against the British Fleet and was often used as a site to anchor ships. The fort was destroyed during a hurricane in 1804 – an important detail that would reappear during our environmental consideration of the site.

The next period of occupation began with the construction of Castle Pinckney. The original stone edifice (modeled after popular French design) was completed in 1809 as part of the country’s first federal defense project that aimed to establish “a system of port and harbor fortifications from Maine to Georgia”. The castle was proposed to house about thirty artillery

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3 Lewis and Langhorne, Castle Pinckney: An Archeological Assessment, 15.
pieces on top and within its walls in order to provide a proper field of coverage in anticipation of attacking fleets. However, during the War of 1812, Castle Pinckney saw no action, and after the war, the castle’s operation was scaled down to that of a small garrison and was mainly used to store extra supplies and munitions.⁴

It was not until the onset of the Civil War that Castle Pinckney received a renewed attention. Fort Sumter, a fortification also located in Charleston Harbor that later became famous for its role in the war, was captured by the Confederacy in 1861 and was converted into a primary defensive fortification. This prompted the confederacy to relegate Castle Pinckney as a secondary fortification and plans were made to convert it into a prison for captured Union soldiers. At this stage, in order to be fitted as a prison, many modifications were made to the castle’s interior spaces by the introduction of secondary brick walls and heavy doors.⁵ This conversion marked the first significant change to the fort’s original design.

Only a year later, as conditions in the war changed, Castle Pinckney was converted again by its Confederate occupants back into a defensive fortification in anticipation of Union advances. Though, by this time, new technological advances in artillery meant that the castle’s masonry design was now considered obsolete. The introduction of rifled bore artillery and the explosive shell called for a drastic reassessment of modern fortification. Several ramparts and wall sections were removed from Castle Pinckney, while large

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⁵ Ibid., 21.
Fig. 1 Castle Pinckney original design

Fig. 2 Castle Pinckney as a Confederate Prison c. 1963
amounts of earth were dumped into the interior court as well as around the exterior walls with the idea was that these new earthen modifications would absorb the potential blasts from the more accurate and powerful artillery equipment being used. However, all of this preparation was in vain as the castle saw no action and was later seized by the United States at the end of the Civil War in 1865.

The Civil War marked the last time in which the fort was used for its inherent purpose as a military defensive structure. In its post-war years, Castle Pinckney would be converted for an assortment of military and civilian functions, its form being bastardized into a prison, supply depot, and even a light station. According to Lewis and Langhorne, in 1924 the castle was designated as a National Monument, but was later declassified in the 1950’s “since it was not considered significant enough to merit such a classification”.6 This period of mixed use carried on until the late 1960’s when a fire, destroying the light house station, cast the fort into a state of disuse and disrepair. In 1968, the castle was sold to the Sons of the Confederate Veterans who held plans to create a memorial on the site, but lacked funds to carry out their project.7 Up to today, Castle Pinckney has lain quiet and untouched (with the exception of for the avian flocks that nest upon its bulwarks), slowly decaying with the passing of time. It only begs the question, what do we make of it now?

On the Nature of Fortification (without War)

Fortifications are very much structures of anticipation-- always at the ready if worst comes to worst. But in many cases, the worst never comes. Throughout a war, as in the case of

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6-7 Lewis and Langhorne, Castle Pinckney: An Archeological Assessment, 32.
Castle Pinckney, a fortification might spend its entire service in a state of static wariness. Even though it faced several potential military threats through the course of two major American conflicts, Castle Pinckney was never fired upon by enemy artillery or engaged upon in any siege. Essentially, this lack of war activity undermined the original purpose of the structure and thereby justified the repurposing of its function. By this fact, we found that it was necessary to critically examine the nature of Castle Pinckney as a fortification.

Monolithic and heavy in the approach of stone masonry construction, a fortification’s ultimate goal is to absorb and deflect the impact of ballistic projectiles, thus protecting its inhabitants. The particular features employed in early nineteenth century forts, such as Castle Pinckney, include eight foot thick exterior walls with casemates (small openings in the walls behind which artillery crews could fire from relative safety) and a barbette (platform walkway above the casemates on which guns were mounted to fire over the walls). The placement of the fortification’s guns also added to the overall defensibility where batteries were optimally positioned with a full degree of coverage in order to fend off enemy attackers. However, as observed through the castle’s history, all it took was a single technological innovation to alter the efficacy of the original design. The fort was changed in response to new conditions of warfare, but still never got to test its worth. Here we formed the question, what good is a fort without war? If Castle Pinckney was never used for its intended purpose, how can we assign any value to it as an artifact of war?

We recognized that the only real value to Castle Pinckney derived from its flexibility and diverse use, recycled for whatever purpose was needed at the time. The military groups who used the fort during times of war subscribed to the idea that resources should be used in the
most economical way possible, even if the structure’s technology was outmoded. Incidentally, this mindset of economic use extended into times of peace when Castle Pinckney was converted into a prison and light station. Following this, it became apparent to us that the notion of preservation was imbedded within the Castle’s history of constant repurposing. This preservation was not a preservation of the Castle’s original state (as it existed after its initial construction), but of the fort’s innate essence: a structure used to weather through time and varying conditions.

A Stance on Preservation

Addressing a fort with such a complex history and a competition design statement that asked to preserve or make an addition to such fort, it was critical to develop a clear stance on preservation. While much of our position was influenced by our understanding of Castle Pinckney’s history, there were additional factors that also played a role in the formulation. Primarily, we drew inspiration from a prior course we took on the history of modern architecture, as well as from literature that I happened to be reading at the time of the competition.

During fall of our junior year, my design partner and I took the required course on the history of modern architecture. In this course, we were able to explore the works of many individuals who influenced the beginnings of modern architecture. One such individual was John Ruskin, a prominent English critic of art and architecture during the late nineteenth century, who developed a clear position on the preservation of architecture. You could say that in his position, Ruskin carried many charged feelings when it came to the preservation of
historic buildings and was even known for his heated criticisms of French architect, Eugene Viollet-le-Duc, who worked on restoration projects of several French medieval castles. Ruskin believed that a building should be left in its original form and be subjected to decay so that it might better represent the pure essence of the time period in which it was built. He was even so extreme as to say that any addition or restoration to an old building would serve as “the most total destruction a building can suffer”.8

In the formulation of our own position, we may not have fully agreed with Ruskin’s purist beliefs about preservation, but rather, we adopted much of the spirit of his argument. It is true that once a building faces the weathering of temporal, cultural, and environmental forces, it can never return to the state in which it was first built. Decay almost always conquers. We learned from Ruskin that to preserve a building is to celebrate its decay; while restoration might attempt to keep the building looking as it once did in its prime, its essence is cheapened in the process by introduction of contemporary building materials and practices. At the time we were grappling with these ideas for our competition, I happened to stumble across a relevant passage in F. Scott Fitzgerald’s *The Beautiful and the Damned* that exemplified Ruskin’s stance on preservation. The scene centers on Anthony and Gloria Patch, a newly married couple, who visit General Robert E. Lee’s old home in Arlington and reads as follows:

“Well,” objected Anthony, “if they [old buildings] weren’t kept up they’d go to pieces.”

“What if they did!” she exclaimed as they sought the wide pillared porch. “Do you think they’ve left a breath of 1860 here? This has become a thing of 1914.”

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“Don’t you want to preserve old things?”

“But you can’t, Anthony. Beautiful things grow to a certain height and then they fail and fade off, breathing out memories as they decay. And just as any period decays in our minds, the things of that period should decay too.”  

Following these sentiments, we were determined that in our competition design, Castle Pinckney would in no way be restored to any of its historic forms. Even if Castle Pinckney were to be restored to one of its former states, there would still be the question of to which state would we restore it? Since the fort did not play a significant role during either of the wars it served in, we felt that the site’s history did not warrant the need for it to be restored as monument.

After multiple discussions with our studio professor, we saw that our design approach still needed to engage the fort in order to address the problem of preservation. To do this, we could not just leave the fort untouched—to decay into a dignified ruin as Ruskin would have liked—we instead decided to repurpose the fort with a contemporary addition. This addition would create a dialogue with the fort’s antiquated remains in such a way that it becomes more accessible to the people of Charleston. The fort would not become, to use Fitzgerald’s words, “a thing of 2013”, but a ruin that is celebrated by a contemporary interface. With this stance on preservation, we could then formulate a winning competition entry.

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Fig. 3 Castle Pinckney Parapet wall

Fig. 4 Castle Pinckney, Shute’s Folly Island, Charleston Harbor, SC
An Island Waning

On top of designing for the preservation of Castle Pinckney, we were also faced with the dilemma of a decaying site. Quite literally, Shute’s Folly Island is disappearing. Due to rising tides and currents through Charleston harbor, the area of dry land on the island has slowly decreased. In a study done by the National Oceanic and Atmospheric Administration, sea levels around Charleston have risen by 1.03 feet in the past one hundred years and are predicted to rise by 3.15 millimeters each year. These measurements may not seem like much, but the effects of a small incremental change in sea level can have a noticeable influence on coastal flora and fauna. In the city of Charleston, which is situated close to sea level, the problem of flooding is further magnified by hurricanes and seasonal weather. It is unclear whether these occurrences are attributed to climate change or if they will continue to worsen in the coming years. Nevertheless, these environmental forces pose a constant threat to the Castle’s longevity, which is why we felt that they needed to be fully considered in our strategy for preservation.

Somnium: a Dream

When it came to the actual design of our addition, we had a tough time figuring out its programmatic use. Being asked to re-imagine a small island afforded many opportunities that we initially did not know how to respond to the design problem. The ACSA offered some suggestions as part of their competition statement for possible routes to take, including an

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ecological preserve, a museum, a coastal conservation center, a nautical recreation center, or opportunities for tourist and business operations. We had already established that we did not want our design to recreate the castle as a living museum and felt that many of the suggestions given by the ASCA could not foster a deep connection with the castle's history as we believed our design should. Following this, with our newly formed knowledge on the nature of the fort and its unique history, we settled upon the idea that our design should take form as a center for the arts.

The arts provide a contrast to the fort’s historical function as a mechanism of war by transforming the site into a medium for expression and creation. It cannot be denied that the nature of war is to destroy, while Castle Pinckney, in its heavy physical form, represents a propensity to resist this destructive nature. Although the castle never felt the war’s wreckage directly, its form was still shaped by brute, militaristic demeanor. Even the environmental forces surrounding the castle and island were those of desolation: determined to wear down and ruin. Considering this, we were adamant that a performing arts center would play into the narrative of the fort and serve as the best programmatic re-use.

To carry this contrast of war and art further, I was very much influenced by ideas I was exposed to in an honors humanities class I took during my junior year. Throughout a good portion of the course, we had the opportunity to read and examine Friedrich Nietzsche’s, *The Birth of Tragedy*, where, specifically, I was attracted to his explications of the Greek gods Apollo and Dionysus. As the god of the sun and illumination, Apollo serves to protect the Greeks from the horrors of the world such as war, poverty, and oppression. Opposite Apollo, stands Dionysus: god of intoxication, rapture, and self-oblivion. As Nietzsche explains, together, these
two gods form a duality and a tension from which all art is made.\textsuperscript{11} Apollonian art takes form in the plastic arts, such as painting, sculpture, and architecture, while Dionysian art derives from the performance arts of tragedy and dance. It is when these two forms of art meet that we experience a truly dynamic and superlative experience. Expounding upon these ideas, Nietzsche says that art is the "higher truth... through which life is made possible and worth living".\textsuperscript{12} Such a provoking notion of art instilled in me a new way of looking at architecture that I have since applied to almost all of my studio projects and competitions.

\textit{Competition Essay:}

Somnium, Latin for dream, is an escape from reality. Often we are confronted with the horrors of the world: war, poverty, oppression. But art provides the means to counteract these forces. In the dream, vision and feeling inspire us to create, whether in the plastic form of architecture, or through the captivating performance of music and dance.

Though not always utilized in times of conflict, Castle Pinckney symbolizes war in its heavy physical form. This edifice played a minimal role in the War of 1812 and the Civil War and was altered and built upon numerous times for non-military uses. This is why we feel that the fort does not warrant the need to be restored or preserved as a relic. Instead, we wish to contrast its historical function as a mechanism of war and destruction by transforming the site into a medium for expression and creation.

The initial construction phase consists of an archaeological dig which will uncover the many layers of the fort to be studied and documented for historical purposes. Any artifacts

\textsuperscript{11} Friedrich Nietzsche, \textit{The Birth of Tragedy}, (Oxford: Oxford University Press, 2008), 19.

\textsuperscript{12} Ibid., 21.
recovered will then be displayed within the proposed welcome center. This process uncovers the castle to its raw state, ready to be built upon.

The primary component of our program is planned as a dynamic, adaptable performing arts center. The structure takes form as a suspended auditorium enveloped by the rest of the building. Lifted, the auditorium is closed for more private events. The lower half of the auditorium can be lowered down into a tectonic layer that supplies additional seating and stage space for public performances. Additionally, the auditorium can be utilized as a container of refuge during a natural disaster, such as a hurricane. The building’s valuable contents can be loaded into the auditorium, lowered, and secured in the heart of the castle within the faceted landscape.

At its center, this faceted landscape serves as a basin to collect rainwater that will be reused within the building. The landscape then raises and escapes the confines of the castle, spilling out onto the island. The faceted structure transforms from a structural panel system into permeable mesh as it meets the bank of the island. This permeable mesh, along with planted cod grasses, are planned to control further erosion of the island, preserving the foundation of the castle and its addition.

In its original form, the castle provided security to Charleston in times of war. Through its history, it has changed function many times. Somnium is the next layer, perpetuating artistic expression and creative thought, serving as an outlet for the community of Charleston.
Reflection

During the course of the CRIPE/ACSA competition, I was able to further develop my critical design thinking and explore humanistic design strategies by weaving art, history, context, and preservation into an architectural language. The result: a senior capstone project that sums up all that I have learned throughout my undergraduate study in architecture. The success of the project was very much felt in a sense of personal accomplishment as Vinnie and I were given an honor award in the Cripe competition. We are currently awaiting the results of the ASCA competition that are slated to be announced mid-June. After individual reflection and discussion with my professor, I came to realize that the success of our project lies in the clear conceptualization and visualization of the goal we were trying to achieve. We developed very detailed drawings and renderings of design scheme which, according to the competition jurors, stood out more than any other project. One juror also commented that we were clearly tackling a bold idea in our strategy of preservation. While architects are very adept at understanding ideas through graphics and artifacts, I would say that I too operate most effectively in these two modes of communication. However, in developing this thesis, I was given the opportunity to really delve into the underlying ideas of my design work and document a manifesto for architectural preservation. Ultimately, I leave my undergraduate study with a benchmark discourse that, perhaps years from now, I can look back upon and see how much I have grown in my architectural beliefs.
Works Cited


Images


Fig. 3. Charles E. Peterson. 1963, Photograph. Historic American Buildings Survey Archive. Available from: http://memory.loc.gov/cgi-bin/query/D?hh:1:/temp/*ammem_fvIЕ::
