

ABSTRACT

Title of Document: **CONSTRUCTING THE WESTERN LANDSCAPE: National Park Architecture**

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This thesis explores how National Park Architecture has helped shape this country's attitude toward the American West, nature, and tourism. In the 19th century, a specific image of the parks was constructed, which implied the ideal interaction between man and nature. Over the years, as this relationship has changed, so has the architecture. Each generation has reinterpreted the idea of what a national park represents and how it fits into American culture. The image of the parks has been carefully controlled in order to serve a particular purpose. This provides the opportunity to design a building that not only functions as a visitor center, but one that stands as a recognizable model for how to build and interact with the natural environment.

This thesis addresses the existing site of the Old Faithful visitor center and the larger complex in which it is situated. While the site exists within the "wilderness" of Yellowstone National Park, it accommodates 25,000 daily visitors, and therefore, presents numerous urban challenges.

CONSTRUCTING THE WESTERN LANDSCAPE:
National Park Architecture

By

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Introduction



Figure 1: Fishing Bridge Museum. Yellowstone National Park, Wyoming.
Example of early 20th century rustic design. [Photo by Brian Essig]

This thesis catalogs the development of national park architecture, and in the process extracts lessons that can be applied to designing a visitor center at Old Faithful in Yellowstone National Park. It explores the complicated history of America’s relationship with the western landscape and reveals how attitudes toward nature and tourism have inspired an architecture unique to these areas of the United States.

This thesis advocates a design methodology established in early park developments (but ignored in more recent projects) that can be applied to any

building within the national park system. By asking fundamental questions concerning use, history, and culture designers can produce buildings that benefit both the natural landscape and the visitor. As a test case, the design of the proposed visitor center considers what is unique about the Old Faithful area and demonstrates how this building can engage the visitor with the surrounding landscape.

As mentioned, the building program is a visitor center, a place where park guests can find information on the parks, the area, plan their visit, and interact with park employees. The building functions as the center of the Old Faithful complex and serves as the threshold between the built and natural landscape.

The following chapters will discuss the cultural and historical significance of Yellowstone National Park, and show how ideas concerning the west, nature, and tourism have developed over the last hundred years. They show how the parks have changed, and demonstrate how architecture has worked to shape the park experience. This document describes the site for this project and defines the program of the building. Finally, several design strategies are presented, followed by a description of the design solution and conclusions reached.

Chapter 1: Inventing Place

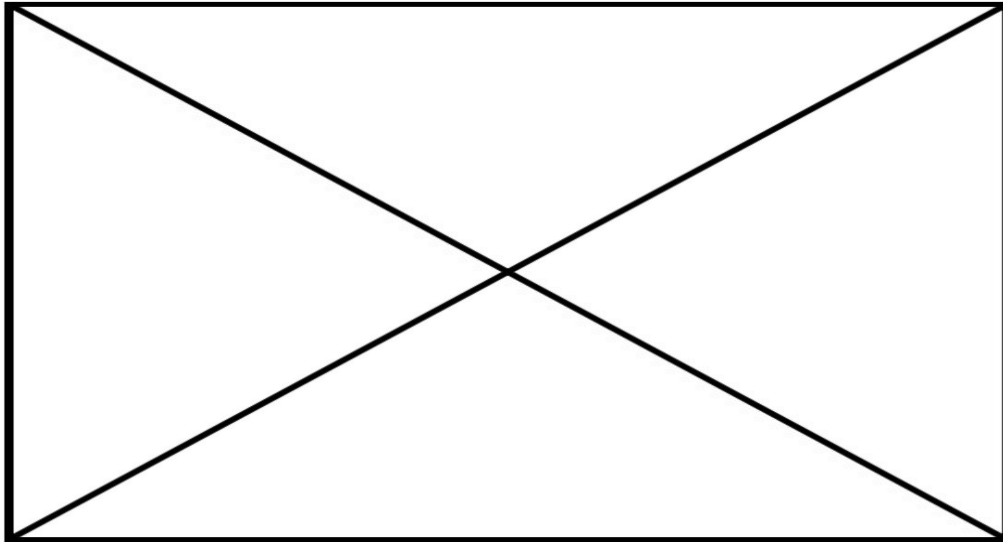


Figure 2: Grand Canyon of the Yellowstone. Painting by Thomas Moran.
The natural environment is embellished to instill a sense of wonder and awe in prospective traveler. [Image from Carr]

In the late 19th century, an image of the national parks was carefully constructed with the use of a specific style of architecture that suggested a certain attitude towards the American West, nature, and tourism. The culmination of this attempt to define the parks established a tradition that suggested how people should interact with the natural world.

The term tradition is critical. Tradition implies that something has developed over time and represents a natural and appropriate development. It carries with it connotations of authenticity. Architecture is crucial in the development of tradition, as buildings can be seen as physical markers of how people have lived and interacted with their environment. As the anthropologist, Abu-Luhod states, “The reason we are interested in traditional forms of building dwellings and settlements is that we believe such achievements met human needs

in a more sensitive way than contemporary and/or alien methods do.”¹ The parks needed to connect the idea of the West to an architecture that would reinforce and validate the developing culture of the West. Amos Rappoport notes the importance of this when he discusses how location, culture, and architecture need to form a single unit in cultural landscapes.² In constructing the tradition of the national parks, this coalescence was necessary, but it needed to happen suddenly, without the factor of time that is generally considered necessary in the development of a tradition.

Of course, it is important to note that an architecture was not invented specifically for the National Parks. The basis for park architecture began with the established practice of rustic design that celebrated primitive means of construction with the intention of making a connection between civilized man and the wilderness. The Swiss shingle style and the English picturesque were clearly the inspiration for many park structures. Nonetheless, it is the way in which the parks presented this architecture that would ultimately have a enormous influence on how American’s perceive and experience the western landscape.

The construction of this architectural and cultural tradition can be broken down into two components. The first has to do with the establishment of this tradition. The second looks at how this tradition has been continued over the last hundred years.

In its most basic sense, tradition first requires a place and people (either as inhabitants or visitors). From this, a story can develop that creates an image of

¹ Abu-Lughod

² Rappoport

this place and suggests how it should be experienced. Finally, an attitude towards the built environment is established that includes an architectural approach that is seen as an appropriate response to this developing narrative.

For the national parks, the creation of this narrative was rooted in the American West, specifically the Rocky Mountains. As the first national park, Yellowstone was where the image of the national parks was originally created. While parks throughout the country have a unique identity specific to their location and history, there is an overall unity to the story and experience of the parks that was first established in Yellowstone and other Rocky Mountain parks such as the Grand Tetons and Glacier.

Representing the Myth

In the first half of the 19th century, the American West was portrayed as a sublime and beautiful landscape. As the government and railroads promoted westward expansion, they conveyed ideas about the richness of the West, which became symbolic of freedom, possibility, and fortune. It is important to note that the landscape they described was not objective, but rather carefully constructed to be nature as an attraction, rather than wilderness as a threat. The West was an adventure (specifically defined) waiting for Easterners to experience. The landscape paintings of Thomas Moran show how representational embellishments exaggerated the West with the intention of enticing people to visit.

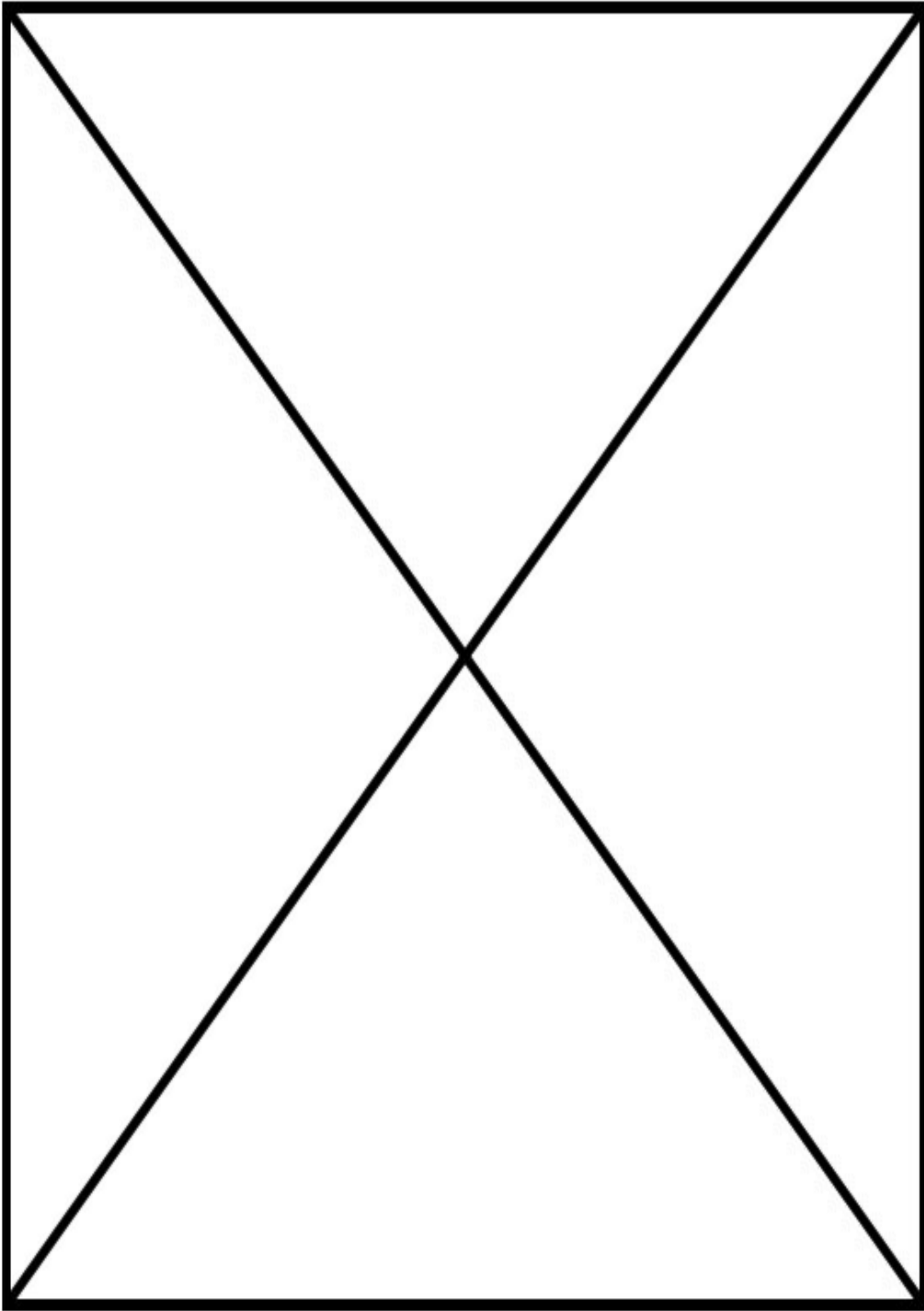


Figure 3: Great Northern Railroad Advertisement.

This image depicts an individual enjoying the quintessential National Park experience. The freedom and openness implied in this and other promotional materials from this time greatly appealed to Easterners living in crowded industrialized cities. [Images from Djuff and Morrison]

This myth of the West was already established by 1872 when Yellowstone began to be developed as a tourist attraction. Railroads and park concessioners used the appeal of this myth to further promote the parks. Advertisements from this time depict individuals casually strolling through an idyllic landscape, or relaxing comfortably in a park lodge overlooking a mountain lake. The experience one “should” have while visiting the parks was directly influenced by English landscape design and the work of Frederick Olmsted. People were expected to passively move through the landscape along carefully designed paths that opened up to scenic vistas and brought tourists from one attraction to the next. Maintaining the illusion that one was passing through an untouched landscape was critical. Perhaps more importantly, this experience was tailored exclusively to wealthy Easterners who were considered the only segment of the population capable (and financially capable) of appreciating the beauty of the western parks. From this developed an architecture specific to the parks, which would also begin to suggest how people should interact with the landscape.

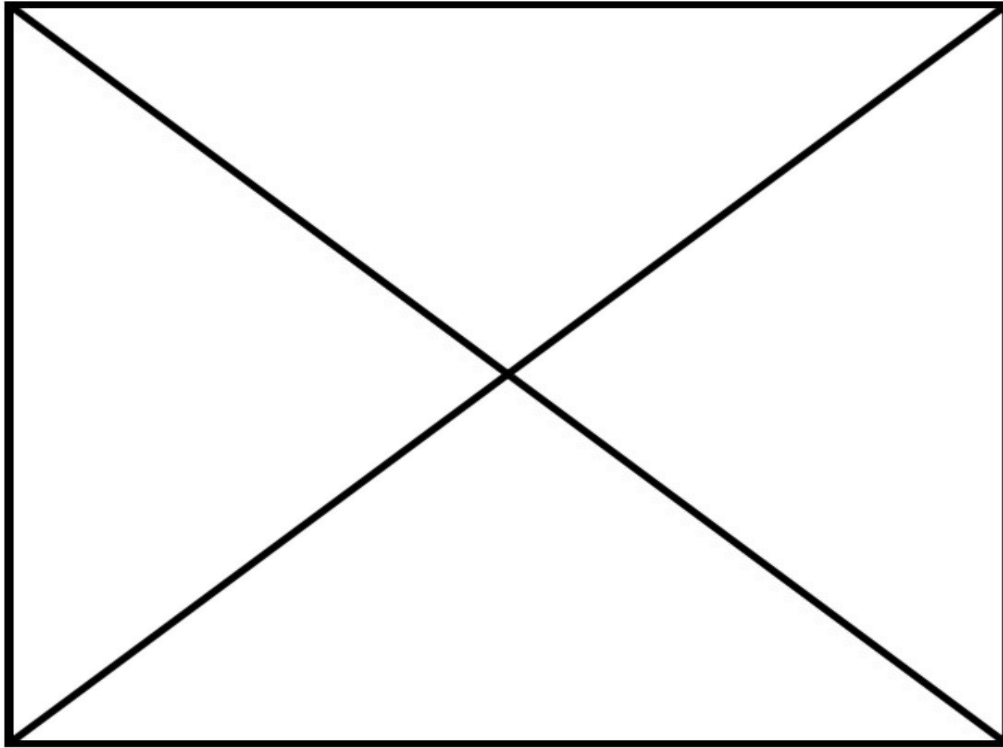


Figure 4: Collection of advertisements from early 20th century.

Each promotes the myth of the West and suggests a specific attitude toward interaction with the natural environment [Images from Djuff and Morrison]

Architecture and the Myth

As mentioned, the architecture that developed with the myth of the west was heavily influenced by the shingle style, English picturesque design, the Arts and Crafts movement (H.H. Richardson in particular), and of course, the western vernacular. The intent of the architecture was to blend seamlessly into the environment giving the impression that it had always been there, that it had naturally grown out of the landscape. Natural materials such as rough-hewn logs and battered stonewalls were a given. Careful site selection to minimize disturbance to the natural landscape and create scenic vistas was a primary concern. Heavy proportions and steep gabled roofs, consistent with the shingle

style, also characterize the style. Because the parks (at this time) were tailored to the expectations of upper class Americans, buildings were excessively grand, not unlike accommodations at any eastern hotel or resort.

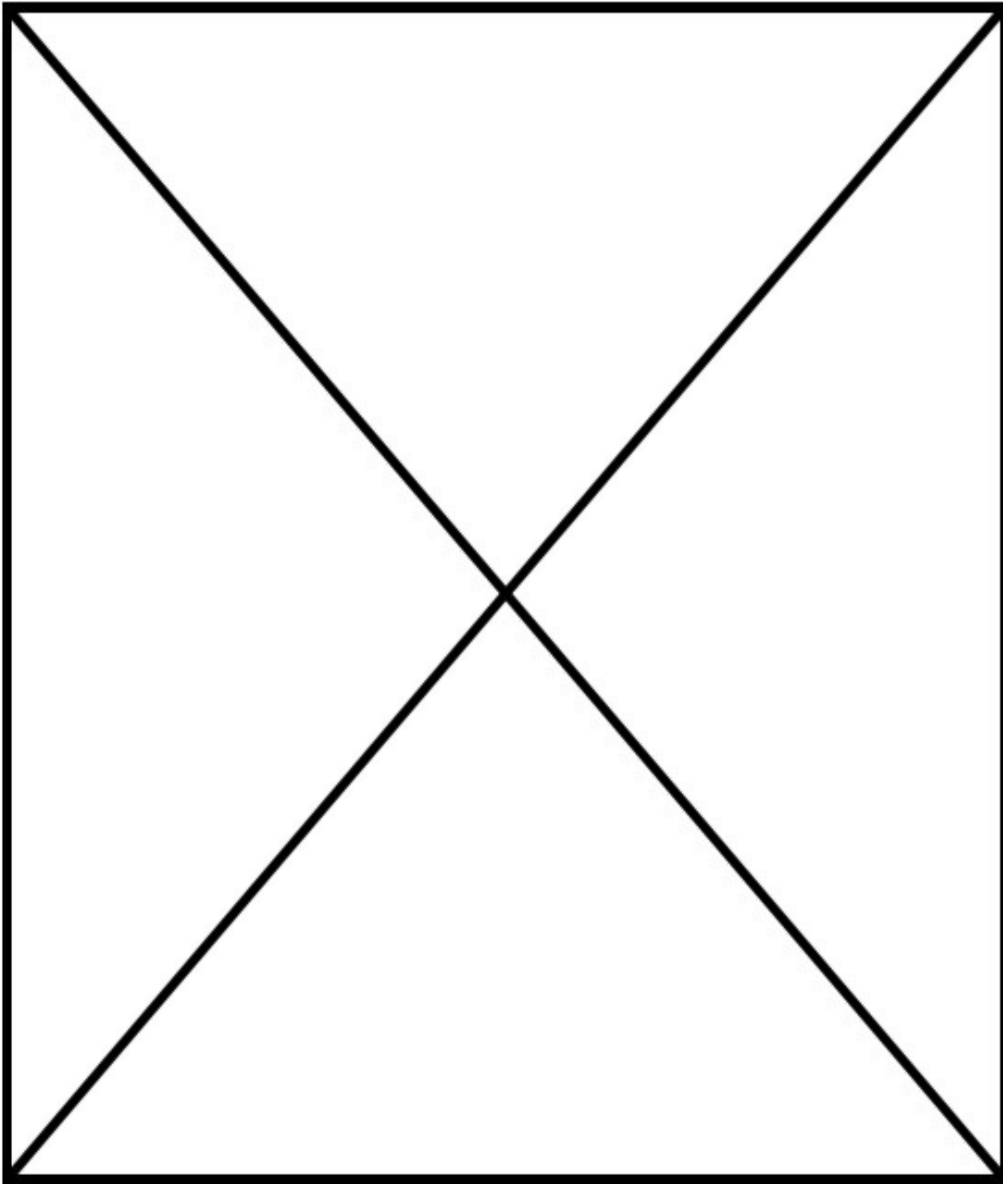


Figure 5: Awhawnee Hotel in Yosemite National Park, CA. This building stands as an example of traditional rustic design. Through the use of natural materials, heavy proportions, and careful siting, these structures embodied the ideals of the western myth. [Image from Carr]

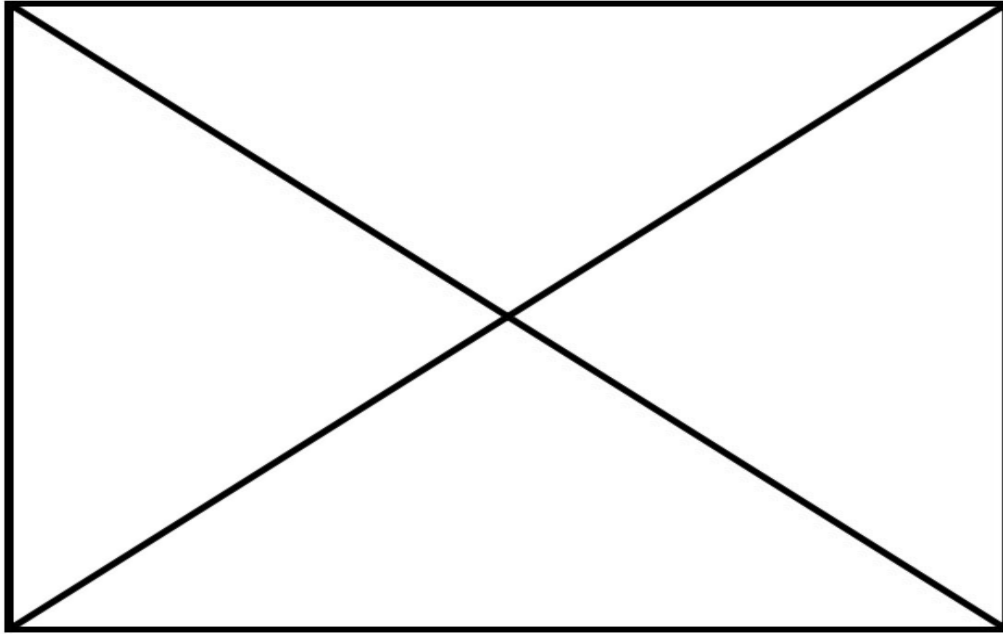


Figure 6: Old Faithful Lodge

This traditional rustic interior shows heavy timber framing and simple detailing.
[Image from Carr]

With the creation of the myth and the establishment of an architecture specific to this myth, a tradition had taken shape that clearly defined how people should interact with the natural landscape. However, this tradition would not remain static over the next hundred years. Changing ideas about what the parks represented, who should visit them, and how they should be experienced would alter the tradition to fit into contemporary contexts. The architecture, however, did not always develop as easily. The early built forms of the parks were, in many ways, seen as a part of the landscape and integral to an “authentic” park experience, and the abandonment of the rustic style was seen as an inappropriate move towards modernization.



Figure 7: Canyon Lodge, Yellowstone National Park.

This structure was built during the 1960s as part of the Mission 66 program, which introduced modern design into parks. Like other building from this era, the lodge fails to interact with the landscape or respond to the traditions and history of the park. [Photo by Brian Essig]

In Yellowstone, just as elsewhere in the park system, one can observe three primary methods through which architectural traditions have been modified. First, the tradition can be noticeably altered. This happens when new ideas, forms, and styles are introduced that consciously avoid the original tradition. The second is a self-referencing approach, where forms and styles are copied from traditional buildings without questioning their relevance in a contemporary context. The third, and most successful approach, requires a critical analysis of the established the tradition. By reassessing the overall ideas (which form the

foundation of the tradition) new development can be both sympathetic to contemporary concerns and fundamental ideologies.

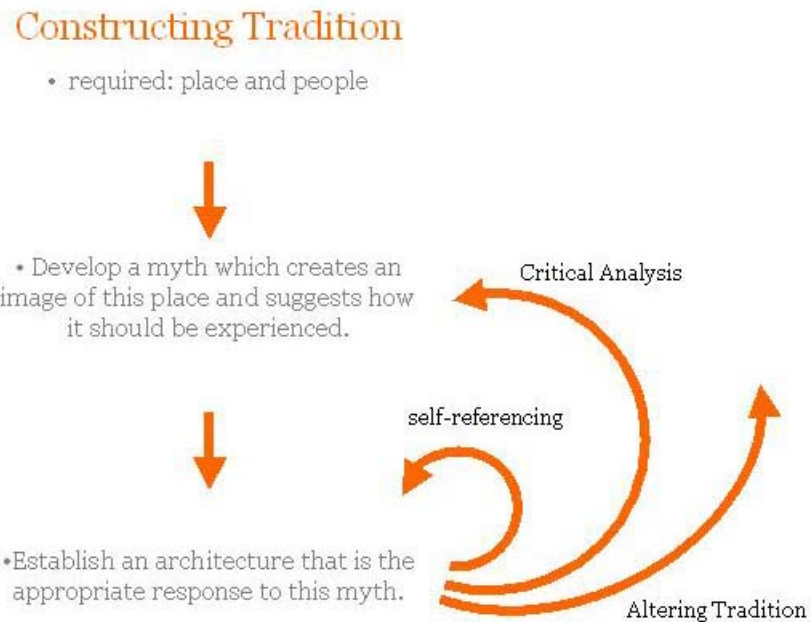


Figure 8: Constructing Tradition Diagram.

This diagram illustrates the basic requirements and developmental processes of tradition. The arrows to the right indicate the different ways in which a tradition can evolve. [Diagram by Brian Essig]

Altering Tradition

By the mid 20th century, ideas concerning who could visit the parks and how these people should interact with the landscape were changing drastically. The national parks were becoming accessible to all Americans, particularly the middle class. People wanted more freedom inside the parks to go beyond the boundaries defined by the Olmsted-style promenade. As the number of tourists visiting the parks each year increased, the Park Service responded with a program

of rapid development.³ The primary goal of this program was efficiency. Buildings were designed to meet visitor needs in simple and effective manner. Any reference to traditional architectural forms, or ideas about what the parks represent were minimal at best. Buildings were constructed of standardized materials and were sited for convenience rather than to blend into the natural landscape. Design decisions were influenced more by general modernist principles than site/project specific factors.



Figure 9: Post office in Grand Teton National Park.

This structure illustrates a modern architectural approach popular in the mid 20th century during the Mission 66 program. The simple form and gable roof may reference the western vernacular, but the choice of ubiquitous construction materials fails to respond to either the landscape or the history and culture of the national parks. The building seems placeless, despite facing one of the most photographed and iconic mountain ranges in the United States.

[Photo by Brian Essig]

³ Began in the early 1950's, the goal of the Mission 66 program was to modernize the parks and to increase the number of visitor services by 1966.

As one would expect, this building campaign was not well received. Tourists expecting to have to have a traditional western experience were surprised to find placeless buildings that seemed to separate visitors from the landscape. It seemed strange that so much time and effort would be spent constructing a tradition, only to abandon its core components when functional alterations became necessary. The failure of Mission 66 can be seen as clear example of the power of tradition. At this point, the parks were only 80 years old, but already the constructed tradition was so intertwined with ideas about the west and tourism that any attempt to alter this tradition was met with strong resistance.



Figure 10: Cafeteria in Old Faithful Lodge, Yellowstone.

The rustic structure was renovated in the late 1970s to better meet visitor needs. Clearly, the new design ignores the existing character of the space in favor of inexpensive and common building materials. However, in a Historic Structures Report produced by the park architects office in 1981, it was argued that, "...remodeling of the kitchen and dining areas of the Lodge, including [a] dropped ceiling of acoustical tile, carpeted floors, and partial use of vinyl wall coverings enhance the rustic qualities of the building." Statements such as this indicate a lack of rigor in determining the appropriateness of modern architecture, and demonstrate a strong disregard for tradition. [Photo by Brian Essig]

Self-Referencing Tradition

In 1938 the National Park Service published *Park and Recreation Structures*, a three-volume catalog of rustic designs across the country. With the intention of providing a reference for park architecture, the text marks the high point of traditional park architecture. By the mid-1940s, this method of building fell out of favor with park developers. New laws prevented the use of timber harvested within the parks, inexpensive mass-produced building materials became available, and cheap labor sources, such as the Civilian Conservation Corps, became unavailable.

Nonetheless, the public expected to find traditional rustic buildings, such as the Old Faithful Inn at the parks, and with the failure of Mission 66, park developers began to mimic traditional forms as best they could with contemporary building methods. Whether it was a lack of ability, resources, or knowledge on how to properly design and build traditional park buildings, it is clear that much is lacking in these self-referencing structures. The buildings demonstrate a superficial understanding of rustic design principles. The result is rustic features applied as veneers. Concrete foundations were faced with thin stone tiles to give the impression of a battered stone base, wood siding was bowed to reference log construction, and vinyl wall coverings were applied to gypsum board to achieve the look of aged plaster. This attempt to copy traditional forms was rarely successful. These buildings end up having a suburban look, noticeably out of place amongst early 20th century rustic structures.



Figure 11: Snow Lodge at Old Faithful, Yellowstone.

This building is an example of self-referencing architecture. Rustic design principles are reduced to applied veneers. The upper left image shows how the battered stone bases have been replaced by pre-cast concrete panels. The two interior images, taken in the main lobby, illustrate the use of stone veneer to mimic the older structures in the area. The failure of this is not that the stones are used as a veneer, but that they don't convey the primitive construction techniques that were celebrated in early rustic architecture. These techniques highlighted uniqueness and spontaneity, characteristics essential in the mythology of Yellowstone. [Photos by Brian Essig]

Ultimately this approach is detrimental to the development of a tradition. Rather than allowing a tradition to adapt based on the changing context of its time, it forces it into a narrow and obsolete role. The architecture cannot respond to the larger environmental and cultural issues of its time because it is designed to perpetuate an image of an earlier era. The result of this approach is the commodification of the architecture into a mere image devoid of content.

Critical-Analysis

Since 1872 (the year Yellowstone was established as a National Park) ideas of what the parks represent, who should experience them, and how they should be experienced has changed significantly. As mentioned, the parks are no longer exclusive to the wealthy, nor are they meant to be experienced passively along carefully designed promenades. Today, tourists are encouraged to interact with the landscape, and the idea of “nature as a display” has evolved into the concept of nature as an interactive, educational tool. Also, ideas concerning environmental stewardship have taken center stage, and there is an expectation for the parks to address issues of sustainability as well as conservation and recreation. It should be noted that these new ideas have not replaced existing traditions, but have been integrated with them, resulting in an image of the national parks based on nature, history, as well as contemporary conditions.

The architecture that responds to this larger definition of the parks tends to be very successful. Free from the constraint of fitting into an architectural style, these buildings can respond to modern needs and expectations, while also continuing original traditions (such as integrating the building with the landscape, using architectural elements to highlight natural forms, and providing an elegant and inspiring destination for the traveler), which visitors value and expect. While materials may not be used as they were in early rustic structures, they are used to reinforce the overall story behind the parks. The use of stone on the façade of the National Wildlife Museum blends the structure into the hillside, while the clean geometric massing has a noticeably contemporary look. By using traditional

building materials in non-traditional ways, the museum acknowledges the history of the region while also adding a new component to this developing narrative.

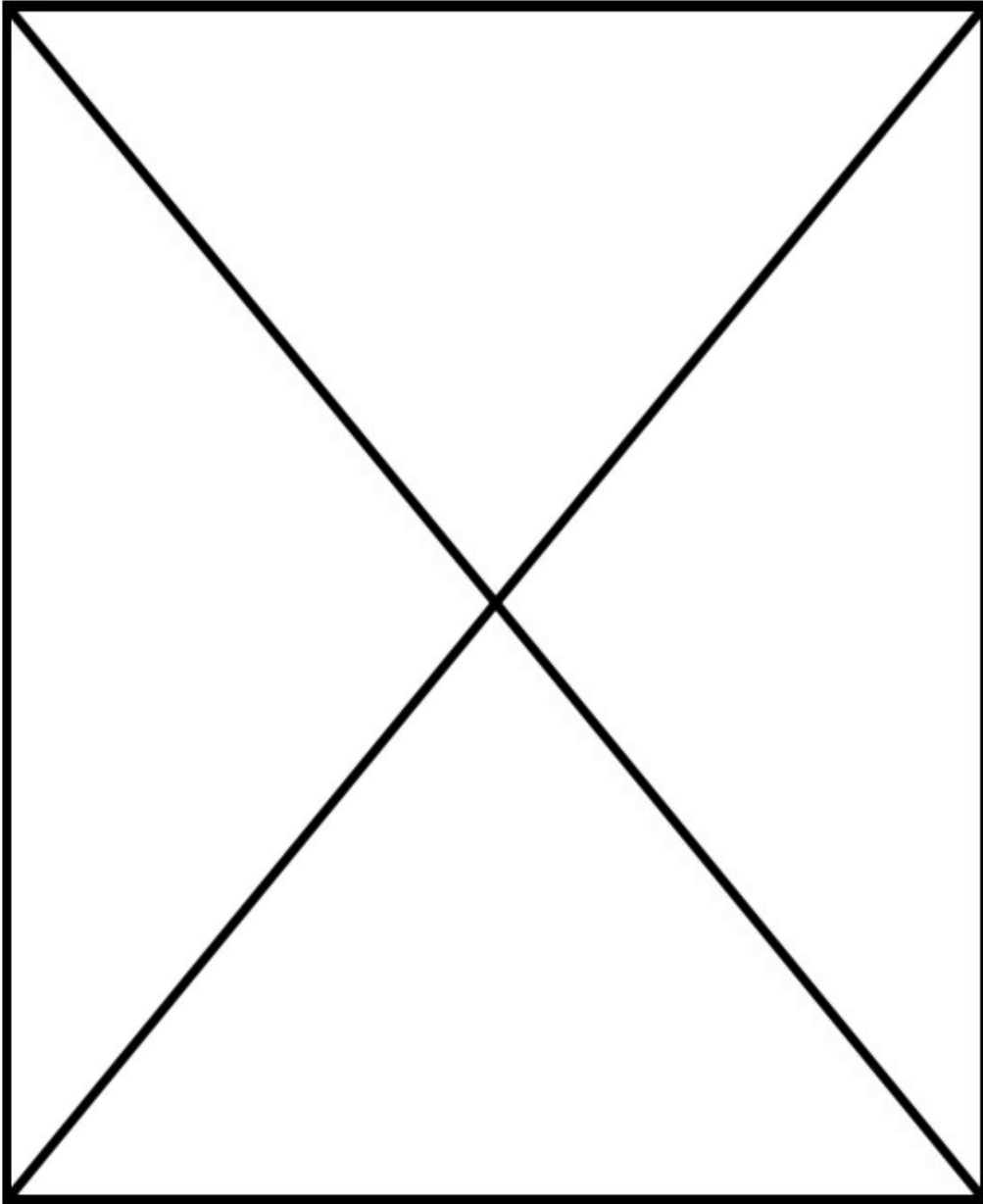


Figure 12: National Wildlife Museum outside Grand Teton National Park. This contemporary building sits discretely in the landscape, but uses aggressive geometry and figural massing to interpret this landscape in a uniquely powerful manner. [Images from Architect]

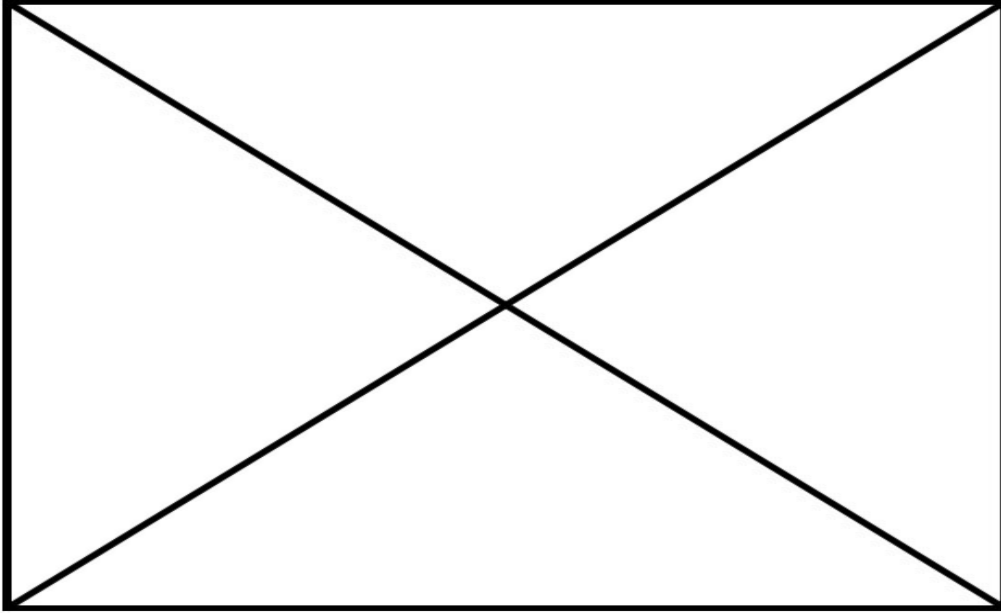


Figure 13: Exterior rendering of the Grand Teton Visitor Education Center by BCJ Architects. The structure presents a low profile to approaching visitors, drawing their eyes to the mountain ranges beyond. Once inside, the building opens up to this same view, celebrating the scenery and connecting the visitors to the surrounding landscape. [Image from BCJ Architects]

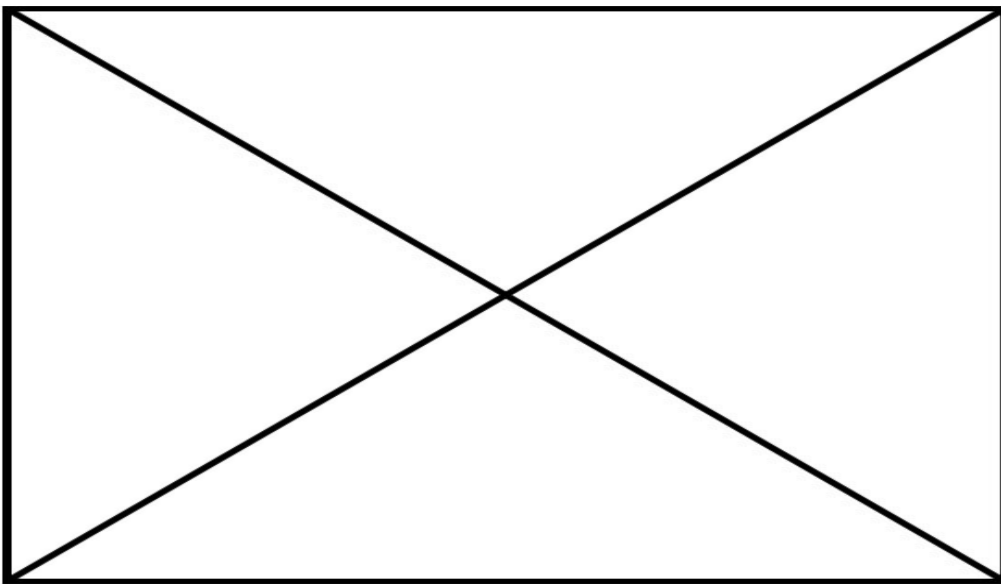


Figure 14: Early interior sketch of the Grand Teton Visitor Education Center by BCJ Architects. Sketch shows the desire to frame the Teton range, and to open the building up to the extended landscape. [Image from BCJ Architects]

In order for future architecture in the parks to be successful it must address and reinforce the tradition constructed in the late 19th and early 20th centuries. However, as Peter Marcuse states, “tradition is not the static legacy of the past, but rather the dynamic reinterpretation of the present.”⁴ Therefore, this architecture must also address how this tradition has developed and, therefore needs to integrate with it in the context of its own time. It is also important to note that architecture is not merely a representational response to the larger ideas of the parks, but also a vehicle through which new concepts concerning how the parks should be seen and experienced. The new visitor center under construction in the Grand Tetons (Bohlin Cywinski Jackson Architects) is designed as an interactive educational tool that will inform guests on issues of environmental stewardship and sustainability.

By constructing a tradition the national parks were able to accomplish two important objectives. First, they were able to suggest how nature, the west, and the parks should be experienced. Second, they were able create the illusion that these ideas were the result of a natural development over time and thus inherently appropriate. It is impossible to ignore the existence of the myth of the West and the cultural and architectural traditions it established. Architects and designers working in the parks need to be conscious of this. However, architects must also remember that these ideas are subject to modification.

⁴ Marcuse

Chapter 2: The Site

As mentioned, Yellowstone was chosen as the basis for this thesis because of its history as a center of architectural and cultural development within the National Park system. However, within Yellowstone there are a variety of locations that could have been used as the setting for this exploration, but it seemed important to select a site that was also in need of an architectural intervention to improve a less-than-ideal condition. With its poorly functioning visitor center and a confusing expanse of inappropriately large parking lots, the Old Faithful Complex in the southern portion of the Upper Geyser Basin presents just this situation.

While, on one hand, this thesis can be seen as an exercise in how to design generally within the national parks, it is also based on a very specific site. The generalities of the methodology suggest how one could approach a design within the parks, while the specifics of the Old Faithful area firmly connect this project to the area for which it is designed.

Old Faithful

As one of the most popular destinations in the National Park system for the last hundred years, the Old Faithful area in Yellowstone National Park remains an excellent example of the interaction between tourists and the landscape. Old Faithful Geyser became an immediate sensation when the park opened in 1872, and since then a continuous series of architectural developments

have transformed the area into one of the busiest hubs of visitor activity in the park.



Figure 15: Map of the continental United States.

The diagram shows the distances between Yellowstone and several major American Cities. Yellowstone's isolated location in Northwest Wyoming requires visitors to travel significant distances to experience the park. This distance and the method of travel (most often by car) are important factors in the park experience. Places like Old Faithful become the culmination of a fairly long journey, and as such need to provide the visitor with a strong sense of destination and completion.



Figure 16: Map of Yellowstone National Park

This diagram shows the relative location of Yellowstone National Park in the Northwest corner of Wyoming. Below, a more detailed map of the park shows how clusters of visitor services and attractions are located along the main highway through the park. Each one of these areas essentially functions as a small town, providing visitors with food, lodging, information, shopping, medical care, and supplies. This configuration is a legacy of the late 19th century when the typical park experience consisted of traveling by stagecoach from one geological feature to the next. Today, the majority of visitors unknowingly travel roughly the same path, rarely venturing more than ¼ mile from the main road. The proposed intervention looks at how this town-like environment can reinforce the larger park experience by better orienting the visitor in the landscape and providing a tangible example of how to build in the landscape on a more urban scale. [Drawing by Brian Essig]

Yellowstone's selection as a national park resulted from its unique geological qualities. The park exists atop a one-hundred-twenty-five mile deep caldera of molten rock, making it one of the most active geothermic areas in the world. This huge underground volcano results in variety of geothermic phenomenon such as geysers, hot springs, mud pots, fumaroles, and travertine terraces. The upper geyser basin where Old Faithful is located is one of Yellowstone's many geothermic clusters, drawing eighty percent of the parks three million annual visitors.

Ten years after Yellowstone became a National Park, the first permanent hostelry was constructed adjacent to the Old Faithful Geyser. By 1905, this structure was replaced with the iconic Old Faithful Inn, which quickly became the standard for early 20th century park design. The Inn, constructed of rough-hewn logs and local stones, was not only designed to blend into the natural landscape, but also capture the sense of wonder established in the myth of the western landscape. Its massive size, and ambitious treatment of materials conveyed a sense of primeval power, while refined detailing and generous spatial arrangements established it as an elegant oasis of modern living within the surrounding wilderness.



Figure 17: Old Faithful Geysir

View of the Old Faithful Complex from the north with the location of Old Faithful Geysir shown. The geysir is situated at the center of the development with the surrounding buildings laid out around it in a radial fashion. The complex is arranged to draw people to this point, and then redirect them into the landscape. The geysir is easily recognizable and can be experienced in a variety of ways from numerous perspectives. [Photo and drawing by Brian Essig]



Figure 18: Old Faithful Inn

View of Old Faithful Inn from the north with the building footprint highlighted on the site plan. Old Faithful Inn, a National Historic Landmark, is one of the most recognizable structures in the National Park System, and is an excellent example of early park architecture. The iconic pitched roof and asymmetrical massing stand out in both the landscape and built complex, making this building the unofficial center of the area. The proposed intervention retains the dominance of the Old Faithful Inn, while linking it back into the built context. [Photo and drawing by Brian Essig]

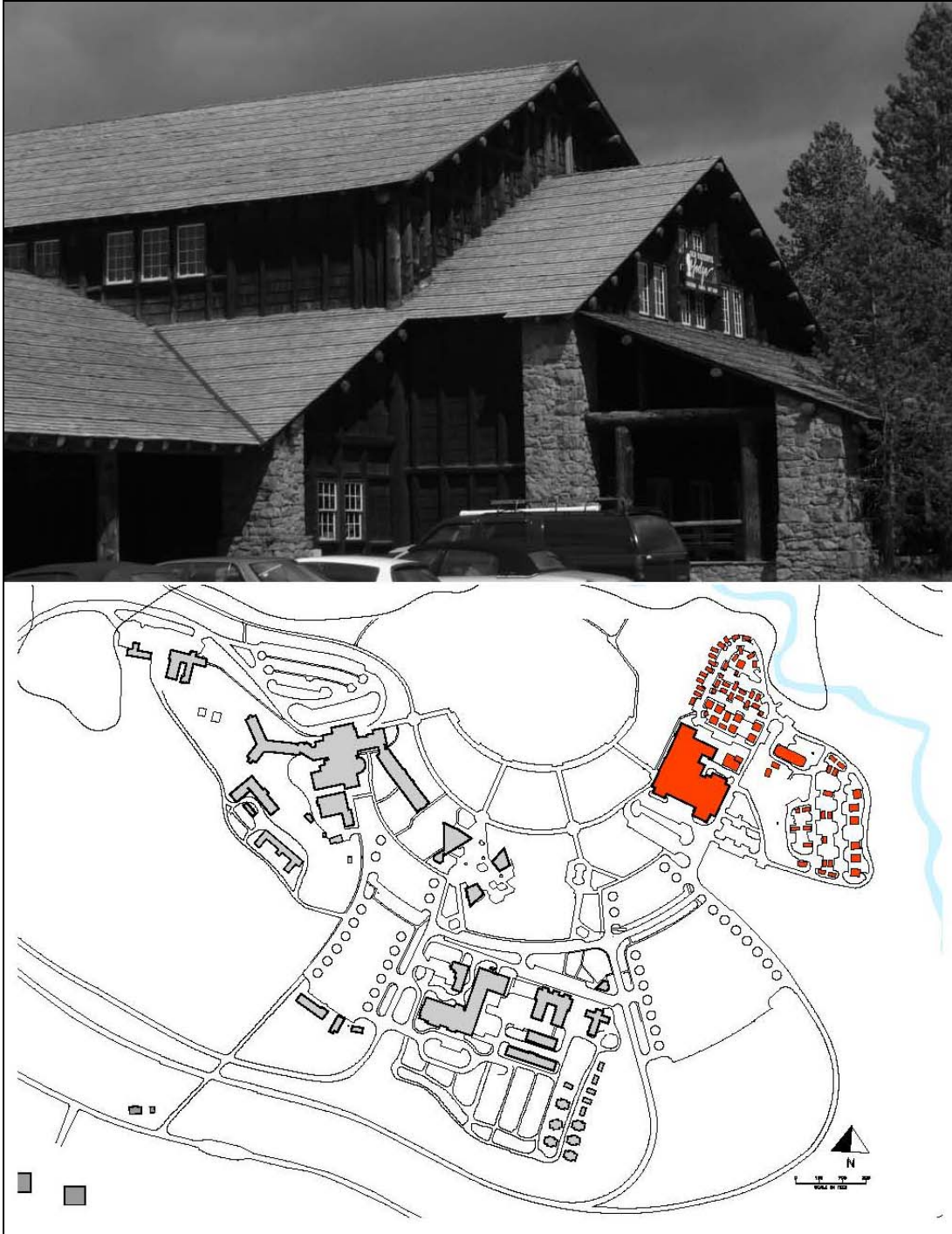


Figure 19: Old Faithful Lodge

View of Old Faithful Lodge with the building footprint highlighted on the site plan. Second only to the Old Faithful Inn, the Lodge has a significant presence on the site. Like the Inn, it demonstrates early 20th century rustic design principles. The smaller structures surrounding the building are individual motor cabins that can be rented by visitors. The lounge in the main building is a popular location to view the geyser. [Photo and drawing by Brian Essig]

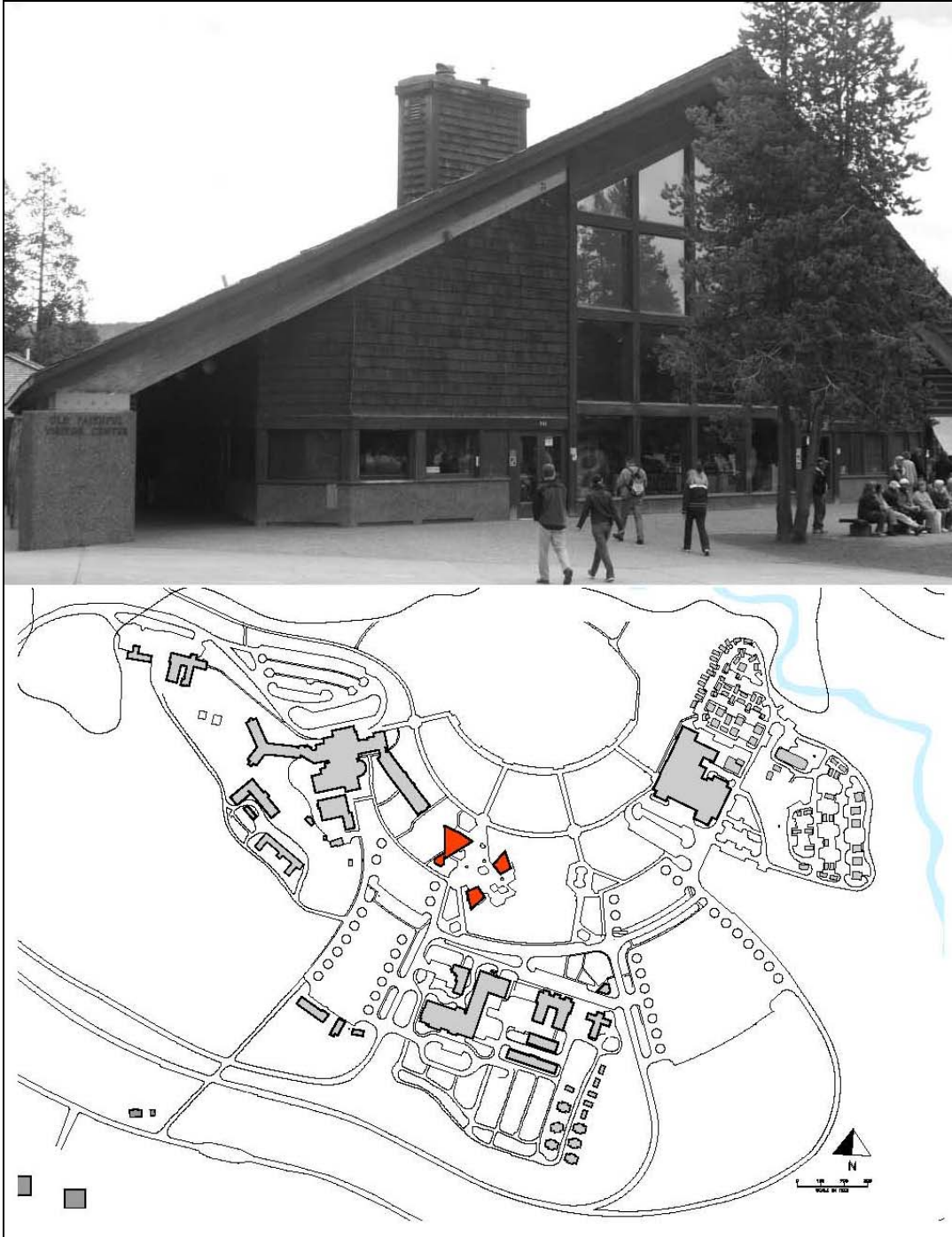


Figure 20: Old Faithful Visitor Center (existing)

View of the existing Old Faithful Visitor Center with the building footprint highlighted on the site plan. The 1970s structure is difficult to locate and unable to meet visitor needs. The new structure, built in the same relative area, remedies these problems, while also connecting the currently separated structures into a unified town-like environment. [Photo and drawing by Brian Essig]

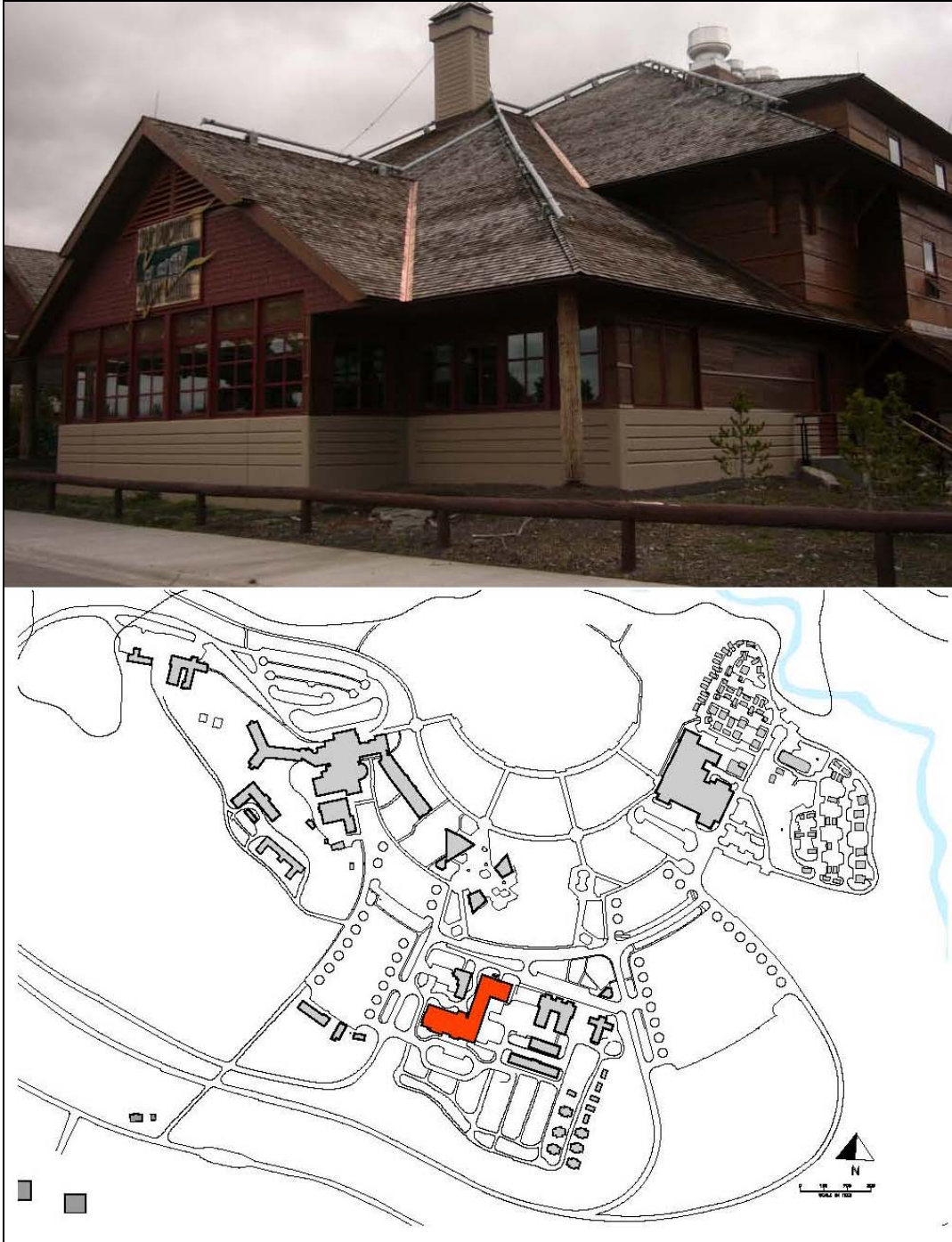


Figure 21: Snow Lodge

Built just over ten years ago, this building represents a self-referencing structure that attempts to mimic the stylistic qualities of the Inn and Lodge with contemporary building materials. While it fails in this attempt, it does form a strong southern edge to the complex (along with the Hayden Store, General Store, and Gas Station), which is accentuated in the proposed design scheme. [Photo and drawing by Brian Essig]



Figure 22: General Store

View of the Yellowstone General Store with the building footprint highlighted on site the plan. Designed by the same architect that built the Old Faithful Lodge, this secondary building fits well into its context and helps define the southern edge of the complex.

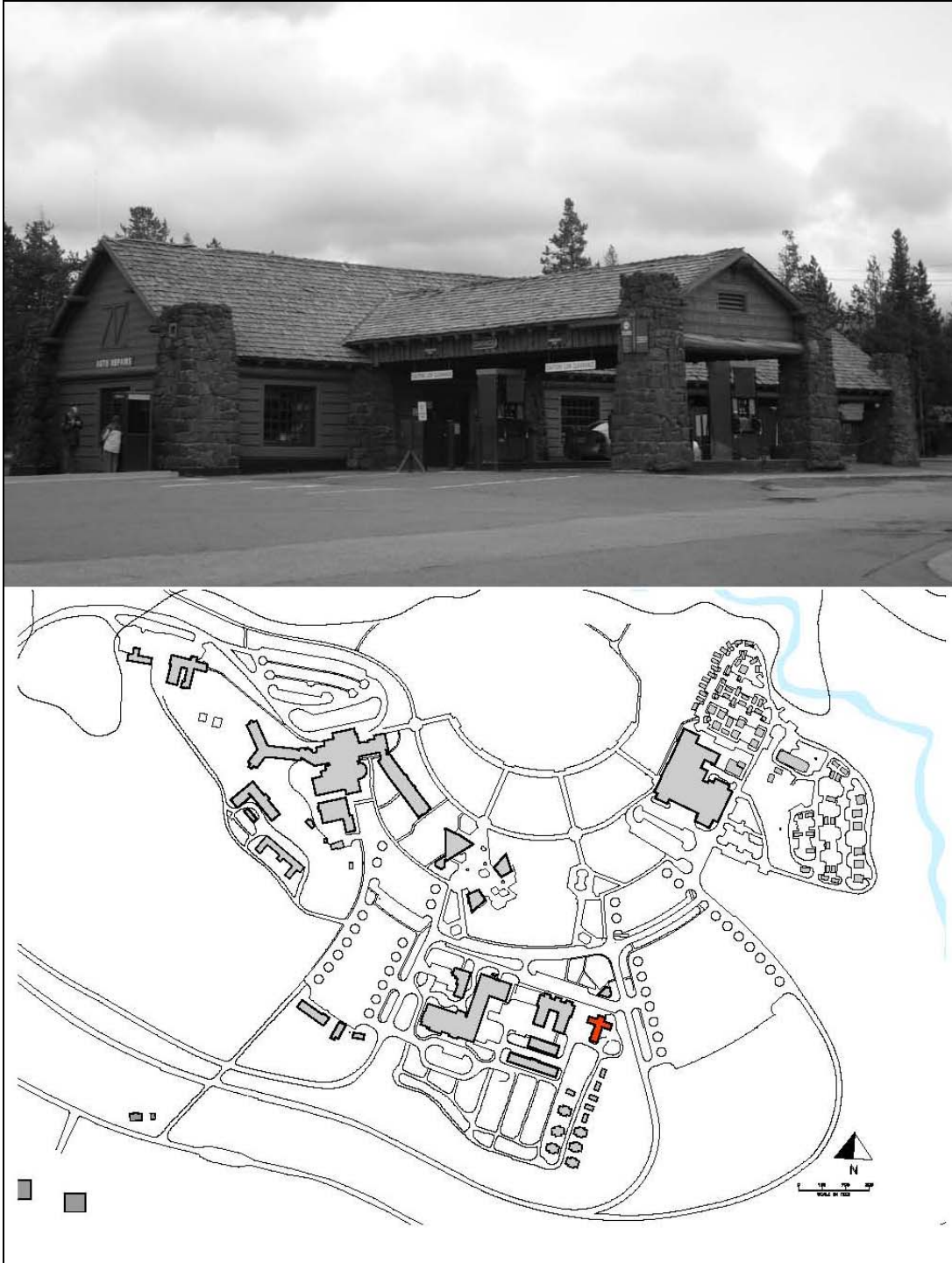


Figure 23: Gas Station

View of the Old Faithful Service Station with the building footprint highlighted on the site plan. Another simple rustic structure, this building is well sited adjacent to the main parking lot along the southern edge of the complex. [Photo and drawing by Brian Essig]



Figure 24: Site plan overlaid on an aerial photograph of the Old Faithful site.

Note the scattered groupings of trees and the arid areas around the geysers (mineral deposits). Trees in this area are evergreens (primarily Douglas Fir, Quaking Aspen, Lodgepole Pine, and Blue Spruce). [Drawing by Brian Essig, aerial photo from Google Earth]

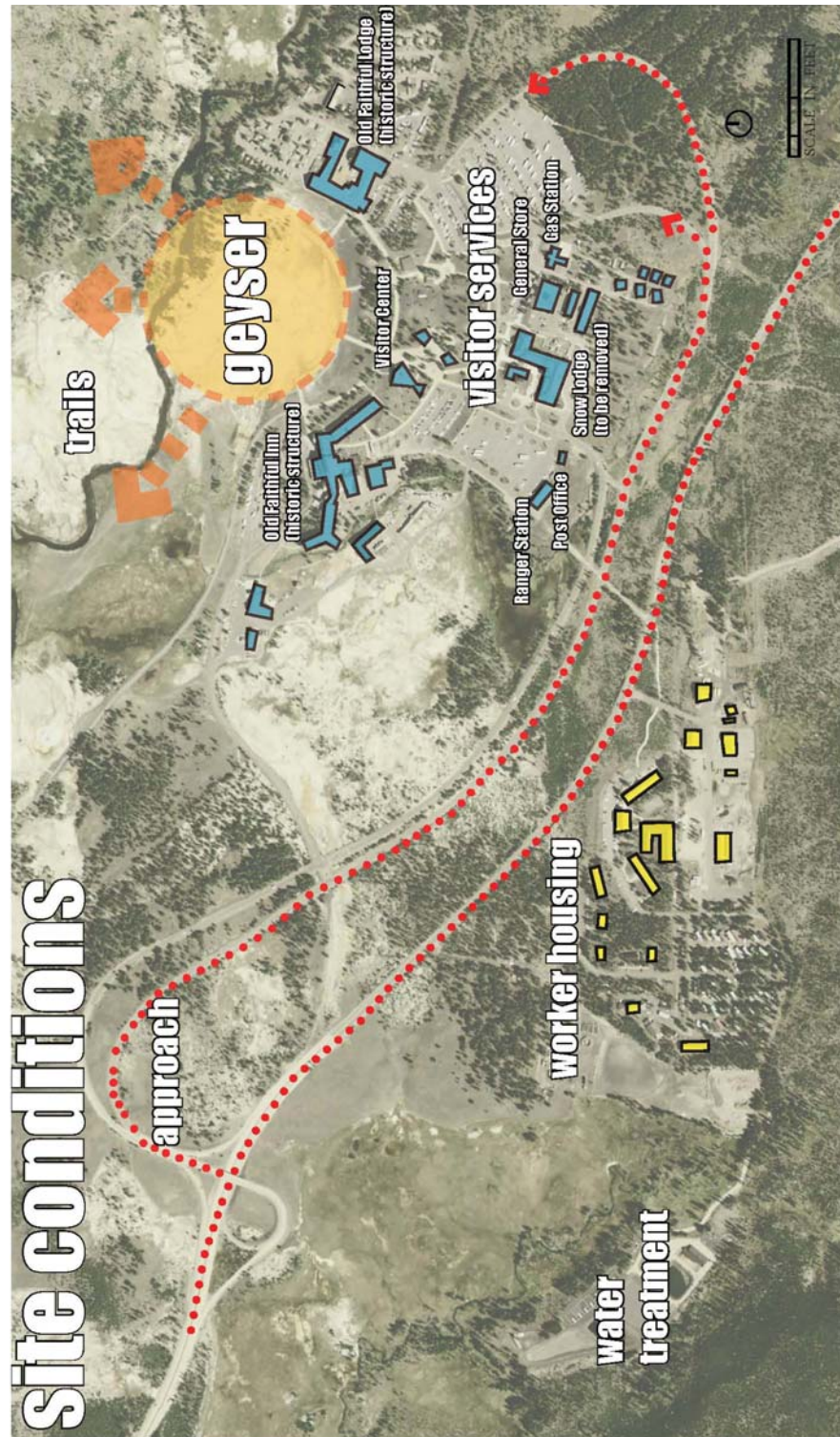


Figure 25: Diagram showing the key features of the Old Faithful site.

The density of buildings in the area begins to suggest a more urban attitude toward siting the building. The popular notion of the building in the landscape does not apply to this area. Any intervention in this area must address how the site is experienced in its entirety. [Drawing by Brian Essig]

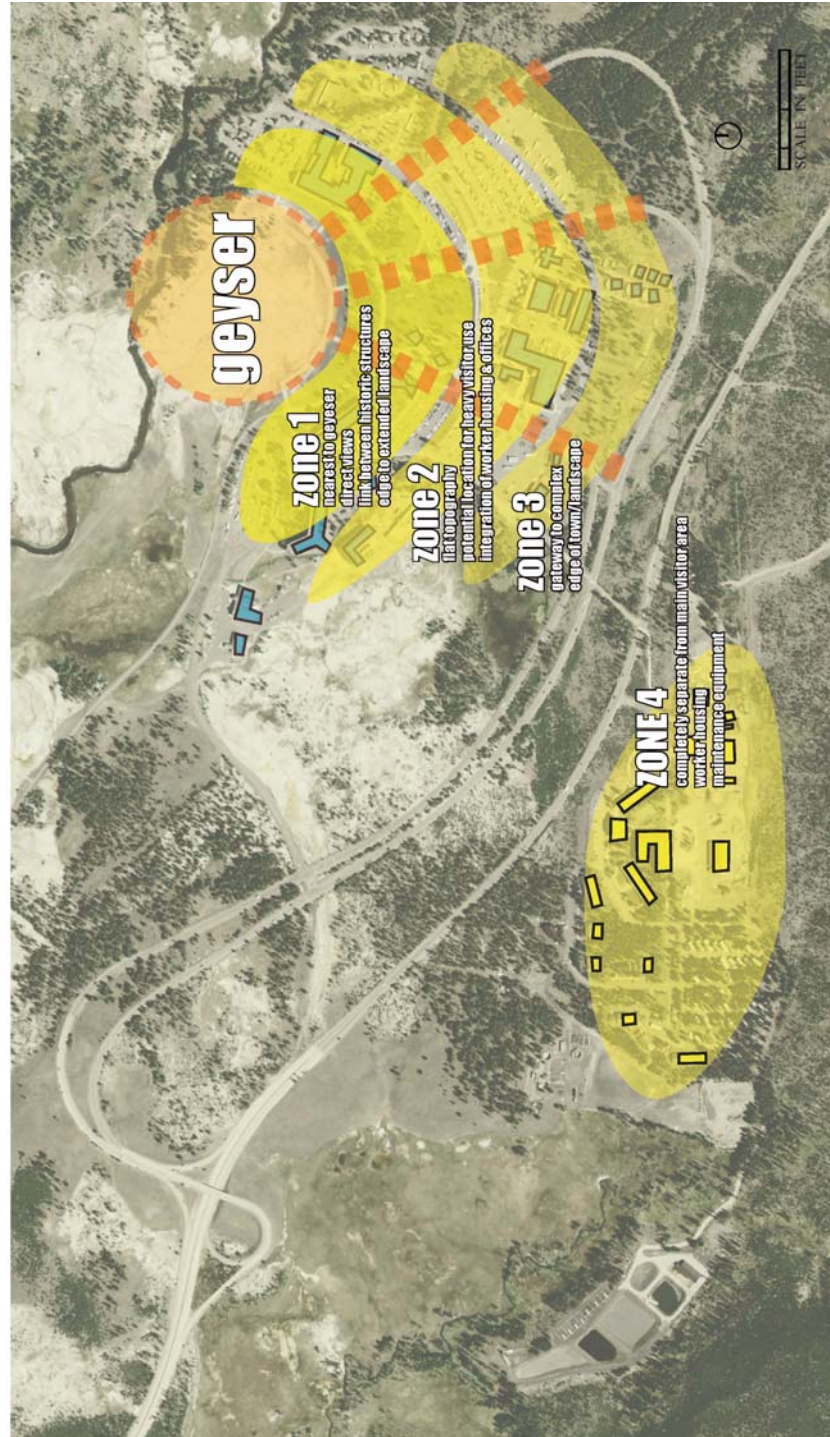


Figure 26: Diagram showing the four primary zones of the Old Faithful site.

The zones form concentric circles radiating out from the geyser. The siting of the visitor center will have a significant impact on how the site is experienced. By placing it in zone 1, it functions as part of tight clustering of buildings (the Inn and Lodge). If it is pulled back to zone 2 or 3, a larger meadow area can develop between the structure and the geyser. [Drawing by Brian Essig]

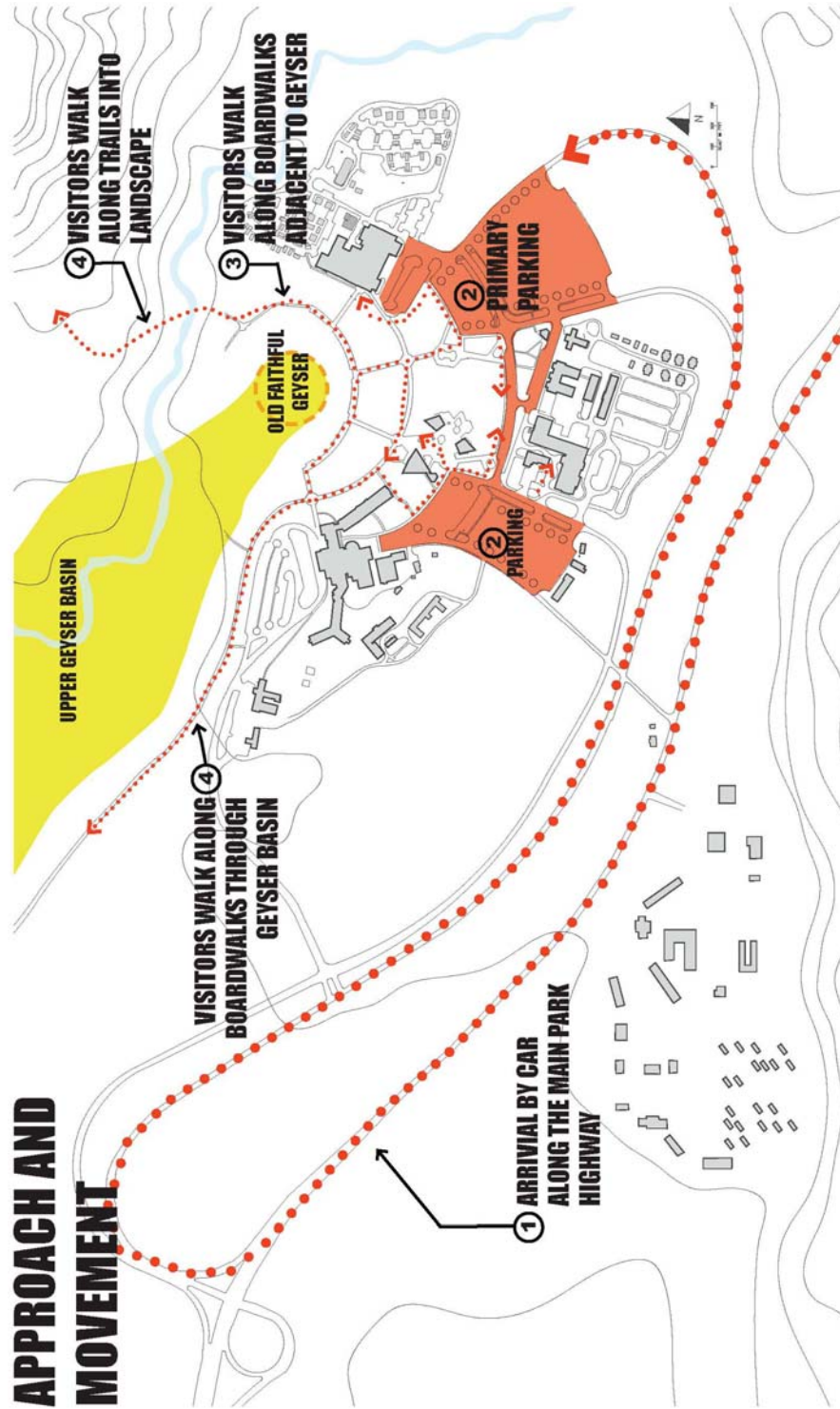


Figure 27: Diagram showing movement through the Old Faithful site.

The area is accessed by a short road connected to the main park highway. The visitor parks in one of three oversized parking lots, and from there filters out onto the boardwalks adjacent to the geyser. Currently there is no connection between the parking lot and the various buildings, and guests are often unsure of where to proceed once they leave their vehicle. [Drawing by Brian Essig]



Figure 28: Diagram showing the front of the buildings in relation to the landscape. Each building either faces the Old Faithful Geyser or the Upper Geyser Basin. This emphasis on the uniqueness of the area is important, as it focuses visitor attention on the characteristics of this specific portion of Yellowstone. The visitor center must respond to the geothermic features of this site. [Drawing by Brian Essig]

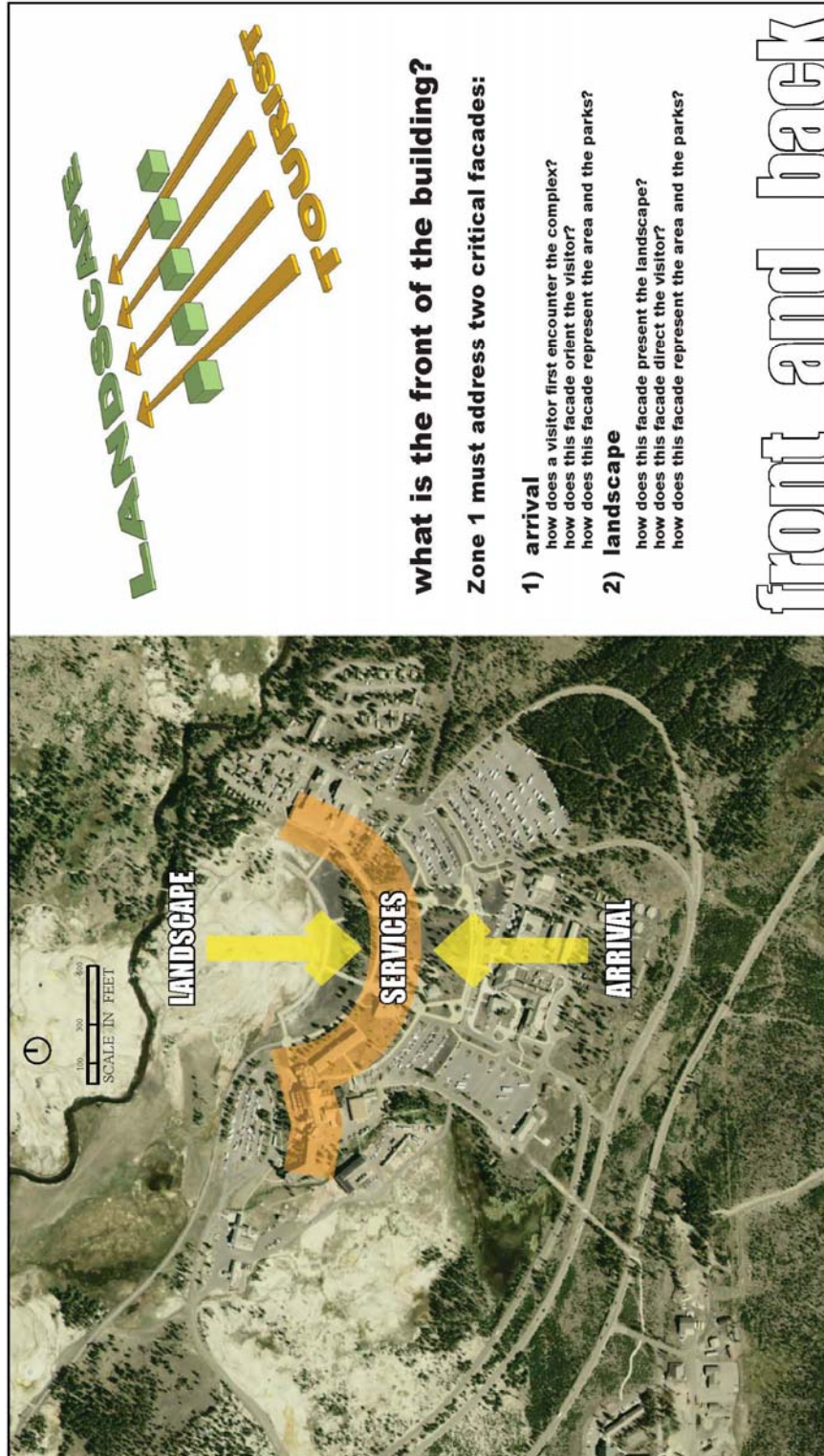


Figure 29: Diagram showing the two ways the buildings in zone 1 are approached. Buildings in this area have two critical facades that must be addressed. The side facing the parking lot needs to draw the visitor into the area, while the northern face must address the landscape beyond the immediate complex. [Drawing by Brian Essig]

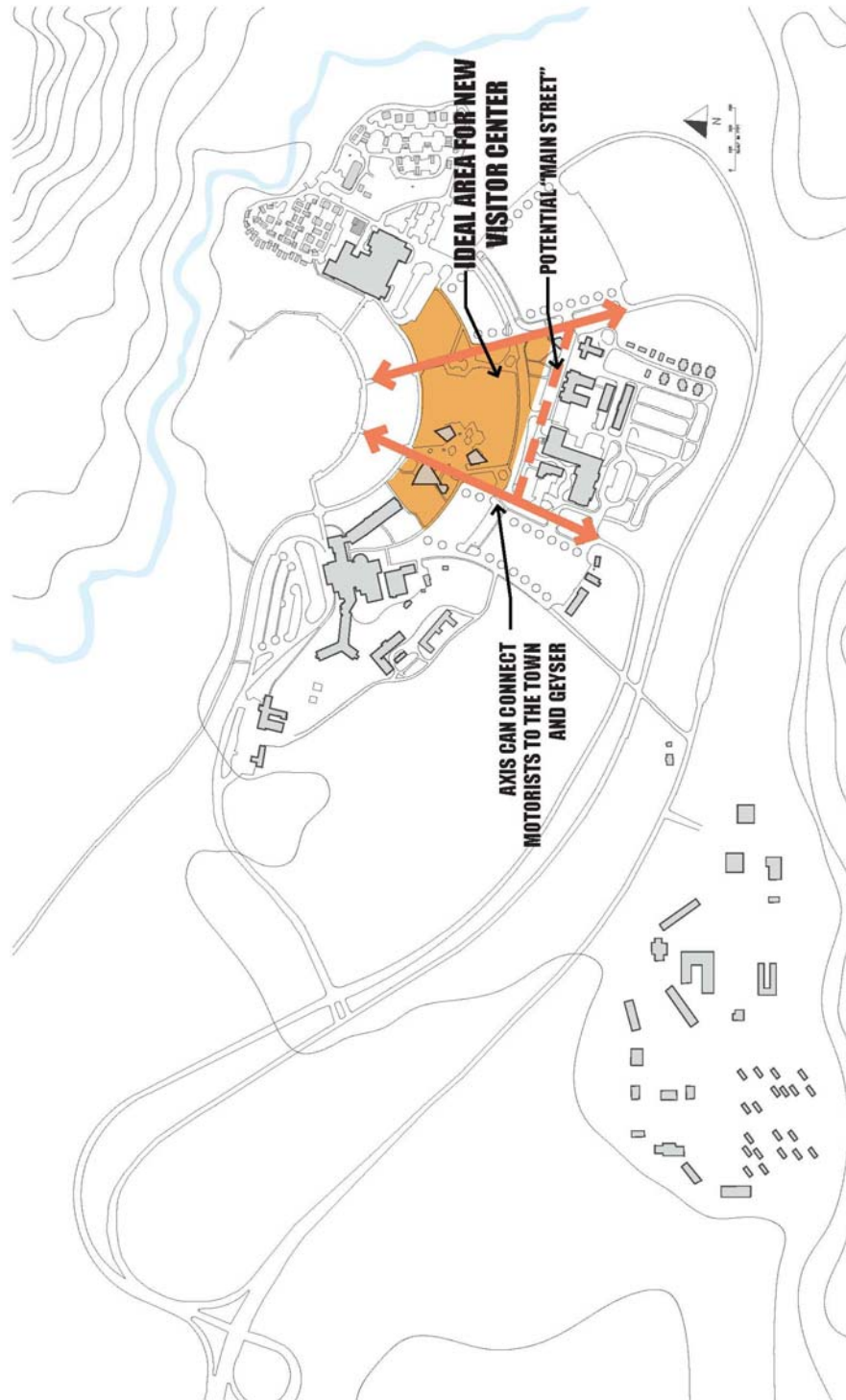


Figure 30: Proposed building site

The diagram highlights the area between Old Faithful Inn and Old Faithful Lodge as the ideal location for the future visitor center. From this centralized location, the building can have a relationship to the parking lot, geyser, historic structures, and extended landscape. A carefully placed visitor center in this area can unify the area without the need for an excessive urban scale intervention. [Drawing by Brian Essig]

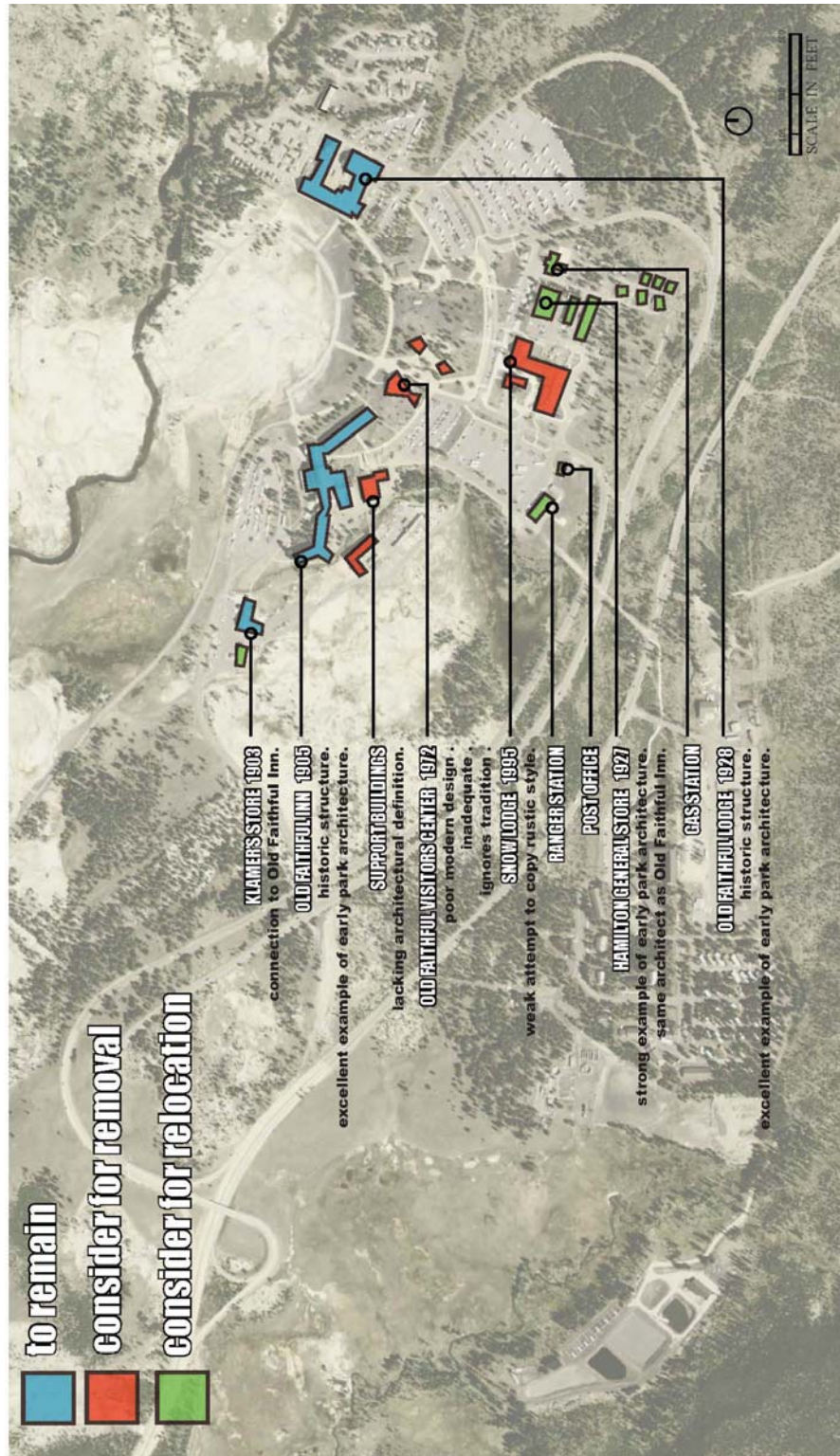


Figure 31: Diagram rating the quality of existing structures.

Early site analysis diagram that shows importance of individual buildings to the character and experience of the site. While the possibility moving/removal of buildings has been abandoned (too aggressive an intervention), this analysis indicates what buildings should be accentuated and which should be considered for some form of alteration. [Drawing by Brian Essig]

By WWII the area had grown to the size of a small town with the addition of a lodge, campground, general store, gas station, post office, worker housing, and ranger offices. Due to cheap labor provided by the Civilian Conservation Corps and a smaller annual tourist count, the area was able to develop in a manner and style akin to the precedent set by Old Faithful Inn. The image and atmosphere created in this area up to this point were directly inspired by the image of the western landscape. Furthermore, each building worked to imbed this image as the traditional national park experience. Visitors began to expect a certain building style, and by the middle part of the century, nearly every major building project catered to this expectation. The significance of this cannot be understated. The parks were popularizing an image and experience that, up until the 1950s, targeted an affluent minority. While each one of these buildings was labor and cost intensive to build, the projects could be justified by the fact that only an elite and wealthy minority were visiting the parks at this point.

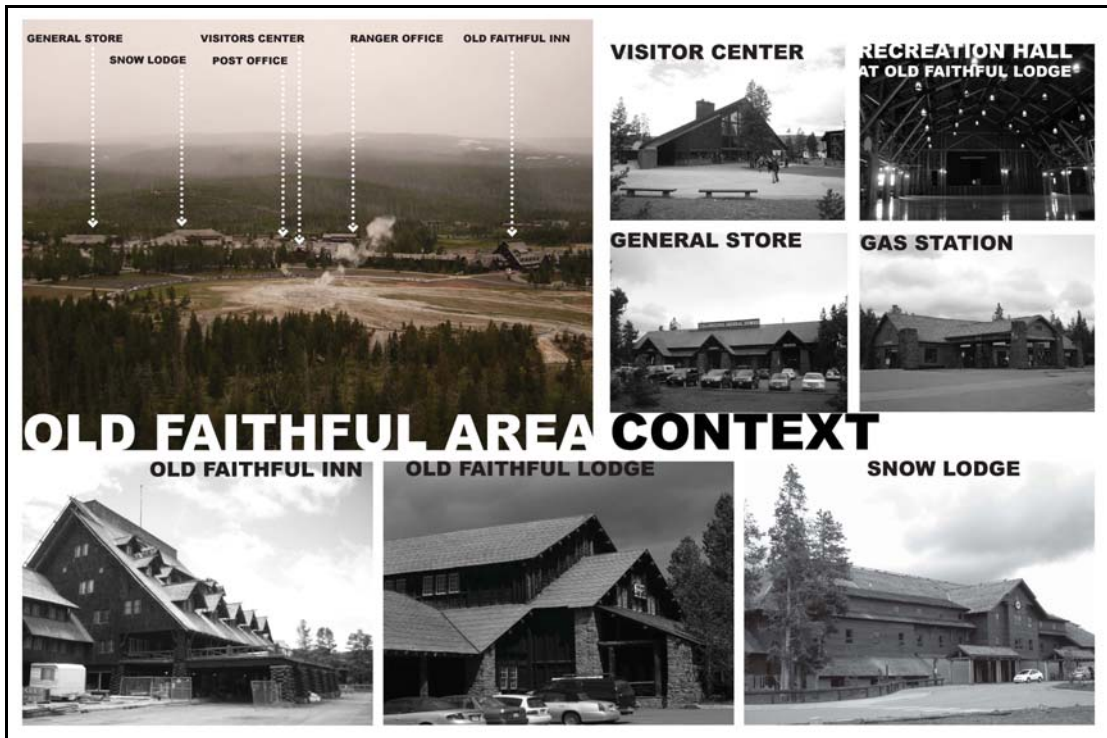


Figure 32: Old Faithful Context

Buildings within the Old Faithful complex generally adhere to stylistic standards set by the Old Faithful Inn. [Photos by Brian Essig]

With the rise of the middle class and automobile culture following the war, the parks were suddenly accessible to a much larger segment of the population. At Old Faithful, as well as other areas in the park, the demand for visitor services increased each year. This strain on park resources resulted in the Mission 66 program, which intended to meet this need in an efficient and practical manner.

For the first time since the 19th century, a new approach to design was implemented that actively questioned the relationship between tourists and the landscape. The driving force behind this building campaign was meeting need through modernization. Contemporary stick frame construction replaced local materials, and the iconic rustic style was either abandoned or abstracted beyond

recognition. While ultimately unpopular, this campaign had the noble intention of making the park accessible to every American. However, Americans at this point desired (and expected) a “traditional” park experience, and thus saw the new building style as inappropriate.

Earlier, this building practice was referred to as an “altered tradition” where the history, culture, and image that created a place is ignored in favor of a divergent and unsympathetic approach to design. While the majority of Mission 66 projects fall into this category, it cannot be argued that Modernism as an architectural solution was the root of this failure. Modernism and modernization should not be confused in this situation. Numerous projects since WWII have produced elegant buildings that have been well received by the public and accepted as appropriate additions to national park architecture.

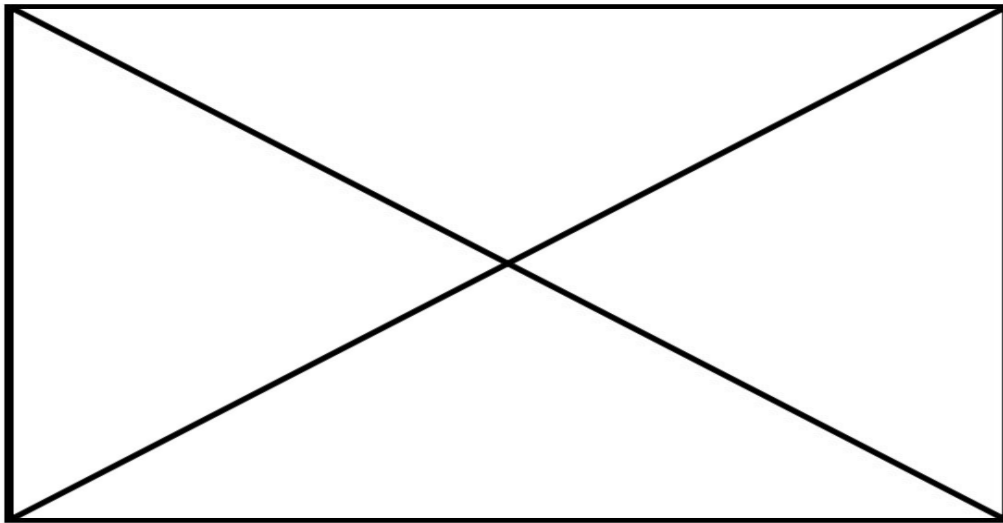


Figure 33: Jackson Lake Lodge in Grand Teton National Park.

Despite its massive size and use of concrete as the primary construction material, this structure blends seamlessly into the landscape. Careful siting to maximize views and well designed landscaping around the building are key to this success. [Image from Carr]



Figure 34: Western Façade of Jackson Lake Lodge.

These large windows face the Teton range, offering visitors spectacular views from the comfort of the main lounge. [Photo by Brian Essig]



Figure 35: Interior of main lounge in Jackson Lake Lodge.

Large, double height windows offer views of the Teton Range. Despite a more refined treatment, natural materials still capture the warmth and rich textures of earlier park structures. The clear and deliberate connection to the landscape is another feature reminiscent of historic lodges in Yellowstone and Glacier National Parks. [Photo by Brian Essig]

While Jackson Lake Lodge provides an example of a successful non-rustic design, the visitor center at Old Faithful represents exactly the opposite. The building is awkwardly sited adjacent to the Old Faithful Inn, making it nearly impossible for visitors (most of whom arrive from the south-eastern parking lot) to find. The visitor must find his/her way to the main boardwalk surrounding the geyser, and then turn completely around to be presented with the front entrance of the building. The single door leading into the lobby cannot accommodate the massive amounts of summer visitors, and the double height glazing is essentially worthless as the lobby is filled with ad-hoc retail kiosks, completely blocking any views of the geyser basin. The entire visitor center sits atop an unnecessarily large concrete slab that works to completely disconnect it from the natural landscape and negatively effect water management in the area.

Following the lead of this visitor center, development around Old Faithful since the mid 20th century demonstrates a tendency towards solving immediate need without any consideration of historic context or future growth. Parking lots are simply added to available green space, and when a new building is required, it is simply placed in the most convenient location.



Figure 36: Diagram showing the successes and failures of contemporary architecture in the parks. There is nothing inherently wrong with a modern approach, but just like any other successful project in the park, it must address to key issues of landscape, history, and culture. [Images from various sources]

Questioning the Myth

It becomes clear now that a significant intervention is necessary to reestablish the two-way relationship between the natural landscape and the Old Faithful Complex. Clearly a new approach is needed. However, any proposal must take into account the history, culture, and traditions of this specific National Park.

First, the density of the area requires that the project is not designed as an “object in the landscape.” Instead of being seen as a series of independent buildings, the area needs to be reconsidered as a small town that provides all necessary visitor services, both functional and cultural. The intuitive center of this new town is the visitor center. Here individuals are introduced to the park, the area, and the history and culture of Yellowstone before being dispersed into the surrounding landscape. The visitor center becomes a point of convergence and divergence. It is the destination for travelers coming from all parts of the county, but at the same time, it is a threshold into the natural environment of Yellowstone. It becomes the link between park employees and visitors, and provides a comfortable setting in which a mutually beneficial interaction can take place.

Weight and Park Architecture

Earlier, the argument was made for the critical analysis of both the history and culture of the National Parks as well as contemporary concerns regarding the interaction of humans and the environment. It is important, however, to note that this analysis does not result in a direct route to “the appropriate building.” Instead, one must acknowledge the validity of a multitude of design solutions that honor both the tradition and practical necessities of buildings in the parks.

One key issue that has emerged as a central design question is that of weight. As mentioned, early park structures displayed a tendency towards heavy architecture. Massive battered walls constructed out of local boulders supported large timber frames giving the overall impression that the structure was inextricably tied to the landscape. Nonetheless, one could easily make the argument for a building that was the exact opposite of these traditional structures. Contemporary ideas concerning sustainable design promote a more economic use of materials, and a lighter connection to the landscape. What becomes more difficult in this case is making the argument that these buildings acknowledge the traditions of park architecture. These buildings may beautifully interact with the landscape, but their lightness fails to convey the same sense of power, safety, and inevitability. Obviously a building such as the Farnsworth House would be out of place in Yellowstone. It is far too delicate to make the visitor believe that it could ever really provide a refuge from such a harsh landscape.

Precedence for lighter structures is found in the history of temporary structures in the parks. Homesteaders, prospectors, and early park visitors established a tradition of erecting simple functional structures meant to serve a need for a limited amount of time. These structures could be easily assembled and disassembled, and often little or no trace is left behind. However, like their more permanent counterparts, these structures often displayed a tendency towards natural materials and primitive construction techniques.



Figure 37: Weight and National Park Architecture

While traditional, this type of architecture has been characterized by heavy, rooted structures; this thesis questions the appropriateness of lighter structures in light of contemporary concerns regarding sustainability. [Images from various sources]



Figure 38: Early homestead structure outside Grand Tetons National Park.

This simple structure was built over the course of many years, and today is the last remaining in an area that once functioned as a small town. Little evidence remains concerning the once heavy use of the area. [Photo by Brian Essig]



Figure 39: Tents at a campground in Yellowstone.

These temporary structures are erected quickly and are generally used for a period of several days before being removed. The area is thus transformed on a nearly daily basis as different visitors come, establish the site as temporary home, and then move on leaving little indication of their presence. [Photo by Brian Essig]

Chapter 3: Program: A Visitor Center at Old Faithful

This thesis demonstrates that the careful placement of a 45,000-50,000 square foot visitor center can transform the current collection of buildings at Old Faithful into a unified town that introduces the traveler to both the history of the park and the surrounding landscape. The proposed visitor center will function as the town center, drawing people from their automobiles into the complex, orienting them, and redirecting them into the landscape and adjacent buildings.

A Visitor Center

The primary goal of this visitor center is to orient and educate travelers on the surrounding geyser basin, Yellowstone National Park, and the environment of the Rocky Mountains. This building acts as a point of convergence and divergence as it draws individuals from all over the country, provides them with the necessary information, and redirects them into the landscape. As the center of the Old Faithful Complex it functions as a setting for interaction between park visitors and staff. By necessity this building is easily identifiable and intuitive to move in and around. However, it is secondary to the iconic Old Faithful Inn and Old Faithful Lodge, and therefore is more reserved in its form and massing.

This building accommodates a wide range of visitor types, from those who only desire a map before setting off on a self-guided tour of the surrounding area, to those more interested in exhibits and ranger discussions. As a result, there are a variety of spaces, each with a very unique character. For example, the lounge provides visitors with a quiet and comfortable place to relax, talk with friends, read, etc, while the interactive display area encourages guests to move around

and work with hands-on exhibits. Form, materials, and careful links to the landscape are key in establishing the atmosphere of these different spaces.

The structure presents a distinct and noticeable entrance from both the east and west parking lots, and provides views of Old Faithful Geyser and the landscape beyond to the north. It also links the Old Faithful Inn, Old Faithful Lodge, and Snow lodge with its central location. Guests of all three lodgings can come together in the visitor center.

Building Program: 50,000 s.f. total

Lobby / Main Information Desk 11,000 s.f.

Centrally located within the structure, this area is able to accommodate as many visitors as possible without causing excessive crowding. During the peak season of July-August as many as 20,000 people visit the Old Faithful area each day. This space is easily identifiable and provides views and orientation to the surrounding complex and landscape. A central information desk staffed by 4-6 rangers/park employees will dominate the space.

Exhibit Space 15,000 s.f.

This collection of spaces can be easily altered/combined in order to accommodate a variety of interactive exhibits. The content of this area is meant to help visitors gain an understanding and appreciation for the various hydrothermal features in Yellowstone. This space is adjacent to the main lobby, but separated enough so as not to constrict circulation.

Theater (250 seats) 6,000 s.f.

This mid-size theater/auditorium can host a variety of shows, lectures, screenings, etc. It is adjacent to the main public space.

Bookstore 3,000 s.f.

Located off the main lobby, this space contains items related to the park that are available for purchase (maps, books, souvenirs, etc.)

Classrooms 1,500 s.f.

A series of private classrooms/conference areas that can house workshops, classes, town meetings, and other public gatherings. This space is not directly connected to the main public space.

Staff Offices 5,500 s.f.

Ranger and park staff offices are separate from the main public space. This area includes offices, a conference room, storage, a small kitchen, and staff rest room.

Library 2,000 s.f.

A reference library for staff and scholarly research is located adjacent to the staff offices. The information is specific to the Old Faithful Area and is supplemental to the Yellowstone Historical Center in Gardener, WY.

Public Restrooms 1,000 s.f.

Service 4,500s.f.

Chapter 4: Design Strategies

Two distinct design strategies have emerged as having potential for further exploration. These two options demonstrate how the insertion of a single 50,000 square foot visitor center can dramatically improve the visitor's experience. By careful siting, the building can unify the currently segmented buildings into a singular town-like environment. In addition, the new building can help orient and guide the visitor through the site.

Key issues during this design process include the selection and use of materials, the acknowledgement of park history and culture, and as mentioned, the specific qualities of the site.

The radial scheme breaks the visitor center into three separate volumes and arranges them along an arc between Old Faithful Inn and Old Faithful Lodge. This essentially completes the inner ring of development around Old Faithful Geyser making a clear threshold between town and nature.

The sculpted landscape scheme attempts to engage the visitor directly with the earth itself in order to expose the geological conditions unique to the area. From an urban standpoint, this building can take on a variety of roles that will be explained in the images that follow.

Scheme 1: Radial



Figure 40: Radial scheme site plan

Separate pavilions fill the area between the Old Faithful Inn and Lodge. These pavilions can serve as gateways into the geyser basin, helping to orient the visitor directly upon entering the area. [Drawing by Brian Essig]

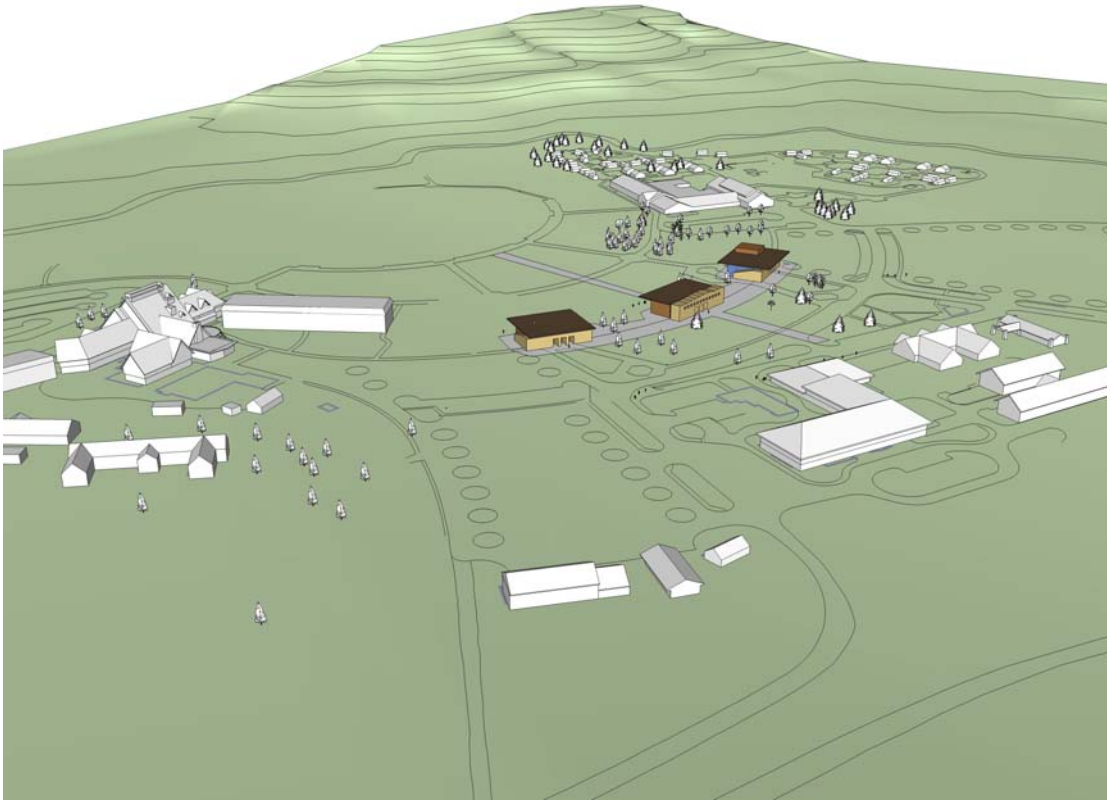


Figure 41: Aerial of radial scheme.

By breaking the visitor center into three separate structures, the scale of the intervention can be broken down in order not to overwhelm the existing character of the complex. [Drawing by Brian Essig]



Figure 42: Perspective of radial scheme

While similar in terms of massing, each structure can have its own unique character. Formal expression is encouraged, as it can work to capture the subtleties of national park history and culture. [Drawing by Brian Essig]

Scheme 2: Sculpted Landscape

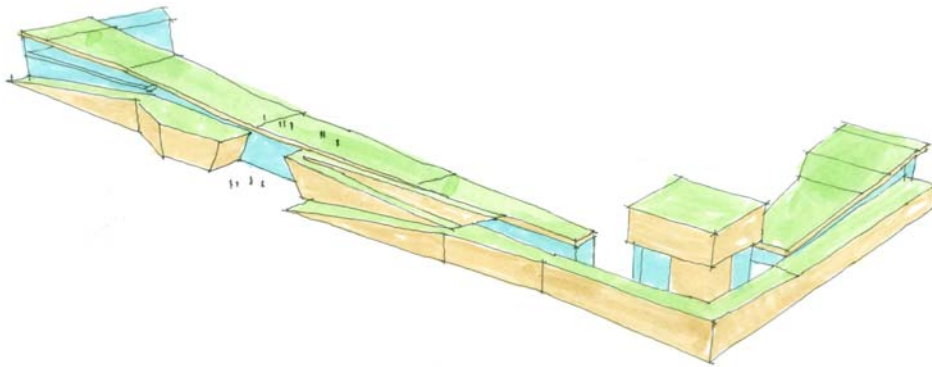


Figure 43: Concept drawing

Sketch showing how the relatively flat landscape could be pushed and pulled to form the roofs of the visitor center. This provides the opportunity to expose slices of the unique geological conditions of the area, as well as provide new ground surfaces from which the visitor can experience different views of the complex and geyser basin. [Drawing by Brian Essig]

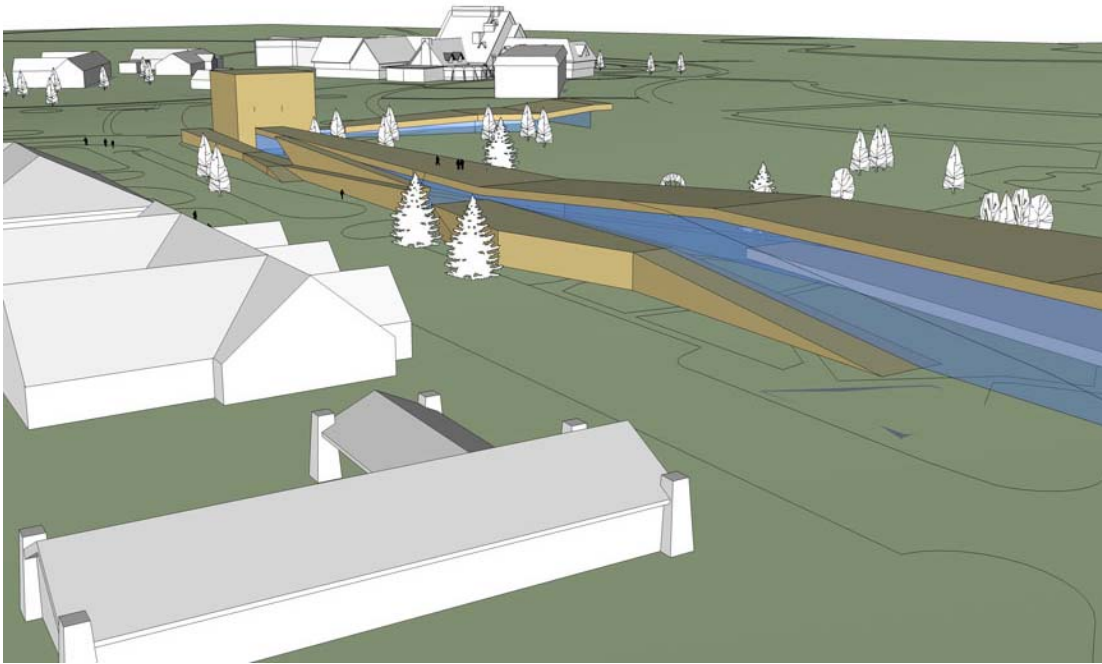


Figure 44: Aerial perspective of possible building location

Early on, the density on the south side of the main street was mirrored on the north side. The intent was to emphasize the town-like atmosphere at the center of the complex, leaving much of the area around the geyser undeveloped. Ultimately, this proved to be too drastic an intervention. The program of the visitor center could not accommodate a building of this size. [Drawing by Brian Essig]



Figure 45: Site plan of sculpted landscape scheme #1

Small bar buildings are sited to draw the visitor from the parking areas into the visitor center. They work to establish the edge of the existing southern street, and direct park guests to the other buildings in the complex or the landscape beyond. [Drawing by Brian Essig]



Figure 46: Site plan of segmented design

Both the radial and sculpted landscape schemes consider the addition of a satellite structure, supplementary to the visitor services in the main complex, on the ridge north of the site. This provides the opportunity to explore the issue of weight. For example, the northern structure could demonstrate a lighter design approach with a more economic use of materials. The contrast between this and the historic structures could demonstrate the various approaches to designing with the landscape. [Drawing by Brian Essig]

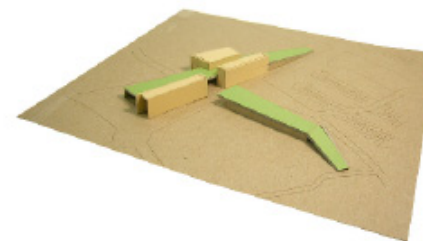
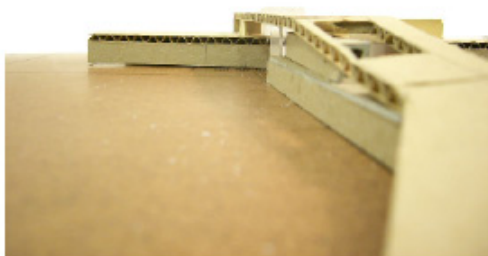
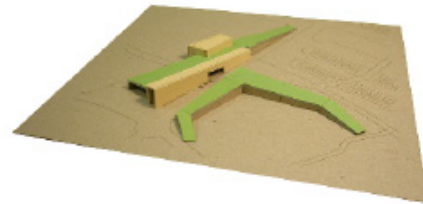
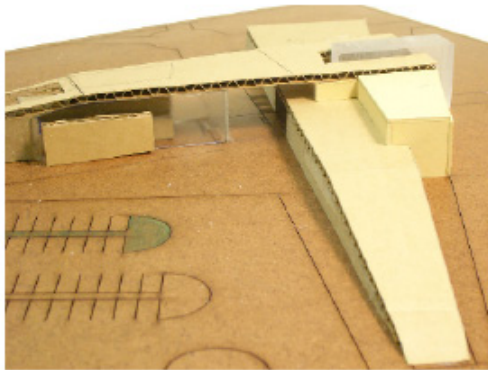
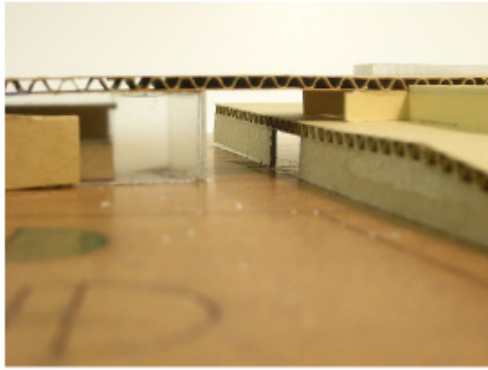


Figure 47: Study Models

Numerous variations on how the earth could be sculpted were explored early in the design process. The models above are all centered on the idea of one or two wedges of earth rising gently out of the landscape. The landscape could be used to guide visitors into the building and then into the landscape. [Models by Brian Essig]



Figure 48: Site plan of sculpted landscape scheme #2

The visitor center in this scheme is pushed to the eastern edge of the central meadow in the attempt to leave as much of this landscape as open as possible while still creating a recognizable structure for guests arriving from either parking lot. The two masses of the building overlap (see model photos, Figure 47) at the main lobby space. This overlap is the most visually and spatially interesting portion of the structure, making it an ideal destination for visitors unfamiliar with the area. The goal is give the visitor the sensation of entering directly into the landscape. [Drawing by Brian Essig]

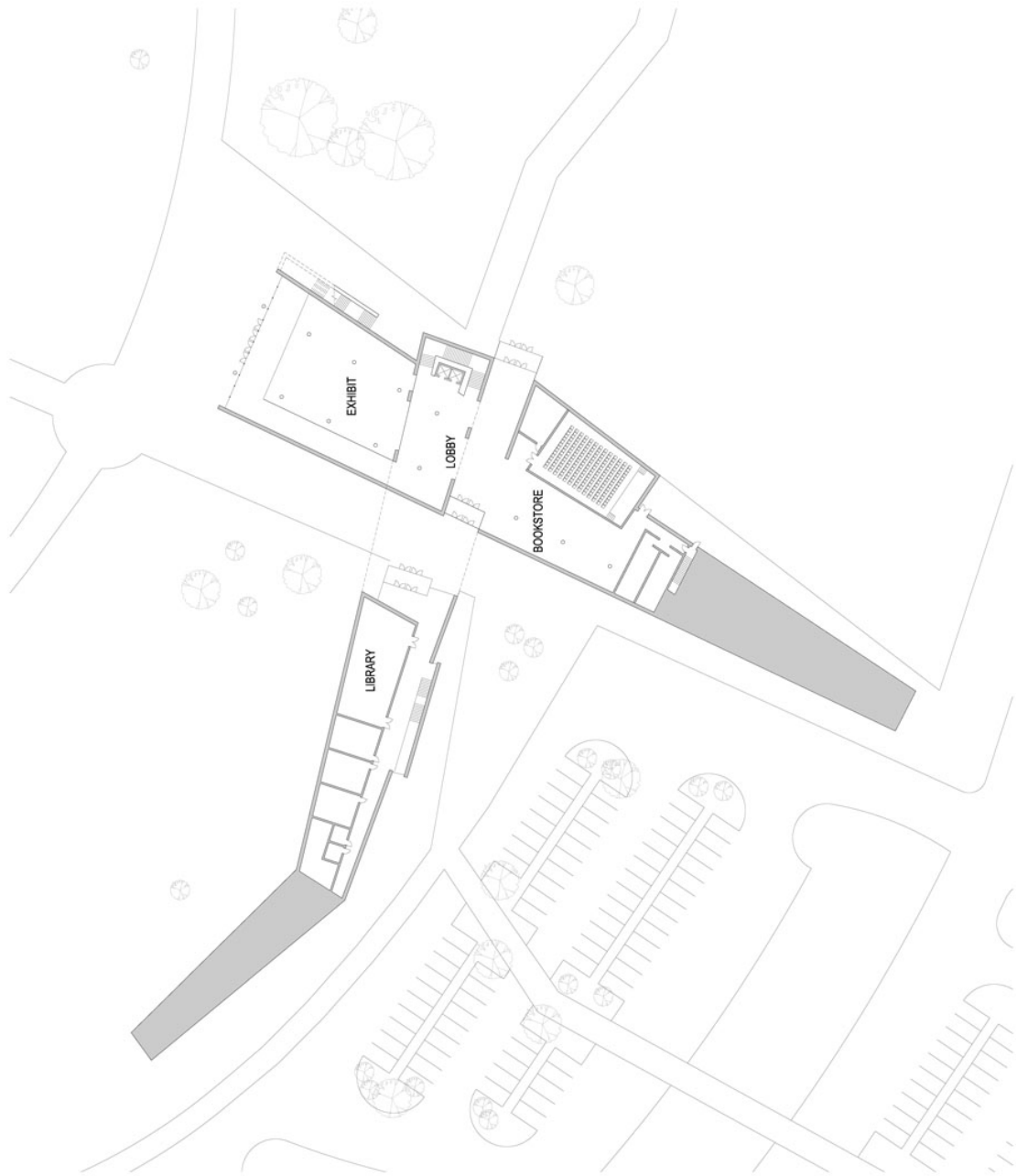


Figure 49: Floor plan of sculpted landscape scheme #2

The program is split between visitor and employee spaces in this design. The visitor spaces, which are only open during the summer months, could be closed during the winter, while the administrative spaces could remain open. The main mass of the building opens up towards Old Faithful Geysler, directing guests out into the landscape. [Drawing by Brian Essig]

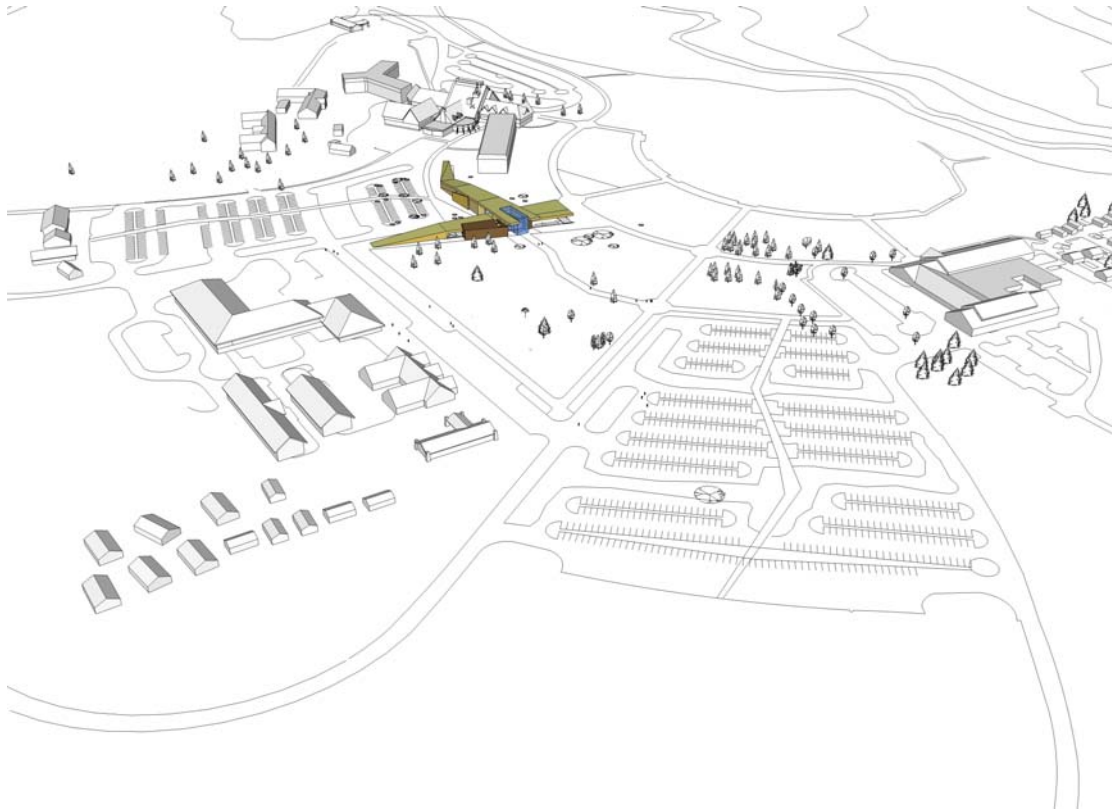


Figure 50: Aerial view of sculpted landscape scheme #2 [Drawing by Brian Essig]



Figure 51: View of sculpted landscape scheme #2

The proposed visitor center rises gently out of the landscape, but keeps a low profile maintaining a visual connection to the historic Old Faithful Inn. [Drawing by Brian Essig]



Figure 52: Aerial view of sculpted landscape scheme #3

Similar to scheme 2 except that the forms are tucked into a man-made earthen hill with the intention of creating an ambiguity between the building and landscape. [Image by Brian Essig]



Figure 53: View of sculpted landscape scheme #3

With this scheme, the building rises more subtly out of the landscape, never fully revealing itself until the visitor is inside. The visitor center conceptually draws guests into the earth where they can learn about the unique geothermal features of the area. [Image by Brian Essig]

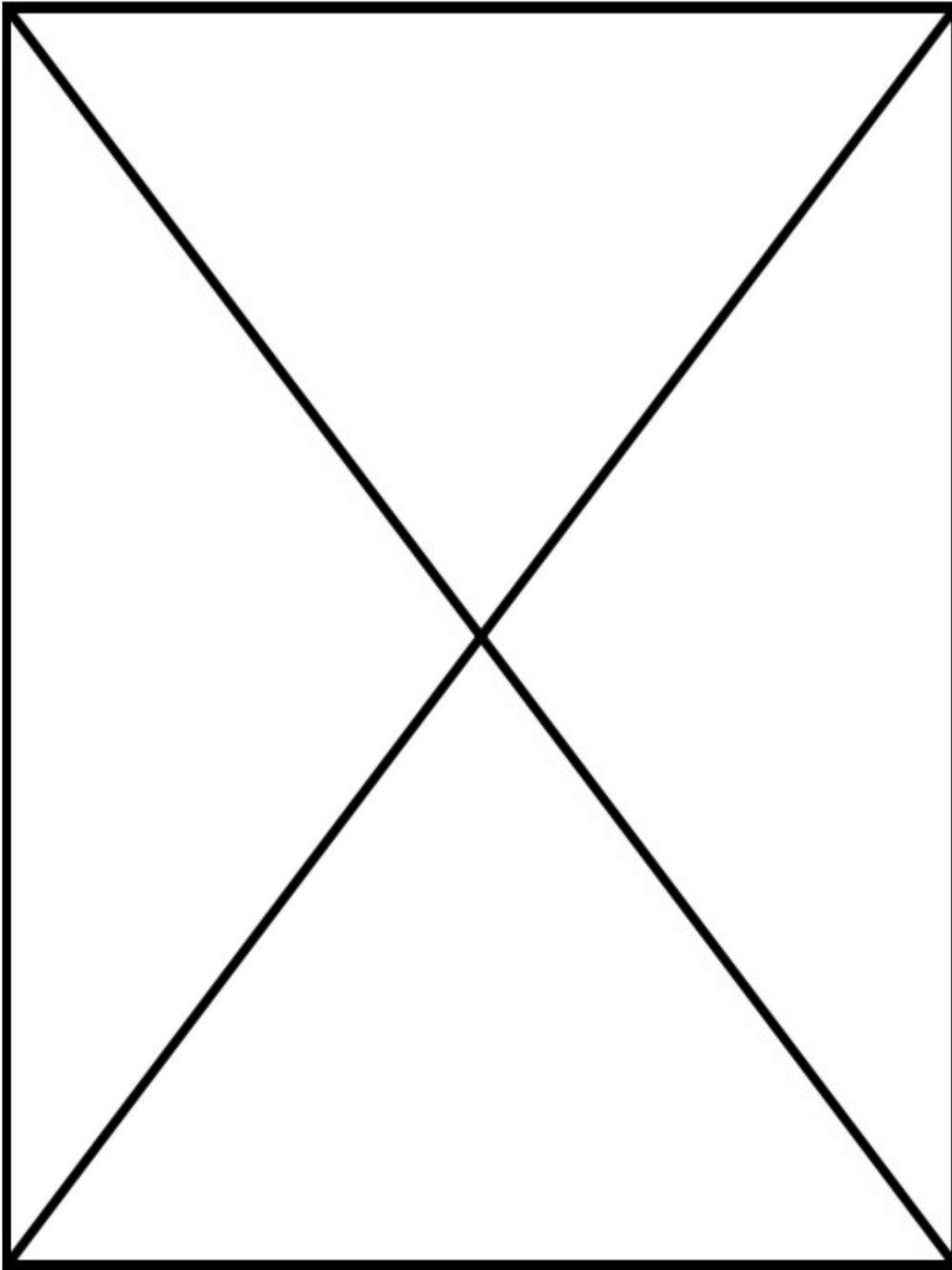
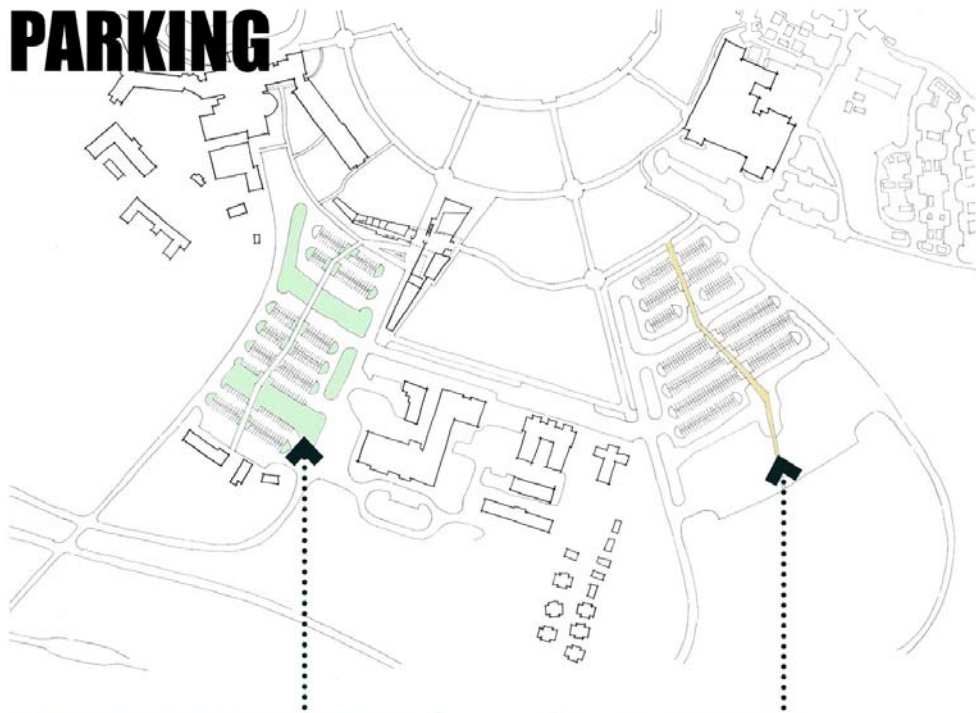


Figure 54: Study of green roofs.

The green roof can easily support the native plants found in the surrounding alpine meadow, creating an ambiguity between the landscape and the building, and highlighting the sense that the building was pushed up from the ground. [Image from HAER and Roofmeadow]

PARKING



Water management



Path through parking lot

Figure 55: Parking lot alterations

The existing parking lots will be reworked to incorporate water management areas and to create a more pedestrian friendly environment. The area of paved surface will be reduced by half, while leaving space for overflow parking during the busy summer months. [Drawing by Brian Essig, Image on right: Anonymous, Image on left: BE]

Chapter 5: Design Solution

The design solution developed for the visitor center is an extension of the sculpted landscape approach. Today, issues of sustainability and environmental stewardship have made education a primary concern for many park visitors. People want to understand and interact with the landscapes they are viewing, and the park service wants these visitors to leave with an appreciation for the environmental and cultural value of the parks. At Old Faithful this means bringing people face to face with the subterranean conditions that produce the geothermal features unique to Yellowstone National Park.

If one considers the relatively flat area around Old Faithful Geyser, it is not the ground surface that is of interest to visitors, but rather, what's happening below this surface. By conceptually pushing and pulling the ground plane, the layered construction of the earth can be revealed. This shaping of the landscape can then create a variety of ways to experience the exposed earth.

The new visitor center links the previously segmented portions of the Old Faithful complex and stands as the clear and identifiable center of the town. It fits into, and clarifies the existing crescent pattern. The center of the building itself is a large lobby that directs people to the main areas of interest in the area. The building is meant to be entered from all four sides, with each door leading to this lobby area. Here visitors can get information on the landscape, plan their visit, and begin to learn about the area. The main visitor spaces are arranged off of the lobby in a manner that encourages casual movement through the building.

Rammed earth is used as the primary material for these portions of the building. The heavy monolithic construction ties the building to the landscape, and the striations that occur as a result of the construction process reference the layered quality of ground below old faithful. The visitor education areas are housed in the rammed earth masses of the building, emphasizing the connection between the exhibit content and the architecture. The service areas are located in the timber portion of the structure, with the main lobby at the intersection of these two construction types.

From the main lobby the visitor can progress up the main staircase and across the mezzanine from where he or she can look down into the main space. Continuing along, this visitor will then find himself on the roof terrace, with a variety of spaces from which he can view the landscape. The northern portion provides space to view old faithful geyser, and the stadium seating can accommodate ranger talks and large group gatherings. The view from the highest point of the terrace provides views not only to the landscape, but also back onto the green roof. This green roof can easily support the native plants found in the surrounding alpine meadow, creating an ambiguity between the landscape and the building, and highlighting the sense that this building was pushed up from the ground.

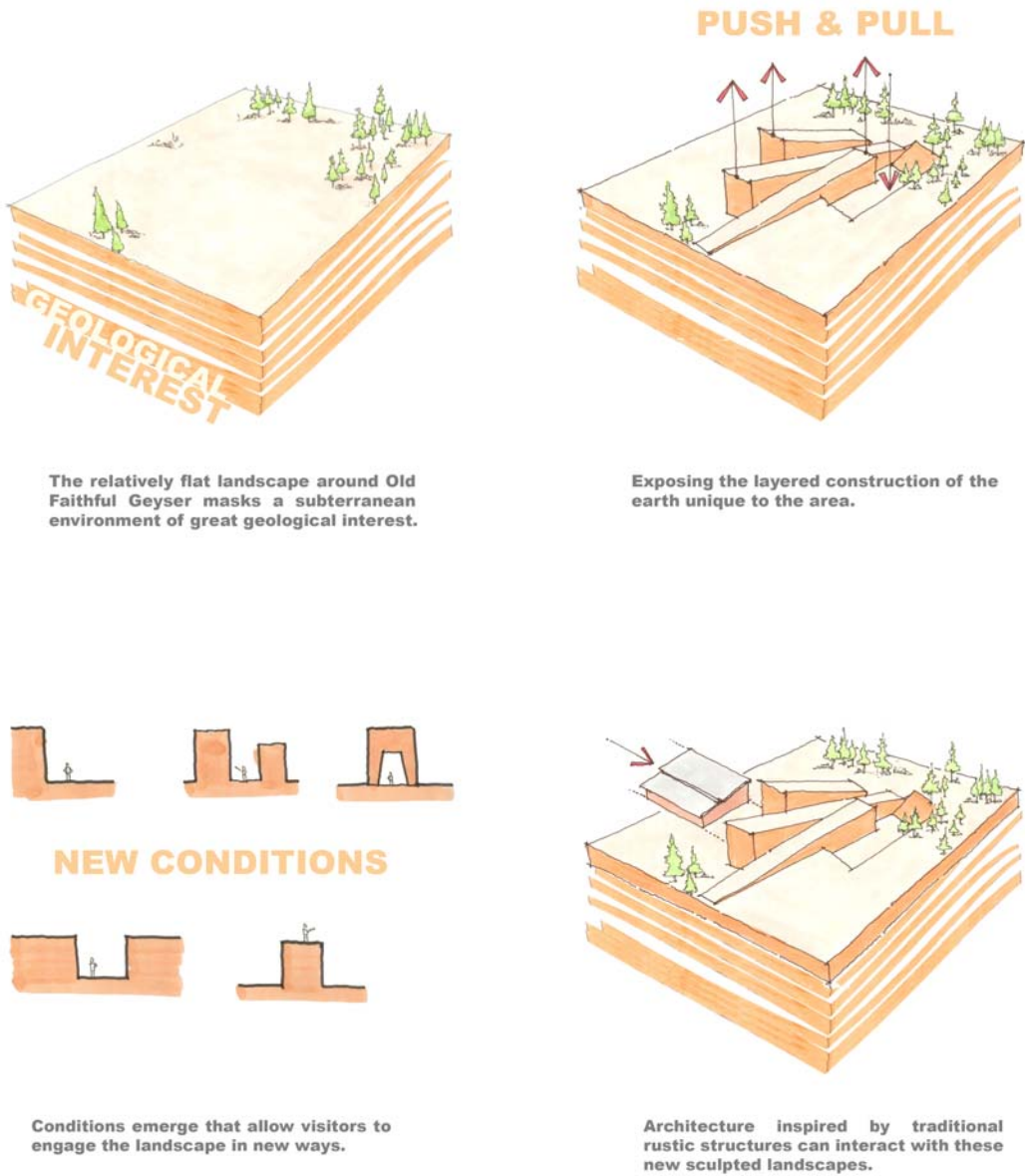


Figure 56: Concept Diagram

The diagram illustrates the concept of pushing and pulling of the earth to produce the main volumes of the visitor center. The intent is to make the building appear as an extension of the landscape. Visitors will have the sense of interacting directly with the unique geological conditions of the Old Faithful area. [Drawings by Brian Essig]



Figure 57: Proposed site plan.

The proposed visitor center links the previously segmented parts of the complex, and stands as the clear and identifiable center of the town. It fits into and clarifies the existing crescent parti.
 [Drawing by Brian Essig]

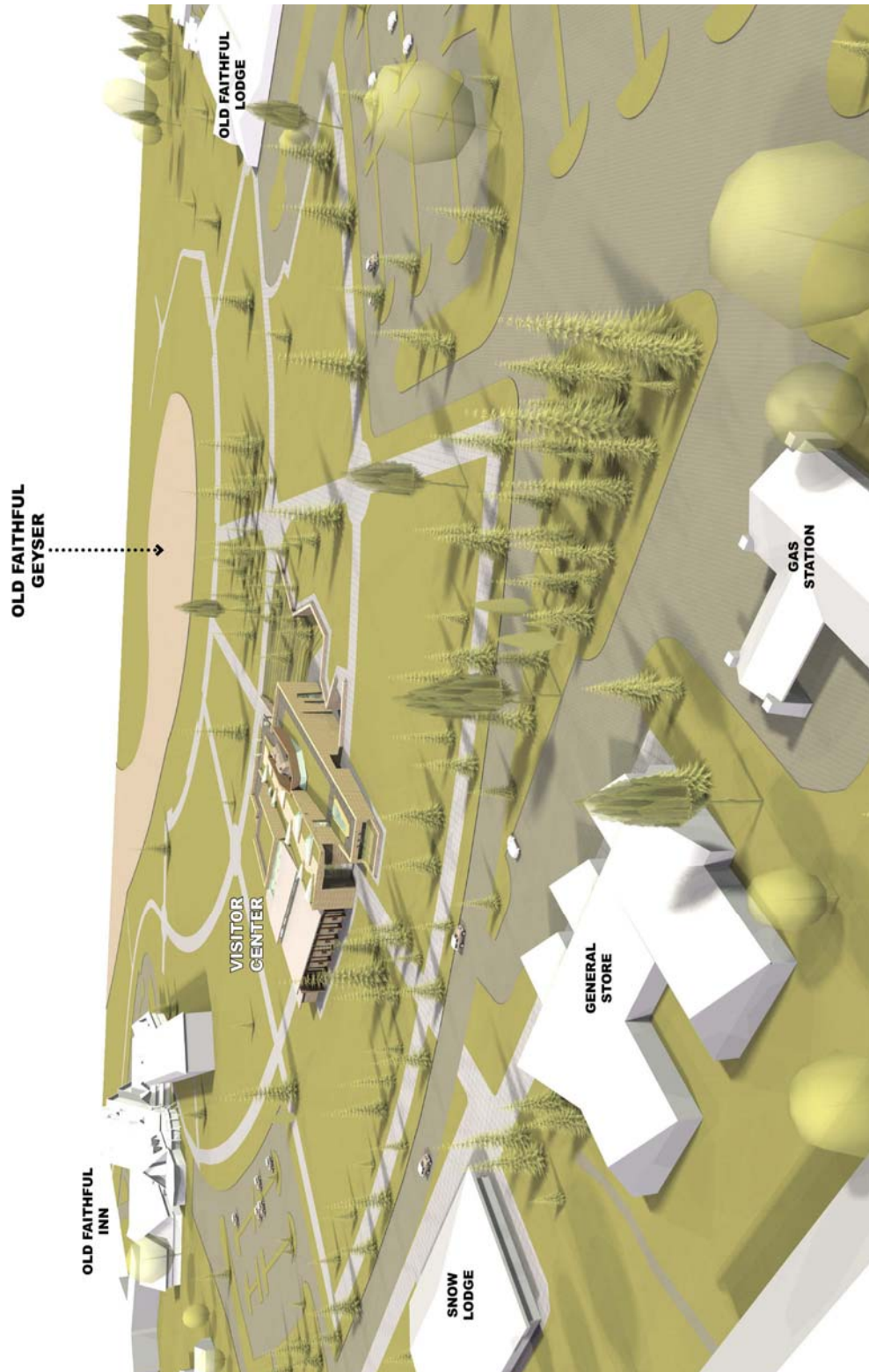


Figure 58: Aerial view of final design

Unlike earlier schemes where the visitor center extended gently out of the landscape, a set volume of earth is conceptually extruded creating a more centralized structure. This allows the building to fit into the built context, while still “exposing” the conditions below the surface. [Image by Brian Essig]

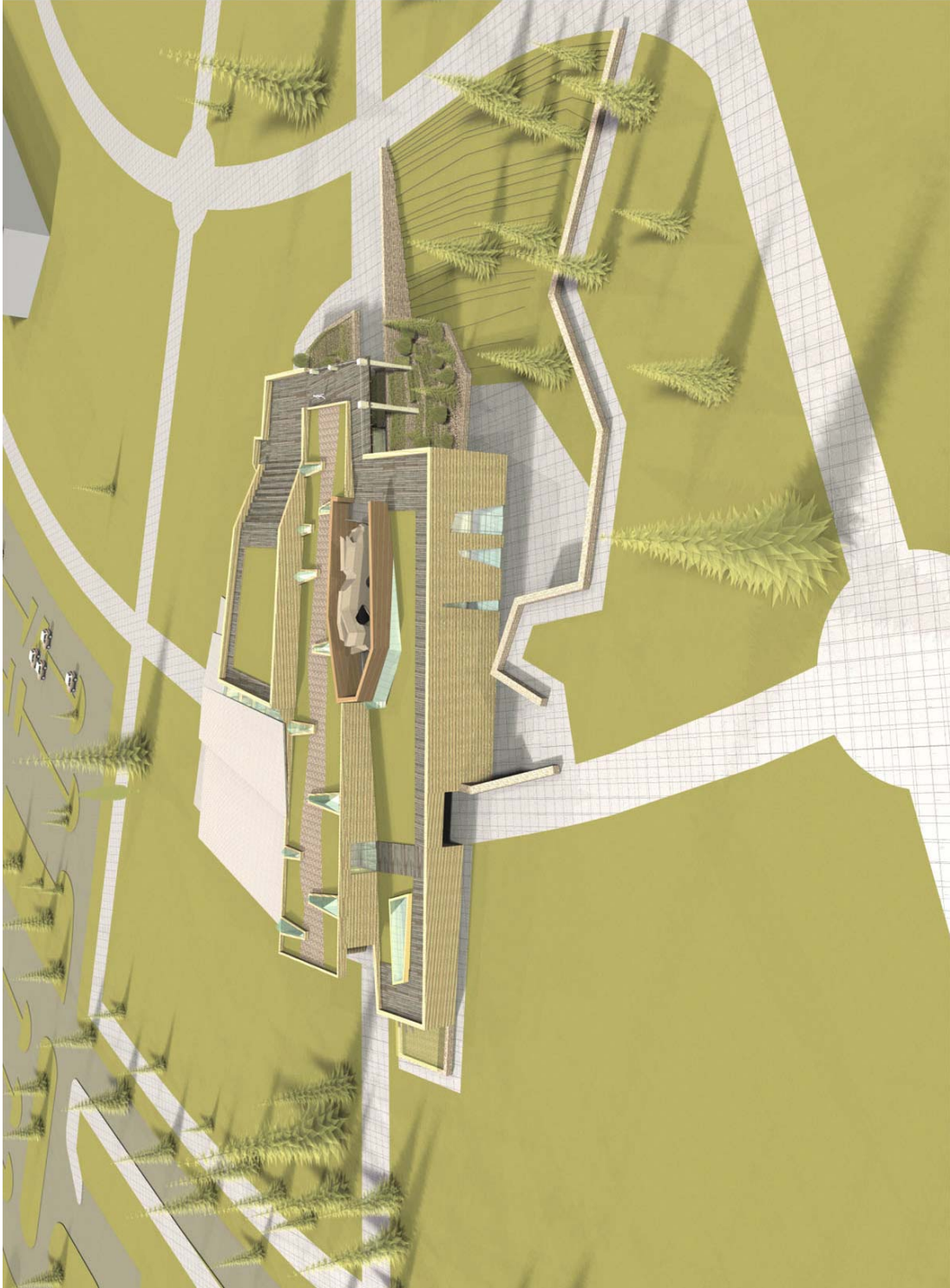


Figure 59: Aerial view of final design

Here, one can see how the concept of pushing and pulling the earth is manifest in the final design. The recessed courtyard reveals more of the eastern mass of the building, and the switchback roofs suggest how these three masses arose independently of one another. [Image by Brian Essig]

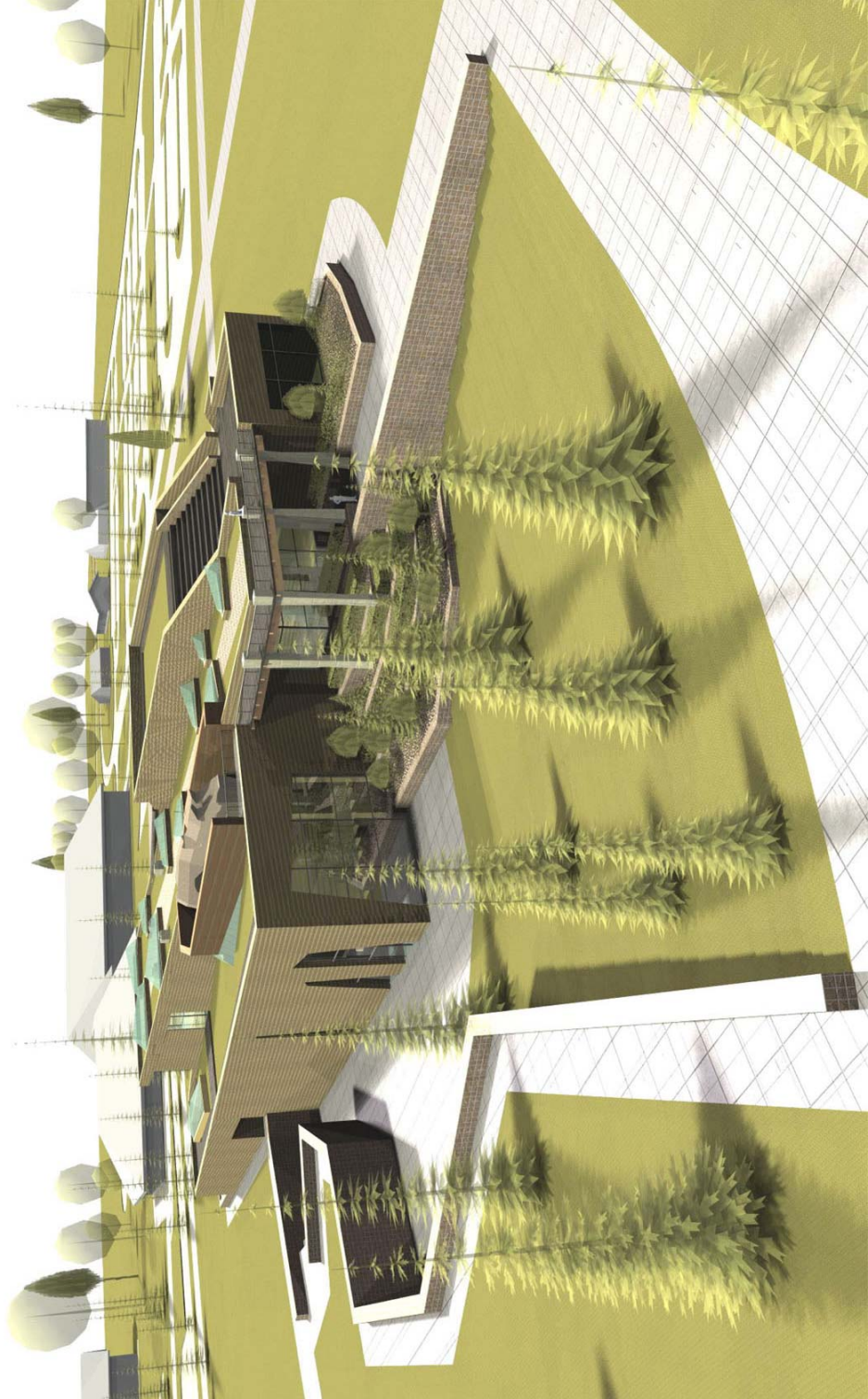


Figure 60: View from north

The ground slopes down gently to a recessed courtyard where groups can gather and rangers can give presentations. Stadium seating on the roof terrace serves the same function. Rain gardens on either side of the northern entrance collect water from the roof and reintroduce it to the landscape. [Image by Brian Essig]



Figure 61: View from south

Occupiable roof terraces provide spaces for visitors to view the surrounding landscape, particularly Old Faithful Geyser. As mentioned, the green roof can support the native plant life of the area, creating an ambiguity between the roof and ground surface. [Image by Brian Essig]

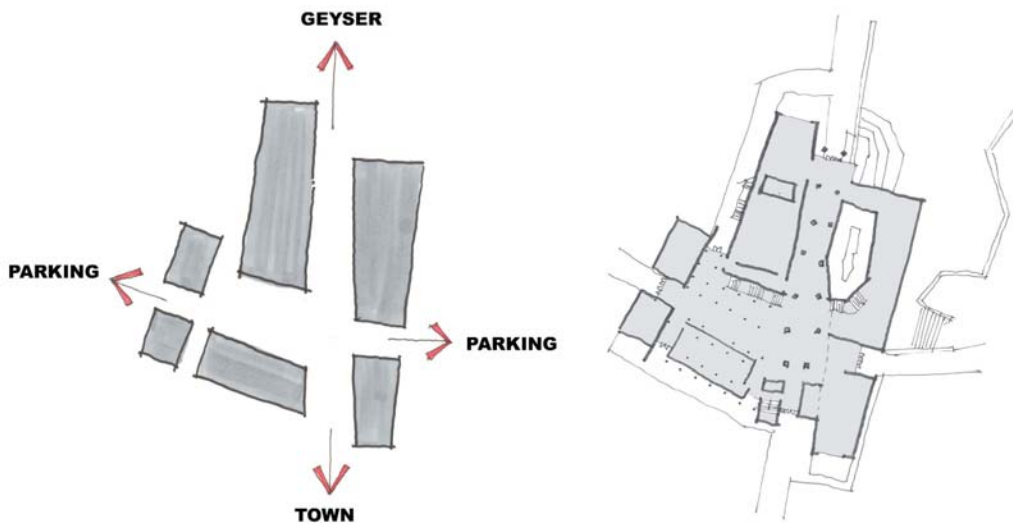
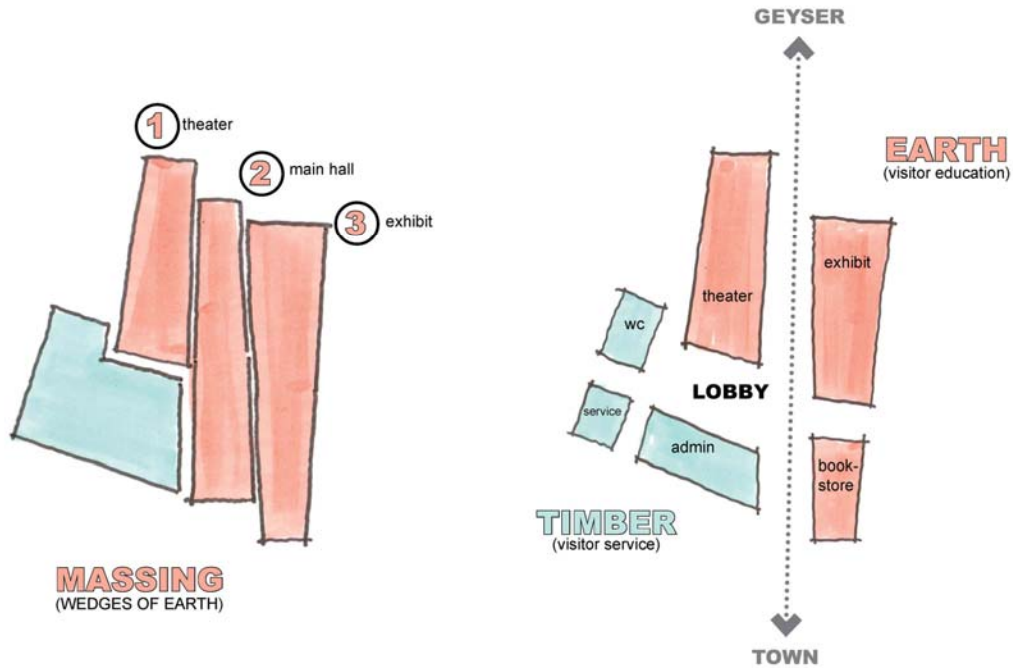


Figure 62: Plan diagrams

The diagrams show the spatial relationships between the rammed earth and timber portions of the building. They also illustrate how the lobby occupies the center of the visitor center, directing people out into the landscape and main areas of the complex. [Drawings by Brian Essig]

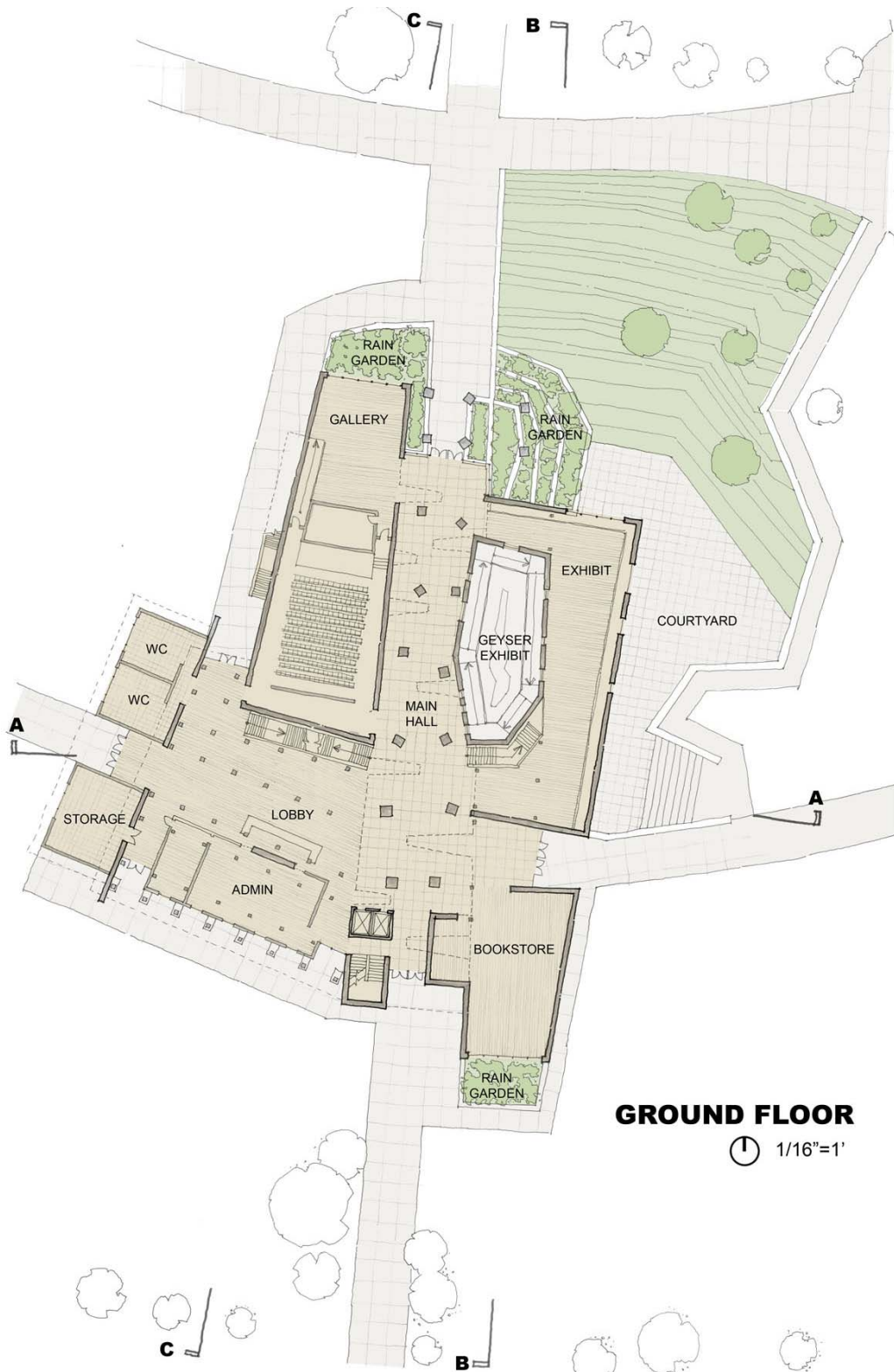


Figure 63: Ground floor plan

As mentioned, the building is meant to be entered from all four sides, with each door leading into a large lobby area. Here visitors can get information on the building and landscape, plan their visit, and begin to learn about area. The main visitor spaces are arranged off this central lobby in a way that encourages casual movement through the building. [Drawing by Brian Essig]

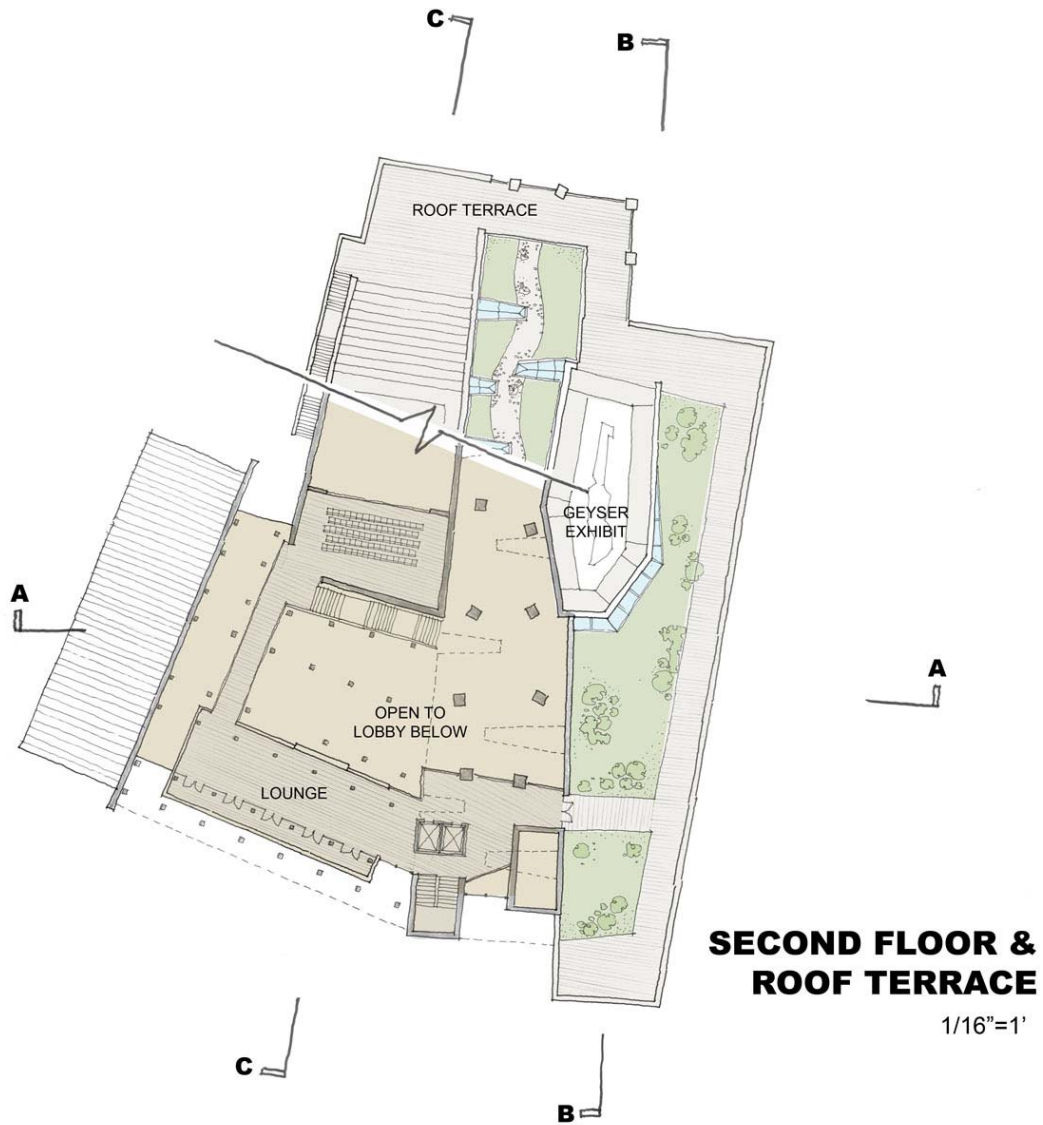


Figure 64: Second floor plan

From the main lobby the visitor can progress up the main staircase and across the mezzanine where he or she can look down into the main space. Continuing along, this visitor will then find himself on the roof terrace, with a variety of spaces from which he can view the landscape. The northern portion provides space to view Old Faithful Geyser, and the stadium seating can accommodate ranger talks and large group gatherings. [Drawing by Brian Essig]

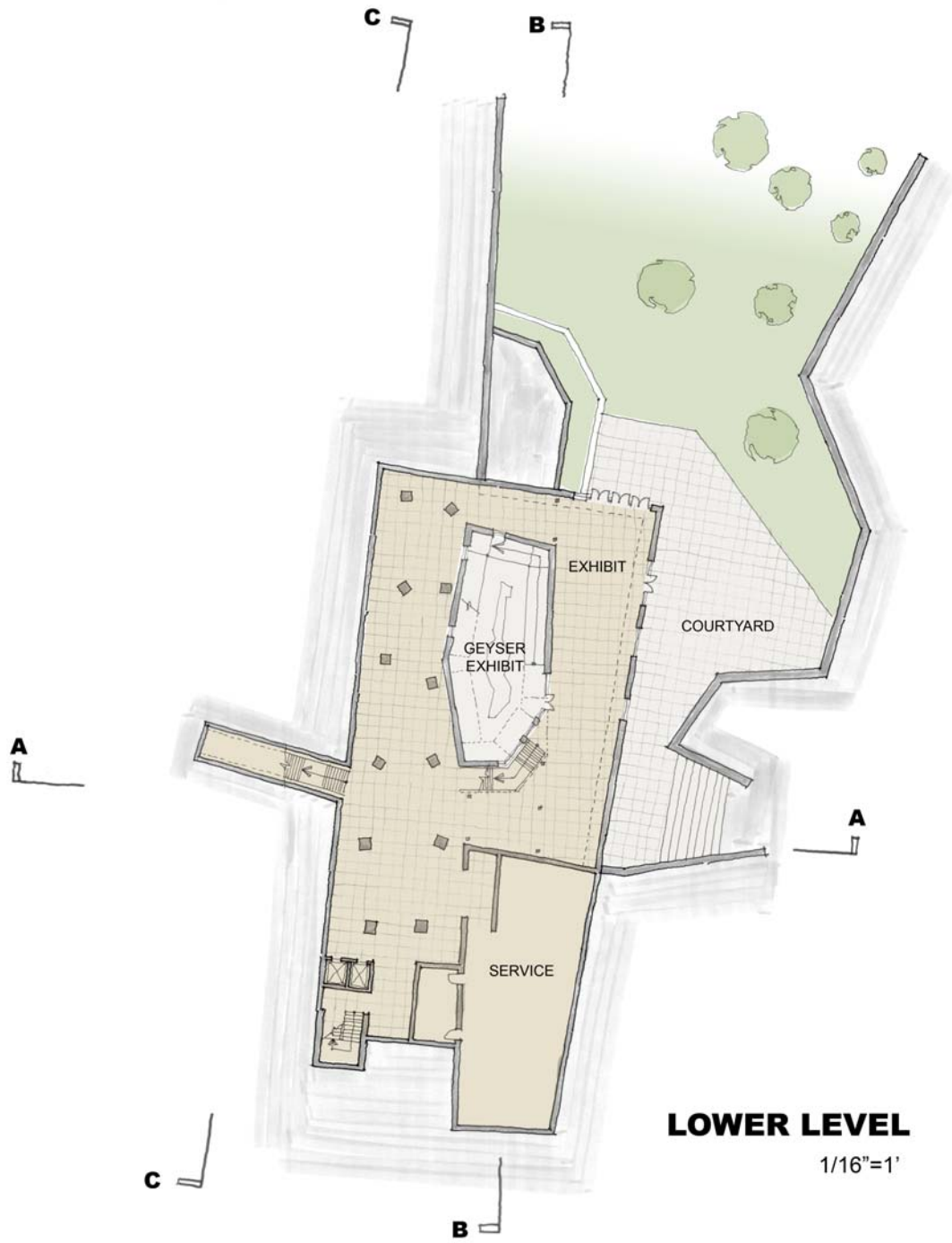


Figure 65: Lower level floor plan

The lower level houses more exhibit space. From this area, one can either exit into the outdoor courtyard, or return back to the main lobby. [Drawing by Brian Essig]

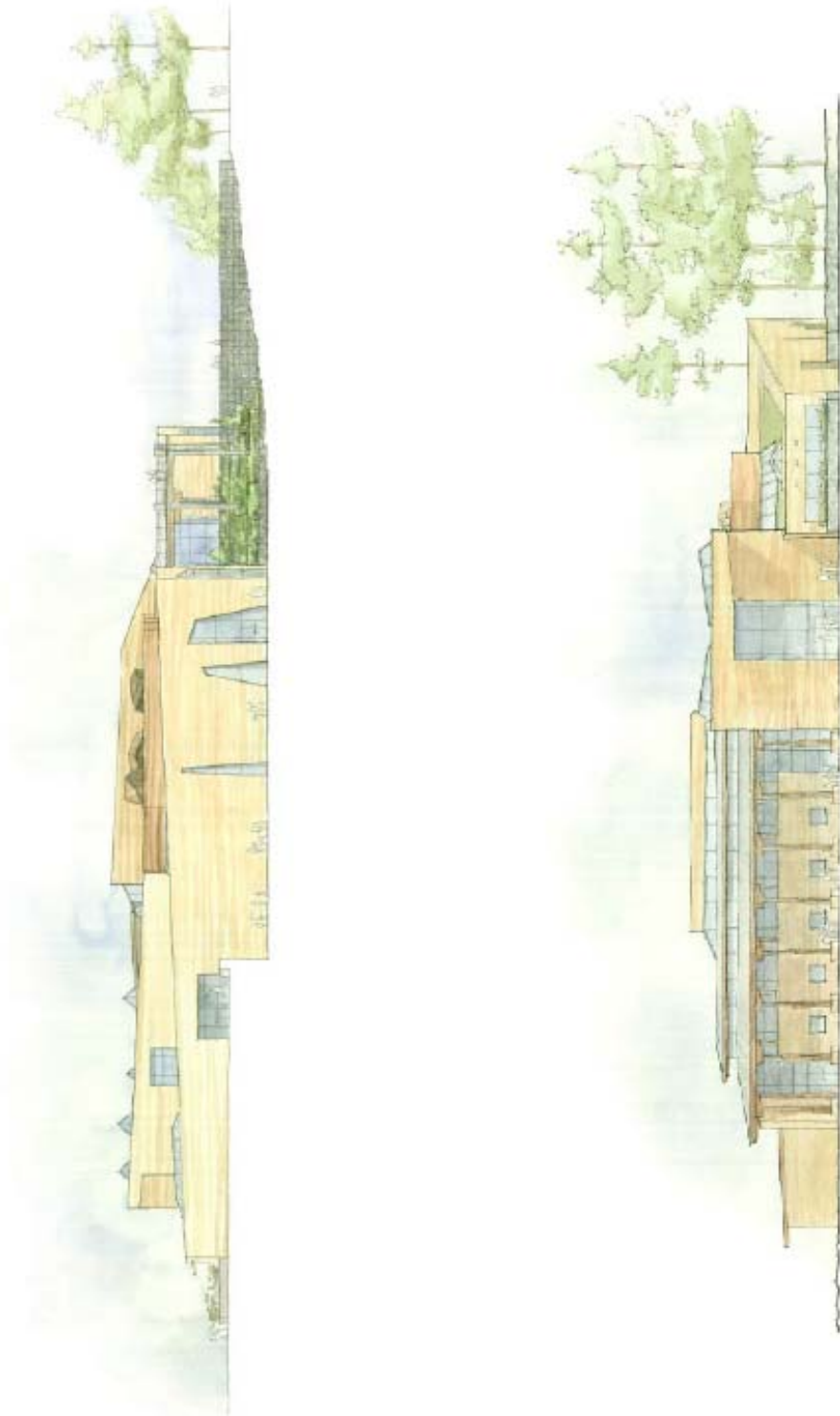


Figure 66: East elevation (left) and south elevation (right)

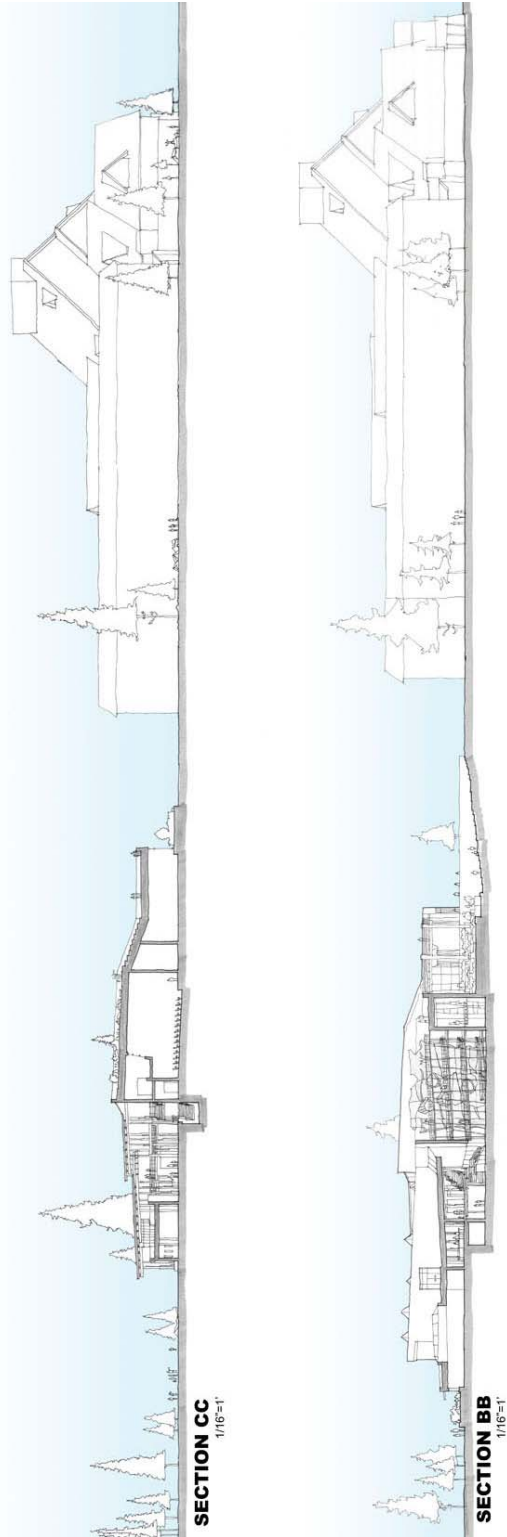


Figure 67: Site sections

The two sections show the low profile of the building compared to Old Faithful Inn. The proposed visitor center is meant to be the recognizable center of the complex, but should not dominate the area. [Drawings by Brian Essig]



Figure 69: View from southern approach

The building is easily recognizable to the first time visitor. Located at the center of the complex it is the intuitive first stop for guests. [Image by Brian Essig]



Figure 70: Main Lobby

Located at the intersection of the rammed earth and timber portions of the building, the lobby highlights the contrast between these two construction types, as well as implying the relationship between the built and natural environments. [Image by Brian Essig]



Figure 71: Circulation Hall

This main circulation area is meant to feel like a subterranean cave. Large figural columns, some as big as 4 feet at the base, and an irregular, sloping ceiling give the sense of being underground. [Image by Brian Essig]



Figure 72: View from mezzanine

This area provides a different vantage point from which to view the main spaces in the building as well as providing access to the roof terrace. [Image by Brian Essig]



Figure 73: View from lower roof terrace

The roof terrace leads you up to a point where you can look out over Old Faithful and the rest of the upper geyser basin. [Image by Brian Essig]



Figure 74: View from upper roof terrace

This view from the highest point of the terrace provides views not only to the landscape, but also back onto the green roof. This green roof can easily support the native plants found in the surrounding alpine meadow, creating an ambiguity between the landscape and the building, and highlighting the sense that this building was pushed up from the ground. [Image by Brian Essig]



Figure 75: View from inside geyser exhibit

This space is meant to create the sensation that the visitor is descending into the earth. The light steel mesh contrasts dramatically with heavy rammed earth construction. [Image by Brian Essig]



Figure 76: Main lobby

This view is from the staircase leading up from the lower level. From the main lobby visitors can be redirected to other areas of interest in the building or surrounding landscape. [Image by Brian Essig]

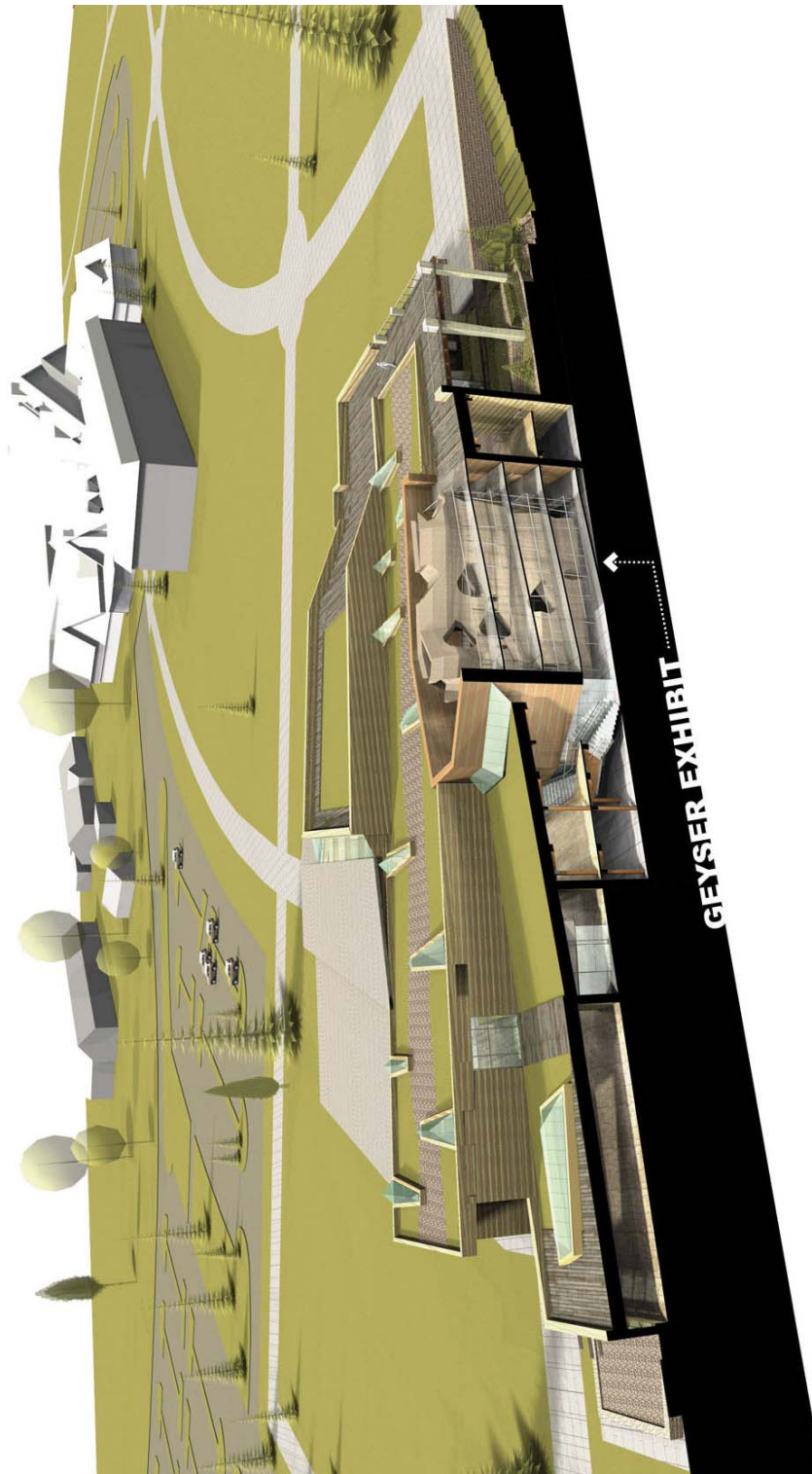


Figure 77: Section perspective highlighting the geysers exhibit

The geysers exhibit is a three story sculptural diagram that reveals the various rock layers and conditions that exist below grade. Visitors can enter this space from the roof terrace or lower level and descend/ascend the ramp allowing them the opportunity to see how Old Faithful Geysers functions. [Image by Brian Essig]

Chapter 6: Conclusion

Process

The ability to work on the this thesis for two semesters provided the necessary time to explore various design solutions at a variety of scales. Working on the written document concurrently with the visitor center forced me to consider how my design decisions related to the conceptual framework developing through the background research. It also allowed me to alter my document based on issues that arose during the design process. For example, it became clear early on that the Old Faithful area could benefit from a more comprehensive urban design intervention. However, I wanted to keep the thesis focused on the design of a single building, so I began to explore how the insertion of a relatively small building could improve the urban condition.

I'm disappointed that I did not fully investigate materials and detail. Rammed earth is a complicated building material, and I was never able to fully understand its structural behavior. As a result, aspects of my design, such as the timber and steel beam above the eastern entrance seemed generic and undeveloped. Given more time to work on this thesis, I would focus on tectonics and research the detailing of traditional rustic designs.

Committee Meetings

Periodic meetings with my advisory committee were an essential part of the design process. It was useful to occasionally stop working, assemble drawings and analysis, and verbally discuss the progress of the thesis. Often, this

made it clear that aspects of the design were not getting across as I intended. It gave me the opportunity to consider how I would present my work. A series of meetings in February with Key Professors and my committee helped me move past the early “sculpted landscape” schemes and begin development of the design that would eventually become my final proposal.

Public Review

The main comments made by the jury are outlined below in italics, with my response underneath.

1. The building doesn't match the diagram. It should be more “of the landscape” and less a building.

This was explored in early schemes, but ultimately would require too much disruption to the site. A building with a smaller footprint would have less impact on the landscape, and could also better address the existing urban conditions of the area. During my presentation, I failed to show how my final design had grown out of these earlier explorations.

2. How the building meets the ground needs to be considered. The sidewalk around the building separates the building from the landscape.

I agree with this comment. While I had intended for visitors to be able to walk around the building putting them in close contact with the rammed earth construction, I realize that this was unnecessary. Having the landscape meet the wall would have reinforced the idea that the building had been pushed up from the earth.

3. The building needs more verticality. One reviewer thought the building should go deeper into the earth to provide an “honest” experience of the ground condition.

The height of the building both above and below the ground was carefully considered, and I don't agree that the building would benefit from more verticality. Extending deeper into the ground could negatively effect the water table that feeds Old Faithful Geyser. Increasing the height above the ground would cause the building to dominate the site. As mentioned the visitor center is not the most important building on the site. Its central location makes it recognizable without the need to over-inflate its size.

4. *The planter box in front of the bookstore is a weak add-on to the design.*

In retrospect, I agree that this mass should have extended all the way into the landscape. After deciding that the visitor center should be more a building than a landform I cut off the structure at the southern edge of the bookstore. However, a continuous landform in this location would have greatly improved the design and clarified the concept. I should not have completely abandoned the “building as landscape” approach. It had value and should have been revisited periodically throughout the design process. The design did not have to be either a landmass or a singular structure, but could have taken a more subtle approach to sculpting the landscape that could have improved the experience of the visitor center without causing unnecessary damage to the surrounding landscape.

5. *A better system is needed to support the rammed earth.*

As mentioned, more time to explore the structural properties of rammed earth would have been beneficial. The cantilever at the southern entrance to the building was a mistake that should have been addressed earlier.

6. *The design has a suburban appearance.*

This was caused by problems with representation. I failed to show/explain the characteristics of the landscape directly around the building, and as a result the jurors assumed it was a manicured lawn.

Overall

The primary success of this thesis was the development of a design methodology. The background research revealed how early park architecture successfully linked the image of the parks to the actual experience of visiting places like Yellowstone and Glacier. This thesis demonstrated how a design process does not need to be invented, but rather can be borrowed from past successes (such as 19th century park architecture) and adapted to meet the needs of a current problem.

However, this methodology produced some significant problems in the final design solution. The simple intent to expose the “layered construction of the

earth” developed into a simplified visual diagram that had too much influence on the final appearance of the building. While conceptually convincing, the application of the diagram in the final design solution resulted in numerous questions concerning the appropriate manner in which to sculpt the landscape.

Building in the landscape is about contrast between the built and natural environments. The transition between these two is critical. Whether the edge is blurred or accented, it’s treatment defines the nature of this relationship. However, because the visitor center was part of a larger complex, this edge condition was complicated, and the final design did not fully communicate how the building met the town and how the town met nature. Perhaps, more town planning/urban analysis was needed to link the Old Faithful area to the landscape rather than focusing exclusively on a building at the center of the existing development.

The attempt to reinforce the existing design of the Old Faithful area may have been important to solving the current urban problems of the complex, but it failed to look forward to how the area will function in the future. With gasoline prices at record highs, one must question whether the personal automobile will remain the primary means of transportation within the parks. Places like Yellowstone were originally designed for tourists arriving by train and later modified to accommodate America’s car culture, and perhaps they will be modified again once driving across the country becomes impractical.

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