A Ball State University Facility for the Celebration
Of the Work of G. Brad Lewis

An Honors Thesis (HONRS 499)

By

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Abstract

A requirement for my ARCH 401 studio was to participate in the Cripe Competition. I was required to design a facility that commemorates the work of any artist of my choosing. After much consideration, I chose G. Brad Lewis, a world famous volcano photographer. In addition to expanding upon Lewis's work through form, I was to modify the building program and functions of the spaces to correlate to the unique qualities of my artist. The final products are a written paper, a collection of process documents, a $\frac{1}{8}'' = 1'$ scale model, and a presentation board.

Acknowledgements

I want to thank Bob Fisher for advising me through this project. He was extremely helpful with developing a strong, clear concept.

I would also like to thank Dr. Ruebel for pointing me in the right direction.
As a fourth year architecture student, I am required to participate in a design competition hosted by the firm CRIPE Architects and Engineers. In such a competitive atmosphere, it is not surprising to discover strengths and weaknesses of oneself in the midst of those competitors. I enjoyed the process of discovering new ideas, new forms, and new boundaries with this project.

My class was given the task of designing a commemorative gallery to any artist of our choosing. However, the artist’s art must be primarily two dimensional, which consists of photography, painting, printmaking, and cinematography. Once the artists had been chosen, we were given a set of criteria to which we could make minor changes in order to accommodate the nature of our artist.

After much consideration, I chose G. Brad Lewis, a world renowned photographer of the Hawaiian volcano Mt. Kilauea. His unusual specialization has resulted in stunning photos that capture the essence of lava flows. According to his webpage, Lewis finds inspiration in variety, beauty, and adventure, which describes his work perfectly. Within the frames, he captures texture, liquid light, and movement, and his goal is to “further the viewer’s understanding and appreciation of the natural world and comprehend the bigger picture” (Volcano Photography). Because of the dangerous nature of his job, Lewis must
get permission to gain access to certain volcanic sites. The only way he is able to do this is by collaborating with scientific institutions with the task of collecting visual data and research for their use. While accomplishing this, Lewis works on his artwork. The extreme heat complicates working with camera lenses and film, and often melts the camera equipment. As a result, Lewis must carry with him three sets of cameras when he ventures out onto the volcano (Volcano Photography). Despite such danger, Lewis is able to capture energy and movement through still images.

I chose Lewis because of the danger and the sense of adventure and discovery that he encounters in order to take pictures. In addition, I found a recent geology class here at Ball State extremely interesting, and Lewis corresponds to my newly developed interests. I enjoy his bold pictures, exciting colors, and dual nature with art and science.

After making my selection, I was required to alter the building program to house something unique to my artist. I added a 2000 square foot Adventure Center for programs with children or adults relating to volcanic activity, including a rock wall. The second room I added was a 1500 square foot geology lab. Since this gallery sits on the corner of University Street and McKinley, this building could serve several educational purposes linked to Ball State's Art Museum and geology program.

The next step was to analyze the site with regards to wind, sunlight, pedestrian pathways, parking relationships, building relationships, and campus versus village relationships. I made several conclusions as to the overall building layout. The north edge of the site is the quietest, most private area. The west façade will be seen most by university students and faculty. The south façade is transitional between the university and the village, and it provides the best opportunity for sunlighting applications. The east
façade faces a small alley, which could serve as a service access. I also decided that I wanted two entrances—one at the corner of University and McKinley Avenue. The other would be located at the northeast corner closest to the parking garage. These two entrances would then be connected by a circulation path that would fit into a future concept or theme.

After creating several sketch models at a small scale, I found one that seemed to work the best. The floor plan looked chaotic and angular with a circulation route that curved around the gallery space and through several others, but the two ends arrived at the correct places. I modified this floor plan throughout the rest of the semester to accommodate a stronger concept—the idea of “discovery.”

In the gallery space, my idea was to create a sense of environmental discovery. Since Lewis’ work is photography based, I had the idea to increase the size of his images so that his pictures stretched from floor to ceiling. When viewers would look at these, they would get the sense of standing exactly where the artist would have stood when he was taking the picture. Hopefully, this would transport them out of Muncie to another place entirely. To enhance the concept of environmental discovery, I created a maze-like circulation pattern with a variety of small, medium, and large rooms. Visitors would then be surprised to discover something new around every corner. I also added an elevation change in which people would take three steps down at the northern part of the gallery, where Lewis’ cool-colored pictures would be placed. In this way, there might be a temperature change when viewing these particular pictures, thus enhancing the atmosphere and ambiance.
The idea of environmental discovery permeated the entire design of the building, especially in the design of the circulation path. I designed a path that winds around the rooms creating multiple corners. When visitors enter the hallway, there is some destination at the end that will draw them through the space. For example, when someone enters the hallway from the University and McKinley intersection, the first thing he or she sees is the reception for the Adventure Center. Then, from the reception, the visitor discovers the entrance to the gallery to the left. After that, there is the discovery of a widened corridor with windows viewing a small, private courtyard to the right. At the end of this corridor, which also serves as an informal gallery space for the community, the visitor discovers a hallway off to the left that contains a window with a view into the geology lab. This is the point where the public circulation ends and the more restricted, private hallway begins. The private hallway is narrower in order to subconsciously communicate that the general public is not supposed to be in that area.

The way in which the circulation separates private and public domains became another organizing factor in the building’s layout. According to the program requirements, there must be six to eight residential work/live units for visiting artists. I put these on the northern edge for more privacy, better views and acoustics, and green space access. The geology lab is also in the private, northern section because of the studious nature of the place. Most of the services and storage are located on the northeastern edge, away from pedestrian view. Underneath these private areas is the mechanical room, which is accessed from the west stairs or the east exterior stairs. As for the more public spaces, these have been rotated and organized in a square, so that they are able to build off of one another. The Adventure Center can flow out into the
multipurpose room. The multipurpose room can flow out into the corridor. The gallery can flow out into the multipurpose room or the café, and the café brings people off the street corner and into the building. As a whole, these spaces compliment each other and create a welcoming and successful space.

The second floor is mostly dedicated to administrative rooms. A goal for this area was to allow employees to view and observe the area they govern. For example, the food manager has an office with a window looking down into the café. The general manager has an office looking down over the building entrance, and the secretary is able to view employees going in and out of the locker room and break room. In addition, the second floor provides visitor access to the green roof and café patio. Features such as these are a great draw into the building.

The overall form of the building was the greatest challenge of the project. I wanted a form that would imitate the environment or shapes that Lewis would encounter with his artwork. I played with the idea of sloping walls or berming the ground, but in the end, the roof planes became the major issue. After several sketch models and variations in slope, I concluded that the roofs had to be organized by water drainage. Therefore, the two south roofs slope to a small water cistern that becomes a water feature. The roofs over the public areas drain onto the green roof which filters the water before it collects in other cisterns. The roofs over the residential area shed onto vegetation as well. In this way, the building exerts water conservation in a sustainable manner while creating a jagged, mountainous and rocky form. The southern, main façade was designed to convey this message as well. Tapered columns and sloped windows and bases give the building a jagged, angular look that ties in with the roof system.
Materials are also important in conveying the overarching volcanic theme. Red brick is used to connect the building with the existing buildings on campus and to reference the bold red lava of Lewis’ work. The use of load bearing masonry is appropriate for this building because it is a heavy, grounded material that communicates the earthliness of Lewis’ working environment. In addition to brick, ashlar and limestone are used for the base, columns, and second floor wall façades. The glass on the south façade and around the vertical circulation areas is chosen to have a similar appearance to obsidian, a glassy, volcanic rock found in areas where Lewis works. Together, these materials emphasize the nature of Lewis’ environment and the subject matter of his art.

When all elements of this design come together, the result is a strong, clear concept that is carried throughout the entire building. Of course, there will be those who oppose such chaotic looking forms, but there are others who love this style. Either way, the concept that influenced the form is apparent. Lewis’ work expresses moments that are bold and dangerous, and this building captures that essence through form and environmental discovery.
Works Cited


For my section’s Cripe Competition design problem, the students were asked to design a multi-use, predominantly gallery-dominated facility, partially of their own definition focusing on an artist of their own choosing. The artist chosen had to be a practitioner—living or deceased—of one of the visual arts. For the purpose of this project, the visual arts were defined as art forms that focus on the creation of works that are primarily visual in nature: painting, photography, printmaking and filmmaking.

The students were asked to choose how they would represent their artist in the design of the building—in fact they could chose not to assertively represent the artist in their design, but simply provide a functionally and spatially competent design solution for the specified program as a neutral backdrop for the artist’s work. They were, however, required to do two things in regard to the functionality of the building: they were asked to torque the functions of the spaces listed in the program to suit their artist and add or subtract spaces to the suggested program so as to better accommodate the activities that would be included in a facility devoted to the work of their artist. The students’ choices of artists were: seven painters, two cinematographers, two photographers and one woodcut artist.

The basic programmed spaces—to which the students were to add or subtract—were the following:

- Two Galleries, one for the signature artist and one for a traveling artist of the same genre
- A Multi-purpose space: for lectures and multi-media presentations
- Residential/studio accommodation for visiting artists
- A Café
- A Gift shop.
- Outdoor spaces connected as appropriate with the above-listed spaces
- An Administration suite
- An Employee area
- The usual service areas: receiving/dock, mechanical areas, storage, etc.
- Plus: Designer-defined spaces
G. Brad Lewis Exhibit: Bringing Adventure to Muncie

Gripe Architects + Engineers
4th Year Capstone Project

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Project Summary
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Design Concept:

Environmental Discovery:

This design is an attempt to create a sense of ADVENTURE and discovery around every corner. The concept diagrams show the various destinations. The exterior form alludes to the rocky, JAGGED environment that the artist has to encounter. Not only are the roof forms jutting in different directions, but they also are used in specific WATER DRAINAGE. The south elevation has a catch basin, while the GREEN ROOF catches and filters other roof water.

RED BRICK is used to connect contextually to Ball State's campus which is highly dominated by red brick buildings as well as sidewalks. It also relates to Lewis's volcanic work by alluding to red, hot lava. BLACK TINTED GLASS is used to represent a volcanic rock called Obsidian. It has a smooth, glassy surface. Most of the black glass is used in vertical circulation areas as well as the southern elevation. LIMESTONE is used for the southern elevation's columns as well as the second floor's exterior facade. DARK GREY SPLIT-FACE STONE is used along the exterior bases as well as for defining the entrances.

Using heavy materials relates to the rocky, grounded environment the artist encounters on a daily basis. To compliment this, most of the structure is comprised of load bearing masonry.

Why I Chose G. Brad Lewis:

I really enjoy his bold pictures, his exciting colors, and the idea of adventure when he works. I remembered him from television shows and the National Geographic, and it amazed me how he experiences a dual nature with art and science.
G. BRAD LEWIS
LIQUID LIGHT
- INTERNATIONALLY ACCLAIMED PHOTOGRAPHER OF THE HAWAIIAN VOLCANO KILAUEA
- PHOTOS PUBLISHED IN LIFE MAGAZINE, NATIONAL GEOGRAPHIC, NEWSWEEK, FORTUNE, AND MANY MORE
- ‘VOLCANO MAN’ IS THE NICKNAME COINED TO HIS CAREER

PULSE

www.volcanoman.com

Pele’s Heartbeat
UNIQUE TEXTURES
CREATION, BEAUTY, AND RAW POWER
TABLE OF ACCOMMODATION

I. Specific Spaces: Multi-use Facility

1.0 Multi-purpose Space  
1.1 Seating Area (Seating for 100 in chairs, For 40 at tables of 8 for dining)  
1.2 Stage Area  
1.3 Stage Activity Prep Area (Quasi-Green Room)  
1.4 Storage for Tables and Chairs  
1.5 Projection Room (Can be rear projection)  
1.6 Reception Area
   Outside of the Multi-purpose Space: Can be Combined with an atrium or other common space

2.0 Exhibit
2.1 Exhibit space
   1500 sq.ft. for signature artist
   1500 sq.ft. for visiting artists
2.2 Exhibit storage

3.0 Café
   Table seating only: no counter
   3.1 Table seating for 40
   3.2 Kitchen

4.0 Coat Room (In or contiguous to entry)
   For 100 coats

5.0 Toilets
   These toilets are intended to serve the entire facility. If the organization of the facility makes one set of toilets impractical, an additional set should be provided.
   5.1 Men’s toilet
   5.2 Women’s toilet

6.0 Drinking fountain, telephone and janitor’s closet
   These are often located in proximity to the toilets. The only completely enclosed area is the janitor’s closet, which can be assumed to be a 4’ x 8’ room with a janitor’s sink, cleaning equipment and supplies. The drinking fountain and telephone commonly “on-the-wall” or alcoved (or both) items.

7.0 Reception Desk
   Close to the entrance.
8.0 Facility Administration Suite

- General Manager’s Office: 180 sq.ft.
- Food Manager’s Office: 120 sq.ft.
- Conference Room for 8: 200 sq.ft.
- Secretarial and General Office: 200 sq.ft.
  - 2 secretarial stations plus copying, fax and storage.
- Unisex Occupancy Toilet: 50 sq.ft.

9.0 Employee Areas

- Employee Locker Rooms: 2 @ 150 sq.ft
  - 12, 1'-6”x1'-6”x6'-0” lockers and 2 contiguous 25 sq.ft. occupancy toilets for each locker room.
- Employee Break Room: 300 sq.ft.
  - Concession area for 5 machines and table seating for 10.

10.0 Storage Areas

- Exhibit Storage (Contiguous to exhibit area): 150 sq.ft.
- General Storage (In the service area): 150 sq.ft.

11.0 Service Areas

- Receiving storage: 200 sq.ft.
  - Temporary storage of received items.
  - Must be accessible from dock.
- Garbage/Trash Area: 100 sq.ft.
  - Temporary storage of outgoing trash and garbage.
  - Must be accessible from dock.
- Dock: 100 sq.ft.
  - A dumpster must be provided in the dock area.

II. Specified Spaces: Apartment/Studio Units

8 units at 600 sq.ft. each.

4800 sq.ft.±

These apartments/studio units will provide living/working accommodations for visiting artists. These units will minimally include:

- Living Area
- Sleeping Area
- Food Preparation/Dining Area
- Studio
- Bathroom

The area of 600 sq.ft. per unit is provided as a suggested number.
As you plan these units, you may increase or decrease this area.
And you may wish to add spaces.

III. Total Area of Specified Spaces
13,300 sq.ft.±

IV. Outdoor Spaces
A number of the functions could benefit from having contiguous outdoor—or quasi-outdoor—areas. Most notable of these are the café and the multi-purpose room.

V. Designer-defined Spaces
2 (suggested minimum) to 4 (suggested maximum)
1. Adventure Center: 2000 sq. ft.
2. Science/Geology Lab: 1500 sq. ft.
3. 
4.

VI. Net Area: 18,000 sq. ft.
The sum of the areas of the specified spaces and the designer-defined spaces.

VII. Grossage: 9,000 sq. ft. 50% of net area
Includes area for entry, atria, corridors, elevators, escalators, fire stairs, wall thickness, etc.

VIII. Mechanical Room: 1,350 sq. ft.
Should be contiguous to the receiving area.

IX. Total Area: 28,350 sq. ft.
Sum of all of the above.

The Site
The site for this project will be the northeast corner of the intersection of University and McKinley. An AutoCad file of the site will be provided.

Parking
No parking will be provided on site. All employees and visitors, including the visiting artists and the disabled, will park in the parking garage just north of the site.
## Interrelationship Matrix

**For Lewis Gallery**

<table>
<thead>
<tr>
<th>Entrance</th>
<th>Lobby</th>
<th>Info Desk</th>
<th>Mech. Room</th>
<th>Multi-Purpose</th>
<th>Exhibit</th>
<th>Cafe</th>
<th>Coat Room</th>
<th>Toilets</th>
<th>Janitor...</th>
<th>Drinking F.</th>
<th>Admin. Suite</th>
<th>Employee</th>
<th>Storage</th>
<th>Service</th>
<th>APT. Studio</th>
<th>Outdoor Spa</th>
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- **Red**: Co-Occupant
- **O**: Adjacent
- **Y**: Near
- **G**: Distant
- **P**: No Relationship
The Denver Art Museum was the building form that I looked at the most to find inspiration for my design. Several concept models followed, each of which carried the same 'winding corridor' scheme.

Ball State University Art Facility
G. Brad Lewis Exhibit

Concept Models and Sketches
Scale: ¼" = 1′
<table>
<thead>
<tr>
<th>Ball State University Art Facility</th>
<th>North Elevation</th>
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<tbody>
<tr>
<td>G. Brad Lewis Exhibit</td>
<td>Scale: 1&quot; = 20'</td>
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</table>

<table>
<thead>
<tr>
<th>Ball State University Art Facility</th>
<th>South Elevation</th>
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<tbody>
<tr>
<td>G. Brad Lewis Exhibit</td>
<td>Scale: 1&quot; = 20'</td>
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</tbody>
</table>
South Entrance
Ball State University Art Facility
G. Brad Lewis Exhibit

Cafe Wall Column Detail
Scale: 1" = 1'

WATER BARRIER CAP
WINDOW SPACER
WINDOW SASH
5/8" DRYWALL
1" RIGID INSULATION
CONCRETE
#4 REBAR @ 10" O.C.
STEEL LINTEL
THERMAL BARRIER
WINDOW SPACER
HOLLOW ALUMINUM SASH
STEEL ANGLE
LIMESTONE
DOUBLE PANED GLASS