A MUSIC CAMP FOR MONTANA STATE UNIVERSITY

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Part 1

Undergraduate Thesis in Architectural Design

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Submitted to the School of Architecture as partial fulfillment of the requirements for the degree of Bachelor of Architecture at Montana State University

Bozeman, Montana
March, 1970
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In doing research for my thesis, I have found that Nature plays an important role, not only in everyday life, but also in the field of Architecture. I hope that by doing my thesis work, it will bring me closer to these elements of Nature that are directly or indirectly related to Architecture. Such elements as proportion, emotion, form, and many others, all of which can be found in the micro and macro systems of Nature, would be very beneficial to my understanding of Architecture. My main objective is to recognize these elements and learn from them, so that they will help me to find better solutions to problems that I will encounter in the future.

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PURPOSE

In doing research for my thesis, I have found that Nature plays an important role, not only in everyday life, but also in the field of Architecture. I hope that by doing my thesis work, it will bring me closer to those elements of Nature that are directly or indirectly related to Architecture. Such elements as proportion, function, form, and many others, all of which can be found in the micro and macro systems of Nature, would be very beneficial to my understanding of Architecture. My main objective is to recognize these elements and learn from them, so that they will help me to find better solutions to problems that I will encounter in the future.
"Man is a work of Nature. Man is a purely physical being. Man is a machine subject to the laws of Nature."

Baron d'Holbach

The philosophy of Baron d'Holbach has intrigued me deeply. He has made me realize that architecture is so much a part of Nature. Man should study this Nature, and learn her laws, contemplate her energies, observe the rules by which she acts, and then apply these discoveries to his own felicity. There is much that we can learn from Nature. Her powers can influence and stimulate the mind, increase perception, and develop awareness. Nature can stimulate an individual to strive for self-realization and self-seeking truths that would develop creative and individualistic talents.

When a person becomes aware enough to know and understand his inner self, then he's approaching the state of being a real person. To know one's inner self, his goals, purposes, function, relationship to the rest of the world, will tend to be very beneficial when going through life. It eliminates self-conflict, and self-conflict can inhibit a person from thinking as freely as possible. To attack a problem with an open mind enables a person to see and accept both sides of it, along with all the other characteristics that it pertains to. This would enable a person to balance and weigh these characteristics, and evolve from them, a solution that he thinks is best, after considering all other possible solutions.
The site for the Music Camp lies in the Bridger Mountains, approximately 8\frac{1}{2} miles out of Bozeman. The tree-covered hills that are on the site express clearly that the beauty of Nature is present. My intention is to preserve the natural state of the site, and try to design a building that would blend into it. I want to try to create an environment that would enable the people staying there to become aware of the natural surroundings. I want to introduce them, if they haven't been already, to Nature, so that they can know it, understand it, and learn from it.

Frank Lloyd Wright was very much aware of what Nature had to offer Mankind. He realized the powers of Nature, and learned from it. He took very simple things, such as, seashells and flowers, wonders of Nature, studied them, and then developed concepts for his buildings. I believe that musicians can also create music with deeper intent, feeling, and meaning, by studying Nature, and the purpose of the Music Camp is to try to make them aware of this.
CONDITIONS CREATING A NEED

During the past decade, the field of Music has played an important role in our American culture. The new sounds produced by singers and bands today, along with their more open lyrics, seem to guide the younger generation towards a deeper interest in the field of Music.

Many universities are expanding their Music departments in order to meet the increasing enrollment into that field. The Montana State University Music Department is also planning to expand their facilities in the near future. Their present facilities are temporary structures which were originally, mining camp buildings, brought to the university in 1943. These buildings are now very inadequate and overcrowded. (see fig. 1) The department plans to move into the Fine Arts complex, which is to be built in the near future. However, they are also planning a Music Camp somewhere in the mountains surrounding Bozeman in order to attract more local students interested in Music. Music camps affiliated with universities have played great roles in increasing the interest and abilities of many young people. The purpose of these camps is to try to spark the initiative of musically interested students so that they'll try to develop their skills.

At present, the majority of Montana high school students interested in Music tend to enroll into out-of-state institutions, because of the inadequate facilities here at Montana State University. The university hopes that the Music camp would attract not only local students, but out-of-state students as well. The University could sponsor summer programs
and musical seminars at this camp, sending out invitations to all the schools in the Northwest or throughout the Nation. Such programs, if successful, could boost enrollment into the M.S.U. Music Department, and also, raise its accreditation ranking.

In summary, the following are the main reasons why the M.S.U. Music Department is planning for a Music Camp. They want to keep local talent in-state, increase enrollment, get a higher accreditation ranking, and have a place where students can go to increase their skills, meet other musicians, exchange ideas, and learn more.
LOCAL CONDITIONS

The site lies 6 1/2 miles northeast of the town of Bozeman, Montana, in the Bridger Mountain Range. It consists of approximately eight (8) acres of land that lies in a small valley, surrounded on three sides by hills. The valley opens up to a cleared area and onto the Bridger Canyon road. The surrounding hills are sufficiently covered with trees, making the small valley very peaceful. At present, there is an existing summer cabin on the site that was built in the 1920's.

The Bridger Bowl Ski Area lies 7 1/2 miles north of the site, thus making those facilities available to the people at the Music Camp.

The properties surrounding the site are dedicated mainly to ranching, while some farming is done in the lower areas of the Bridger Valley. The area is not commercialized at all, and it maintains its country atmosphere, which is very beneficial to the purpose of a Music Camp. In fact, this is the type of setting that a Music Camp should have; one that is unclustered, uncrowded, and very open to the outdoors.
SITE CONDITIONS

Location
The site for the Music Camp is located in T. 1 N., R. 7 E., NE 4 of section 8, 45° N. latitude, and 111° West longitude, in the southwest corner of Montana. (see fig. 5 for the exact location of the site.)

Orientation
The site is situated so that it receives sunlight throughout the day, except for the North slope of the hill that lies south of it. (see fig. 2) The Bridger Road lies adjacent to the side, and east of it, and the Bridger Mountain Range looms overhead just west of it.

Immediate and Distant Views
For reference concerning the views and terrain, see the photographs of fig.'s 3 and 4, both of which were taken at the site. The view to the east is of the Bridger valley, with its rich farm and range lands. Views to the south, north, and west are of the surrounding hills.

Natural Features
By natural features, I am referring to the land conditions of the site. There is an open field between the existing cabin and the Bridger road that has been cleared for farming. To the northwest of the existing cabin, there is a small valley in the hills with a drainage creek for spring runoff running through it.
Vegetation

Ground vegetation includes mountain sagebrush, grass, and summer wildflowers. The majority of the trees are fir, ranging from 20 feet to 40 feet high.

Zoning Regulations

Since the site lies out of the city limits of Bozeman, and the National Forest Service boundary lines, the only code that it is subject to is the National Building Code.

Availability of Utilities

The only available utility that runs adjacent to the site along Bridger road is electricity. Sewage disposal would have to be provided for the site. Water would have to be obtained from natural springs or from a well.

Climate

The climate of Bridger Canyon is very similar to conditions in the Gallatin Valley. It is subject to wide changes in temperature within a 24-hour period, and as much as 30°F is not uncommon. The seasonal change in temperature ranges from approximately -30°F in winter to 90°F in the summer. Winds are variable in movement and direction, prevailing from the west or southwest during the day, and shifting to the southeast at night. The mean annual temperature is 41.4°F. The average temperature in the spring is 41.2°F; summer is 63.0°F; fall is 44.1°F; and winter is 23.1°F. The average rainfall is 17.29 inches per year, while the snowfall can be expected to reach approximately 30 inches around the vicinity of the site.
AESTHETICS

The architects' work must be a hymn to creation, must faithfully reflect the typical laws and imitate the specific character of all that Nature presents. The ethics of Nature are order, symmetry, logic, and proportion. An architect should keep these physical aspects in consideration because they carry much weight in a critical analysis of a design.

In his book, Architecture of Humanism, Geoffrey Scott writes of Nature:

"the curves of the waves, the line of the unfolding leaf, the pattern of the crystal, all these might be studied, and in some way architecturally employed—no matter how—so long as the knowledge and the love of them were evident."

There is much to be learned from Nature—its magnificence can influence and stimulate the mind, increase man's perceptive abilities and thinking processes. An architect is a man, and Man is subject to the laws of Nature, and therefore, an architect should study Nature's laws, and learn from them, because it can be very beneficial if he administers it into his design process or is aware of it when designing. All that man can do is bring things together already found in Nature. His task is to find the right elements of Nature that complement each other. The combination of these elements would be the work of man, but the elements themselves would be the work of Nature. Therefore, the task of an architect would be to innovate these elements rather than create.
Man must find the right combination of these elements to produce forms that are within the limits Nature allows.

The task of Architecture, is to communicate to man concerning his identity in the world. If architecture fails to communicate with man, then it ceases to be architecture, but mere construction, and this is the main problem in design—that a design should speak to you, and express its purpose.

The physical setting of the site demands that a building would have to respect the natural surroundings and be subject to it. Such a man-made building should blend into the surroundings, and not defy its natural purpose. The elements of Nature should be reflected in the form and structure of it, and its spaces should allow Nature's excitement and variety to enter into it.

The use of wood, raw concrete, and stone, could greatly reflect a natural image of the site, and would tend to blend into it. The landscaping of exterior spaces also, shouldn't go against the natural background. The whole complex should be designed to bring the students closer to Nature so that they can reach her influential elements.

A Music Camp should display an overall friendly atmosphere in all of its spaces. These spaces should welcome the students and convey to them, an uninhibited feeling if possible. It should be very open, so that natural sunlight can fall into them, thus making the spaces warmer. The use of warm colors in the interior spaces along with the natural texture of the structural materials, can be worked together so that they
generate a friendly and congenial atmosphere. Steeply pitched roofs would blend with the rugged peaks of the surrounding Bridger Range, and would also prevent the heavy snowfalls from settling.

One should be able to walk through the complex and still be aware of the wooded areas surrounding it. The use of the materials, wood, concrete, and stone, along with the interrelationship of forms and spaces, can give the Music Camp complex the warmth and unity needed to tie together so that it will display a purposeful atmosphere.
FUNCTION

After speaking with several instructors from the Music Department, I have developed a program for a Music Camp in the Bridger Mountains that would accommodate approximately 500 people; the majority of them would be students, and the minority would be instructors.

Program Requirements

A small Library—to house volumes of Philosophy, Poetry, Music, Musical arrangements.

Performance Pavilion—several practice bays should surround it.

Public and Private Spaces—for group and individual practicing sessions.

Outdoor Theatre—for summer events.

Recreational Facilities—Indoor and outdoor. These would include a recreation room for billiards, table tennis, etc., and outdoor tennis courts.

Reception Lobby, Office, and Manager's Home—all three of these areas are connected.

Dormitories to house 450-500 people.

Cabins and Individual Units for Instructors—20 units.

Cafeteria

The following diagram shows the inter-relationship of the spaces outlined in the program. It can be seen from the diagram that the Music Camp isn’t a single building, but rather, a complex of spaces that let in the influential elements of Nature.
SPACE RELATIONS

Figure 6
BUILDING FUNCTIONS

Dormitories

The rooms in these spaces should be semi-private and uncrowded, with warm colors worked in with the materials and the furniture. Most of the rooms will be double, to allow campers to meet new people. The public spaces of these dormitories, such as lobbies and floor lounges, should have an atmosphere that would induce friendliness, so that it would be easier to meet and learn from other people. It is my philosophy that much can be learned from other people, because of their different backgrounds, styles, techniques, and other attributes. It will be very beneficial to the students' purpose for being at the Music Camp. Common areas of these dormitories should be closely related to the other functions of the camp.

Cabins and Individual Units

The cabins or units would be designed mainly for faculty members and older people who are participating in the Music Camp activities. The designs for these will be simple, and not enriched with ultramodern facilities that man has developed to make living easier. A pedestrian circulation system would connect these units to other functions of the complex. Several of these units will be duplex and maybe even quadruplex units, centered around common court areas, but not so that they would isolate themselves from the rest of the camp.
Performance Pavilion:

This is an important part of the complex, and should be its focal point. It should be a main group gathering area and should convey to the students, a non-inhibited feeling. Indoor performances would be held in this building, and practicing bays, both individual and group, would encompass it. This area would be open to a common court, a court that would allow the natural panorama of the site to flow into it and relate to the pavilion.

Public Spaces:

By public spaces, I am referring to the common areas, courts, and lobbies. I will try to integrate these areas with the natural environment of the site. These areas should have an atmosphere that would induce numerous informal encounters among students and teachers, because both can profit from the enlightenment offered from others. These areas should thus induce human personality development while fulfilling the functions of a music camp. Such spaces are capable of creating a sense of communion with one's own subjectivity and with other people.

Private Spaces

These are areas where students could go individually to either practice their instrument, study, think, or to be alone. Some of these would be on the periphery of the pavilion, and others would be incorporated into the outdoor open areas of the site. There is a time in everyone's life when one wants to be alone, and at a Music Camp, it is almost certain that there will be tendencies for individuals to feel that way.
Therefore, I will provide certain areas where individuals can go to be alone.

Library

This part of the complex would house various philosophical works, including those of famous musicians. Poetry, Music, and Musical arrangements would also be included in this building. The purpose of having a library in a Music Camp is to provide volumes that would induce personal development within the students.

Cafeteria

The function of the cafeteria can be found in its literal meaning. However, this area should also have a warm and unalienated atmosphere, where people can also meet and learn from each other from simple discussions held over the dinner table. This building would be situated close to the lodging facilities, and a game room would also be close by, so that students can enjoy after-dinner recreation.

Outdoor Theatre

During the summer months, when the weather is most enjoyable, practicing sessions and concerts would probably be held outdoors. An outdoor theatre would be very functional to the atmosphere of the Music Camp, and with good weather to back it up, it would make outdoor concerts enjoyable. The hills on the site can be molded into an outdoor theatre form, thus preserving the naturalness of the site, and minimizing the use of construction materials.

Recreational Facilities

There will be occasion for students to have some free time so that
they can take part in recreational activities. This would also give them a chance to get their minds off Music for awhile. Such time-outs for recreation are very beneficial in a learning process. It has been proven that intermittent learning processes give a student better comprehension than if he was supposed to take long study sessions with hardly any breaks. The game room would include billiards and table tennis, and there would be tennis courts close by.
ECONOMICS

A Music Camp is not a necessary part of a school of Music in a University system, however, it is an important supporting facility, and it definitely improves the overall ranking of the university as well as, the character of the students.

For a building such as a Music Camp, student fees would be the main source of funds, because it would be a branch of the School of Music, which in turn, would be a part of the Fine Arts Complex. The Fine Arts Complex, which is to be built in the near future, will be funded by student fees, and the remainder will come from state funds. The Music Camp would not qualify for state funds, since it isn't a necessary facility of the School of Music. The only other possible way to acquire funds for such a building would come from contributions by boosters.

Under a situation such as this, the Music Camp would have to fall under a strict budget, and the client would be Montana State University. Therefore, it should be constructed mainly out of local building materials. Lumber would be the most economical building material, since the surrounding mountains of the Gallatin Valley have an abundance of trees. The natural stone in the valley is also easy to come by, and this would be an economical material too. About the only material that would be expensive would be concrete, since it would have to be imported into the valley. The main aspect that would be non-detrimental to the cost of the building would be bad weather conditions, which could hamper the construction schedule.

The design would have to provide for the maximum use of all its spaces, and if possible, functions should overlap each other, as in
A Music Camp, once built, would be self-supporting, since its users would have to pay fees in order to stay there. Students would have to pay camp fees, and the cafeteria would serve the same purposes as a restaurant, where diners would have to pay for their meals. Another source of income would be for the Music Camp to accommodate visiting skiers, since the Bridger Bowl Ski Area is 7/2 miles away.

Other possible uses that would bring income to the camp would be for it to rent out to churches for religious retreats, fraternities and sororities for parties, and to sponsors of pop rock festivals. One can see that the Music Camp, being self-supporting, would be able to pay for itself within several years time.
REFERENCES

Books


Interviews

5. Interview with Larry Sowell, Professor at M. S. U. Music Department, Bozeman, Montana, Feb. 16, 1970.
