



Bas relief in wood for the fireplace room of Herrick Hall
by Robert L Kehoe

A THESIS Submitted to the Graduate Faculty In partial fulfillment of the requirements for the degree
of Master of Applied Art
Montana State University
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Abstract:

This thesis has been written to explain a practical application of sculpture to a given situation. A problem was set up which provided a wood panel of x 7' to be carved into a bas relief for the Fireplace room. of Herrick Hall. Considering the physical factors of the room, the principle part of the problem consisted of designing a motif for the panel. The design was to be concerned with the interests of the people who used the room. The other factor to be considered was the adaptability of the panel and its design to the room. The solution to this problem is enlarged throughout the thesis.

As preliminary studies to this problem there were smaller pieces of sculpture done in wood carving, stone carving and ceramic sculpture. These first projects served as an introduction to the media and tools of sculpture. The experiments and methods of approaching these problems are individually treated in the thesis.

Throughout the work there has been a study and appreciation of sculptural concepts from the ancient to the contemporary. In addition there was a growth from the practical working experience in sculpture, the reading and study of contemporary sculptors and the very helpful criticisms of Mr. Conrad and the art department faculty of Montana State College.

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HERRICK HALL

By

ROBERT L. KERCE

A THESIS

Submitted to the Graduate Faculty

in

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for the degree of

Master of Applied Art

at

Montana State College

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Abstract

This thesis has been written to explain a practical application of sculpture to a given situation. A problem was set up which provided a wood panel of $3\frac{1}{2}'$ x $7'$ to be carved into a bas relief for the Fireplace Room of Herrick Hall. Considering the physical factors of the room, the principle part of the problem consisted of designing a motif for the panel. The design was to be concerned with the interests of the people who used the room. The other factor to be considered was the adaptability of the panel and its design to the room. The solution to this problem is enlarged throughout the thesis.

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Introduction

The research and special problems involved in this thesis have been planned as practical problems in the art of sculpture. The thesis problem was one of designing a piece of sculpture to meet the demands of a specific situation. With this problem in mind there was an attempt to explore the most commonly employed media in the field of sculpture. The experience gained in the actual physical properties of wood, stone and clay has been extremely valuable. The experience has not been limited to a knowledge of the materials to be carved but also extends to the tools used in sculpture, and their care and upkeep.

Beyond the characteristics of tools and media the artist is concerned with certain basic elements of a work of art. These qualities are difficult to define but are generally spoken of as: form, design, structure and composition. The sculptor attempts to express his creative concept through the action of his tools on the material. He may have a well defined idea of what he is about to create but the limits of his tools and materials often alter his conception.

The sculptor in working a piece of stone or wood must give thought to several things: he must consider the size, form, volume, type of material, balance, proportion, lighting, hardness, texture and many other properties that vary with the material. The final expression produced by the sculptor is the result of his command of these physical properties plus his creative interpretation and imagination.

Sculpture may be considered the original form of art expression.

The three-dimensional quality of sculpture is significant to the human concept of known objects. People have the inborn desire to feel and think in terms of volumes and voids. For this reason sculpture is a dynamic art.

The research and problems of this thesis have served as an excellent introduction to the art of sculpture. The work accomplished during the year has been an exploration of the possibilities of wood, stone and clay. One of the important parts of this study has been the development of the ability to recognize good sculptural qualities.

Most of the experiences and observations have been personal and it would be impossible to express them in terms of muscular coordination, mental reflections and an expression of aesthetic qualities. Certain findings that have been observed during this project have been noted. These observations might be of value to some other beginning sculptor faced with similar problems.

There are essentially two parts to this thesis. The first section deals with special problems which were disciplinary in nature. They were designed as experiences in the hardness of wood and stone and the workability of clay. They were concerned with the control of light, the realization of volumes and the integration of masses. These studies of sculpture in the round were preliminary to the final thesis problem of bas relief in wood. The depth effect of bas relief is achieved by the use of overlapping planes and a reduced figure size. The success of the bas relief was entirely dependent upon the application of the sculptural principles learned during the beginning problems in sculpture. These problems are described in the first part of the thesis.

Chapter I

Oak Sculpture

The first study was a wood carving in oak. The block, 4" x 6" x 24", was acquired from one of the local lumber yards and it cost \$2.00. Kiln dried oak of the same type would have cost from five to ten times as much. Because this piece of wood had been dried by nature there was evidence of checks throughout the block. This type of wood is used by ranchers and farmers for wagon tongues as well as other farm and commercial equipment where wood is required to be under great tension.

Before work on this block of oak was started an anatomical study was made in clay of the approximate size and shape of the figure to be carved. This study was made to determine the best means of utilizing the block of wood. Some sculptors approach a piece of wood or stone without any plans of direction. They allow the media and their imagination to suggest form. This method is a direct sculptural approach.

Before the clay figure was started an armature was built up of twisted wires which established the vertical proportions and served as the basic bone structure of the figure. It was securely mounted on a block of wood which gave the figure adequate support. A plasticine clay was used to build up the figure around the wire armature. The clay was applied to the armature in very small amounts to build up the volumes of the body such as the head, chest and pelvic regions. These volumes were developed as inter-related masses with consideration of the mechanical functioning of one part to another. The growth of this type of clay figure is interesting and instructive. It is not only a good exercise in the construction of a figure

but it illustrates rather well the necessity of an interrelation of working parts and the need for solid figure construction. When the bone structure of the figure had been developed, muscles were added. The figure grew from the addition of clay to all parts rather than the development of a single arm or leg at a time. By turning the figure and working from all directions a well proportioned structure was realized.

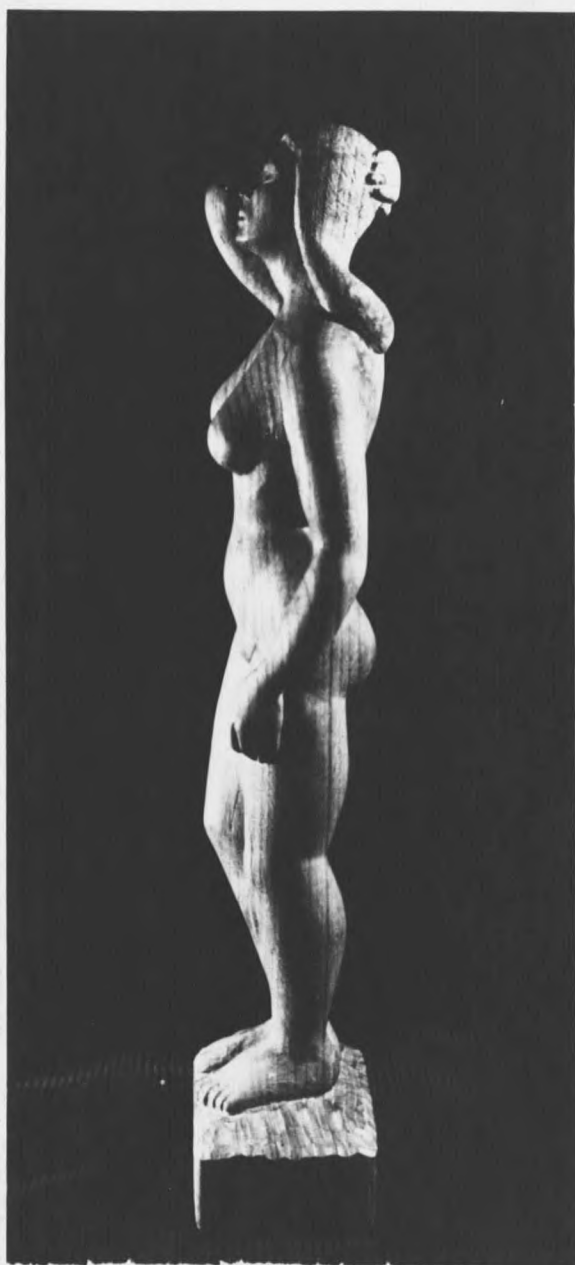
The work on the block of oak was started after the clay study had been completed. From a careful study of the clay figure, drawings were made on the uncarved block of oak representing the front and back view and the two side views. The grain of the wood and the design of the figure suggested work from the back to the front. A large gouge was used for roughing out the front and back contours. Other pencil notations were roughed over the carved side views and the work was started from one side to the other. After the four sides had been cut away smaller chisels were used to cut down the corners and to develop the arms and legs. The closer the figure came to completion the slower and more exacting the problem became. A coarse rasp was used effectively to rough out the basic volumes. From this point the work took a definite form and it seemed more interesting. Coarse sandpaper and a small wood rasp did most of the finishing work. At this point a small chisel was used effectively on the flat areas. The final finish was accomplished with a fine sandpaper.

The block of oak at the time of purchase had several small cracks that grew larger as the chipping process continued. It seemed logical to assume that the checks would weaken the structure and possibly the carving would split as the work neared completion. Despite the continued chiseling and

mallet blows the oak figure gave no indication of splitting.

A final finish of one half shellac and one half linseed oil was applied to the figure. This finish brought out a pleasing pattern of alternating light and dark grain rhythms. In some manner the wood dust from the rasping and sanding seemed to fill up some of the cracks and with the application of a finish the cracks seemed much smaller and less obvious. Perhaps this was true because the finish darkened the wood and made the cracks appear smaller. In any case the cracks do not seem to detract from the appearance of the piece of sculpture.

In working with oak, tools dull very quickly and it is advisable to have a sharpening stone at hand at all times. It is far more efficient to keep tools constantly sharp both from the viewpoint of cutting a cleaner bite and also in requiring less effort to make a cut. If the tool is kept in good condition it will not develop nicks.



Photograph of Oak Sculpture

Chapter II

Ceramic Sculpture

A study of ceramic sculpture was made of Lewistown clay. This clay is of a natural pink color before and after firing which seemed to be a suitable clay for an anatomical study.

In the use of ordinary clays it is necessary that most objects which exceed approximately an inch in thickness be hollow to prevent them from cracking during drying or firing. This was the main problem which presented itself in creating ceramic sculpture. There are various commercial methods which are in common use in the mass production of ceramic objects. The most common method is the use of an absorbent mold in which slip (clay of a consistency of pea soup) is poured and after it has adhered to the walls of the mold to the desired thickness the remaining liquid content is poured out leaving a shell of clay which when dried is a hollow ceramic piece. At best these objects are obviously mass produced. In creative sculpture of this type, the problem is the formation of a hollow torso and head of clay that is sufficiently soft to be molded in the hands and yet a clay that is firm enough to support the strain of holding together with the additional weight of arms and legs.

The first figure was of Grecian influence. It was discovered that if the hollow head and torso were formed and the arms and legs were roughly shaped and allowed to dry slowly in the damp box for a day or two, these pieces could be put together with slip. In this way the individual sections of clay were sufficiently hardened to support one another. After the figure was assembled any amount of detail could be added. The first

figure was completed in detail and put into a damp box to dry slowly to prevent cracking. By accident it became wet and disintegrated. Following this experiment two other figures were put together in less detail. They caused little technical trouble except for the legs which had the tendency to become shorter and broader because of the weight which bore down upon them from the body. Wires were inserted into the legs to hold the figures erect but had to be removed before firing. If supporting wires are left in clay figures, the contraction of the clay during firing will cause the figures to crack or break. After firing the figures were about 12" tall. It is possible to make much larger figures in ceramics but larger free standing figures are impractical. Hair and facial notations were indicated by a dark matt glaze. The bodies of the figures were left in the natural pink color of the clay.

This particular type of sculpture is very interesting because it offers an unlimited variety of materials with which to work. There are unexplored possibilities in: clay, firing, glazes and sculptural forms, that could be tried as experiments. Many sculptors create modern objects in this medium as a commercial substitute for the out dated porcelain figurines.

Leslie's Sculpture



Photograph of Ceramic Sculpture

Chapter III

Stone Sculpture

One of the most interesting and satisfactory problems of the year was the sculpturing of a piece of travertine marble. It was approximately 10" x 20" in the rough. The exterior of the rock was of a colorless description with a few iron stains and indications of an adhering matrix on the sides. The rock was of a local origin, found about twenty miles from Bozeman. It was thoroughly weathered and rounded by a rolling action.

The lack of color and the shape of this rock suggested a head of some type. It was with this idea in mind that the work was started. The outside of the stone was so weathered and rotten in spots that it was doubtful if anything worthwhile would result. As the rough carving continued there was an increasing indication of a color pattern throughout the stone. At this point the shaping of the stone into a head was abandoned. Study of the rough mass of stone in various positions and its color pattern suggested a fish. From this point onward it was a matter of shaping a simple fish form by minimizing the waste of stone and by utilizing the rather unique scale pattern that increased as the carving progressed.

Most of the work was done with a bush hammer and toothed marble chisel and stone hammer. The stone was fairly easy to carve into shape, but presented some difficulties because of several cracks or flaws. Here the stone had to be slowly chipped in order not to break off large pieces.

It was discovered that sodium silicate with a mixture of marble dust

sieved through a 40 mesh screen made an excellent bond in uniting broken parts. This practice is not advisable but in the event of a break that might otherwise ruin several weeks work, it is justifiable. The rock dust and sodium silicate should be mixed to the consistency of putty and applied to both surfaces and then the parts should be forced together and put under pressure for a few days.

When the main forms had been realized by the use of bush hammer and chisel, the rough surface was ground down with a piece of broken carborundum wheel. This abrasive action gave a smooth surface after several days of steady polishing. A finer surface polish was started with the use of carborundum or emery cloth. This cloth was of a finer grain than the carborundum wheel and it followed the contours allowing the more inaccessible parts of the fish to become polished. The emery cloth was wet in a pan of water and then rubbed in a circular motion on the surface of the stone. Some of the deeper cuts or defects were smoothed out by the use of a flat chisel which cut a very even surface contour and eventually eliminated the defects. A discarded file can be used profitably on marble to remove scratches and indentations as well as for defining contours. After all of the scratches, cracks and other defects had been removed a final polish of tin oxide paste was applied. With much polishing the travertine finally took a glassy finish. There are a few spots on the stone that would not polish well because they were of a matrix that was of a porous nature which would not take the polish.

The fish sculpture is a simplified shape; however it does have eye indentations, a fin and tail. The general shape of the fish was developed

as the carving progressed. The eye markings were made after the fish had been completed. The first experiment was an incised circular line with a convex eye ball which was distracting and did not add to the design of the fish. Concave indentations for the eyes were made. This type of eye marking was more satisfactory and in keeping with the simplicity of the sculpture.

The completed shape of the fish is not unlike the original weathered shape. The interesting spots of color patterns and their distribution over the mass tends to resemble fish scales. As an example of modern sculpture this stone carving is an attempt to express a fish through simplicity, compactness of volumes, and the utilization of natural coloring. These qualities might suggest a fish to the observer through subtle inference more than a naturalistic representation.



Photograph of Stone Sculpture

Chapter IV

Bas Relief of Wood for the Fireplace Room of Herrick Hall

The Fireplace Room of Herrick Hall is a room approximately 20' x 36'. It is located on the second floor of Herrick Hall with two groups of windows which open to the east. The fireplace is located between these two sets of windows. Access to the room is through double French doors from a central hall of the building. Adjacent to the hall and opposite the Fireplace Room is the main stairway of the building. The location of the Fireplace and the blank space above the mantel is important to the room in relation to the door since it is directly opposite the point of entrance. People who enter the room are confronted by the fireplace and the area immediately surrounding it. This part of the room is also the focal point of interest to the person passing through the hall or using the stairway.

The Fireplace Room was conservatively furnished with what could be described as pseudo early-American furniture. Above the fireplace was hung a bas relief of Grecian dancing maidens, cast from plaster of Paris. This particular relief seemed inappropriate for the room in view of the fact that it was a conspicuously located object with little contemporary appeal. The size of this plaster of Paris relief was about one-half the size of the space above the fireplace which made it more obvious.

The area above the fireplace is 44" x 108". It was decided to replace the Grecian bas relief with a panel of wood to be carved in low relief. This wood panel was constructed from four planks of about 1 3/4" x 10" x 7'. These planks were glued together and sanded. The final dimensions were 3 1/2' x 7'.

The major part of the thesis problem was the creation of a design for the wood panel. This design was to conform to the proportions, decorations and purposes of the room. The Fireplace Room has evolved into a meeting place of students, faculty, convention groups and particularly as a meeting place for townspeople. In considering the interests of such a heterogeneous group, subject matter in a composition could not be ignored. With this thought in mind a variety of motifs were considered.

When the thesis was first proposed a suggestion was made to design a panel that would in some manner illustrate the four branches of the college: Agriculture, Engineering, Household and Applied Arts, and Science. This proposal was ultimately exhausted by research and experimental drawings which proved that a panel of this type if designed according to the accepted style, would be confusing and uninteresting to most of the groups using the room. The stilted style of most institutional bas reliefs depicting interwoven departments would have been hackneyed. If innovations were used on this type of departmental grouping of disassociated forms and ideas, the purpose of the panel would have been lost in meaningless abstractions. Another disadvantage of using a design illustrating the four branches of the college might have been the future change of the college with more than the present four branches. Research was done in the history and development of the college in an effort to find a suitable subject.

An alternative plan of illustrating some phase of local history suggested itself as a subject of interest to groups using the Fireplace Room. The importance of the local historical characters of John Bozeman

and Jim Bridger was apparent. Of these two men it seemed more appropriate to develop a theme of the life of John Bozeman since he was so intimately concerned in the establishment and development of the town which bears his name. After studying the history of, "John M. Bozeman, Montana Trail-maker", by Dr. Merrill G. Burlingame, it was decided that there was enough drama and color about Bozeman to furnish a subject for a bas relief panel that would be understood by the people who used the Fireplace Room.

At their inception the sketches developed along the line of Bozeman as a trailmaker with visions of the future city that was to bear his name. These sketches were ineffectual because they were limited in subject matter to a western scene featuring the personal qualities of John Bozeman as a leader with the additional possibility of a designed landscape, mounted riders and prairie schooners. It was determined after selecting and sketching interesting episodes of Bozeman's life, that his death seemed particularly significant from the viewpoint of history and also as one of the most dramatic incidents of this region. With this idea in mind sketches were made of Bozeman being shot by the Indians. There was much thought given to the arrangement of the figures in the composition. This factor was important from the technical limitations of a wood carving. One of the main problems of the composition was to limit the action to the point where it would not create a distraction in the room.

The life of Bozeman was very interesting. He was a man of restless nature and boundless energy. Out of the spirit of adventure and the theory that he would make his fortune in the west, he left his wife and family in Georgia without any apparent remorse or feeling of obligation. He was apparently obsessed with the idea of exploring and adventure to be

found in the newly discovered gold mines of the west. Judging from his later activities in Montana he was not intrigued with the idea of amassing a fortune. He was instrumental in establishing the town of Bozeman and he did all that was possible to help develop it. He was an unselfish leader who seemed to be primarily interested in creating an expanding west, a place where people could lead better and safer lives. His qualities of leadership commanded the respect and admiration of his contemporaries. He was not only interested in the development of the town of Bozeman but this entire western region. For this reason his death at the age of 30 seemed untimely in view of what he might have done for early Montana settlers.

In order to explain the incident illustrated in the bas relief more fully, the following letter is being quoted from Burlingame, "John M. Bozeman, Montana Trailmaker". This letter was written by Tom Cover, with whom Bozeman was traveling at the time of his death.

General T. F. Meagher, Virginia City.

Sir:--On the 16th inst., accompanied by the late J. M. Bozeman, I started for Forts C. F. Smith and Phil Kearney. After a day or so of arduous travel, we reached the Yellowstone River and journeyed on it in safety until the 20th inst., when in our noon camp on the Yellowstone, about seven miles this side of Bozeman Ferry, we perceived five Indians approaching us on foot and leading a pony. When within say two hundred and fifty yards I suggested to Mr. Bozeman that we should open fire, to which he made no reply. We stood with our rifles ready until the enemy approached to within one hundred yards, at which Bozeman remarked: "Those are Crows;

I know one of them. We will let them come to us and learn where the Sioux and Blackfeet camps are, provided they know". The Indians meanwhile walked toward us with their hands up, calling, "ap-sar-ako" (Crow). They shook hands with Mr. B. and proffered the same politeness to me, which I declined by presenting my Henry rifle at them, and at the same moment B. remarked, "I am fooled; they are Blackfeet. We may, however, get off without trouble." I then went to our horses (leaving gun with B.) and had saddled mine, when I saw the chief quickly draw the cover from his fusee, and I called to B. to shoot, the Indian fired, the ball taking effect in B's right breast, passing completely through him. B. charged on the Indians but did not fire, when another shot took effect in the left breast, and brought poor B. to the ground, a dead man. At that instant I received a bullet through the upper edge of my left shoulder. I ran to B. picked up my gun and spoke to him, asking if he was badly hurt. Poor fellow! his last words had been spoken some minutes before I reached the spot: He was "stone dead."

Finding the Indians pressing me, and my gun not working, I stepped back slowly, trying to fix it, in which I succeeded after retreating say fifty yards. I then opened fire and the first shot brought one of the gentlemen to the sod. I then charged and the other two took to their heels, joining the two that had been saddling B's animal and our pack horse, immediately after B's fall. Having an idea that when collected they might make a rush, I returned to a piece of willow brush, say four hundred yards from the scene of action, giving the Indians a shot or two

as I fell back. I remained in the willows about an hour, when I saw the enemy across the river, carrying their dead comrad with them. On returning to the camp to examine B., I found but too surely that the poor fellow was out of all earthly trouble. The red men, however, had been in too much of a hurry to scalp him or even take his watch--the later I brought in. After cutting a pound or so of meat, I started on foot on the back track, swam the Yellowstone, walked thirty miles, and came upon McKenzie and Reshaw's camp, very well satisfied to be so far on the road home and in tolerable safe quarters. The next day I arrived home with a tolerable sore shoulder and pretty well fagged out. A party started out yesterday to bring in B's remains.

From what I can glean in the way of information I am well satisfied that there is a large party of Blackfeet on the Yellowstone, whose sole object is plunder and scalps.

Yours etc.(Signed) T. W. Coover

Gallatine Mills, Bozeman, April 22, 1867.

A painting of the death of John Bozeman was done by E. S. Paxson. This painting was hung in the lobby of the Baxter Hotel. According to the criticisms of W. S. Mackenzie, who was the most intimate friend of Bozeman, the painting is historically inaccurate because of the drees of Bozeman and Cover as well as the incorrect number of Indians and horses. The Paxson painting of Bozeman is one of the few illustrations of the life of this colorful frontiersman.

After making innumerable sketches, the figures began to take form with a central figure of Bozeman in an S position, falling to the ground after

having been shot the second time by the chief of a group of five Indians. The best arrangement of the figures seemed to be a grouping of three Indians on the right side of the composition as well as one mounted Indian. To the left and behind Bozeman an Indian was posed with a knife in the position of attacking Bozeman as he fell to the ground. Behind this Indian and to the extreme left is T. W. Cover, who during the incident was supposedly saddling his horse. As to whether he actually mounted the horse and later dismounted in order to secure Bozeman's gun is a matter of speculation. The composition seemed to call for a horse and mounted rider in order to give the design a full sense of balance. There were a great many sketches and experimental arrangements made of this group of figures before the final arrangement was established.

A piece of cardboard was cut to scale size of the wood panel. It was 15" x 30" in size. On the surface of this piece of cardboard bits of plasticine were pressed until there was an overall clay thickness of about 1/2". In order to make a smooth surface the plasticine was rolled with a piece of pipe from all directions, which had a tendency to make a smooth surface. It was on this scale model of plasticine that the first relief sketches were made. It was a very satisfactory medium for experimenting with line, texture and figure depth, because when the desired effect failed the surface was erased by adding more plasticine and rolling out another negative surface for a fresh experiment.

When the design had been sufficiently worked out, a block of plaster of Paris the same size was cast. This was done by using 1" boards the size of the model on a greased piece of glass forming a dike of a

rectangular shape within which the plaster of Paris was poured. When the boards were removed the tablet of plaster of Paris was free to be used as a new and harder medium than the plasticine experiment. A drawing of the design was made in pencil on the surface. A paring knife and a couple of ceramic instruments were used to incise the lines about the figures. It was a worthwhile experiment because the carving in plaster could be accomplished fairly rapidly without the fear of making serious mistakes and the affect of tool cuts and lighting. These were preliminary studies before the actual work was started on the wood panel.

The sketch was enlarged to the size of the board. This was done by covering the board panel with a heavy wrapping paper. The sketch was changed in certain respects because of the difference in size and to further improve the composition. Carbon paper was used under the drawing to transfer it from the wrapping paper to the board underneath.

Low relief is a type of wood carving that was very successfully used by the Norman, Oriental and Tyrolean wood carvers of the past. It is a shallow wood carving in which the incised lines are seldom more than $1/4''$ to $1/3''$ in depth. Depth is expressed by superimposed figures which recede in perspective. It presents a problem to illustrate depth when confined to such shallow cuts when as many as four figures are superimposed on one another.

The method of attacking the problem after transferring the drawing to the actual panel, was the outlining of the figures with a V chisel or veining tool. After all of the figures were outlined a small gouge was used to cut away the wood immediately behind the foremost figures.

This process was continued until all of the figures were standing in relief. A spoon gouge gave a broad and irregular texture in the foreground. The same texture was applied to the sky area which at the beginning had been given a veining effect with a V chisel that proved ineffective. The background such as mountains and hills were treated with a gouge following their basic contours. The figures were also slightly modeled with a small gouge. The chisel marks on the figures followed contour patterns which gave a greater illusion of depth. A bas relief is more dependent upon lighting than a sculpture in the round. For example a source of light from the upper level of the panel would throw the upper lines of the figures into a pattern of light, whereas the lower lines of the figures or the lines away from the source of light would be thrown into shadow thus giving a figure a feeling of depth and solidity. A direct light from the front destroys the feeling of volume. This effect is also true of the chisel marks although their apparent depth varies with their ability to reflect light and throw shadows.

The experiences gained from working with drawings, clay and plaster of Paris models in bas relief have been very interesting and instructive. Every artist should have some experience in this field of expression. If for no other reason, working in bas relief would develop a greater understanding of the importance of light upon irregular surfaces. The principles involved are not only important to bas relief but also in the field of painting, sculpture in the round and any other phase of art where incised lines or relief is used.



Photograph of the Bas Relief in Wood

Bibliography

- Bruce & Watson, Art in Federal Buildings, Government Published, 1936
- Burlingame, John M. Bozeman, Montana Trailmaker, Bozeman Chronicle.
- Carls, Carl Deitrich, Ernst Barlach, Published in Germany 1931
- Compos, Jules, Jose de Creeft, Erich S. Herrmann Publisher, 1945
- Hebard & Brininstool, Bozeman Trail(2 vols) Arthur H. Clark Co. 1922
- Houston, Early History of Gallatin County Montana, Bozeman Chronicle 1933
- Mestrovic, Syracuse University Press, 1948
- Michelangelo, The Sculptures of, Oxford University Press 1939
- Maholy Nagy, Vision in Motion, Wisconsin Cuneo Press, 1947
- Pinder, William, George Kälbe, Published in Germany, 1937
- Read, Herbert, Henry Moore, Sculpture & Drawing, New York Curt Valentin.
- Rewald, John, Maillol, The Hyperion Press, London, 1939
- Rodenwaldt, Gerhart, The Acropolis, B. H. Blackwell Ltd, Oxford, 1930
- Raynal, Maurice, Lipchitz, Jacques, Editions Jeanne Bucher, France
- Russell, Charles, Good Medicine, Doubleday & Corp Inc., 1929
- Russell, Charles, Biography, Trails end Publishing Co., 1948
- Schmitt & Brown--Fighting Indians of the West, Charles Scribner's, 1948
- Sanders, History of Montana, The Lewis Publishing Co., 1913
- Thompson, Arthur, Anatomy for Art Students, London.
- Wissler, Indians of the Plains, Scribner, New York.
- Zeidenberg, Arthur, Drawing the Human Figure, Crown Publishing Co., 1944



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