MODELLING LANDSCAPE FORMS IN THREE DIMENSIONS AS A PROJECT FOR TRAINING IN MORE EFFECTIVE PERCEPTION OF THESE FORMS

by

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ACKNOWLEDGMENT

Among the distinguished teachers and artists who inspired and directed my interest in the perception of landscape forms are Herbert Adams, the sculptor, who gave me my first lessons in clay modelling at Pratt Institute; Arthur W. Dow, Arthur Van Laer, and Charles H. Woodbury, with whom I studied landscape painting; and Charles Hawthorne, whose lectures I attended at Provincetown, Massachusetts. This study, together with brief courses at the Chase School of painting, Carmel, California, and with Fursman of the Chicago Art Institute, resulted in painting landscapes largely from the two dimensional viewpoint. Later, following the study of originals and prints of Cezanne, as well as the painting of artists of the Modern Movement, my interest in the third dimensional aspect of landscape forms grew, and finally led me to undertake this project. I am also grateful for the advice and help so generously given me by Noel B. Zane and Oliver Barrett of the Department of Fine Arts of the University of Oregon

INTRODUCTION

So-called art has been taught in the public schools of the United States long enough to have a history. Art training was put into the schools to meet the demands of industry. Skills--not creativeness--was the goal set. The child was given a sheet of white paper and a well-sharpened pencil. How paralysing that sheet of pristine paper was for hands soiled with the sweat and grime of the playground! After years of struggle to make technicians of the children by way of painstaking copies of printed models, color was introduced into the schools. The children's joy of color knew no bounds but still there was much imitation and little, if any, creative result. Again technique was the first goal set. Today the child is exposed to a long list of materials, each with its challenge and its possibilities, and the list continues to grow. Progressive art teachers today are stimulating any creative impulse and minimizing techniques.

Education continued in its march of progress and a few years ago the art teachers of the country were told that they were not keeping step with teachers of other departments in the study of modern psychology and the understanding of child development. Art teachers, in turn,

complained of lack of understanding and appreciation of art values on the part of classroom teachers, principals, and superintendents. The breach is slowly closing and art is being looked upon today by the progressive leaders not as a 'frill', but as a very useful tool. It is the task of the present-day art teachers to designate and maintain the proper place in education for art study. The art teachers must see that art is more than a useful tool for emergencies and be more than willing servants to do the bidding of other teachers. While wholeheartedly lending a hand in making art function in the school, the art teacher should not lose sight of his chief goal--ever to be on the alert to discover and clear the path for the creative child. The creative minds constitute the nation's wealth of the future. They will be the leaders, and it is the art teacher's problem to make of the remaining crowds-art appreciators--good followers. The creative child must not be forced to keep step with the crowd and follow the beaten path. He must be allowed to wander, to leap to new crags and untried trails.

Art teachers, no less than other teachers, must harken to the psychologist as he explains the working of the human mind. They must, too, keep step with the leaders of education--perhaps become the leaders in some places. Again, they must know their time--the trends of thought, the needs of the people. They must evaluate the

teaching that has gone before and discover the weak links, in order to find new ways to strengthen their teaching.

The purpose of this project is to show the advantage of the three dimensional approach to the perception of landscape forms by means of clay modelling.

The method employed was first, to shape the models for the general proportions and size desired; second, the larger planes in their relative proportions; and finally, to add the sub-divisions and details. In the simpler models close attention was given to acquire the technique--the clean, sharp joining of one plane cutting another--which is so important in the perception of the bulk of each of the uniting forms. When the models were completed and ready to photograph, the greatest care was taken that all edges were clean-cut and definite, and the surfaces well considered as to the form beneath. Masses were considered from all viewpoints so that the study would be in reality a three dimensional one; thus several compositions could be studied in one model. In finishing the model it is desirable to have the clay in such a state of moisture that it can be cut as one cuts a bar of soap--without disturbing the mass. Photographs must be made soon after the modelling is completed, since the edges are likely to be altered in the process of keeping wet wrappings about the models to prevent cracking of the smaller parts.

OUTLINE OF THE STEPS IN THE PROCESS

A. Steps in the process which I propose:

1. Making clay models of type forms--cones, cylinders, rectangles. These are some of the basic forms underlying all forms of nature. Involved in this will be the study of proportion and variation toward satisfying design, plus the study of light and shade to produce patterns of dark and light.
   a. Photographs of clay models
   b. Pencil sketches of model
   c. Color notes--(poster paint) showing the light and shaded areas formed by the model
2. Clay modelling of abstract forms from cones, cylinders, rectangles. Involved in this will be proportion, variation, lighting, and stimulus to creating forms of interest.
   a. Photographs
   b. Black and white renderings in ink or poster paints
3. Group I, of simple abstract forms of hills
   a. Photographs
   b. Color sketch of these--flat line modelling
4. Group II, more complex hill forms with some detail

a. Photograph

b. Pencil outlines

5. Model of a stream cutting through a meadow

a. Photograph

b. Pencil sketch

6. Clay model group of trees--based on forms in 1. (see above)

a. Photograph

b. Pencil sketch

7. Clay model. Hills and trees

a. Photograph

b. Color study

8. Clay modelling of mountain forms showing increasing complexity

a. Photographs

b. Poster sketches

9. Model of natural bridge over a stream

a. Photograph

b. Color rendering

10. Pencil sketches from nature

a. Translated in color--water-color--oil

11. Study pictures of landscapes to discover the artists' rendering of the third dimension

a. Collection of prints used

B. Objectives in Modelling Landscape Forms. (High School

Level)

1. Primary
    a. More adequate perceptions of landscape forms
2. Secondary
    a. Accumulation of images with which to design
    b. New interests in medium and subject
    c. New applications--a use of solids in developing patterns of dark and light
        1. Suggestions for school stage sets
    d. More complete understanding of pictures.

C. Reading Objectives

1. General knowledge of art field
2. Design from the sculptor's viewpoint
3. Design with landscape forms
4. Biography of artists--their time and their problem
5. Appreciations--attitudes and factors. How the matter of teaching appreciations is being considered in public schools

CLAY MODELLING AS A MEANS OF TRAINING FOR MORE EFFECTIVE PERCEPTION OF LANDSCAPE FORMS

Americans, as a people, are notoriously unappreciative of art and have created few, if any, national art forms.[1] Richards says, "One matter is clear--if we are to attain fullness and maturity in our national life we must inevitably reach the point of expressing ourselves artistically as well as materially, for no nation can attain full spiritual and intellectual development until it comprehends in its own life all the powers of expression needed to satisfy aspirations and desire." He says that we may look to the public schools to affect the outlook of the coming generation but that this hope will be fulfilled only to the extent that we succeed in carrying the instruction beyond mere technical training and to some understanding of the aesthetic values and of art in our daily lives.

Students in our High Schools and Colleges are seriously lacking in knowledge of nature forms and are correspondingly handicapped in creative impulses. Teaching of techniques have been over-emphasized and the acquiring of clear images seriously neglected.

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1. Charles R. Richards, Art in Industry, p. 478.

Henri says "the kind of seeing and the kind of thinking of the student who has the model always with him is entirely different from that of the student who draws after the model has been removed."[1] He speaks of the "concept and carry" method. There are no clear images left in the student's mind. "Images", says Carr, are qualitatively like sensations - but less intense and vivid. They are dependent upon previous sensory experiences."[2] Most people think of an object but have no image of that object. They have never had a clear and complete perception of it, for such a perception requires more than merely looking at an object. In the words of the Arabian proverb "the eye is blind to what the mind does not see". "Seeing is not a mechanical process, and for the mind to see, it must not only be on the alert but be capable of seeing."[3] This would mean that there must be some intellectual sensitivity as well as sensitory sensitivity. Intellectual sensitivity will include knowledge of form, of proportion and design, of materials, and a familiarity with creative work of artists who have gone before. This means an appreciation of art aside from nature--a realization that "Art is Art precisely because it is not Nature".

Updyke says "one of the crying deficiencies of

1. Robert Henri, The Art Spirit, p. 21.
2. Carr, Psychology.
3. George H. Updyke, Art and Nature Appreciation, p. 5.

our American system of education is that it does so little for the appreciation of art". To appreciate we must understand, we must know many approaches. Every new avenue of approach strengthens a student's ability to understand and appreciate an artist's message in the art form he has created. Clay modelling of landscape forms gives new understanding to the pictures of such painters as Greco and Cezanne of the past, and of Woodbury, Bruce, Grant Wood, Millard Sheets among present-day painters.

The amazing and growing list of materials on the market to put into the hands of the children makes it possible to give to the students new art experiences and hence broader viewpoints.

"Studying in only one kind of art develops fixed habits of perception, which results in an uncomfortable perplexity when one comes in contact with work in another art".[1] This idea can be transferred to the use of different media. If, after working in two dimensional material, the student turns to modelling an object in clay, he will then more readily feel the bulk of things--the thrust of size and weight, the forces that created these forms--that third dimensional element which Cezanne so successfully put into his paintings. When the student handles landscape forms only on flat surfaces, he is likely to miss

1. George Updyke, op. cit., p. 13.

this feeling of third dimension.

This lack of feeling of the third dimension on the part of art students is expressed by Henri when he says, "no use trying to draw a thing until you have got all around it."[1] Develop your visual memory. Make the hill express its bulk. Get one form that looks like the tree, rather than little pickings at the branches. Give the tree its 'gesture'. Plastic clay would seem to be the ideal material for such goals.

Henri also said that if you work from memory you are likely to put in your real feeling. In modelling a landscape the student must of necessity work from memory or the brief notes of a sketch.[2]

A common fault in painting is a lack of solidity--the failure in employment of bulk as a factor of expression. Obtaining this solidity is a matter of conception. We are told by Cheney "the Chinese artist sensed form. . . Sculptors too often rely upon observation of nature, rather than upon any subjective emotion of their own."[3]

If the student turns to painting his experience in modelling will be one more added skill to bring to his selection of some particular aspect worth remembering. It will help in "narrowing down the flood of stimuli" he

1. Robert Henri, op. cit.
2. Ibid.
3. Cheney, Primer of Modern Art, p. 258.

meets when studying nature.[1]

Landscape seems to hold an unvarying interest for the average person. It is the popular subject chosen for home decorations, and the ever-popular nature form that appeals to children.[2] "Landscape appeals to strongly to children of all ages, and is so noble a form of painting, that every occasion should be taken by the teacher to keep beautiful landscapes before the pupils. It is much more abstract than figure drawing and reveals the forms of design more definitely than portraits. It is the final background against which life plays its drama, and on that account alone stimulates our emotions as still life never does, yet does not swamp our intellect as figure often does."[3]

Through the medium of landscape all the principles of design can be taught: (a) subordination, in the branches to the trunk of a tree,--or in one tree to another, (b) rhythm, in the movement of growth in the repetition of form, (c) opposition, contrast of vertical and horizontal masses, and in the opposing lines of trees, (d) balance, in proper spacing and arrangement of forms.

Nothing is more difficult than to bring to the understanding of the student the fact that art is not a

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1. Thomas Munro, American Federation of Arts, "Reasons for Modelling", (June 1932).
2. Belle Boas, Art in the Schools, p. 62.
3. Ibid.

duplication of nature. The medium of clay is admirably adapted to help him at this point. When he feels the challenge of this plastic medium he can more easily enter the happy field of fancy and imagery. "Imagination is as much a normal and integral part of human nature as is muscular movement", says Dewey; so let us bring to the students of our school every avenue, every medium, every environment, that will open new gateways to these normal urges.[1]

Recognizing that no plant can grow and develop fully without the proper soil to supply its needs and without the quantity needed for each stage of its growth, we, as art educators, must help to cultivate and prepare the soil for the creative artists to thrive in.[2] They must have an understanding and appreciative public. There must be "the creative spirit and its varied manifestations" of which Hughes Mearns speaks. We must open new doors of experiment and new vistas to challenge the creative mind, raise the flood gates to "the torrential force that comes unbidden . . . to fashion things out of wood, color, fabric, clay, and words."[3]

In his lectures on art appreciations, Mr. N. B. Zane says, "There are two types of appreciation--passive

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1. John Dewey, Democracy and Education.
2. Progressive Education Association, A Symposium, "Creative Expression Through Art".
3. Hughes Mearns.

and active."[1] A major proportion of the public school art students will become the passive appreciators of America unless we can, by our enriched training, send them out with keener sensibilities and deeper understandings of art expressions.

If we, as a nation, are to produce new art forms, we must create a soil in which our artists can take root. The primary aim of public schools is not to produce artists; but they should be producing active appreciators and not be attempting this by any fixed courses of study or stressing of techniques.

All readers are not authors and poets, nor are all painters and sculptors creative artists; but if there were not appreciators why would the artist create? If there were no audience what inspiration would there be for expression?

Reasons for the Choice of this Thesis

We are facing radical changes in the teaching of art in the public schools because old methods have been found wanting. The art teaching of the past is not functioning. Art teachers have found that after children have spent from eight to ten years in the public school art classes, the majority of the pupils do not of their own volition create and experiment with materials and various

1. N. B. Zane, Lectures on Art Appreciation

media. They are content to copy. They follow the American tradition in considering art for the few gifted ones, set these on false pedestals, and consider their work only for pastime and not for practical everyday needs. Our graduates buy with the same lack of taste and discrimination in color and design, and they admire crude forms of art products--pictures, sculpture, pottery, household furnishings, clothing, etc. Educational goals have changed. Educators are vitalizing the courses of study. They demand that art function in the child's daily school life. He designs his own costumes and stage sets for his school plays, paints and carves and models as his studies introduce him to new fields of investigation and interests. There is a definite attempt to allow students to choose their art work in their own field of interests rather than to have all work on the same set problem--in the same size, media, and motif with a closed portfolio or the wastebasket for its final resting place.

We are realizing that the teachers of art must have a broader and a better concept of the needs of our students in their study of art. Students must realize that art is a language--a means of expression and that they must have something to express as well as a method or technique of expression. Properly trained teachers will help them to this realization.

We must constantly find new materials and new methods to stimulate creative impulses in the students. We must recognize the power which material has to suggest and arouse the creative urge in varying degrees in different personalities. Hence the greater variety of media we are providing for the students.

Whenever possible, we must destroy the fear that students have of spoiling material. Clay meets this need. There is a value in a medium that is so responsive, so easily altered and corrected, and that gives greater physical freedom than other media while working.

We must meet the situation in art teaching that our students do not have clear images of nature forms with which their fancy can play in design. These images supply material for (a) simplified realistic forms, (b) slightly stylized, (c) highly stylized, and (d) highly fantastic forms.

This method of work will give new understanding and new appreciation of the work of artists in various fields--painting, sculpture, and industrial designing. It will help to the understanding of the third dimensional, invisible, inner quality of form--the force back of form--the bulk of the hill, the thrust of the mountain peak, the play of plane into plane, the building up of form against form, the action of the elements--the dra-

matic forces at work.

Working with landscape forms in clay will bring to the student from another viewpoint the understanding that "art is art precisely because it is not Nature". By spreading this understanding we will be increasing our audience for the message of all real art forms.

Reasons for Choice of Landscape Form.

Landscape rather than other nature forms was selected for this project because of certain well-known facts: the universal interest in landscapes at all age levels could be utilized. The subject material is at hand for everyone, and each student has daily contact with it. Experience in the classroom proves that, although the subject matter is so accessible, there is a lack of knowledge of landscape forms. The freshness of the subject--the fact that so few have considered landscape forms in three dimensional aspects while so many have treated them in two dimensions--also influenced the choice. And finally, the number of benefits and applications possible--the increase of knowledge of forms, the interpretation of the works of others, and the stimulation of creative design and construction.

Plan for the Development of the Project.

A plan was carefully worked out for the develop-

ment of this project which made each step a clarifying process for the one to follow. The old method of utilizing type forms was employed in order to reduce difficulties to a minimum and to demonstrate the challenge of playing with these simple forms to secure variety of proportion and interest. From the simple type[1] forms advance was made to simple hill forms.[2] Each of these was modelled with great care both as to bulk and the manner of surface cutting surface. More complex hill forms[3] followed, the problem increasing in difficulty. Mass against mass was considered; rhythm of line and variety in size, sought. Following these compositions of hill forms other features were introduced,[4] such as stream courses, natural bridges, tree and rock formations, sand dunes, rolling hills, roadways, and abrupt cliffs. Next came the problem of selecting simplified basic planes and advancing to more and more complex ones. With this increased knowledge of various forms, more freedom was introduced which resulted in creative and fantastic forms.

Photography was utilized to retain many patterns of shadows on the clay models.[5] Prints and original

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1. Appendix p. (1)
2. Appendix pp. (2), (3)
3. Appendix p. (3)
4. Appendix pp. (4), (5), (6), (7), (8)
5. Appendix

paintings were studied to familiarize the student with the successful use of the third dimensional aspect in the work of masters. The making of both color and pencil sketches accompanied the modelling to add interest and to test the increasing knowledge of landscape forms. Photographs were made from the clay models and from these slides to clarify the explanation of the process to teachers who may care to try the plan.

Reasons for Choice of Material.

The choice of clay as a medium in this project was based on several reasons: one of the aspects of the problem of encouraging creative minds in the public schools is the fact that classrooms are more or less repressive. For the good of the whole there must be restraint with respect to movement, noise, and confusion. Clay work furnishes physical release, since more active positions can be taken by the child. The time-worn material used in the schoolroom is paper. Clay has not been utilized to any extent in upper classes. A new medium (in landscape study) of entirely different qualities and possibilities is stimulating. Working in this three dimensional material helps to develop a better understanding of art forms in the various fields and many communities offer little or nothing in the way of art forms

except prints.

Few art teachers have not had the experience of seeing some active, lively boy slide his soiled hands out of sight when her clean hand placed a spotless paper before him. Clay takes away this fear of spoiling material. It has a particular challenge in this respect because it has no intrinsic beauty to destroy, and yet it is so sensitive a material. It stimulates the creative urge and thus leads to many avenues of interest. Unlike water colors and other media, there is no crucial moment when it cannot be laid aside without injury to the final result. If alterations are needed, they can be made quickly and without the disheartening results experienced when working with other media. Working in clay causes little eyestrain--one of the objections made against art work for some children. Many children find in modelling a relief from the daily routine--a chance for the imagination to play--in the manipulation of clay.

Plan for Introducing and Teaching the Subject.

When introducing this method of developing perception of landscape forms to teachers, both the subject and the goal must be presented in a careful and convincing manner. Each step in the process must be explained and illustrated by photographs, slides, and the clay models

themselves. Careful explanations must be made of the gradual increase in difficulties and the necessary technique of each step. Finally, many illustrations of industrial design should be used to show the possibilities for the play of fancy in this field of modelling.

Students must also have a clear understanding of the aims of clay modelling. To this end, they must be familiarized with the possibilities by explanation of the project as a whole. An understanding of land forms through instruction in geography and geology should open the way to appreciation of landscape forms. Knowing something of the great forces which brought about these land forms, the action of sun and rain and wind in producing land erosion and waterways, will be an intelligent approach to the study of landscape forms and the third dimensional aspect of these forms.

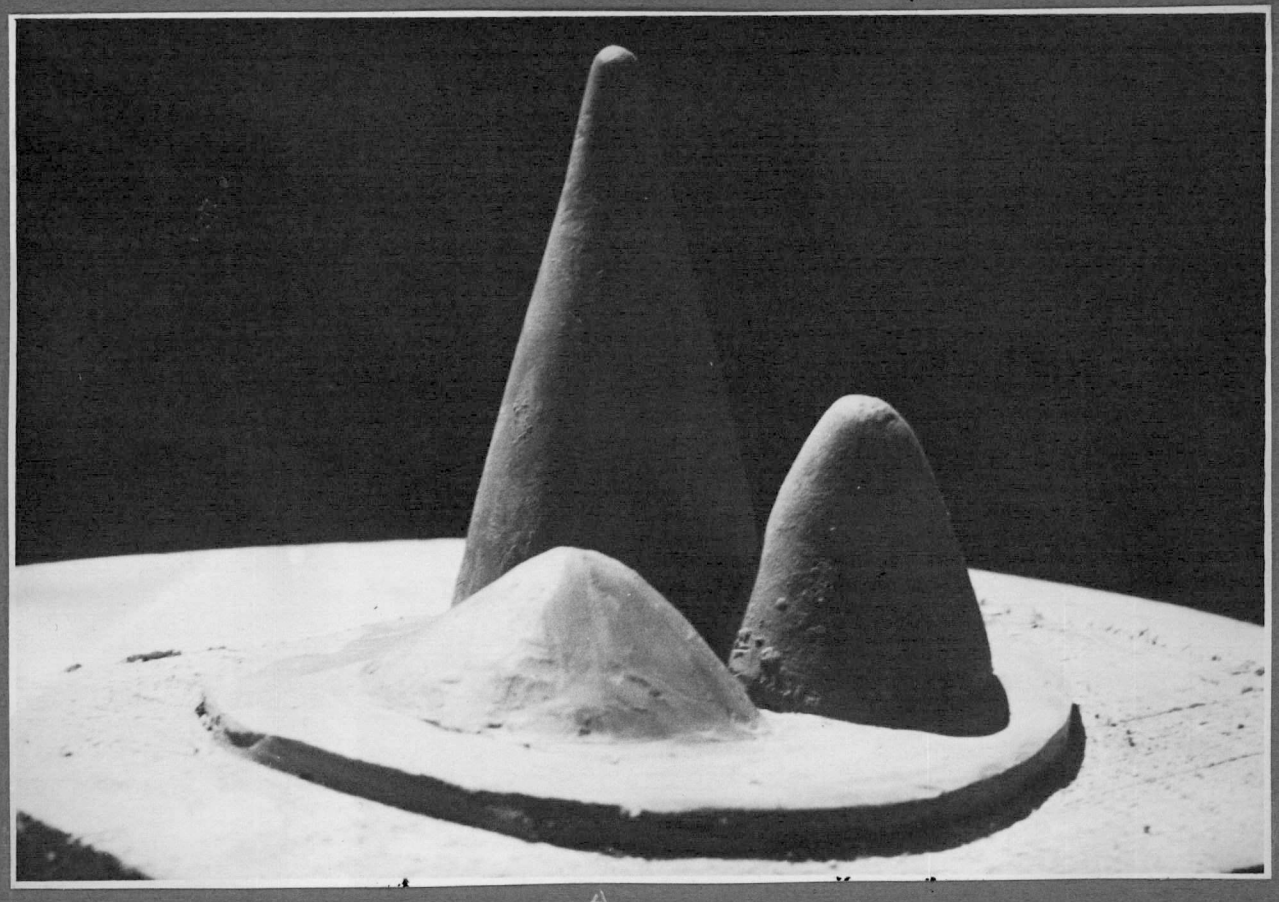
Further richness can be added to this study be relating it to the student's work in other departments, such as literature. Many illustrations in prints, photographs, slides, and models should be used to arouse the interest of the student before he begins his work on the project. The possibilities in playing with proportions, creating imaginary and fantastic forms, and making designs for industrial objects should be developed. After this larger view of the aims of the project, the student

can be started on the first steps in the simpler models without any feeling that he is doing a kindergarten task.

CONCLUSIONS

1. Clay modelling simplifies the study of landscape forms.
2. It develops realization of the bulk and size of these forms.
3. It brings fresh material and suggests new viewpoints to the young art student.
4. It stimulates the observation of landscape forms and the creative urge.
5. It helps the student to interpret the work of great masters and increases his enjoyment of art forms.

APPENDIX

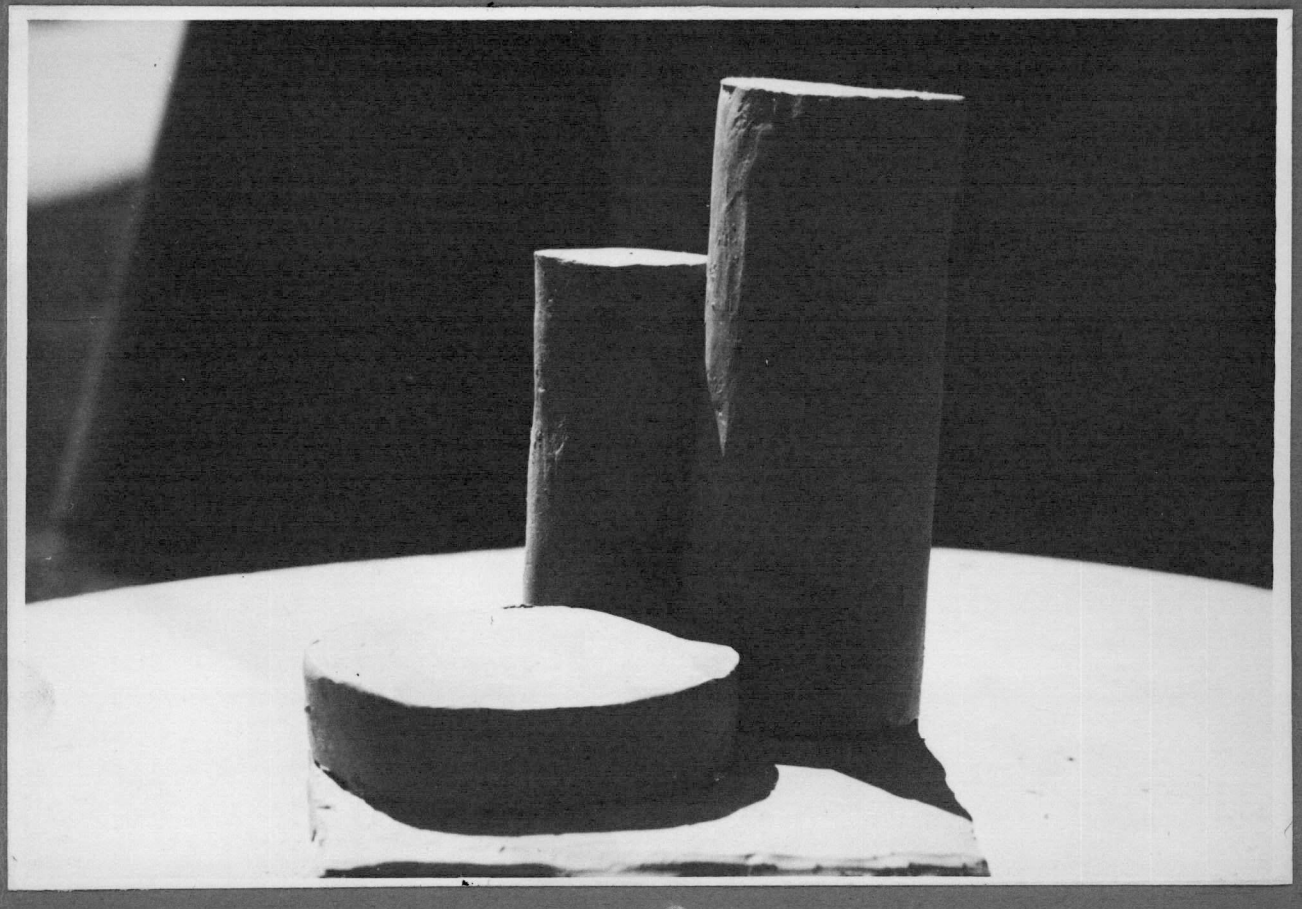


A

Nature forms can be reduced to the simplest type solids--cone, cylinder, rectangle, cube. (Photographs A, B, C, D.) These may be varied in size, height, proportion.

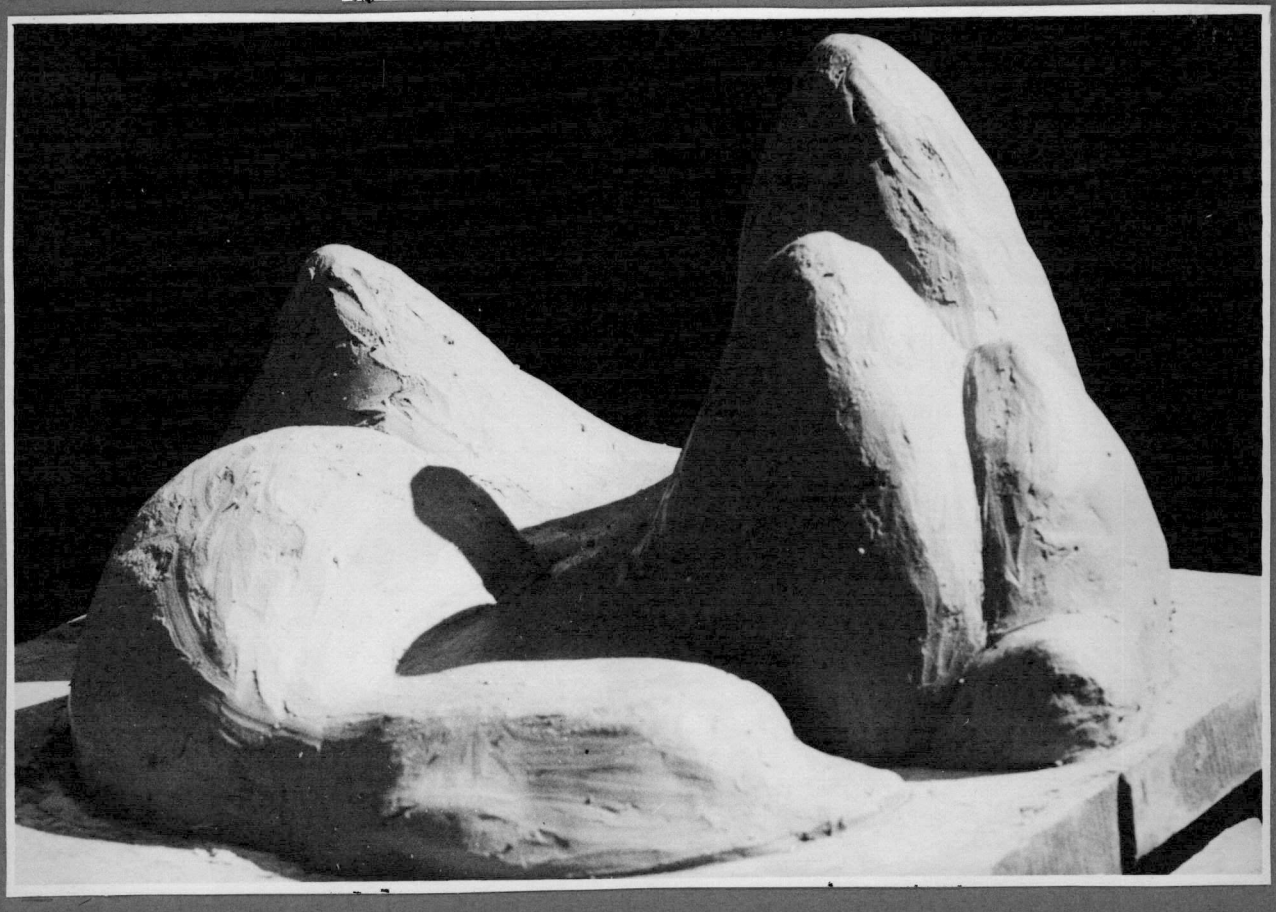
Pleasing variations in proportion and size require careful consideration (on the part of a student). The model may be very commonplace or may be so arranged as to secure good composition. It can be arranged to be pleasing from one viewpoint and not from another. This is a study in the three dimensions, so the student will need to study it from all sides.

C-D

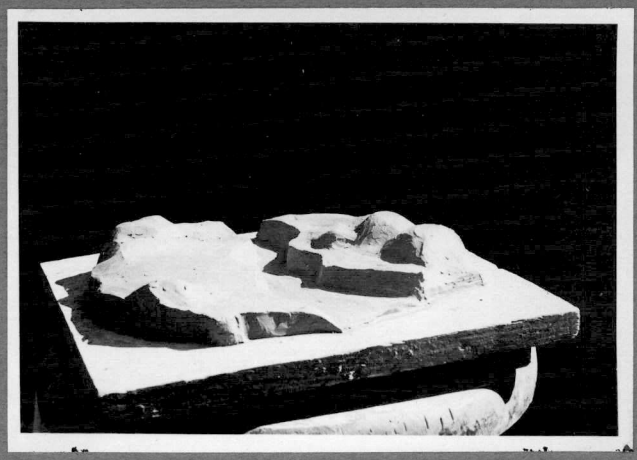


C

Simple hill forms, increasing in complexity. One plane cutting another. Natural lines of erosion. A more and more interesting surface for the light to play over.

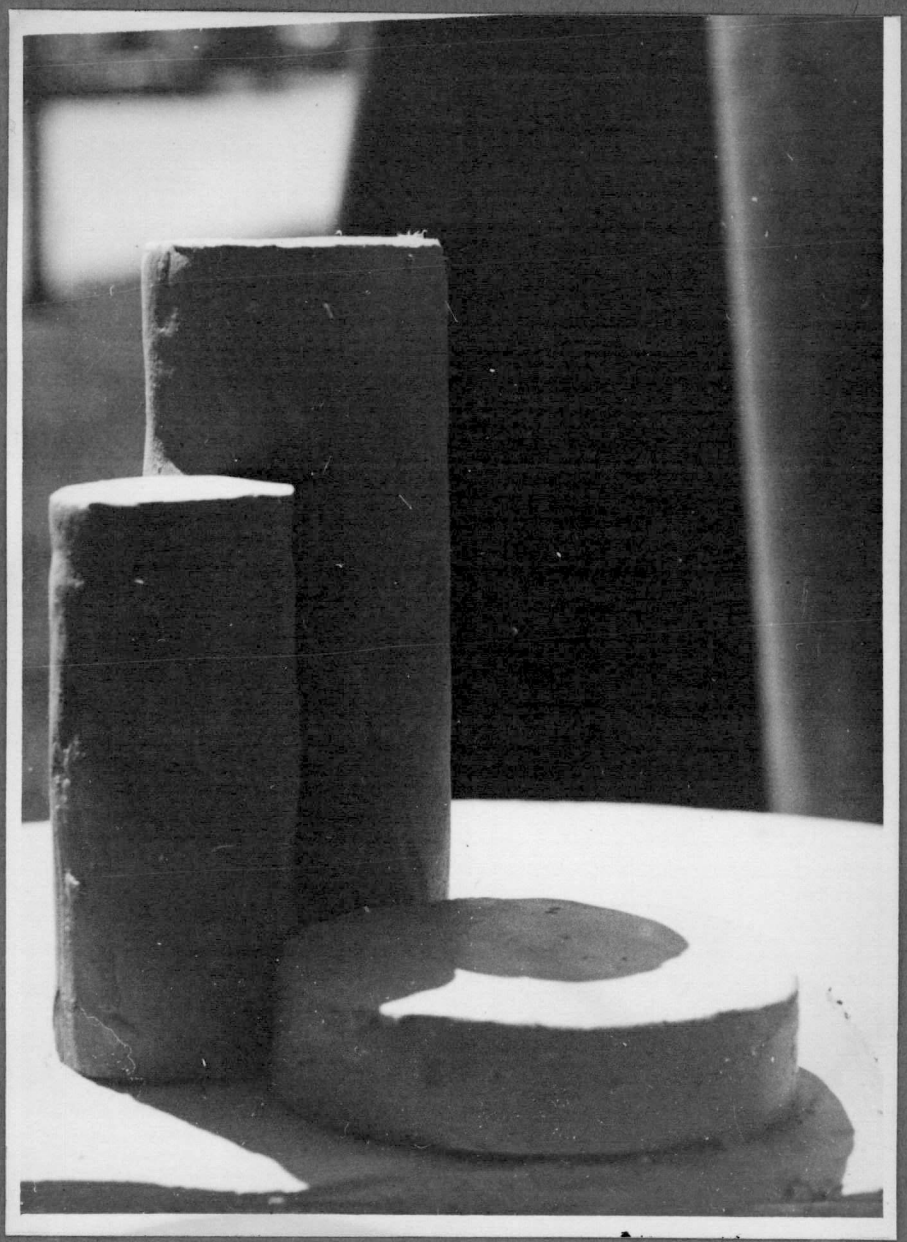


Hills are made more cone like and changes in proportion are brought in. New compositions are developed, all the time being studied from the three dimensional aspect. Shadows of changing forms add their interest in patterns of dark and light. The student senses the bulk of things, that something besides the surface gives the play of dark and light, the essence of hills and valleys. He feels the thing itself before he produces the representation.

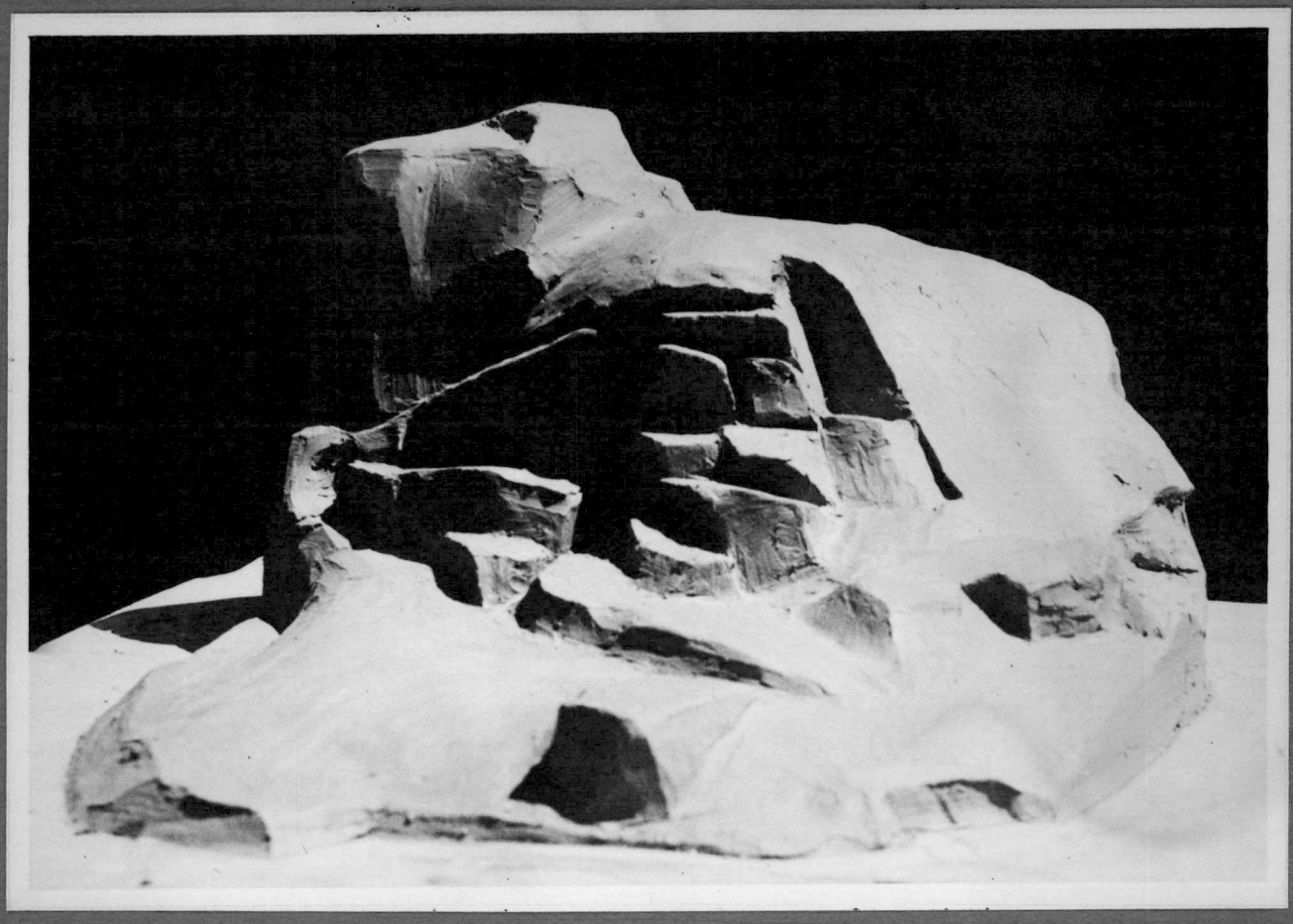


A stream cutting through a plain produces new land forms,--embankments and water beds. Rocks and gravel change the course, the width, depth, and surface. Trees and shrubbery and their shadow patterns aid in variety of composition.

View of a model of a natural bridge. The rock and soil forms produce a model for many interpretations. The varied play of light and shade, reflections and surfaces, makes this model one useful for many purposes. Placed over glass, the reflected forms and shadows add great variety and color.

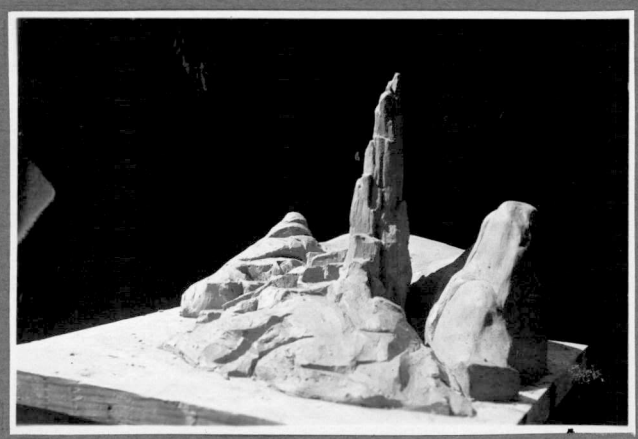


Even simple type forms may be made interesting studies in light and dark patterns. The student begins to sense bulk, form against form, building toward a new unit.

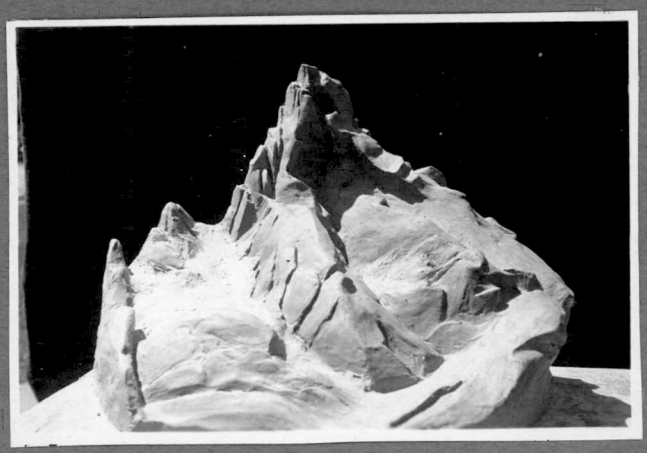


From the softer edges and soil formations the student turns to rock forms with their sharp edges and clear-cut shadows.

The play of light on such forms gives new interests and a variety in the treatment. After rendering pencil and water color sketches of the softer surfaces of hills and streams, the student senses a new treatment is required to express rock and hard surfaces. He sees these forms from many angles and knows that there is more than he sees at one time which produces the effects of great bulk and weight.



Rock forms aremade more complex and carry the subject to great mountain ledges and towering rocky peaks with their fascinating patterns of light and shade. There must be definite forms and definite edges, surface cutting into surface with clean, sharp changes. One stroke of the tool will change a line or a shadow from something weak and indefinite to something of strength and interest. The feeling of freedom gives play to the imagination if there be a desire for creating new effects.



A mountain peak with rock ledges rearing high above the valleys filled with soft snow. Contrast of surfaces and edges comes into play The bulk of nature's great forms is sensed by making them in clay, <u>feeling</u> them in their three dimensional aspects. The thrust upward of towering rocks and ledges, the solidity of great bodies, counteracts the paper thin aspects of other rendering.

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GENERAL PERIODICALS

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American Museum of Natural History
Art Digest
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