WORKING STRATEGIES IN COLLEGE SCULPTURE

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by

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This thesis will examine specific individual college students working in sculpture. The purpose of this is to give an overview of college sculpture in terms of content, process, media, and working strategies. A conceptual framework comprised of definitions of sculpture, typologies of creativity and criteria for sucessful sculpture is outlined. The method is then to analyze the student work in the terms of this conceptual framework. The advantages and disadvantages ot this approach are then discussed.

Acknowledgment

In preparing this thesis I would like to acknowledge the helpful advice and criticism of Assistant Professor Stanley E. Horner of Sir George Williams University who was my advisor during the 1969 - 70 academic year.

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1. Introduction

This thesis will examine specific individual college students working in sculpture, selected to illustrate a range of styles and performances. The purpose of this approach is to give an overview of college sculpture in terms of content, process, media, and working strategies. In other words, this thesis will demonstrate some of the different ways students approach sculpture.

In order to understand the sculpture of individual college students it is essential to have some general conceptual framework or cognitive structure that will take into account the nature and qualities of sculpture as well as the characteristic working strategies of college students. Values and premises from art history, art criticism, psychology, philosophy, technology, and sociology, that relate to art education, must be part of this conceptual framework.

A premise of this conceptual framework is that there is a continuity of artistic thought which is illustrated in the study of art history.[1] Any college sculpture course is

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[1]This position is stated by David W. Ecker, "The Artistic Process as Qualitative Problem Solving," Readings in Art Education, ed. by Elliot W. Eisner and David W. Ecker; (Toronto: Blaisdell Publishing Co. 1966), p. 62.

part of this continuity. Consequently, both traditional and contemporary qualities of sculpture are valid and must be considered. This is not to deny the creative process, but to realize that college sculpture is usually highly derivative.

Paralleling this idea is the premise that each college student has a system of behavior that differentiates him from other students. While there is a cross fertilization of ideas and influence in any art program, students also exhibit individual characteristics in their work. Any sculpture created by the student will have a uniqueness of total quality whether it is in some "traditional" or new style. Frank Reissman claims that the teacher must identify the "strategy style" of his students. He also states: "In everybody's style there are certain strengths, and each of us has his own Achilles Heel."[1]

With these premises understood, the thesis will first describe the characteristics of sculpture. It will then describe the creativity and methods of working of college students. The method will then be to analyze a number of individual student's sculpture and relate any verbal information the students supply to the preceding conceptual framework.

After surveying the individual college student's sculpture, this thesis will draw some conclusions pertaining

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[1]Harry A. Passow (ed.), "The Strategy of Style," Education of the Disadvantaged, (New York: Holt, Rinehart and Winston, 1967), p. 332.

to using a conceptual framework to interpret college sculpture.

11. Sculpture: Definition of Terms

> The trouble with existing theories is that they start with a ready-made compartmentalization or a concept of art that "spiritualizes" it out of connection with objects of concrete experience.
>
> John Dewey[1]

For any field of knowledge, some definition or description is required so that we may understand what it is as well as what it is not. Physically, sculpture is concerned with the creation of volumes that displace or occupy space. It is three-dimensional yet can also exist in high or low relief (bas relief). The problem then becomes one of stereoscopically organizing the space which the material volumes displace and also the void immediately surrounding it. The space and conclavities around the form exist as a ground to the mass of the sculpture.

In sculpture, perhaps more than other medium, textures, surface finish, or tactile values are important. The sculptor is aware of this and sometimes leaves surfaces in an apparently unfinished condition in order to achieve textural contrasts or visual effects.

Apart from a mere description it is difficult to sum

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[1] Art as Experience, (New York: Putmans and Sons, 1958), p. 11.

up and give a definition of sculpture. Jean Selz[1] claims that the creation of sculpture is an instinct dictated by an unconscious desire for liberation, or what psychoanalysis calls play therapy. The sculptor Alberto Giacometti reinforces this when he says, "It may be that in all this I am more than possessed from causes unknown to me, or compensating from some sort of deficiency."[2] This parallels the notion that sculpture is the creation of what Carl Jung calls archetypal images. In other words, sculpture acts as a powerful personal symbol that reflects the values and beliefs of society.

Geraldine Dimondstein seems to combine a description of sculpture and an explanation of its function when she gives the following definition:

> A more precise definition of sculpture is that it is a spatial-kinetic image, for it includes the elements of plasticity and movement. Plasticity implies something that can be developing, forming, and growing. Movement is not seen as something external to the form . . . but having an expressive function.3

There are many theories given to explain sculptural

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[1] Modern Sculpture, Origins and Evolution, (New York: George Braziller), 1963, p.

[2] Udo Kulterman, The New Sculpture, (New York: Fredrick Praeger, 1967), p. 13.

[3] "A Proposed Conceptual Framework in the Arts," NAEA Studies in Art Education, Vol. 10, #2, 1969, p. 7-8.

form and content: imitationalism, expressionism, formalism, and organicism, among others. Yet, these theories are inadequate because sculptural form and content are continually developing and changing. (Although, theories are useful because they offer many fertile suggestions that are needed in the teaching of sculpture.) According to Rudolf Arnheim[1] art history illustrates this changing concept of sculpture. The early Geometric Period in Greece emphasized a two-dimensional patterning of space by stick-like forms. Egyptian sculpture stressed a cubic form which was interesting from specific angles. Renaissance and Baroque sculpture was characterized by forms in the round. The contemporary era has emphasized a disintegration of volume until, in our century, we find sculpture that surrounds empty space in addition to being surrounded by it.

The main tendencies of twentieth century sculpture can be seen in college art. Auguste Rodin's impressionistic figuration, Constantin Brancusi's "primitivism" and traditional handicrafts, Henry Moore's organic archetypes, Marcel Duchamp's assemblages and "readymades," Julio Gonzales' welded metal sculpture, Alexander Calder's mobiles and Naum Gabo's transparent sculpture are examples of the

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[1] Art and Visual Perception, (University of California Press: Berkeley and Los Angeles, 1969).

modern tradition from which college sculpture derives.

If we limit ourselves to the main contemporary tendencies, we may establish the following types or kinds of sculpture:

1. Representation derived from classical tradition
2. Figuration at some distance from reality
3. A tendency towards surrealism
4. Creation of a fantastic zoology
5. Reduction of the human body to the state of an object
6. Schematization of the human body, verging on the non-figurative
7. Representation of the human body in a degraded form
8. Pure abstraction[1]

These categories of sculpture correspond to the major art movements of this century: Primitivism, Realism, Impressionism, Expressionism, Cubism, and Constructivism. These types of sculpture should not be stereotyped or compartmentalized ideas, but should be areas of focus for creative exploration. Students tend to follow such styles whether they are aware of it or not.

Besides being beneficiaries of artistic traditions, college sculpture should also be involved with the practice and innovations of the technology of the era. Two writers speak here of the impact of technology on art:

> If any new programmes are to become operative in the art schools or university art departments it is

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[1]This list is derived from Jean Selz, Modern Sculpture, Origins and Evolution, (New York: George Braziller, 1963), p. 4.

engineering rather than science that is useful.

Lawrence Alloway[1]

If the creative artist wishes to escape from the role of entertainer, or maker of useless luxury objects, he must enter the world of technology itself and submit to utilitarianism.

Jacques Ellul[2]

To simplify the confusion of styles resulting from theories of art, art movements, history, and the implications of technology, it is necessary to categorize various sculpture under the following headings:

1. Carved sculpture
2. Modelled sculpture
3. Linear, Plane, Volume Constructions
4. Assemblages
5. Kinetic-mobile sculpture
6. Transparent sculpture
7. Environmental and color sculpture[3]

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[1]Diana David, "Lawrence Alloway on Art Education," Harvard Art Review, (Boston, Mass.: Summer, 1969), p. 46.

[2]"The Artist in the Technological Society," The Structurist, # 6, University of Sask., Saskatoon, 1966.

[3]L. Moholy Nagy describes the following kinds of sculpture:

1. Blocked out
2. Modelling
3. Perforated
4. Equiposed
5. Mobile Kinetic

Vision in Motion, (Chicago: P. Theobald), 1965.

This categorization puts emphasis less on the why of sculpture than in its how. It is common general knowledge and is basic to any sculpture course.

Let us look at each of these sculptural possibilities, describing aims, materials, relevant art examples, sources, and possible related content.[1]

Carving

The object in carving is to cut away waste material to reveal or "release" a form. Carving usually yields a dense, closed form or monolith. William Zorach[2] describes the characteristics of such a form. The aspects of simplicity of design, full three-dimensional realization, strength of form and vitality, and power of expression are important. Organic rhythms, sensual contours and undulating forms are characteristic of carving. Important considerations are: how well the design fits the block or how the original concept was distorted or stylized due to the

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[1] Also see (a) Jack Burnham, Beyond Modern Sculpture, (New York: George Braziller, 1967).
(b) Udo Kulterman, The New Sculpture, (New York: Fredrick Praeger, 1967).
These two references will provide an expanded analysis of form and content in sculpture.

[2] Zorach Explains Sculpture, (New York: American Artists Group, 1947).

nature of the medium. Materials such as wood, stone, and plaster are used. Each material has its advantages in grain, texture, and durability. It also has limitations; for example, wood has the tendency to split or deteriorate. The sculptural concept of truth to materials is an outgrowth of carving. Themes such as heads, torsoes, animal forms, and abstract biomorphic shapes that lend themselves to carving are usually employed. Eskimo, Egyptian, Inca, and Medieval carving well illustrate this concept.

Modelling

Modelling is an additive or building up process and is opposed to carving. Modelling mediums include clay, plaster of paris, or such commercial products as fiberglass. Armatures are constructed from wire, wire mesh or styrofoam: holes and perforations can be made. The armature is then covered with various modelling materials to achieve any number of effects. Casting may then take place. Modelling is most effective in achieving Impressionist or Expressionist sculpture. The work of such artists as Medardo Rosso, Auguste Rodin, or the contemporary artist George Segal, and other artists working with the "New Images of Man" use more impressionist modelling. The art of Henry Moore, Jean Arp, or Mardi Gras and carnival heads illustrate more expressionist sculpture.

Constructions

In contrast to carving and modelling, constructions can yield a more open form. They can emphasize lines, planes, or volumes. Useful linear mediums are wire, string, wood strips, or steel rods. Artists who have worked in a linear mode are the Abstract Expressionists Abraham Lassaw and David Smith. The mathematical linear constructions of Naum Gabo and Antoine Pevsner illustrate another direction.

The plane is an important element in modern sculpture. The use of the plane two-dimensionally by Cezanne, Picasso, and the de Stijl art movement has its three dimensional equivalents in the work of modern artists like Robert Murray, Anthony Caro, and Ellsworth Kelley. Metal, wood, plexiglass, and plastic are essential materials. Metal sheets can be welded to form planear sculpture.

Volume constructions emphasize the relations of masses in space. Materials such as blocks of wood, steel, styrofoam, and cardboard tubes can be used. The American sculptor James Rosati employs volumes to achieve abstract geometric sculpture.

Volume, plane, and line constructions depend heavily on the principles of design. Balance of elements, repetition of a modular unit to create rhythms, proportions, scale, contrast, and texture are important principles. Stalae, totem, and structural constructions are contempo-

rary sculptural forms that depend on volume.

Assemblage

The sculptural technique of assemblage is analogous to the two-dimensional technique of collage. Ideas in social protest, Surrealism, Dada, and Pop art all relate to sculptural assemblage. This concept is limited only by the imagination of the students. Unusual combinations of materials and juxtapositions of different textures create fascinating dream-like montages that conjure up many associations. The art of Marcel Duchamp and Joseph Cornell exemplify the sculptural process of assemblage.

Transparent and Light Sculpture

> We reject sculptural mass as a sculptural element.
> Naum Gabo[1]

Transparent and light sculpture is the antithesis of carved sculpture just as light and space are the antithesis of mass and volume. The aim of this sculpture is to discover the properties of transparencies and light in sculptural expression. Glass, plexiglass, prisms, mirrors, stained glass, electric and neon light can be used. Sculpture that

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[1] "The Realist Manifesto," The Structurist, (Univ. of Saskatchewan, 1968), p. 47.

is transparent has the properties of light refraction and reflection of the environment.

Movement

Kinetic sculpture is a natural outgrowth of constructive sculpture and, unlike the motion picture which uses the stroboscopic effect to create apparent movement, it is concerned with real movement. The aim of kinetic sculpture is to explore the design and expressive possibilities in movement. There are many kinds of kinetic sculpture:

1. Variable compositions (eg. Comtois)
2. Structures using motors (eg. Jean Tingley)
3. Mobiles (eg. Alexander Calder)
4. Complex movements (eg. in fluids)

Environmental and Color Sculpture

Sculpture is also being integrated with architecture. Sculptural walls, screens, and dividers are used to continue architectural space and to enrich the environment. A variety of materials, such as cement, steel, and plastic can be successfully related to buildings. The relief form is especially well suited in environmental work. Henry Moore's sculpture for the Time-Life Building in London, England is an outstanding example of this integration.

Another environmental possibility is using sculpture in a theatrical manner. The combining of sculptural concepts into "happenings" and stage settings for television and drama productions extends the function of sculpture.

Along with this integration, sculpture can also be more colorful. The successful development of colored synthetic materials, colored lacquers and paints produces many exciting possibilities for sculpture.

III. Working Strategies and Criteria For Creativity in College Sculpture

> By the creative process we mean the capacity to find new and unexpected connections, to voyage freely over the seas, to happen on America as we seek new routes to India, to find new relationships in time and space and thus new meanings.
>
> Lawrence S. Kubie[1]

This section will outline some of the characteristic working strategies or typologies of college students in sculpture. It will also discuss some criteria of creativity to be found in the individual's work.

While college students have much in common, such as knowledge, attitudes, motivation, and their environment, they do exhibit individual creative behaviors and learning strategies. Two basic differences can be found in the way students will work by thinking in the particular qualities of the sculptural medium. They will start working with no conscious aim, but as they manipulate materials some idea becomes conscious and crystalizes; then a control and ordering begins to take place. Other students will begin a sculpture with a preconceived idea of what they want to create. They may realize this idea sculpturally or

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[1] The Neurotic Distortion of the Creative Process, (Toronto: The Noonday Press, 1958), p. 141.

destroy the idea when another idea or quality appears while working.

Another distinction in working strategies is that some students appear to go through long periods of incubation before they gain the necessary insight in order to create sculpture, while others are continually working and producing a great number of pieces of different stylistic origins. In both these cases there are those students who work in a learning sequence, whereby the student increases his control and style with each piece he completes. For example, some students tend to begin with a closed, dense form (egg or kernel sculpture) and work to a more open spacial sculpture in later pieces. That is, they follow Woefflin's category of closed to open form.[1]

Paralleling these distinctions, Elliot Eisner[2] has elaborated on this kind of approach to formulate a typology of creative behavior that is also useful in describing college sculpture. He recognizes that art activities of

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[1] Edward Trier, Form and Space, (New York: Fredrick A. Praeger, 1961). In this book the author characterizes modern sculpture as a development from kernel to more spacial sculpture.

[2] "A Typology of Creative Behavior in the Visual Arts," American Education Research Journal, Vol. 11, # 3, 1965, p. 125 - 136.

college students fall into the following types:

1. Aesthetic ordering
2. Inventing
3. Boundary pushing
4. Boundary breaking[1]

Applying this typology to college sculpture, the following differences can be explained. In aesthetic ordering the student confers order and unity upon matter. The sculpture produced may match some traditional form but will be unique in its specific quality. Inventing is the ability to employ the known to create an essentially new form. The student may combine two or more styles, for example, the organic and the geometrical, to create a new synthesis. This type of creativity is well described by Arthur Koestler as the process of bisociation.[2] Richard Stankiewicz summarizes this type of creativity and gives a good description of contemporary trends:

> If current sculpture is classified in oppositions such as figurative-nonfigurative, objective-nonobjective,

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[1] Robert C. Burkhart and Kenneth R. Beittel have a similar classification. They identify the following kinds of art students: academic, spontaneous, and divergent. ("Strategies of Spontaneous, Divergent, and Academic Art Students," Studies in Art Education, Vol. 1, Fall, 1963, p. 20 - 41.

[2] The Creative Act, (Toronto: MacMillan, 1964).

> geometric-irregular, monochrome-polychrome, made forms-found forms, environmental-circumnavigable, big-little, and whatever other kinds one cares to sort out, there is already quite a smorgasbord to choose from. The fun begins when two or three or more cross combinations are made: monochrome figurative, found-object environmental, say or polychrome geometric, non objective or geometric figurative, and so on.[1]

Boundary pushing is the ability to add new elements to the given. For example, a student may increase the scale of a typical sculpture, or multiply the number, or take a new theme and handle it in a traditional way to arrive at a new aesthetic experience. Finally, boundary breaking is a rejection or reversal of accepted assumptions. The individual sees gaps and limitations of present theories and proceeds to develop new premises which contain their own limits. The student uses insight and imagination to arrive at new criteria. This type of activity is best exemplified by those students who feel traditional sculpture, as an object of contemplation, does not interest him or has no validity; some new criteria are required, for instance, sculpture as environment.

Besides isolating the student's working strategy, it is necessary to understand what the student already knows about sculpture and what he is attempting to do. That is, in taking the course, the student will have some

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[1]Udo Kulterman, The New Sculpture, (London: Thames and Hudson, 1967), p. 113.

criteria for creativity in sculpture. Before analyzing the individual college students, let us discuss some of these criteria.

Paul Edmonston outlines the following criteria:

1. Formal invention
2. Formal integration
3. Symbolic invention
4. Expressive power
5. Ideational invention
6. Abstractive power
7. Abstract invention
8. Technical virtuosity
9. Stylistic diversity
10. Spatial invention
11. Spatial integration[1]

Using these criteria and our knowledge of sculpture and the typologies of creative behavior, the following questions can be asked in analyzing the student sculpture: What form of sculpture is the student interested in creating, ie., realistic, surrealistic, abstract, etc? What materials does the student employ, ie., metal, fiberglass, clay, etc.? Is he aware that sculpture could be visually interesting in all 360 degrees, or is the student concerned with frontality or some form of relief? Does the student believe that the space around the sculpture is as impor-

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[1] "Some Speculations Concerning Criteria for Defining Creativity in the Visual Arts," (State College Pennsylvania, Department of Art Education, Pensylvania State University, 1961), p. 1-7.

tant as the mass or does he create kernel sculpture? Does the student employ craftsmanship or technical virtuosity to arrive at a finished product or does he feel it is inessential to his idea? Is the student conscious of the elements of design (point, line, plane, mass, space, texture, color, movement) and the principles of design (contrast, rhythm, balance, scale, proportion) or does he work more intuitively? Does the student use symbols or symbolic relations which have expressive power? Does the student reveal the ability to abstract from an idea, reducing it to its minimum essentials? Does he attempt many alternatives, that is, in the course of the year, does he exhibit a stylistic diversity? Does the student use tools and equipment to their full advantage in creating a sculpture that depends on technological knowhow? Also, does the student carry out an idea through a number of pieces and exhibit a developmental sequence or merely repeat an idea?

These and other questions will be asked in examining the student's work.

IV. The Sculpture of Individual College Students

The following students were selected to illustrate the wide range of creativity in sculpture. They are all students at Sir George Williams University and were observed in two first year sculpture classes and in free studio time. These students are only selected examples and by no means represent the total picture of sculpture at Sir George Williams University.

Student No. 1

This student can be characterized as being preoccupied with aesthetic ordering. The first sculpture (Fig. 1) was modelled in clay and then cast in cement fondu. It consists of a simple volume or kernel sculpture. The undulating contours give it an organic quality. A sensitive balancing of masses and conclavities make the sculpture fully realized from every angle. Its smoothly textured finish and ebony color show that the student has technical virtuosity.

The second sculpture by this student made use of an armature. At first the student attempted a more divergent form from her first piece by modelling a surrealistic head. However, after some week's work, the idea was destroyed and the student reverted back to a biomorphic volume. This sculpture (Fig. 2) was similar to the student's first piece except that the forms were larger and the space between the forms contributes to the design.

Fig. 1

Fig. 2

Student No. 2

This student shows an interesting progression and stylistic diversity in the four pieces she created. The first piece (not illustrated) was an academic presentation of the human head which employed modelling in clay and casting in cement fondu. It had ideal proportions and a smoothly textured finish. The next two pieces done were of a more spontaneous nature (Fig. 3 and Fig. 4). They employ abstract and symbolic invention and consist of combining two elements of design. In Fig. 3 the mass of the cube is contrasted with the space of the hole. In the low relief (Fig. 4) the linear elements are contrasted with the disks. Both use a transfer of technique from the first piece and both are characterized by a certain frontality.

The forth sculpture (Fig. 5 and Fig. 6) done by this student was a return to the representation of the human head. This time the modelling is towards figuration at some distance from reality, using symbolic and expressive qualities. Also, the student said she was concerned with making the sculpture interesting from all angles.

In the last piece the student exhibits a form of boundary pushing creativity by handling a familiar theme in a new way and by employing new technical means (fiberglass casting). This appears to be a result of attempting many possibilities.

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Student No. 3

Here the student is primarily interested in inventing. The student created four sculptures in the course of the year, all of which were worked on continuously. Consequently, the four sculptures have qualities in common and comprise a series.

The student uses modelling in clay (Fig. 10) to arrive at an organic form which is realized from all angles and uses concavities and space (Fig. 7) as part of the design. The problem becomes one of inventing when the student attempts to integrate the modelled volume with a constructivist support. In the figures 7 and 8 the student used an industrially chromed metal system of bent rods to support the fiberglass volume and created a strong contrast between the mass of the volume and the space of the superstructure. In Fig. 9 the student welded a metal pedestal or column to support the organic shape. The student also attempted to integrate wood and metal in the totem structure.

The invention of this student is geometrical-irregular combinations of forms. The student has the ability to explore an idea in depth and employ technical know-how and assistance from the instructor to the fullest.

Fig. 7

Fig. 8

Fig. 9

Fig.10

Student No. 4

This student goes through long periods of incubation before he realizes an idea. At the first of the year he attempted a two-piece modelled sculpture. He claimed it was a result of looking at the work of Henry Moore. When the sculpture was finished the student had difficulty with further clay work. However, in Fig. 11 he finds constructing and carving useful in fashioning a kernel sculpture in wood. This is later combined with a metal support and metal linear elements which give it an expressive function (Fig. 12).

This involvement with metal leads directly into three sculptures in welded steel. The first (Fig. 13) is an abstract linear composition of steel rods which the student claims is unfinished. The second (Fig. 14) is a composition employing two steel leaves anchored in a cylinder full of lead. The student finds that the kinetic movement of the leaves is the most significant aspect of the sculpture. This piece was followed up by another kinetic sculpture (not illustrated) which is a slightly modified version of Fig. 14. In this case, the metal leaves were bolted to the metal base, thus utilizing a new method of fabrication.

Here the student has a more spontaneous working strategy in which the manipulation of materials for their

own sake is important. Linear constructions, inventions in space, and the use of tools are fundamental to this student's criteria of creativity.

Fig. 11

Fig. 12

Fig. 13

Fig. 14

Student No. 5

This student also shows stylistic diversity and a willingness to explore a wide range of techniques. He is spontaneous in his handling of sculptural form and tends to produce work of an uneven quality towards the end of aesthetic ordering. The student's attempts at casting and modelling on an armature remain unfinished. However, in his two welded pieces he arrives at some formal integration and abstract invention. The first welded piece (Fig. 15) consists of three boxes connected to a column; they provided a good formal exercise in form manipulation. His second welded sculpture (Fig. 17 and 18) was even more successful and went through an interesting metamorphosis. It was at first a representation of a horse's head, however in grinding down the metal surface the student discovered the abstract sculptural qualities of the bent, folded and twisted metal. The sculpture took on properties for which the student was unprepared. The horse's head was abandoned and the sculpture was set on end. The piece was thought of in all 360° and further manipulation (exaggeration) of contours took place to give the sculpture a unified appearance.

The next piece the student did (Fig. 16) consists of a pierced slab of plaster which lacks the degree of involvement of his previous piece.

Fig. 15

Fig. 16

Fig. 17

Fig. 18

Student No. 6

This student uses aesthetic ordering and sets herself the task of working on a series of almost identical sculptures. (Fig. 19, 20, 21, 22). The idea is a "simply connected" loop made from steel bars. The process consists of welding hollow straight steel bars together using some modelling with fiberglass putty to round the corners.

The loop breaks up space in an interesting manner creating an "inside" space from every viewpoint. The student has added another dimension by painting them. She has also experimented in hanging them. The last piece (Fig. 21 and 22) is larger in scale and sits on the floor.

This student is capable of abstracting from an idea and reducing it to its minimum essentials. Again, this student's working strategy consists of the ability to carry out a single idea through a number of pieces. This linear sculpture is no more bound by literal appearances than is music.

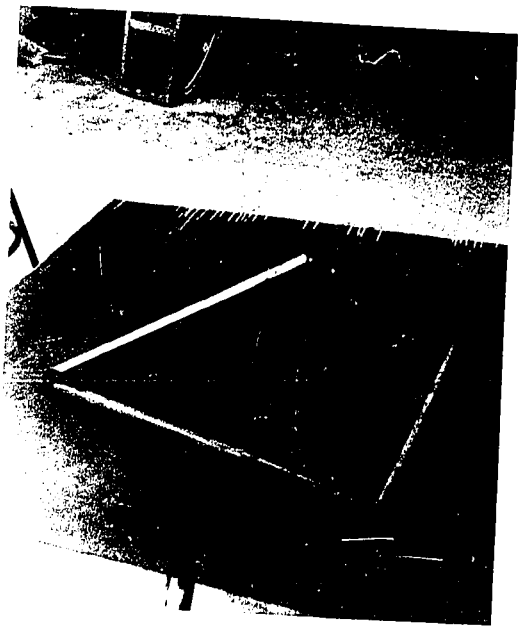

Fig. 19

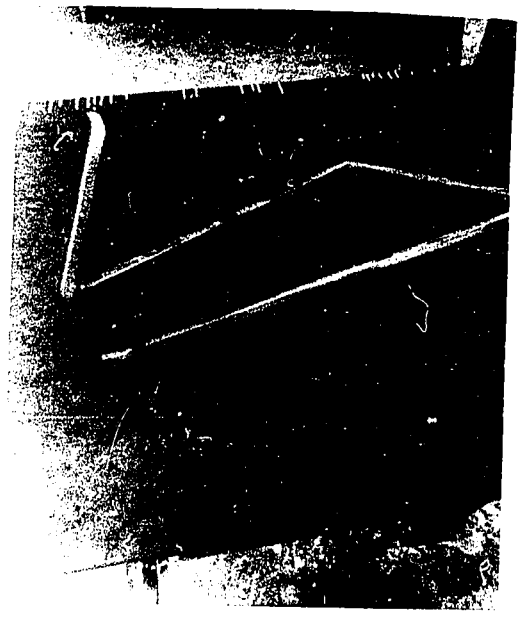

Fig. 20

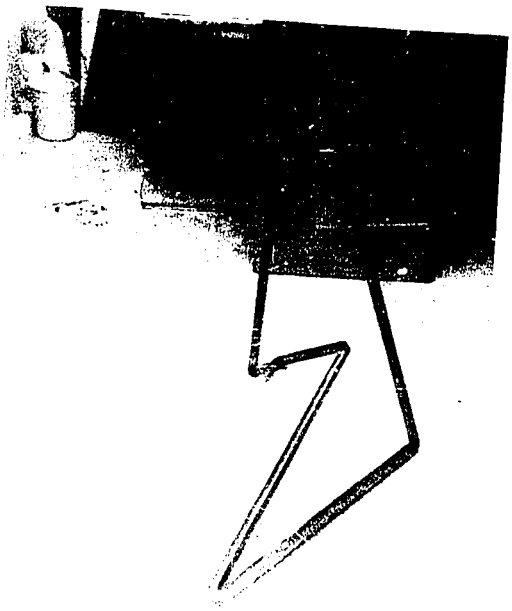

Fig. 21

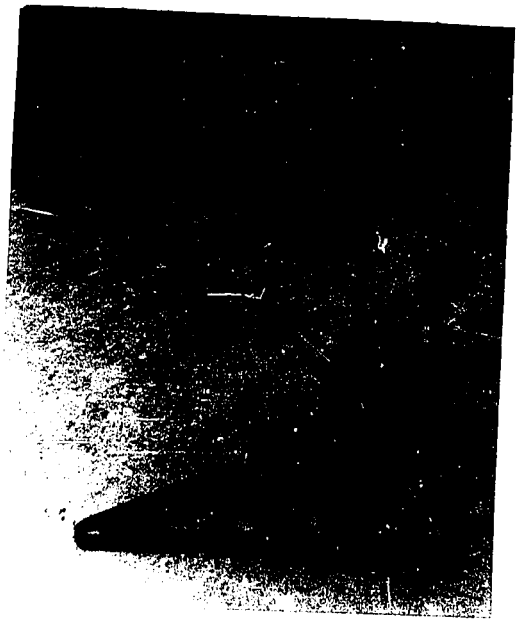

Fig. 22

Student No. 7

This student is capable of taking a single theme and handling it from various points of view. The student exhibits all the characteristics of boundary pushing and inventive creativity.

Using an idea he picked up the previous year, the student began the year by creating a number of pieces which use the casting of the gas mask (Fig. 23, 24, 26). Some distortion and modelling then takes place. Technical virtuosity is shown in the wide range of casting techniques and materials used (fiberglass, plastic, aluminum). He also incorporates assemblage materials from army surplus and other found objects.

He has also created a number of highly symbolic pieces such as Fig. 26 and 28, which employ found objects (broilers, road signs, etc.) and juxtaposed them with organic, fleshlike forms.

The resulting series of sculpture have symbolic invention and expressive power as their main strength. They are in the tradition of "New Images of Man" and depict the horrible in representing the human body in a degraded form. The student has explained that he is motivated by the horrible and the brutal. He shows no apparent concern for the elements and principles of art but employs them intuitively.

Fig. 23

Fig. 24

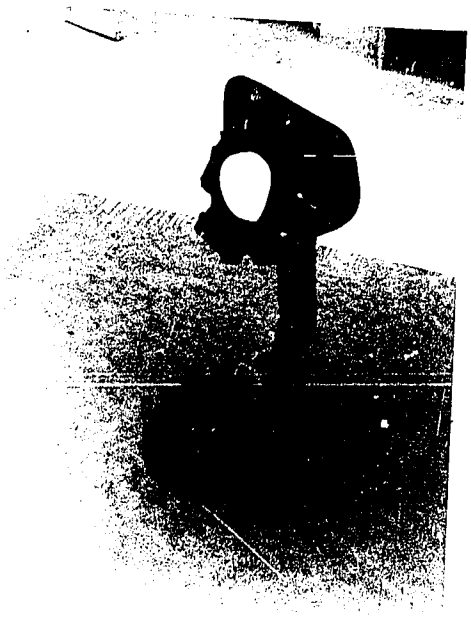

Fig. 25

Fig. 26

Fig. 27

Fig. 28

Student No. 8

This student has worked on one piece of sculpture for the entire year. It consists of a large group of volumes carved from a mass of styrofoam that is held together by plaster (Fig. 29, 30). Some modelling and constructing takes place when the student exaggerates certain volumes by adding more styrofoam and plaster.

The working strategy of this student is that of aesthetic ordering within a well established tradition. The student recognizes the sculpture of Henry Moore as highly influential. The student works very slowly and is conscious of viewing the sculpture from all angles and is well aware of the space surrounding it.

The student wants the sculpture to be mounted at approximately eye level on a rectangular base. The sculpture is to be finished by coating it with plaster which will be covered by fiberglass.

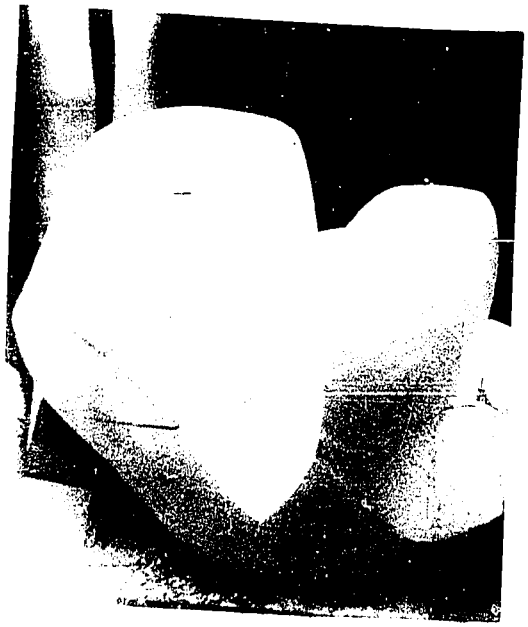

Fig. 29

Fig. 30

Student No. 9

This student shows an interesting inventive working strategy. From a modelled clay sculpture using an armature, the student has created a kernel-like "egg" sculpture which has three interior ribs for contrast. This was cast in white fiberglass (Fig. 31). The student then selected a set of contours around the sculpture which he duplicated in plywood. These plywood pieces comprise a superstructure in which the "egg" or kernel sculpture fits. The student was motivated by the superstructure of ships and aircraft.

Again we see (Fig. 32) the process of bisocation in creativity. This time the student synthesizes the organic volume with the constructed fromework. Here, the student is directly concerned with the elements and principles of design.

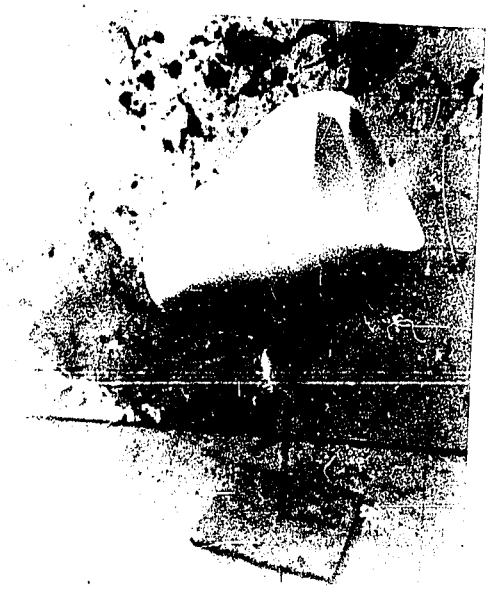

Fig. 31

Fig. 32

Student No. 10

This student exhibits an interesting working strategy in attempting to find bases for his organic forms. The student works in modelling and carving plaster, casting the finished piece in fiberglass. For each piece he creates an edition in which a variety of textural and color combinations are tried out.

The student has an interesting development sequence. Working in one piece leads to the next. The first sculpture (a symbolic head) (Fig. 33) was used as an element of the second piece (not illustrated), and a third was created from a section of the second sculpture.

In order to show this sequence together, these sculptures were suspended from a wood and steel framework by means of chains (Fig. 34). The coloration of the sculptures gave them the appearance of animal carcasses. This image was reinforced by the addition of meat hooks.

The second sculpture was mounted on an organic shaped base of poured fiberglass resin. This integration of the base and the form of the sculpture adds to the content of the piece.

The inventive and boundary pushing typologies are best suited to describe this student's work. He combines organic, highly colored and textured volumes which take into account full three-dimensional realization with novel methods of presenting them.

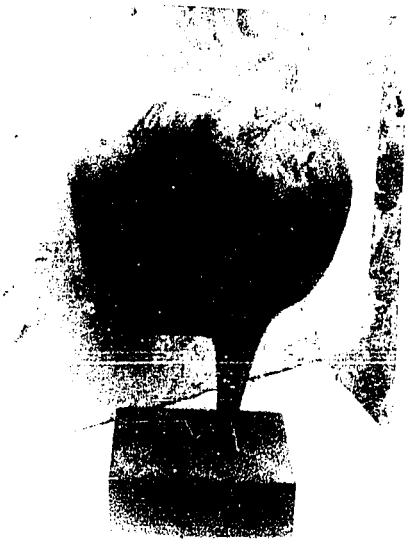

Fig. 33

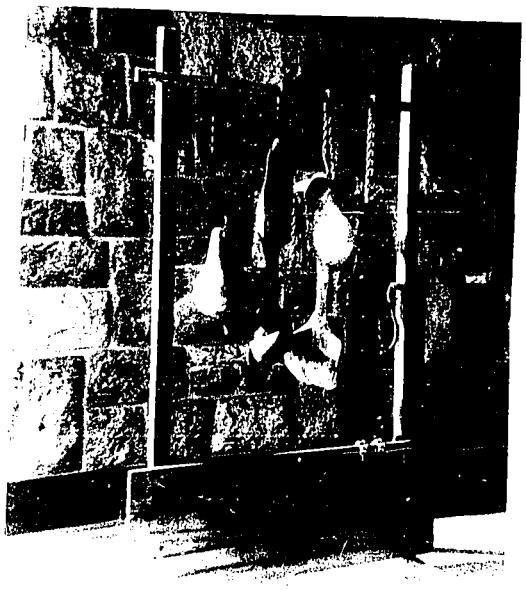

Fig. 34

Student No. 11

At the first of the year this student worked in the modelling-casting process. The first piece he did (not illustrated) was a hand sized kernel sculpture that consisted of bent geometrical forms. It involved aesthetic ordering and technical virtuosity. It was cast in white fiberglass. The next piece (Fig. 35) was carved from a block of plaster. It is fully realized in the round and is organized on the principle of rhythms.

After completing the carved sculpture, the student went through a period of incubation without working effectively. Then, using a comic book character as a theme, the student created a highly stylized volume sculpture (Fig. 36). This was cast in an edition of both black and white. Its smoothly finished skin and industrially polished metal base make craftsmanship an important feature.

This creation of a fantastic zoology in the tradition of Pop art has all the characteristics of boundary pushing creativity. On completing this piece the student attempted to distort the image in a rubber mold, to form a more asymmetrical form, however, these attempts did not lead to an end product.

Fig. 35

Fig. 36

Student No. 12

This student has spent the year working on a motor cycle (Fig. 37) for a project in sculpture. He appears to believe that sculpture must have some use. When questioned about it, he replied that at least his sculpture could move. He has used the sculptural techniques of welding and modelling in fiberglass paste to slightly modify the frame, gas tank, and accessories of a standard mororcycle. He has painted the result.

Such a project in sculpture is carrying kineticism and utilitarianism to their logical extremes. This form of creativity can be characterized as boundary breaking.

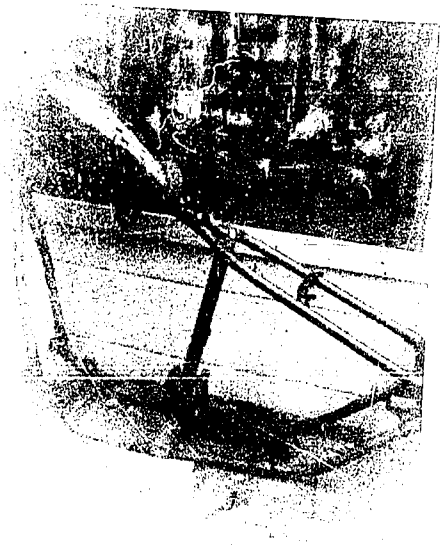

Fig. 37

TABLE NUMBER 1

PROCESSES AND TECHNIQUES USED BY THE STUDENTS

Student Number	1	2	3	4	5	6	7	8	9	10	11	12
Carving				x	x			x			x	
Modelling	x	x	x		x		x		x	x	x	
Construction			x	x	x	x			x			x
Assemblage							x			x		x
Kinetic			x									x
Transparent												
Environmental								x		x		
Use of color			x			x	x			x	x	x

TABLE NUMBER 2

STUDENT TYPOLOGIES OF CREATIVITY

Student Number	1	2	3	4	5	6	7	8	9	10	11	12
Aesthetic ordering	x	x	x		x	x		x	x	x	x	
Inventing			x	x			x		x	x		
Boundary pushing		x		x			x			x	x	
Boundary breaking												x

TABLE NUMBER 3

CRITERIA FOR SCULPTURE AS EXHIBITED BY THE STUDENT WORK

Student Number	1	2	3	4	5	6	7	8	9	10	11	12
3-D realization	x	x	x			x		x	x	x	x	
Space is important			x	x		x						x
Linear qualities			x	x		x						
Volume qualities	x	x	x		x		x	x	x	x	x	
Single idea	x		x			x		x		x		x
Stylistic diversity		x		x	x		x			x		
Representational		x					x					
Abstract	x	x	x	x	x	x		x	x	x	x	
Craftsmanship	x	x	x			x	x		x	x	x	x
Use of tools			x	x	x	x	x		x	x	x	x
Use of technology			x				x					x
Developmental sequence		x		x		x	x			x		
Large quantity of work		x	x	x	x	x	x			x	x	

V. Conclusion

In conclusion, this thesis will examine some of the advantages and disadvantages of attempting to give an overview of college sculpture by using a conceptual framework or cognitive structure. (See Tables 1, 2, and 3, page 54 and 55, for a summary of the qualities found in the individual college student's sculpture).

The advantage of studying college sculpture in a structured way are numerous: First, because of the lack of time in any art program and the number of students in it, it is essential to have some frame of reference to identify the student's sculpture and to relate it to the larger context. As an isolated case, a student working on a motorcycle may seem irrelevant in terms of sculpture, but if it is realized that many criteria for sculpture do not interest this student, the motorcycle can be seen in the proper perspective. Second, because of the complexity and variety of individual student sculptures, some criteria or cognitive structures are essential for dialogue. Third, a conceptual framework makes allowances for students to continuously re-think and evolve a specific concern. In the case of the student combining organic and geometrical forms, an

understanding of the problem led to further pieces of sculpture and new combinations. This is what Jerome S. Bruner calls the spiral curriculum.[1] Fourth, a wide and general spectrum of categories allows for any type of sculpture and unlimited possibilities. Fifth, the advantage of this method is that it overcomes the separation of "advanced" and "elementary" aspects of sculpture into two isolated parts. The basic concepts and themes of contemporary art --realism, impressionism, expressionism, pop art, optical art, intermedia, and environmental considerations-- are concerns of every age level. Sixth, a classification provides a means of insight into sculpture's content: three -dimensional perception, the creative process, principles of composition, and speculations on the nature and role of a work of art.

A disadvantage of this kind of structuring is that it describes only general qualities of student sculpture and not specific ones which make the student's work unique. The example of the student who employed the construction-welding process but arrived at a carved or modelled form of sculpture illustrates how misleading the criteria of construction is in this case. The emphasis on understand-

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[1] The Process of Education, (Cambridge, Mass.: University Press, 1966).

ing which a conceptual framework fosters, can lead to a mechanical orientation in which intuition and feeling are subordinate. Also, the confusion a structured frame attempts to overcome is not necessarily harmful at any level of art education. Dore Ashton writes about sculpture which relates to this point when he says:

> A certain amount of confusion arrived with the 1960's --a healthy confusion that permitted almost any object that was not flat to be considered sculpture.[1]

Finally, the mistake of stereotyping or compartmentalizing student creativity as Elliot Eisner does, is the deterministic fallacy; namely, to mistake a way of working at a given time for a permanent tendency. In fact, some students may go through many of these types in the course of the year. The case of the student who was concerned with aesthetic ordering and modelling at the first of the year but changed to a more inventive kinetic sculpture at the end exemplifies this point.

The overview or conceptual framework proposed here has been an attempt to provide a functional relationship between knowing about sculpture and doing sculpture - between theory and practice. It has been useful as a guide for research into the individual student's work and forms a basis for making observations.

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[1] Modern American Sculpture, (New York: Abrams Inc., 1968), p. 43.

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