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### A sculptor's approach to the design of aesthetically functional furniture

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A SCULPTOR'S APPROACH TO THE DESIGN OF  
AESTHETICALLY FUNCTIONAL FURNITURE

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Date of Submission: May 29, 1967

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## INTRODUCTION

This thesis will attempt to propose an extension of current design-craft philosophy, and a synthesis of my past experiences with the endeavors of the last two years. The paper is composed of (1) a brief review of major design movements (since the middle of the eighteenth century) which, for all practical purposes, constitute the genesis of our present technological awareness; (2) a consideration of the contemporary situation; (3) a proposal of direction for the designer-craftsman; and (4) a review of personal work of the past two years as a practical manifestation of the conceptual values presented in the second chapter.

It is hoped that this paper will be of value not only as an expression of my own philosophic and conceptual direction, but also for its implications in what I conceive to be a necessary direction for design education and, further, for the role of the self-employed designer.

## Chapter I

### THE CRAFTSMAN'S CONTEXT

The necessity for intellectualizing the purposes of one's work is a peculiarity of an individual-oriented, self-conscious society. Prior to the Industrial Revolution, the craftsman was part of a long tradition of family trade or long apprenticeship; this was a tradition which had an obvious and stable relationship to his society. Today there are no such traditions in Western society and specifically in the United States where family members are able, for the most part, to choose a profession or trade commensurate with desire and ability. At the same time, the pride in a long family tradition in one field has been usurped and superseded by the efficient machine which depersonalizes the object made and fractures the act of making it from inception to completion. Most utilitarian objects are no longer being made by hand but in a factory where technical and financial resources are far superior to those of the individual or guild craftsman. Thus, if the craftsman is to survive at all, he must be conscious of himself in order to assess his own needs. He must be able to decide whether he will serve the needs of technology, compete with technology, or whether



he must assert his quality as a unique individual through the medium of the crafts.

If history is to play a dynamic role in assessment of the current situation, then it must be said that within barely two centuries (the development and continuing existence of machines and further of advanced technology and all of the resulting sociological conditions) the craft situation has come almost full circle. The conditions before the Industrial Revolution demanded craftsmen to work in order to supply the basic necessities for family living as well as the demands of nobility and clergy. Today it is asked that the craftsman provide the aesthetic utilities for educated class family living. In the mid-eighteenth century the Industrial Revolution started a thrust towards displacing the craftsman as the source of utility and decorative objects; today the machine is creating a new need for utility as well as non-utility items from the craftsman.

As industry began to play a greater role in society, it caused a shift of wealth from the nobility and clergy to the new bourgeois and the effects both in England and France (it was the French Revolution which caused the shift) were the same: the removal of the cultured and refined patrons of the crafts and the destruction of the craft guilds. The eventual result was a taste vacuum which was graphically demonstrated in the Great Exhibition of 1851. The few good designers had

not yet penetrated industry, the artists remained aloof, and the choices were left to the uneducated manufacturers. The results were atrocious (see figures A through C). Both the Great Exhibition of 1851 and the election of Andrew Jackson in the United States mark not only the new "Age of the Common Man" but also what Russell Lynes calls "The Age of Public Taste".<sup>1</sup>

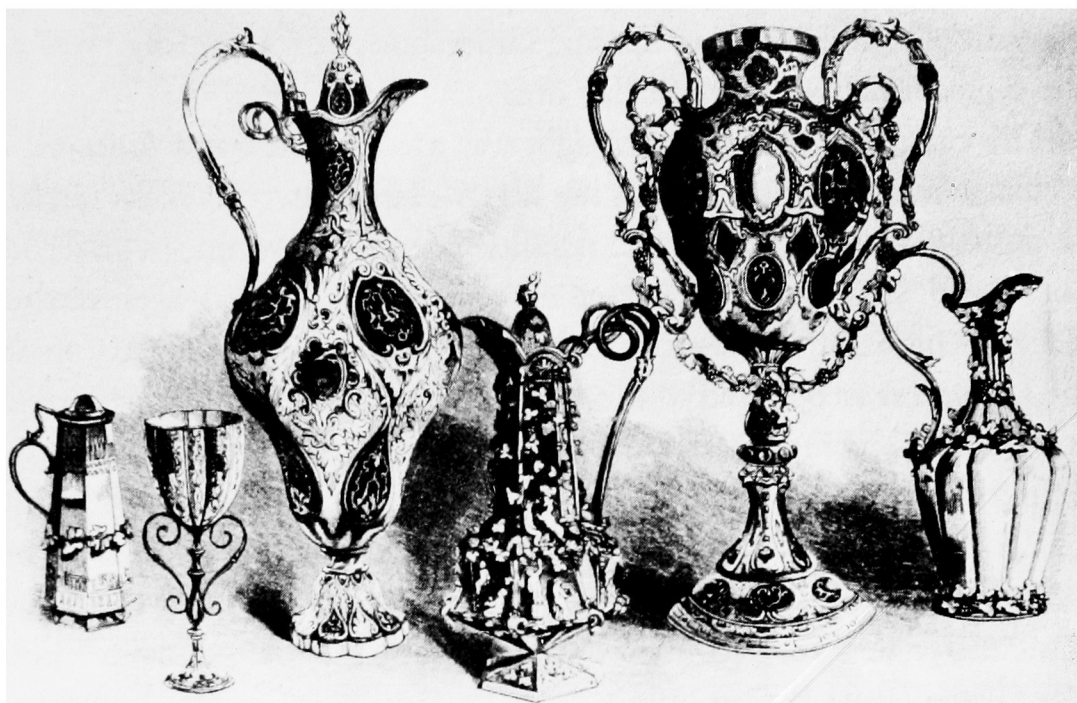
When, finally, the contemporary designers and architects did come to grips with the problem, the results were certainly more refined but little more than eclectic. "William Morris was the first artist to realize how precarious and decayed the social foundations of art had become in the centuries since the Renaissance and especially during the years since the Industrial Revolution."<sup>2</sup> It was his rebellion against poor design that he was prompted to build his own furniture and at this point gave up his envisioned career in painting. However, Morris' reaction did not embrace the new technical capacities but rather attempted to reverse the direction of the medieval craft guilds; thus his arts and crafts movement was just another revival.

C. R. Ashbee, a former disciple of Morris', pointed the way forward; in a book published in 1911, he states that

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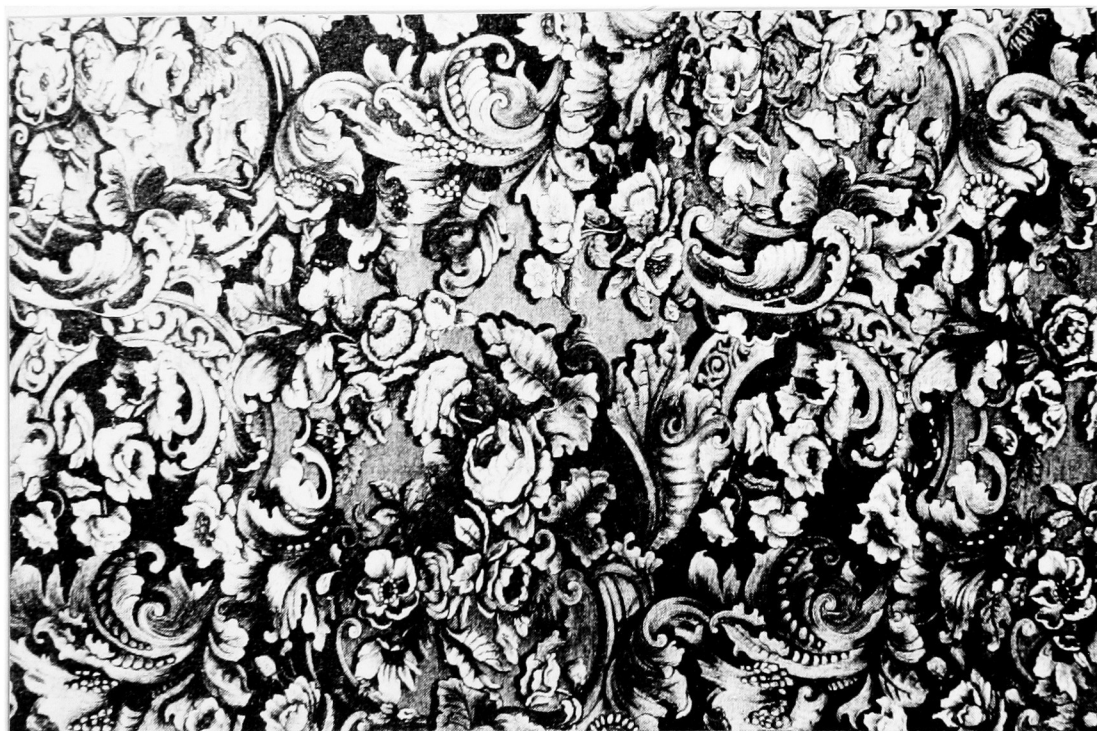
<sup>1</sup>Russell Lynes, The Tastemakers (New York: The Universal Library: Grosset & Dunlap, 1954), p. 5.

<sup>2</sup>Nikolaus Pevsner, Pioneers of Modern Design (Middlesex, Great Britain: Penguin Books Ltd., 1960), pp. 21-22.



Silverware from the Great Exhibition of 1851.

A

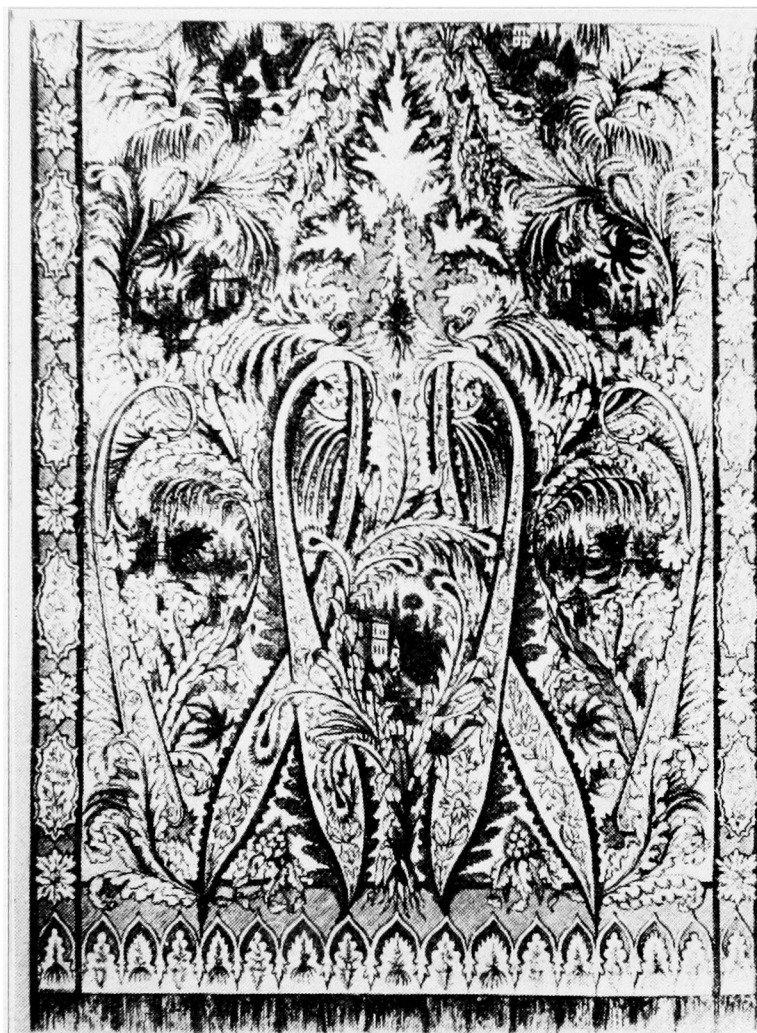


Carpet from the Great Exhibition of 1851.

B



C



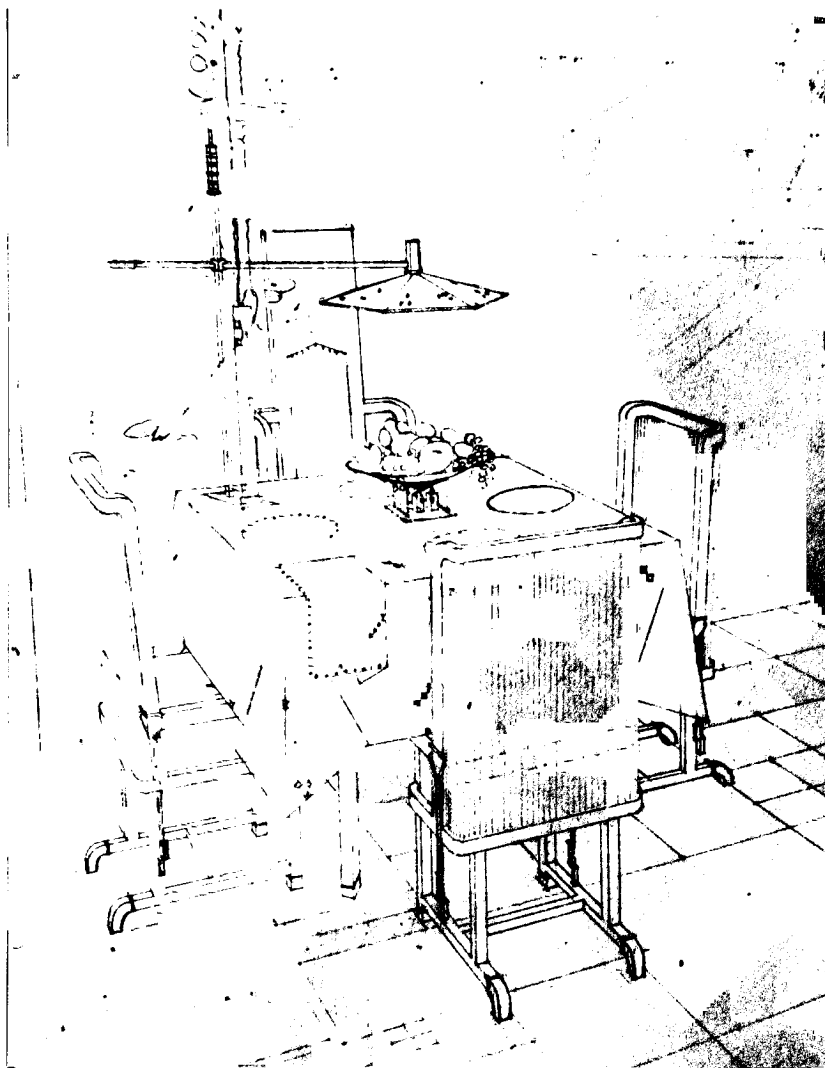
D

"Modern civilization rests on machinery, and no system for the encouragement of the endowment of the teaching of the arts can be sound that does not recognize this."<sup>3</sup> Although this concept was not original with Ashbee, it was one of the most cogent expressions of a generative idea that gave rise to an entirely different design philosophy from any that preceded it. The next generation's total acceptance of the machine was quite different from the tentative acknowledgement from Ashbee and his contemporaries. Also, the initiative passed from England to the United States and then, after a short period focused in Germany.

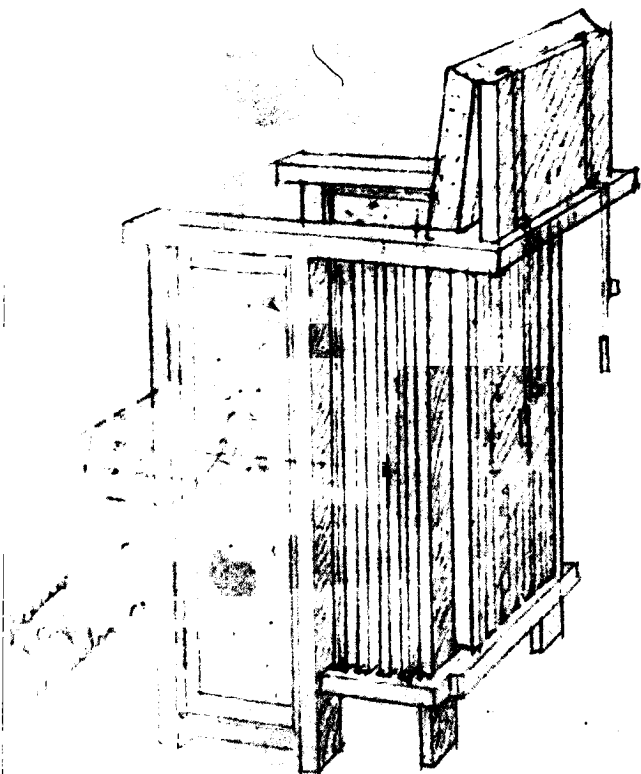
The years between 1900 and 1914 were ones of great ferment in which many new concepts and ideas were developed. What had begun with Morris' revival handicrafts, was extended by the discovery of the great possibilities of the untried machine. The establishment of the Werkbund by Hermann Muthesius, who saw the import of Morris' notion of the integration of the artist in society, stressed the creative use of the machine rather than, as Morris, its rejection. In 1919, this movement culminated with Walter Gropius who organized the Weimar Art School in the Staatliches Bauhaus. The Bauhaus became, for more than a decade, the creative design center of Europe.

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<sup>3</sup> Charles R. Ashbee, Should We Stop Teaching Art? (London, 1911), p. 4.



E



F

Gropius attempted to solve the problems of the split between industry and the arts by combining a craft school with the art school and thus creating there a situation which he wished to see in society itself--where the arts and industry worked together for the benefit of all. The main thrust of his vision was "not the single piece of work, nor the highest individual attainment...but instead the creation of the commonly usable type--development towards 'standards'".<sup>4</sup> All of the students of the Bauhaus were required to achieve technical mastery over materials before they were permitted to enter the advanced design laboratory. Thus all students were thoroughly familiar with the fundamentals of materials and processes. The logic of the machine was adopted as the new generative idea for design. The principles of standardization, economy of material as well as form were adopted into a new overall value system.

1933 brought an end to the Bauhaus in Germany; many of its members fled to the United States to escape Nazi persecution. It was with Walter Gropius, Moholy Nagy, Herbert Bayer, Joseph Albers and others that the Bauhaus philosophy penetrated the United States and became a force in industry and a guide to art schools throughout the nation.

The influence of the Bauhaus in the United States today is still very strong; but in spite of the very rich design

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<sup>4</sup>László Moholy-nagy, The New Vision and Abstract an Artist (New York: Wittenborn Schultz Inc., 1947), p. 20.

legacy which it has left, it nevertheless has exposed certain questions and pointed to problems existing today. The problems are those which the Bauhaus solved in 1919 and subsequently created because of its very strength. First, the Bauhaus influence in art schools has reached not only industrial design departments, but also craft-design departments where students are directed towards production crafts in ceramics, in textiles, in metals and in wood. At the same time, the fine arts have also influenced craft-design education. There has been some (though not extensive) concentration on the education of craft-design students for the exploration of semi-utilitarian, unique one-of-a-kind objects. Thus it has occurred that the craft field is experiencing philosophical fractures: direction towards mass production and, at the opposite pole, direction towards fine art orientation.

My belief is that the training of an ever increasing number of would-be independent craftsman-designer students for production is built on an unstable foundation. Surely the independent craftsman will be able to exist financially by making cups, or plates, or yardage, or personalized cabinets; but he could also exist financially if he were to work for a large design studio like Herman Miller, or Jack Larson, or Dansk. But it seems that by existing as an independent in competition with the larger design houses, he is not really using himself fully as an independent individual, but rather, merely setting himself up as an independent factory



with "no boss". What he really becomes in this instance is a small businessman who does not exploit his opportunity to class himself unique.

I propose that the independent craftsman needs to free himself from the shackles of industrial mass production orientation. It seems to the advantage of the individual to explore all that the words "individual" and "independent" imply while still enabling himself to exploit the market for utilitarian and semi-utilitarian objects--a market which increases with current and growing national prosperity and level of education.

## Chapter II

### A DIRECTION

One of the strongest implications of the term "individuality" is the ability of the individual to give form to his imagination and perceptions. There are many designer-craftsmen in the field today who are exploiting their "independence" by creating the one-of-a-kind decorative or utilitarian object, but it seems that there is an evident scarcity of craftsmen who are exploiting their individual generative capacities for conceptualization. By conceptualization, I mean something quite different from the development of varied ideas or techniques. Conceptualization involves seeing larger, more complex relationships between separate ideas and using those relationships to develop consistent growth patterns in a selected media.

Rarely have I seen a body of work or encountered a person working in the design-craft field who has intimated that professional designing was any more than creating solutions to essentially unrelated problems. The general assumption seems to be that one essentially blunders into some sort of style or technique which may then enable him to solve problems in a more or less consistent fashion.

It is in the area of long term "concepts" that I find a major difference in attitudes between those in the fine and applied arts. In the fine arts (painting, sculpture, dance, music, etc.), the most seriously involved individuals make a concerted effort to evolve a working concept which embodies the broadest scope of their field or medium within which they are able to build, discover and grow and thus develop more meaningful solutions to problems in terms of the entire medium rather than just for isolated instances.

For the most part, no such endeavor is undertaken by designer-craftsmen. Rather, the concentration is made in developing a highly acute and sophisticated and sensitive awareness to current and projected trends of likes and dislikes among the educated and aware public. The "best designers" are usually those whose sensitivity to trends is most acute and whose ability to respond is best developed. The truth of the matter, as George Nelson suggests, is that professional design is essentially a service profession.<sup>5</sup> In spite of what designers would like to believe, the forms and styles which they employ are less a result of their creative understanding of form than they are a response to the needs of others whom they will serve.

Often we hear people speak of "creativity" or what I call the "creative process". Normally, this term refers to

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<sup>5</sup>George Nelson, Problems of Design (New York: Whitney Publications, 1957), p.

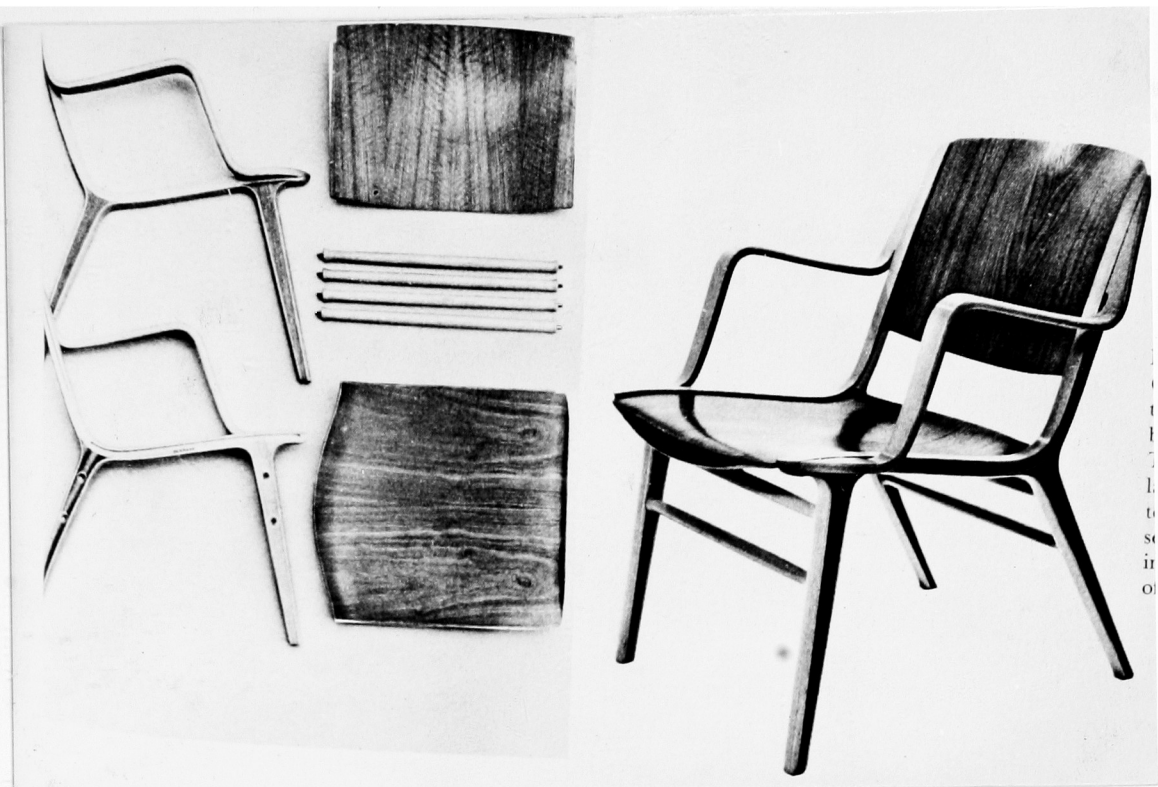
an act of conceiving a piece through the act of completing that piece or series of pieces. I do not believe that "creativity" can be inferred from anything so specific as a "series" or a "piece" or even an entire year's work. Instead, the "creative process" must infer a lifetime procedure in which an individual is concerned with his total engagement in learning, formulating, and especially developing total concepts which establish his relationship as a living being to the reality in which he finds himself and further formulating this relationship in his own work.

This process does not consider particularly significant the making of a single work or group of works as finished products, but rather considers the specific piece in the context of further direction, development and learning which is a lifetime endeavor. Creativity considers neither style nor mode, nor is technique significant. Through exploration and development, a natural style will evolve which will not only be unique, but also significant and meaningful. This process is a private matter and becomes public only after the fact.

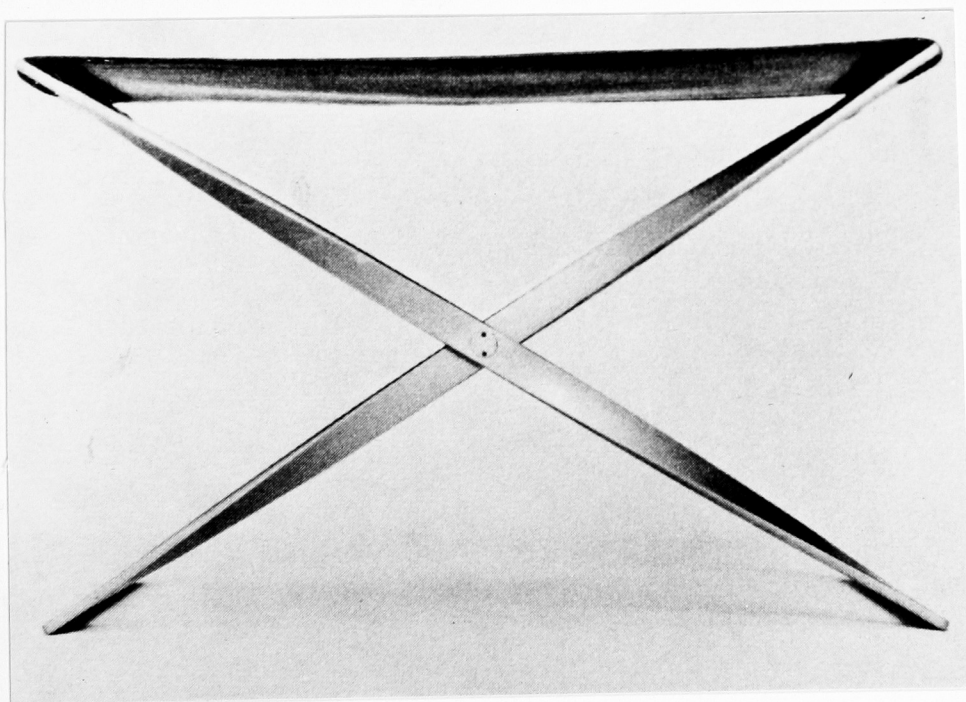
In recent years, the public has become more and more aware and interested in the crafts; hence, the increase in the number of shows and galleries available for craft exhibition. This gives the craftsman a new opportunity to consider a more process-oriented view of designing where one piece leads to the next in the larger context of creative exploration and discovery.

This notion is a key to my point of view towards the design of furniture even though furniture can never be sculpture (the two functions are contradictory). However, there is no question that, within the limits of a functional object, there is room for the kind of dynamics and meaning with which sculpture is concerned.

In the most elemental sense, the dynamics of sculpture are those of true three-dimensional relationships, of simultaneous tensions and thrusts through volume and space. Our everyday experience is permeated with voluminous and spacial configurations of all descriptions--from the angularity of contemporary architecture to the undulant forms of nature. Most people have little difficulty gauging distance or maneuvering within complex and changing relationships such as traffic, or crowded areas of open areas. However, despite our awareness in maneuvering our physical persons, there is little evidence of our space awareness in our designed objects, for they evidence little expression of the spacio-volumetric reality of which they are a part. Observe the Danish style chair, or the automobile or any one of a myriad of commonly used objects and their "clean lines". The line is a two-dimensional configuration, the representation of silhouette. The dynamics of most objects occur almost entirely within their outline. There is little consideration given to the volumes and spaces created around and within the object. Very few individuals seem really to feel these dynamics unless



G



H

confronted by some highly dramatic vista like the Grand Canyon. Not surprisingly, the only individual whom I have met who really comprehends his environmental space three-dimensionally is blind. The feel of space, volume, contour are for him the very stuff of life. We must train ourselves to see the world around us--to feel it with our eyes as well as with our bodies. It is contradictory to make objects which by being related only in silhouette actually deny their actual volume.

The drawing board method of generating designs serves only to perpetuate this kind of thinking, for it forces primary focus on the outline of forms. Further, it prohibits consideration of the consequences of one view of the piece upon the other views. Only an individual with long years of experience in manipulating form can begin to visualize the relationship between the drawn view and its three-dimensional implications, and even he must guard against allowing the line to impose its essential two-dimensionality on him. Nearly everyone, sculptor and designer alike, employs sketching as a method of studying form and notating ideas, but when it comes to the actual creation of the piece, the sculptor turns to three dimensions. It is necessary, however, in order to construct some pieces of furniture, to make fairly exact drawings; yet the generation of the design itself is better carried out in wax or clay from which relative scale may be determined and then transferred to paper. The actual piece occurs in the round and should be dealt with accordingly.



The visual evidence of volume are the planes that define it either as space or solid. One can begin to grasp the essence of the dynamic if he begins to see the plane as the result of forces; that is to say, plane defines the limit of a thrust of force. Further, these forces operate internally as well as externally. The space around and through a piece of object creates volumes that act upon it, pushing in and engaging it. Simultaneously, the object is thrusting outward and upward into the space around it much as if the piece were some sort of plastic in which an organism, planting its foot at one point, is pushing at the opposite side. Henry Moore, in speaking of this in relation to sculpture, observed that "Rather than give the impression of a smaller object carved out of a bigger block, it should make the observer feel that what he is seeing contains within itself its own organic energy thrusting outwards.... It should give the impression whether carved or modelled of having grown organically created by pressure from within."<sup>6</sup> The pressure from within interacts with the pressure from without, creating a Yin-Yan of inter-changing forces--a living rhythm. This is what should be meant by the phrase "the life of forms". This kind of dynamics occurs in nature all around us. It is the energy source for the artist and should be for the designer as well.

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<sup>6</sup>Henry Moore, Dialogues on Art; Edouard Ropitt, Ed. (New York: Horizon Press, 1961), p. 188.

The absence or existence of this kind of dynamics makes a basic difference between an object that operates visually as a series of silhouettes and one which uses the full power of the third dimension, thus breathing life into the work.

It is clear that the mere construction of a volume does not necessarily mean that once constructed it will operate as a visual form in such a way as to express the full power and imaginative import of three-dimensional form. The awareness of volume dynamics and the ability to articulate it in objects is a complex matter. "A mind that is very sensitive to forms as such and is aware of them beyond the common-sense requirements for recognition, memory, and classification of things, is apt to use its images metaphorically, to exploit their possible significance for the conception of remote or intangible ideas; that is to say, if our interest in 'Gestalten' goes beyond their common-sense meanings it is apt to run us into their dynamic, mythical or artistic meanings."<sup>7</sup> Everything of a kind in our experience carries with it complex associations and meanings which come not only from the ways and circumstances in which we have experienced them, but association with other things in time and space. This whole fabric of meanings together and in association with one another constitutes the reality of the world--our life. It is the articulation, connection, and intuition as they

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<sup>7</sup>Susanne K. Langer, Philosophy in a New Key. A Study in the Symbolism of Reason, Rite, and Art (New York: The New American Library, 1951), pp. 224-5.

exist for the individual, presentationally, all at once, which is the concern of art.

Perhaps, it is a mere individual perversity of purpose to be concerned with making meaningful furniture; yet if we are to follow the logic of making individual, one-of-a-kind pieces to its conclusion, this is where it leads us. There can be no other virtue in it, in the deepest sense, than approaching it with the view of attempting to create relationships that go beyond the decorative and pleasing, those which in their dynamics excite the imagination and stir the participant to find new meanings in his environment. This is the meaning of aesthetically functional furniture.

## Chapter III

### A REVIEW OF THE WORK

The first work listed among my slides is a piece which I constructed before coming to the School for American Craftsmen. I have included it because it is my first venture into furniture design and as such represents one kind of starting point. It is common for beginning designers as well as sculptors to start with what they believe to be an acceptable or safe form. By the time I had arrived at school, I had spent a summer working for Dan Jackson in his shop in Philadelphia and gained there a good deal of technical experience and, if only vicariously, some design experience. With this familiarity came the possibility of new insights, but Dan's designs at that time still held quite a bit to the Danish mode. It wasn't until I arrived in Rochester and had spent some time with Wendell Castle at his shop that a real conceptual opening-up occurred to me. His disregard for conventional furniture form broke the restrictions of convention for me and opened the possibility for the synthesis of my past experience with the new field. The first piece which I constructed at school is the result of this expansion.

The choice of what kind of piece to make (chair, table, etc.) has to this point always been based on what I thought I needed at home and, to a certain extent, on the form possibilities inherent within the type. So, for instance, I have rejected tables thus far because of the requirements of surface; there have been enough problems of form to deal with without trying to resolve a surface expanse which a table requires and to make it operate spacially as I would like it to.

The basic conceptual thrust of my first piece (figure 2) is an attempt to open up the bucket form of the club chair by making the chair seat seem to arise out of the convergence of three basic plane gestures: one composed of the table-seat, one of the right rear leg, and one out of the two other legs. The piece was conceived as a wax model with no preliminary sketches, and the measurements were established by scaling first the seat depth and working from that reference point. The value of sketching in three dimensions, I feel, is convincingly demonstrated by this piece, for the "through-forms" and front to rear relationships on which the chair depends, would have been nearly impossible to conceive on paper. Further, the technique of establishing a critical dimension and using it to establish a scale for the model from which drawings may be made, removes any objection based on technical feasibility.

The somewhat anthropomorphic character of the total image of the piece is a result of more unconscious processes

(it has been referred to alternately as "the crab" or "the grasshopper"). This aspect of gesture is tried a little more consciously in the two side chairs (figure 3) which were constructed next. These were conceived primarily as pieces which would be quick to make since one needs several side chairs for various uses with a table, etc. They were conceived entirely on paper and exemplify that fact, for if one squints at them, it is easy to see that their prime virtue is their graphic or two-dimensional image (particularly from the side view) which does most to convey the gazelle-like feeling that they are just about to run into the other room.

My toy chest (figure 4), which I call the "horned aardvark", constitutes a turning point in the progress of my work. It was originally conceived as a fairly literal imaginary animal form (a continuation of the anthropomorphic idea). The unification of the functional image of a piece and its evocative or imaginative content is a legitimate aim of the craftsman. This piece proposes a stimulating dual function problem which lends itself to the creation of further imaginative mystery. However, when the content becomes too literal, it also becomes trite. When I came back from summer vacation, I had an opportunity to view the piece (then about two-thirds complete) with a fresh eye. Two things were immediately apparent: that if it were to function to the fullest as a toy and chest for a child, the excessive literalization would severely lessen the imaginative potential of it as a play

object; also it seemed trite. As a result, I set about to change it and, as far as it was possible, make it function more as a sculpture. Thus, more and more I was able to focus on the articulation of mass. The piece itself is far from successful from a sculptural point of view, but as a toy chest it has been an overwhelming success with my son and other children with whom he plays to the extent that for a long time he refused to sleep anywhere else except inside his "aardvark".

The conceptual bridge between the "aardvark" and my final piece of the year was the teak jewelry chest (figure 5). This piece was conceived during the early construction stages of the "aardvark" and was a vital part in my decision to change the latter, for the jewelry chest at that time embodied most fully the notion of volumetric and mass construction and pointed away from the earlier tendency toward dependency on linearity.

The logical extension from the last two pieces is at this time embodied in my current project, a drawer cabinet (figure 6). In this piece, I have attempted to fully articulate the concepts presented in this thesis. At this writing, the piece is not complete, and I feel too close to it to present a fully objective criticism in terms of its relative success or failure. However, I do know that it will lead to successive pieces and that it exemplifies a positive growth



from previous pieces which will lead to a further synthesis and development of my form and design sensibility.

ing Chest

Cherry

Fig.1

air

Cherry

Fig.2

ide Chair

Walnut

Fig.3

y Chest

Cherry

Fig.4

ewelry Chest

Teak

Fig.5



Drawer Cabinet

Oak

Fig. 6





## BIBLIOGRAPHY

- Ashbee, C. H. Should We Stop Teaching Art? London, England:
- Ballinger, Louise Bowen, and Vorman, Thomas F. Design: Sources and Resources. New York: Reinhold Pub. Corp., 1965.
- Bayer, Herbert, and Gropius, Walter and Ise (ed.). Bauhaus 1919-1928. Boston: Charles Branford Co., 1952.
- Goldwater, Robert John. Artists on Art. New York: Pantheon Books, 1947.
- Hayward, Helena (ed.). World Furniture. New York: McGraw Hill Book Co., 1965.
- Kouwenhoven, John A. Made In America. Garden City, New York: Doubleday Co., Inc., 1962.
- Kupka, Karl. Dawn of Art. New York: Viking Press, 1965.
- Langer, Suzanne K. Feeling and Form. New York: Scribner, 1953.
- Langer, Suzanne K. Philosophy in a New Key: A Study in the Symbolism of Reason, Rite, and Art. New York: New American Library Mentor Books, 1964.
- Lynes, Russell. The Tastemakers. New York: Universal Library, Grosset & Dunlap, 1954.
- Malraux, Andre. The Metamorphosis of the Gods. Stuart Gilbert, trans. Garden City, New York: Doubleday Co., 1960.
- Moholy-Nagy, László. The New Vision and Abstract an Artist. New York: Wittenborn Schultz, Inc., 1947.
- Nelson, George. Problems of Design. New York: Whitney Pub., 1957.
- Ortega Gasset, Jose. The Dehumanization of Art. Garden City, New York: Doubleday, 1956.

Pye, David. The Nature of Design. New York: Reinhold Pub. Co., 1964.

Pevsner, Nikolaus. Pioneers of Modern Design. Middlesex, Great Britain: Penguin Books, Ltd., 1960.

Rodit, Edouard. Dialogues on Art. New York: Horizon Press, 1961.

Rogers, John C. English Furniture. London: London Country Life, Ltd., Sterling Pub. Co., Inc., 1959.

Turabian, Kate L. A Manual for Writers of Term Papers, Theses, and Dissertations. Chicago: Phoenix Books, The University of Chicago Press, 1955.