

ROCHESTER INSTITUTE OF TECHNOLOGY

A Thesis Submitted to the Faculty of
The College of Fine and Applied Arts
in Candidacy for the Degree of

MASTER OF FINE ARTS

Woodworking, Sculpture, and Industrial Design:
Three Major Influences On My Work

by

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August 30, 1984

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INTRODUCTION

After considerable thought on the subject, I have come to a few conclusions concerning a master's degree. One of the most significant is specifically why I decided to earn one. Of the various reasons one elects to attend graduate school, I chose to in order to study a related area of concentration to complement my bachelor's degree.

My first degree, a Bachelor of Fine Arts in Industrial Design, enabled me, for the most part, to design products for mass production. Predictably, this focus primarily centered around plastics and metals, the two most widely used materials in countless manufacturing processes. While the years spent studying industrial design provided an excellent foundation in design itself, they also opened my eyes to the fact that I really did not want to work with an extensive range of materials or the related processes. During my undergraduate career, I deluded myself into thinking that after graduation I would be content perfecting appliance aesthetics for General Electric or Sears, Roebuck. Instead, I opted to pursue further education in more of a hands-on design program that reflected my interests in sculpture and woodworking. That is the reason I decided to get a graduate degree in Woodworking and Furniture Design.

THREE MAJOR INFLUENCES

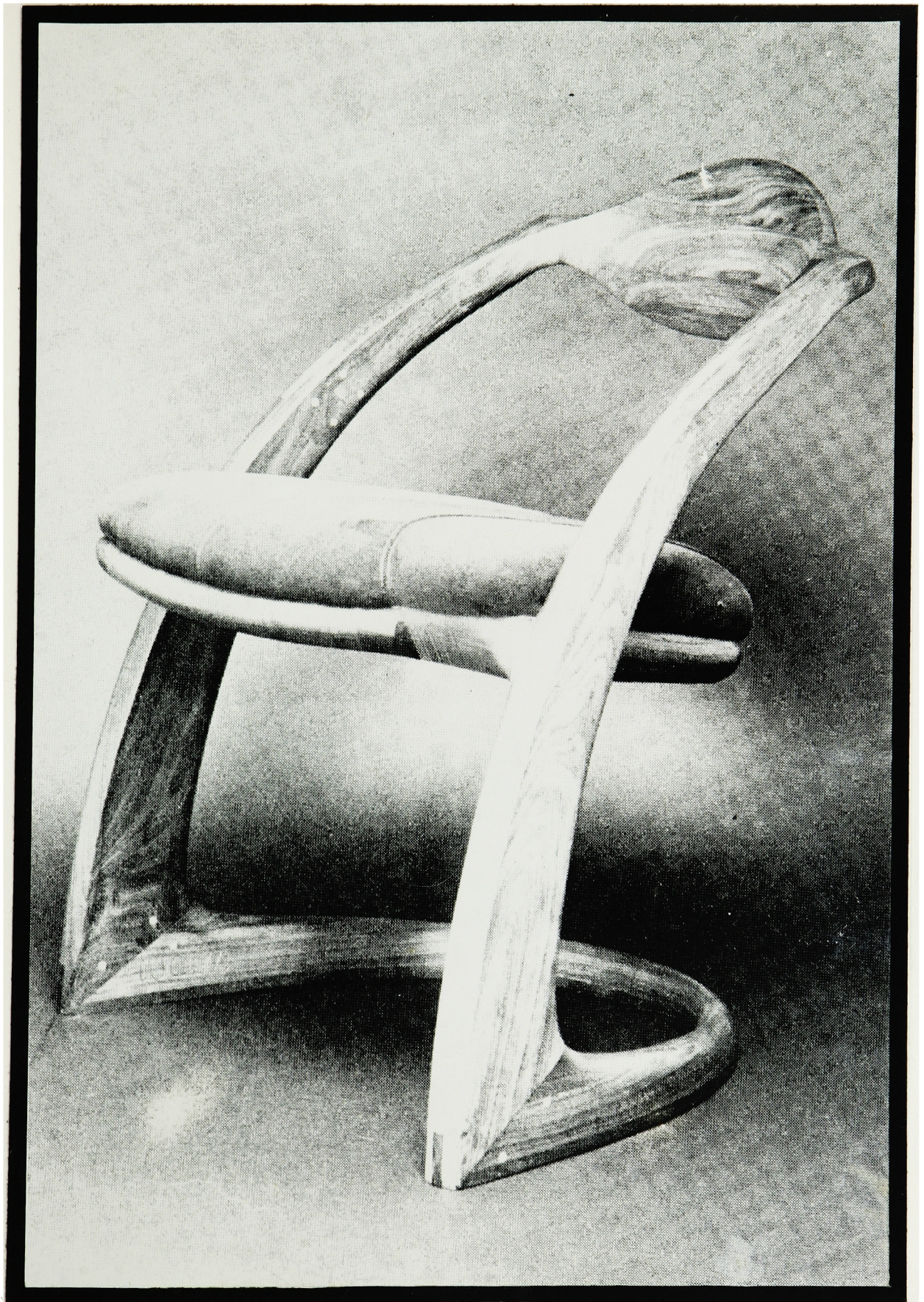
The influence for my work comes from countless sources, but it is easy to identify the three most important ones. They are, as I have alluded, woodworking, sculpture, and industrial design. Some of the influences derived from these sources, especially in reference to my thesis work, are very specific while others are somewhat intangible.

Woodworking, as one may surmise, has a great impact on my work. This is fairly obvious given my body of thesis work, but it is woodworking itself that prompted me to actively pursue furniture design. Just as one hears of violinists who invariably started playing at the age of six months, my interest in wood began at an early age. It seems there was always some around to nail together, tear apart, or with which to build the proverbial, always impregnable, fort. As time passed, my interest in wood became more focused, and my investigation in the field grew more serious. It was during my high school years that I was introduced, through reading, to Wendell Castle, a preeminent woodworker and furniture designer whose work had, and still has, a great impact on me. Through correspondence with him and continued study of his work, his furniture became familiar to me. I began to recognize just what it was about the work that was so appealing. Castle's unique, sculptural approach to furniture offered a fresh attitude of design. Consider, for example, his Game-table chair¹ (Figure 1). This piece does not follow con-

¹Robert DeFuccio, "Five Chairs: One View," Fine Woodworking, January/February 1979, p. 59.

Figure 1.

Game-table chair



ventions which for years have governed chair design. The piece has been described as being "neither an armless chair nor an armchair."² It crosses established craft/art parameters which allows furniture to enter the realm of sculpture without sacrificing function. Not only does it accomplish this, but it does so with a vitality that relies on new and exciting ideas rather than simply cosmetic changes in past and traditional furniture. That is one aspect of Castle's work which has influenced me a great deal. This is true not only of the Game-table chair but his other work as well. Another fine example is his Walnut Coffee Table With Glass Top³ (Figure 2). The cantilevered top invites the viewer to question the construction of the piece. The bulbous base adds a visual element which complements the glass and is in itself a strong sculptural statement. This particular piece, as well as Castle's other work, reflects excellent craftsmanship and opened my eyes to the virtually boundless limits of furniture design.

Another artist whose work greatly influenced mine is Constantin Brancusi. An undergraduate art history course first introduced me to Brancusi's art, and those early studies of his sculpture have had lasting ramifications. There exists in his work a strong element of simplicity which I tried to incorporate in my work. This is a very significant aspect of Brancusi's sculpture. His Bird in Space,⁴ for example, is the epitome of the simplicity which defines his work (Figure 3). The long, sweeping form is the nearly

²Ibid.

³Wendell Castle and David Edman, The Wendell Castle Book of Wood Lamination (New York: Van Nostrand Reinhold Company, 1980), p.144.

⁴H.W. Janson, History of Art, 2nd ed. (New York: Harry N. Abrams, Inc., 1980) p. 683.

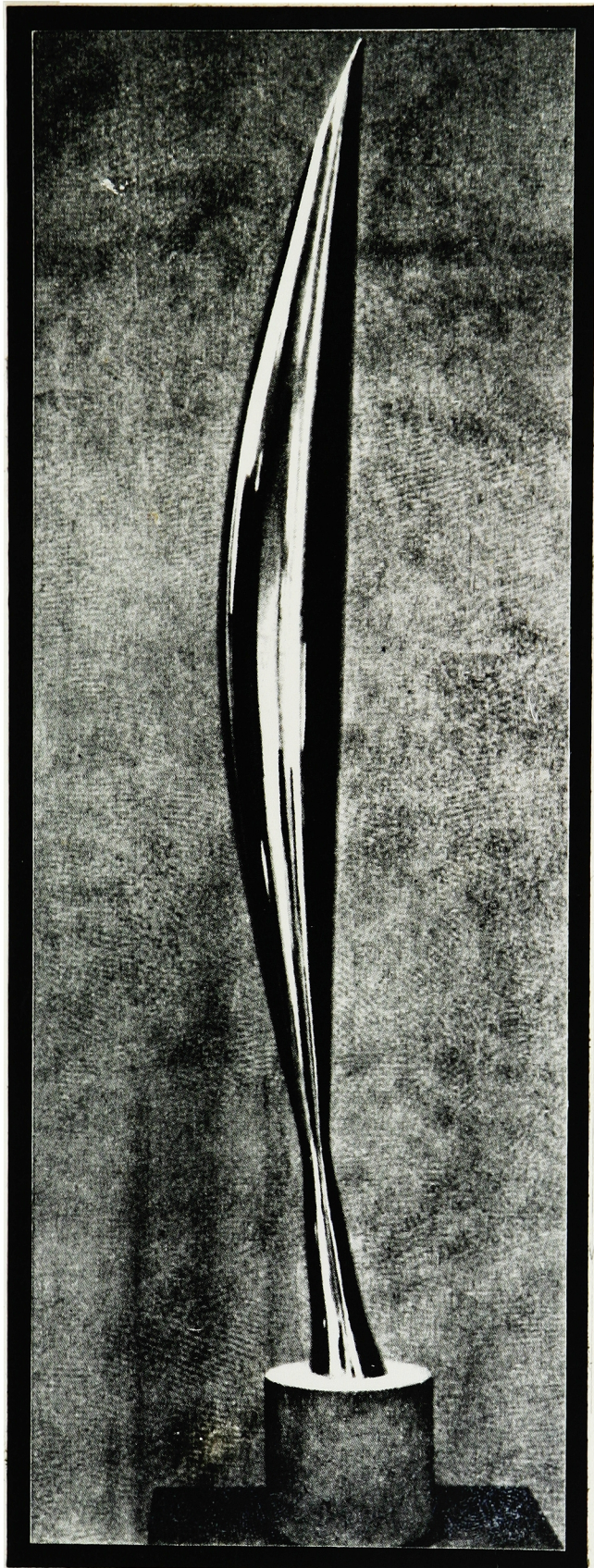
Figure 2.

Walnut Coffee Table with Glass Top



Figure 3.

Bird in Space



perfect manifestation of the idea the title suggests. It is, in my opinion, the best marriage of title and form that is to be found in modern art. The aspect of Brancusi's work that has had the greatest impact on me is this: a minimum amount of form is used to realize a maximum artistic statement. Bird In Space is not the only example of this but arguably the best. This element of Brancusi's sculpture provided me with a valuable lesson in design and continues to influence my work. This idea is also embodied in Castle's furniture and is a commonality the two artists share.

The last of the three major influences is industrial design. It is not just one person who has changed the way I perceive design. It is, rather, the ideas, practices, and methodology embodied in the broad field of industrial design. As an undergraduate searching for a career direction, the only thing which was certain was that I liked woodworking. This, in turn, eventually led me to major in industrial design, which seemed to be the curriculum closest to fulfilling my needs at the time. In retrospect, it was a wise decision. When one studies a given field there are thousands of intangible bits of information one assimilates. These are just as important, if not more so, than the tangible lessons taught, such as how to render or how to build a convincing model of a given product. How to design, regardless of what is being designed, cannot be taught from a book or mastered simply by mere practice like riding a bicycle. It is something one comes to understand over a period of time. It is this intangible aspect of industrial design, this how to, that has so greatly influenced my work.

THE FURNITURE

The manifestation of the major influences just discussed is four pieces of furniture which comprise my thesis. In keeping with my proposal, there is a central motif in my work. A dictionary stand and a matching coffee table share a distinctive motif with the emphasis on the legs. The other two pieces, a desk and a wall shelf, incorporate a common element which suggests a sense of movement.

The largest piece, the desk, was by far the most difficult item to design and construct (Figures 4 and 5). Measuring just over seven feet in length, it was built entirely of solid wood except for the drawer bottoms and the backs of the two small carcasses underneath. These are, instead, one-quarter inch plywood. I used solid cherry in order to learn how to work with fairly large pieces of wood. By doing so, I discovered what is required to keep such material flat over wide, long expanses. Additionally, I learned how to deal with expansion and contraction of these large boards. Problems concerning movement of the wood resulted directly from the transitional piece which joins the two main sections of the desk together. It was not until I had committed considerable time designing the desk that I realized that there were inherent problems in its construction. The main sections of the desk, made of solid cherry, were going to expand and contract somewhat perpendicularly to the more sculptural elements of the piece, made of padauk. Not only were normal movement considerations going to have to be taken into account, but this additional variable would have to be dealt with as well. The solution was found in using a combination of four brass tenons

Figure 4.

Expando Desk of the Flying Furniture Series

30" x 84" x 29.5"



Figure 5.

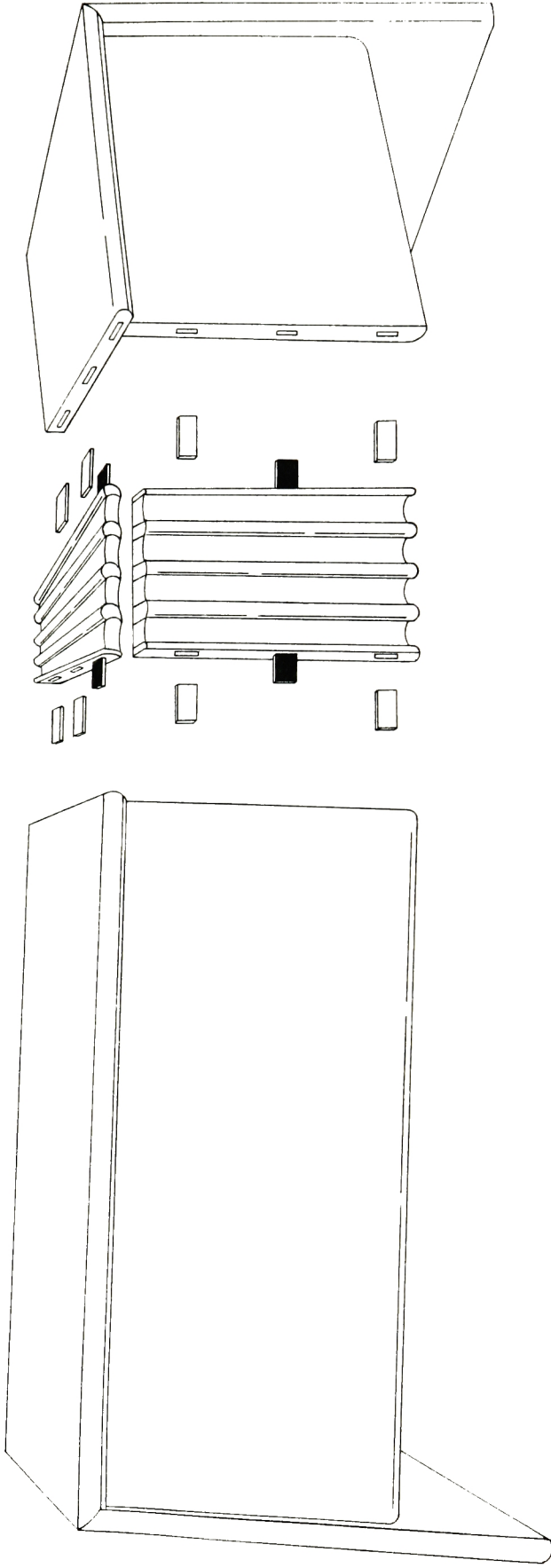
Expando Desk of the Flying Furniture Series, back view



and two wooden ones (Figure 6). The latter were used to permanently join all three pieces of the top of the desk into a single unit. They are located at the front of the padauk section, furthest away from the seated user. By placing them there, the expansion and contraction of this part is forced to occur in the area directly behind them. Unlike the wooden tenons, which were glued to both the cherry and the padauk, the metal ones were permanently fastened to the latter only. By merely slot screwing the brass tenons into the cherry, the changes in humidity could be accommodated. The transitional piece in the front of the desk joined all three elements of the modesty panel in the same fashion as the top. The only major difference was that the wooden tenons in the desk front were located in the middle of the transitional section instead of one of the ends. That caused the padauk in this part to expand and contract from the middle out, upward and downward. I chose brass, as opposed to other metals, to expedite the production of the tenons. Virtually any metal would have sufficed, but brass offered the advantage of being easy to machine. This simplified the construction of the desk and subsequently shortened the time it took to build. The materials used in this piece were chosen for reasons of aesthetics, economics, and ease of use. The desk is made primarily of cherry. This wood seemed appropriate since its cost was relatively low, and its color was one that would not be overpowering when used in a large quantity. Furthermore, the cherry was easy to machine and work by hand. Its grain is close to that of maple or walnut, and it does not have a tendency to splinter like some exotic species do. The other wood used in the desk, for example, is such an exotic and did have a tendency to splinter. This was especially noticeable since the part built from this wood,

Figure 6

Expando Desk of the Flying Furniture Series, exploded view



Brass tenons □

Wooden tenons ■

padauk, required a great deal of hand work. Due to its prohibitively high cost, it was used to accent the cherry and complement it in color. Its color was what prompted me to choose padauk for its supporting role. When freshly milled or sawed, it is bright orange. Time and finish, however, render it a deep red, and it was this red that I was after. The cherry and padauk hues enhance one another while at the same time give the desk an overall feeling of warmth. This is not only conveyed by the color of the material but also by the wood itself. It would be very difficult, if not impossible, to obtain this same aesthetic in a desk of plastic or metal. Maintaining this warmth, this more personal nature of my work, is a good example of why my affinity for wood overpowers the regards I hold for industrial design. Other materials may be more durable and lasting than cherry and padauk, but they cannot compete with this somewhat intangible quality. This notwithstanding, industrial design played a very important role in the development of not only the desk but the wall shelf as well. The idea to suggest a sense of movement in both pieces came from a very popular chair designed by Emilio Ambasy and Gian Carlo Piretti⁵ (Figure 7). Rubber tubing covers the mechanical parts and expands and contracts with the rest of the unit. It was this sense of expansion and contraction that I wanted to instill in my work. In doing so, a visual metaphor was established between the suggestion of movement and the reality of immobility. Both transitional elements are sculptural and functional while at the same time they suggest technology, processes, and methodology utilized in

⁵Philippe Garner, Twentieth-Century Furniture (New York: Van Nostrand Reinhold Company, 1980), p. 219.

Figure 7.

'Vertebra' armchair



mass production. The padauk elements in each piece suggest the ideas of expansion and contraction. It is as if each one could defy the laws of physics and be shortened or lengthened at will. Aside from simply bringing a sculptural feeling to the desk, the transitional section serves a functional purpose as well. The auxiliary and file drawers are projected toward the user at approximately fifteen degrees. This allows for greater accessibility and ease of use. Care was taken to insure that the units would not extend so far as to interfere with the mobility of the user. In addition, a pencil drawer is located in the middle of the desk and a small cabinet for briefcase storage is on the far right.

Figuring how the desk was to be constructed was a lengthy, time-consuming process. The actual building of the piece taught me a great deal about the logistics of putting a massive piece of furniture together. The physical acts of moving large pieces of wood, and later, whole sections of the desk, as well as storing, machining, sanding, and simply working with them, pointed out some unforeseen considerations which must be dealt with in future construction. These processes are time consuming and should have been taken into account when I outlined my timetable. Gathering materials, compiling research, and other activities such as these are not always seen as the true cost and time factors that they really are.

The wall shelf (Figure 8), discussed briefly earlier, is a matching piece to the desk. Although it was designed and built first, it is complementary and subordinate to it. It embodies the same motif and is designed to make the same visual and artistic statement. Like the desk, it is made of cherry and padauk. The shelf, however, takes the idea of movement one step further. This is done by virtue of its shape. The unit hangs in such a way that most of

Figure 8.

Expando Shelf of the Flying Furniture Series

2" x 66" x 8.75"



the cherry sections are extended from the wall. This gives the piece a sense of moving outwardly as well as from side to side. The front edge visually cuts through the air as the piece is thrust forward. This leading edge serves the same purpose on the desk, but its mass does not lend itself to this extra sense of movement nearly as well. Nonetheless, this common element, like the shared *padauk motif*, ties both pieces of furniture together visually. I drew upon this animated aspect of my work, this sense of movement, for the names of these two pieces. The shelf is called Expando Shelf of the Flying Furniture Series, and the desk is likewise, Expando Desk of the Flying Furniture Series.

The shelf, like the desk, had construction problems which took some time to solve. The main stumbling block was gluing the three sections of the piece together while keeping them flat. This deceptively difficult obstacle was eventually overcome by employing an elaborate clamping system. Failing to do it correctly the first time, I had to cut the shelf apart and repeat the process. The second gluing proved to be more successful, although it too fell short of my initial expectations. One of the dynamic features of the unit is the way in which it attaches to the wall. The brackets join in such a way so that they project the unit directly out from the wall at a ninety degree angle. The relationship established between the shelf and the wall which supports it sets up tension which raises questions in the viewer's mind. These revolve around how the piece is suspended and how much weight can be supported. This visual aspect of the shelf is very crucial and contributes significantly to its success as sculpture as well as furniture.

The dictionary stand (Figure 9) and coffee table (Figure 10) comprise the other half of my thesis and also share a common motif which visually links the two. The most exciting feature of both works is the leg structure.

Figure 9.

Dictionary Stand
40.25" x 22" x 15"



Figure 10.

Coffee Table

15.75" x 50" x 20"



While designing the stand I focused on the shape of the legs since they were to establish the overall stance and to some degree, the personality of the piece. The results of that investigation have a sense of stability that borders on overkill. They were purposely designed this way in direct response to the massiveness of the text they would support. When the legs were finally glued together but still separate from the top, I found that they made a very strong sculptural statement on their own merit. The graceful movement embodied therein is bluntly terminated at the top of the structure at a ninety degree angle. This quick change of motion and direction is what gives the structure its dynamism and visual impact. Topping the legs with the book support somewhat diminished this excitement. This led to the design of its companion piece, the coffee table.

Since the leg structure was again the focal point of the piece, the rest of the table had to be designed so as not to interfere with the base. With this in mind I decided to use a glass top to maximize the visibility of the legs. Furthermore, it was purposefully kept rectangular in order to draw minimal attention to itself. This directed the visual emphasis to the base as the highlight of the table. In order to make the coffee table and the dictionary stand match, I scaled down the legs of the former to a size and proportion suitable for its function. The supporting rail which joins the table legs was also scaled down from its original dimensions. It gets narrower in the center to accentuate a sense of movement evident in the other thesis work.

CONCLUSION

The opportunity to design and build furniture which incorporates my interests in woodworking, sculpture, and industrial design was a very valuable one. It enabled me to explore areas of design and variations of solutions to a degree not often feasible in industry or even small shops. To truly uncover the potential of a given idea, one has to eliminate trite or obvious ideas. The end solution of the design process should then itself be pushed a step further and, if necessary, a step beyond that. Seldom is a piece of furniture built which could not be improved in some way. There are, of course, inherent limitations in design and construction which cannot be ignored. The physical properties of wood, for example, dictate how it can be joined. Terms such as expansion, contraction, end grain, and long grain are no longer relegated to theoretical discussion. They become an integral part of the design process which demand consideration.

Another aspect of the design process which should not be overlooked is titling one's work. Far too often artists and designers create work and expect the name of the piece to do more than its share to enhance it. Some titles are far too ethereal and pretentious and in fact, damage the credibility of the work. Any work of art should be able to stand on its own merit without depending on words to compensate for mediocre design or marginal craftsmanship. If care is taken in naming a piece, it can add to the understanding and enjoyment of it. The names I chose for the shelf and desk put them in a humorous light. I did not want people to take them too seriously and these titles encouraged that. Conversely, the other two pieces are simply called

Dictionary Stand and Coffee Table. That was all that was needed to designate the work. The design of each piece was fairly straightforward and that warranted simple, descriptive titles.

By going through the Woodworking and Furniture Design program, I have used my first degree as a foundation to build on instead of as a springboard to a job in industry. Too often in the field of industrial design restrictions imposed by clients or limitations inherent in mass production suppress creative and artistic expression. The other end of the spectrum sees lavishly sculptural statements which by their nature are very costly in terms of time and money. My goal in designing furniture is to create products in the middle of this spectrum, exciting furniture with exacting craftsmanship, on the leading edge of innovation.

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