Searching for a personal aesthetic

J. Steven Cooper
 Searching for a Personal Aesthetic
by
J. Steven Cooper
April 21, 1997
Searching for a Personal Aesthetic

I, J. Steven Cooper, Hereby deny Permission to the Wallace Library of the Rochester Institute of Technology to reproduce my thesis in whole or in part.

Date: 9/23/97 Signature of Author: ________________________________
## LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Side Table</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Foyer Piece</td>
<td>8</td>
</tr>
<tr>
<td>3.</td>
<td>Table</td>
<td>12</td>
</tr>
<tr>
<td>4.</td>
<td>Wall Table/Mirror</td>
<td>16</td>
</tr>
<tr>
<td>5.</td>
<td>Wall Table/Mirror (detail)</td>
<td>18</td>
</tr>
<tr>
<td>6.</td>
<td>Tall Lamp</td>
<td>24</td>
</tr>
<tr>
<td>7.</td>
<td>Small Clock</td>
<td>27</td>
</tr>
<tr>
<td>8.</td>
<td>Tall Clock I</td>
<td>30</td>
</tr>
<tr>
<td>9.</td>
<td>Tall Clock II</td>
<td>34</td>
</tr>
<tr>
<td>10.</td>
<td>Tall Clock II (side view)</td>
<td>36</td>
</tr>
<tr>
<td>11.</td>
<td>Cabinet</td>
<td>40</td>
</tr>
<tr>
<td>12.</td>
<td>Cabinet (opened)</td>
<td>42</td>
</tr>
</tbody>
</table>
I came to RIT with ten years of experience as a professional furnituremaker and twelve years as a woodworking teacher in a college preparatory school for boys, where I also continued to build furniture on the side. In addition to this, I held private classes for adults for twelve years. My own work stayed within the confines of the American expressions of eighteenth century furniture forms for most of these years. All the knowledge I had about form, function, and aesthetics in general, was based on the conventions of these traditions. I had embraced them and they were a part of me.

This satisfied me for a long time, but there came a point at which I grew tired of working with the same forms over and over again. I desired to design furniture that was clearly and individually my own. Over a period of five years or so I designed several pieces which were looser in form and more interpretive of period pieces than true to them. One of those pieces was a small table made in 1993. (Fig. 1) The results were encouraging in that I saw within myself a pretty solid aesthetic sensibility, but discouraging because the eighteenth century aesthetic which I had cultivated for so long and used as the standard by which I had judged everything else, so defined this sensibility that I found it nearly impossible to break from it. I didn’t understand what comprised good design in general and didn’t even know what the design issues were. As a result, I had neither the discrimination nor the confidence to move far enough outside the sphere of the familiar to give my work an individual identity. It became clear to me that if I was to make real progress, I would need formal training.
There were two things I hoped to accomplish through pursuing my MFA. Firstly, I needed to determine if I indeed had an individual aesthetic sense. Secondly, and in order to enable the first goal, I needed to establish a method of approach to design which could help me get beyond the mental boundaries I had acquired. I had solidified the aesthetic I possessed by actively studying eighteenth century forms. I believed that the only way to investigate my own aesthetic sense was to look within instead of without, so I became determined to divorce myself as completely as I could from traditional forms (as well as what they stood for), holding virtually nothing as sacrosanct. This meant that every aesthetic sense I was aware I possessed was not only open to question, but needed to be consciously challenged. I also determined that I would avoid, as much as possible, contemplating the work of others, regardless of period or medium. While this put me in an exceedingly disconcerting position for the whole of my first year, I knew that, for me, there was no other avenue of approach.

It was with the foyer piece, made during the summer quarter before my second year, that my grasp of design issues began to come into focus. (Fig. 2) It was here that I found a starting point for my thesis work. I had, by this point, begun to rely on my sketchbook for identifying and developing designs, but in this case, the benefits I had found in that process forsook me. I decided to try a more direct approach. I took two boards and stood them up, holding them in various relationships to one another, settling on a relationship which seemed to offer interesting possibilities. With this as a
starting point, the final shape and placement of these pieces was established through a quarter-scale model and then repeated full size. These became the two maple uprights of the finished piece. Providing a shelf surface and a method of securing the piece to a wall was the next design problem. I used models and full size cardboard mock-ups to explore variations on a basic idea, finally arriving at a solution which visually balanced the two uprights while focusing attention on the shelf. In considering the overall design at this point, it was evident that the vertical space created by the main vertical members and the leg of the shelf needed to be taken advantage of. It was an obvious place to nestle a dissimilar element which would balance the severity of the angular forms as well as provide contrast and interest. I found the colorful and organic nature of this element to be very satisfying, at least in part due to the fact that it was so different from anything I had ever done before. All but the back edge of the shelf stands away from the wall, this edge being fastened with an aluminum angle screwed to the wall and let into the shelf.

The creation of this piece taught me that the act of designing can, and sometimes must be, an evolutionary process. Even if all the elements and details of a piece have been worked out before construction, flexibility, intuition, and reflection need to have their place during the whole process. I found a sense of freedom in doing this piece, partly because of the approach I used, but also because I had begun to trust my instincts. I had begun to allow a personal sense of what pleased me aesthetically to find its way into my work, but in a way not experienced before. I recognized that this
piece was an intuitive expression which took a form I could not have predicted; an expression which is more representative of how I apparently see things than anything else I had ever done. I say this because, when I recognized the validity of the intuitive result in spite of its unfamiliarity, it became apparent to me that I had discovered something about my aesthetic sense that I had no idea was there. For the first time, I had made something which caught my attention in a way that I had not experienced before. The individual aesthetic sense I was hoping to find had its first confirmation. This piece was leading me somewhere.

As I reflected on the foyer piece, it was the form of the shelf which continued to draw my attention. I was intrigued by the vertical line folding to the horizontal and then changing direction, and I began to think about using this element as a leg in another piece. As I thought about possibilities, it was apparent that a second downward fold to vertical would give a second leg, and that by adding a third, I would have a table. (Fig. 3) This piece, like the foyer piece, was developed without drawings. I worked from essential dimensions and made a model with two legs and a top (single plane). The problem I saw was a way to integrate the third leg with the top while preserving the multi-directional dynamic of the form which inspired it. As I was considering this, it struck me that I could visually individualize the top pieces and carry the initial concept further by creating folds where the pieces forming the top joined, making the top a multi-planed surface. This idea came spontaneously and it caught me by surprise; not the idea only, but the realization
that it had occurred to me at all. I immediately knew that I had
found another level of form which was, somehow, a part of my
personal vocabulary.

The construction was accomplished directly from the initial
scale model, the different planes of the top worked in as I went
along. This approach worked well with one exception. As the
construction of the top led to the fitting of the legs, I realized that
the edge angle produced by the top pieces leading to the back leg
necessitated an angle on the right edge of the back leg which was
too acute to be practical (this was not an apparent problem in the
model because its flat top resolved differently into the legs). The
only reasonable remedy was to create a facet on the edge of the top
leading to this leg which both complemented the faceted character
of the top and made the angle on the leg less acute. This treatment
suggested a secondary level of detail. To establish this second
theme, I faceted the front edge of the top and also the inside surface
of each leg.

In constructing this piece, I used finger-joined tenons to join
the legs to the top, a method which I had not tried before. This
turned out to be a less positive method of aligning the parts than I
expected. Due to the small degree of shift in the assembly during
clamping, the final alignment was not predictable. I found that if I
 glued the tenon into the top miter before finally adjusting the four
planes of the leg to match the top, the result was a predictable
alignment when clamped. The most challenging aspect of
construction, however, was how to clamp the top pieces together.
Each of these pieces were joined with splines which aligned the
planes, but getting pressure in the correct direction involved making clamping forms which were completely unfamiliar to me. The things I learned about these two aspects of constructing a form of this kind proved most valuable as I moved to the next piece, and I also learned a lesson about the value of models and the lesser value of incomplete ones.

If I were to do this piece again, I would omit the inlays around the feet. My intention was to give the feet definition, but doing it in this way was a throwback to a traditional treatment which really didn't work with the rest of the table. Apart from this point, I like this table a great deal. The multi-planed top is visually active, the outside planes of the legs are vertical but the edges are not, giving the piece an animated stance, and the way the lines of the individual pieces interact changes as you move around it. Compared with the symmetry of period pieces, this form really excites me.

At the same time construction on the three-legged table progressed, I was considering another application for a multi-directional, folded form. Part of my thesis proposal was to design a piece which related directly to its surroundings; a piece which interacted with its surroundings in a way that showed intention. This was a concept that was foreign to me, and one which I was eager to pursue. The wall-hung table/mirror was the result. (Figures 4 & 5)

My original thought was to have a table form supported by a leg similar to the leg/shelf in the foyer piece. In the initial concept, the table surface returned to the wall on the right side and then folded
away from it in an upward direction. The proposed leg supported it, also going back to the wall. As I worked on the design in both sketch and model forms, it became clear that the leg and table elements were too similar. After experimenting with alternatives, I concluded that supporting the table with a second element from the floor simply wasn't working. Trying other approaches through sketching led to creating a leg on the table element by dropping the right hand side to the floor rather than returning it to the wall. This also created options for the second element, which no longer having to come from the floor, needed only to provide visual balance.

Still not having any clear idea what form this second element would take, but having confidence in the table portion, I began to construct it, trusting that when I saw that much at full scale, I could better judge what might work as the second element. Beyond the original sketches, I made no drawings of the table element. I made a new model, accurately scaled, and took the dimensions and angles directly from it. This approach worked very well and was both more direct and far simpler than doing orthographic projections. The ability to work on the piece with a reasonable degree of ease also required making a pair of stands which would support the table at the proper height from the floor throughout its construction.

One thing that interests me now is that during much of my search for a second element, I purposefully avoided putting anything directly in the notch where the mirrored post ultimately went. As long as I avoided the notch, nothing worked. It eventually occurred to me that if the table leg didn't go all the way to the floor, but close
enough to relate to it, and the second element fit into the notch, that the right side of the piece could be suspended from above, creating a visual question about which element was doing the work; does the table support the second element, or does the second element hold up the table?

The form of the second element was inspired by the faceted character of the three legged table top, and the mirrored surface was chosen to make this element more dissimilar to the table surface while providing an additional function. Though the basic form is simply a long straight taper, triangular in cross-section, the folded triangular center piece causes a rotation in the vertical plane, compounding the dynamic of the table surface. The most technically difficult aspect of this element lay in determining the dimensions and angles necessary to make it work. The shape and slope of the center triangle determined the degree of rotation in the vertical planes, and the dimensions of the post's cross-section at the bottom determined its distance from the wall at the top, and therefore, the size of the flat spot necessary for hanging it on the wall. These dimensions were ultimately determined using Vellum 3D CAD software, but with no little effort. The essential problem of using Vellum for this type of drawing is that it doesn't recognize planes. Defining planes which do not align directly with the three normal axes, therefore, becomes a very cumbersome process, and the accuracy of the results are difficult to verify. With this accomplished, however, I proceeded to make the post. It is constructed of wenge veneer on poplar, the mirror being cut, hand polished to fit, and adhered with silicone.
During the construction of this piece, I was unsure how I felt about it. As I lived with it and began to evaluate it, however, I discovered relationships that I didn't know were going to be there, and I found it quite engaging. I came to appreciate the gestural directionality of the table form, the relationship of this form to the mirrored post (particularly how the lines of these two elements interacted), and how the whole relates to both the wall and the floor. Proximity to these surfaces strengthens the effect of the forms by providing a reference for appreciating how they interact. Also, how much these relationships change as the piece is viewed from different positions is an aspect of the piece that I had not anticipated and one which came as something of a revelation. I see this piece as a significant step in the process of understanding the dynamics of design, because through it, I gained some understanding of what it means to relate the elements of a piece to themselves and to their surroundings; how elements can be made to play off each other spatially, changing ones' impression of a piece depending on what position it is seen from.

There is nothing about this piece I don't like. Of these first three pieces, it is the most conceptually refined, and the strongest confirmation that an intuitive aesthetic sensibility was indeed being expressed. It was also instructive in that I learned more still about which methods of design development were most helpful (sketching followed by models), and what I could try to help push past the sticking points (keep at it, don't eliminate any option out of hand, and don't be satisfied until the solution becomes obvious).
In the tall lamp, I wanted to try applying asymmetry in an otherwise symmetrical setting; to provide a directionality to the piece in a more subtle way than in the previous pieces while still striving for a differing sense of the piece as you move around it. (Fig. 6) I wanted to emphasize the horizontal lines while giving a sense of movement, so I positioned the frames in a regular accelerating relationship, top to bottom. I used sandblasted glass in the frames to provide an opaque surface which emphasizes the horizontal planes.

The vertical pieces supporting the structure needed to be as small in cross-section as possible and to be placed so that their effect was not static. By placing them as I have, the effect of the horizontal lines varies as you move around the lamp. I wanted the top section to be integrated with the base but yet to have a termination, so the vertical members stop at the bottom of the top section of glass. I also wanted the base to complement the overall form so I cut out the corners, referencing the relationship between the corners of the frames and the placement of the verticals.

The top of the lamp has a wood panel in the frame faced with mirror on the inside, so that no light escapes from the top but is instead directed downward. There are two bulbs in the fixture. A fluorescent bulb on top gives general illumination, and a spot light beneath it illuminates the glass in the first shelf. The pull for the switch reflects the form of the upper portion of the lamp and is made of painted wood.

I used acrylic paint on the vertical members as well as the base and discovered that multiple coats of this color created
successively darker shades. I used this discovery to create a mottled effect on the verticals and a diagonal pattern across the top of the base. The mahogany frames were treated with potassium dichromate and lacquer.

As I view the lamp now, I think I would move the vertical panes of glass in the upper sections further in to bring them flush with the inside edges of the frames. This would expose the full dimension of the vertical members all the way through the piece and better integrate the form as a whole. This piece successfully expresses the design elements I wanted it to, but it hasn't inspired me to pursue these ideas further. I'm glad I made it, though, because I am learning that effectively evaluating ideas about design can best be done in response to the material objects they inspire. There is much to be learned about what inspires us onward through comparison with what does not.

I became interested in clocks after visiting Wendell Castle's shop. I began to think about a way to design a clock face on which the hours were accurately referenced but made part of the geometry of the form in such a way that they were not immediately recognized for what they were. (Fig. 7) I approached this by drawing a circle and the twelve radiants and then connecting lines at different distances from the center to form a four-sided figure. The wings were then drawn, also at different distances from the center, to emphasis the asymmetry. Each point of the box and each radiant forming the edges of the wings is a reference for an hour.
The design I began to build had a fourth wing on the bottom which formed a foot for the clock to sit on and which represented hours five and seven. As the construction progressed, it became clear that this fourth wing didn't work well with the overall design, so I tried a taller base, which was also unsatisfactory. Eliminating the fourth wing altogether and balancing the clock on the points of the box and the wing gave the form a playfulness which it had lacked and further removed the visual connection between the form and its origin.

After the clock face was cut to dimension, the space for the movement and the rabbet for the back were produced on a milling machine. The removable back has a tongue along its inside top edge which engages a groove within the rabbet on the face. A small spring in the face provides tension against both the back and the brass pin which holds it in place, and also pushes the back out when the pin is removed. The little tail protruding from the bottom of the clock is the handle for this pin. The wings were shaped with a rotary rasp in a die grinder and textured with a carving tool. I had done traditional carving before, but free-form shaping like this was a new and enjoyable experience.

While I was puzzling through the issue of a base for the small clock, it came to mind that, while the form didn't look right on a small base, it might look good on a tall base. (Fig. 8) Also, the net effect of the piece could be heightened if the clock face were as small as possible compared with its height from the floor. This meant a metal box, because the wall thickness of the metal allowed
a smaller overall size. Using the same derivation of form but making the face from different materials and the wings flat allowed further variety from the small clock. To reference hours six and twelve meant that the right hand line of the base needed to be vertical. This created a sort of perch for the face which gave the clock a sense of playfulness and movement. The clock face is made from silver sheet, and the wings and hands from gilded copper. The base is mottled bubinga veneer on plywood, stabilized with lead so that when it is tipped, it responds like a punching bag. The only thing I was not really satisfied with is that when viewed from the side, the form is rather static. It does not have the same dynamic apparent in the front view. The error I made is that I built this piece from a drawing of the front elevation only, and didn't make a model. Had I done so, the form may well have changed.

I continue to be intrigued by these two clocks because, through them, I have become aware of the possibilities inherent in doing variations on a theme. They also represent another instance where one idea led to another and where these ideas, together, helped to give definition to another facet of my personal aesthetic sense.

The mirror in the wall table/mirror piece continued to draw my attention, specifically, the change in rotation of the vertical plane caused by the folded triangular transition piece. I began to play with folded pieces of paper to explore this further, and hit upon the basic form of a tall clock. (Figures 9 &10) I developed this idea through models before I generated a drawing on Vellum, from which I got the necessary dimensions and angles.
I wanted to use mahogany treated with potassium dichromate, so I found a suitable board and began construction. Once I had the pieces cut and could assemble them (without glue) to see where I stood, I realized that the differences in color and the variety in grain patterns detracted from the form to such a degree that another approach had to be taken. The only choices I had were to paint or veneer it. I judged that veneer would better represent the form and I chose radially sliced padauk because it accented the directionality of the planes and, through this, brought a uniformity to the form as a whole.

As I went through the construction process, there were a couple of points at which I had design decisions to make. I had planned to taper the pieces from bottom to top with the exception of the clock face. The face needed to be thick enough to accommodate the clock movement, and I hadn't decided how I was going to cover it. I tried making the face more volumetric than planar by leaving it relatively thick and faceting the back of it, and when I had shaped this piece, it was evident that it didn't work visually. As I studied the whole piece, I concluded that the face needed to be unified with the lines of the base and, therefore, needed to continue the vertical taper. It was an appropriate and logical resolution, but doing this made the face thin enough that the movement projected past the back surface of the face. The next consideration was the size, shape, and method of attaching a piece to cover the movement. Here it made sense to create a volumetric form which was thick enough to attach with screws in the cover engaging keyholes in the face. With this piece roughed out and in place, the clock pleased me from all but one
The front and right side views flowed nicely because they appeared volumetric, but the left side view did not flow well. There needed to be a reason for the folded base. Eventually it occurred to me that the corner created by the fold was a natural place to visually frame a non-functional pendulum.

After much deliberation, I settled on a three-sided brass pendulum reflecting the suggested triangularity of the clock base, but also visibly hollow, suggesting a volume as the clock base also does. The form of the pendulum also incorporates folded elements which is in keeping with the form of the clock. I used a square brass rod to join the pendulum to the clock face and oriented it diagonally. I bent the curves into it, so that when viewed from the front, one-half of the curves project beyond the edge of the base, along with one-half of the bob. The intent was to indicate that the base is not the solid form it appears to be, and to draw the viewer to investigate. The clock hands incorporate a fold in the hour hand, and a wave in the plane of the minute hand, referencing lines found elsewhere.

The factor critical to the success of this piece was taking the time early on to evaluate it and judge whether the design really worked. The subsequent alterations transformed the simple form into one which is much more refined. Subtleties in the relationships and details of the elements make the clock surprisingly engaging. The fact that the piece draws you around itself to discover the logic of these relationships in form is perhaps the most pleasing aspect of this piece. After the wall table/mirror piece, this is my favorite.
Having explored the concepts of folded planes and changing directionality in several pieces, I wanted to try applying similar ideas to a volumetric piece. (Figures 11&12) I also was intrigued by the interrelatedness of secondary elements (the red organic element in the foyer piece, the mirror with the table, the pendulum with the clock) and wanted to incorporate a dynamic interaction between elements in this piece. In order to create a visual need for the wedge, I designed the base of the cabinet coming off the floor at an angle and exaggerated this angle with the second section. The wedge corrects the tilt and makes the front right corner of the upper section vertical. It was necessary to have the hinge line vertical so that the door would not tend to open or close by itself, and by placing the hinge line vertical, the wedge visually overcorrects the direction of the cabinet, making a more dramatic effect. The increasing volume and changing directionality of the cabinet sections give a precarious stance to the whole, and this stance changes as the cabinet is viewed from different angles.

During the planning of this piece, the issue of scale came up several times. I originally saw this piece as larger than I made it (about seven feet tall and the other dimensions proportional). I seriously considered making it about half that size and finally settled on a compromise between the two. Drawings were generated on Vellum once again, but for the reasons noted earlier and compounded by the complexity of this form, it was a tedious and exasperating process. Still, I'm not sure that determining the necessary angles (many measured in hundredths of degrees) would have been easier using other methods.
I find the finished piece less satisfying than I anticipated. I think that at six or seven feet, the form would be more dramatic, more sculptural in its effect, and also be more functional. I conclude that the scale of a piece has much to do with whether it is really successful or only partly so. Also, I like the canarywood veneer but am less satisfied with the burled walnut wedge. I believe that my dissatisfaction lies in the similarity of the materials. Perhaps metal or painted wood would have better represented the interaction of these elements.

In contemplating this last piece, I find the interaction of the wedge with the cabinet to be an even stronger relationship than I anticipated. I find myself beginning to see the relationship of these elements to one another as allegorical. The wedge invades the form, breaking and dividing it, but through this action (and the fact that it remains as an integral part of the whole), the wedge makes the cabinet functional. This action, and the resulting interdependence, could be seen as analogous to many of life’s experiences in their net effect. It is the nature of the resulting interdependence which makes the elements work together. Each of them has a purpose and a logic that have parallels in the common experiences of life. This is yet another area of design that is new to me, and one which has much obvious exploratory potential.

When I started this degree, I had no idea where I might arrive at its conclusion. As I view the body of work produced, I would never have guessed that it would look like this. I find it difficult to explain why these particular designs materialized, but it is obvious
that they came from within me. Through this work, I have proven to myself that I have a personal, intuitive aesthetic sense, and that there are practical ways to access it. I have learned that the aesthetic sense I have, rather than being specific, is both multifaceted and subject to change. I have come to see that this is a normal part of growing as a person and as an artist. I have learned some practical methods I can use to navigate through the decisions required to evolve a design, as well as some of the pitfalls. I think that the key point for me is to keep at the process until the design solution becomes obvious at the conscious level: until the solution agrees with the intuitive sense of what "ought" to be done. The sum of all the experiences along the way is that I have learned to be more flexible in my whole approach, more aware of the mental boundaries still in place, and more determined to let my intuitive sense guide further work.

One reason I was unable to go outside the sphere of the familiar prior to my thesis work was simply a lack of confidence. One of the hardest things I had to overcome in my first year was the great discomfort I felt during both sketch critiques and critiques of the finished pieces. This was the case partly because I didn't understand enough about design to participate intelligently in the critiques of others, and partly because I was so unsure of my own work. As I grew to understand design issues better, I came to value the critiques and sought the comments of others regularly. I have come to see that, while not all the ideas that came led where I thought they might, they were worth bringing into material reality regardless of how confident I felt about them. It is here, where they
can be seen, studied, reflected upon, and critiqued by others, that they have the greatest potential to help give direction to further work, as well as to be appreciated for what they are.

I have returned to the private school mentioned previously, where I continue to teach woodworking to middle and upper school boys, as well as adults. The things I learned through my thesis work have been invaluable in this regard. I have a new frame of reference for guiding my students through the design and building process, and do so with a sense of confidence and pleasure that is new and fresh. I am able to see things in my student's work that I would not have seen before, and am able to impart focus and enthusiasm as I encourage them on. I also continue to pursue my own work with this same sense of eagerness, and conclude that the process of earning my MFA has been one of the most satisfying experiences of my life.