



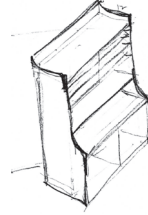
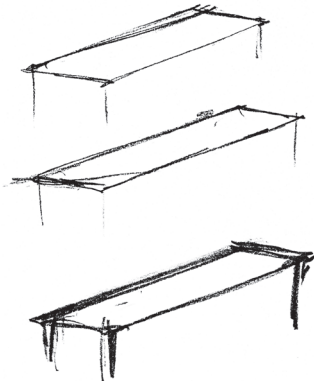
8 / DESIGNING A MUSIC CABINET

I will now describe the process of using feeling, repeatedly, as the origin of a step-wise process to make a music cabinet. In this example, feeling guides and dominates the process, from beginning to end. The cabinet is not wonderful — though it perhaps has a living quality to a modest degree — but I am using it as an example because it just happened that I made extremely detailed notes while I was building it. These notes give helpful insight into the painstaking and minute process which is usually required to find the feeling in a thing.

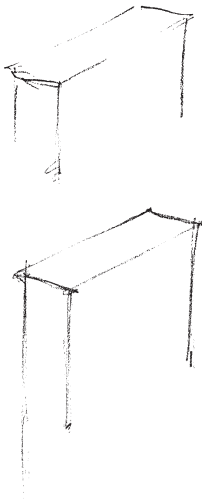
It began with a request from my wife, Pamela, who is a professional singer, a soprano. She wanted the cabinet for her sheet music. Each song is only a few sheets, so the music is too floppy to stand up and must be stored flat. What she needed was something with many, many thin flat shelves, one on top of the other. That was the basic idea of the cabinet. Because this functional idea is unusual, it has its own character which arises from the music sheets themselves.

Sketch 1. Pamela told me roughly how big a cabinet she wanted — fairly high so that one could place a vase on top, and wide, too, but not so wide that it couldn't be moved around. At first we had an idea of something about four feet high, and three to four feet wide. I began making small sketches. In one of these, I had the idea that the bottom of the cabinet was deeper than the top, and formed a base. I drew two versions, and she picked the simpler of the two.

Sketch 2. Then I began to develop the proportions of the cabinet. First, I simply took the proportions which common sense seemed to suggest: A width of about 40 inches; a height of about 54 inches; and a depth of about 11 inches at the top, a little deeper at the base. It was clear that the cabinet shown in this sketch did not have the right proportions. It was rather ugly, too squat, not graceful, certainly not a picture of the self.⁶

*Sketch 1**Sketch 2. More detailed, but it lacks feeling, and is much too squat.**Sketch 3: Versions of the top board*

Sketches 3-7. In the next steps, I made a sequence of free sketches of the cabinet looking for the right proportions. I started sketching a three-dimensional isometric view from a perspective that I knew would give me the overall

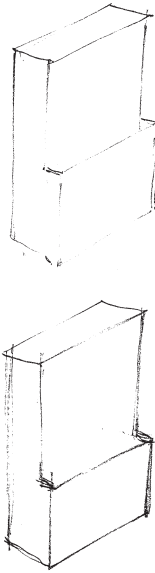


Sketch 4. Sketches of the upper part of the cabinet. In the lower drawing, the more elongated body begins to have a real feeling. When the pencil had got as far as the first drawing, nothing much had happened. By the time the pencil made the lower drawing, some real feeling entered in, and it was worth stopping there.

feeling of the thing. I began sketching just the top surface by itself. Here already there was a sense of proportion involved, since I knew the top was important in its effect on the whole. While I was drawing, my pencil was searching out different possible widths and lengths for this top board. I did not allow myself to be guided by any abstract knowledge (such as “it has to be 36 inches long and 11 inches deep”), but searched only for a board that had the feeling I could already feel as part of this project.

Sketch 4. Next I tried to decide the character of the top portion of the cabinet. Again I made sketches to explore the possibilities, not stopping until I discovered one which continued the feeling in a significant way. The one I chose, the one which seemed to me to have the most feeling, is the lower one. It is the one which also has most *presence*. Is it more a picture of my self? Yes. Using the language of Book 1 (chapter 9) I could also say it is the one which most strongly makes me feel my own humanity.⁷

Sketch 5. In the next set of drawings, you can see what happens when I first start paying attention to the height of the “waist-high” shelf. I first



NOTHING
SPECIAL

SOMETHING
SPECIAL
HAPPENED

Sketch 5. Getting the relation between the top and the bottom just right. The upper of these drawings shows something OK, conventional, but without any special feeling in it. The lower, perhaps too extreme, has a trace of some real feeling, so that when I stand and look at it, I become aware that it has some real feeling which it sends out to me, and that it makes me feel my existence and my life in some poignant way.

draw it conventionally, then try dropping the line. In the first drawing nothing special happens. In the second, where I drop the line, all of a sudden a self-like quality jumps out. I am watching for it, waiting like a hunter, for it to show up. The moment it shows up, I stop the pencil. The shape of this volume is critical. For the first time a glimmer of real feeling appears in the cabinet as a whole. So now I know, with some certainty, what shape the upper part of the cabinet is going to be.

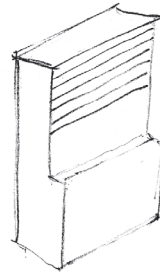
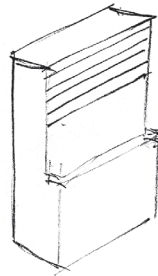
Sketch 6. And just to show you the same phenomenon of feeling acting as a guide, yet *again*, look at the upper shelves in these two drawings. These are very narrow shelves, each one no more than about three to four inches high, in which sheet music is to be kept lying flat. In these two drawings, the only difference is that the lower drawing has one extra shelf. Once again, the lower drawing has something more; it pulls you in. Using the picture of the self criterion, the second of these drawings is more like my own self.

	2.2	x 25	x 30	x 28	x 31
Height	2.2	55	66	62	68
Width	1.3	32.5	39	36	40.3
Height of base	1.0	25	30	28	31
Depth of top	0.4	10	12	11	12.4
Depth of base	0.57	14.25	17	16	
Height of small shelves	0.125	3.125	3.75	3.5	3.875 ³
	inches on sketch		↑ best		

Sketch 7. Handwritten notes showing different interpretations of the dimensions obtained from my two-inch high sketch. The first column shows dimension in the sketch, the next four columns show different scalings, according to the height chosen for the cabinet as a whole.

Now I have the proportions of the whole cabinet. But even now I still don't know exactly how big it is. Of course I know *roughly* how big it is, and it is my sense of the approximate size that has enabled me to keep making decisions correctly. For instance, I told myself that the small shelves are about three to four inches high — and it was this sense of scale that made it possible to decide roughly how many shelves to have. But, in detail, I still don't know how big the cabinet is. So I used the second drawing in Sketch 6 in order to find out how all the parts are to be proportioned in relation to one another.

Sketch 7. Now I need to do some arithmetic, to find a system of dimensions which *will preserve the feeling (and sense of proportion) which exists in the rough design I have made*, yet also keeps the actual dimensions within the range of real practical usefulness and common sense. I do know, for instance, that I don't want the real thing to be more than about six feet high; I don't want the narrow shelves to be more than about four inches high, nor less than about three inches; and I know that the waist-high shelf should be not less than about 25 inches high, and not more than about 32 inches high. I know this from making measurements against existing pieces of furniture. I also know that shelves need to be at least ten inches deep, but should not be



Sketch 6. Once again I look at the way the shelves sit in the cabinet, to try and decide which arrangement has the deepest feeling. The upper, with five shelves, is OK. In the lower, with six shelves, some special feeling appears. It is more significant. I feel myself, and experience my own humanity, more profoundly in the presence of the second.

too deep — and that large music books need about 13 or 14 inches of height when standing. I do this by trial and error, using a scale and a small pocket calculator, until I find a way to interpret the drawing, at a single scale, which makes all the heights, shelf widths, and so on,

come out to numbers that are within the reasonable limits I have just set.

To get the right dimensions, I first measured off the lower drawing (*Sketch 6*), exactly, in millimeters. The key dimensions, as measured off my original perspective sketch, are shown in the first column of the chart I made (*Sketch 8*). Then in the next four columns I try a variety of different multipliers, and write down what actual dimensions (in inches) each part would have, for each different multiplier. I then tested the dimensions given in these different columns with a tape measure, to imagine the base, the width, the shelf height, and so on. Although all four sets of dimensions were possible as real cabinets, the second column which has a multiplier of 30, and makes the cabinet 66 inches high, is the one which most closely corresponded to the feeling and dimension that each part ought to have. The

base, at 17 inches, was a little deeper than I would like (I should have preferred a base depth of 14 or 16 inches); but it was a small price to pay for everything else being just right.

At this stage I had a design for a workable piece of furniture, with practical measurements. Because of the process I have followed, it retained the feeling nature of the thing I originally found through my early sketches.

The photograph shows the finished cabinet. It has some of the feeling described, perhaps not as much as I would like, but twenty years later we are still using it. In the picture on the next page, I show a second cabinet, built later, in the course of working out office furniture for Herman Miller. The second piece is more developed and has deeper feeling; its form is more carefully thought out in construction, is really beautiful. It is a pleasure to be near.



The finished music cabinet



A later, green version of the cabinet made as a piece of office furniture for Herman Miller