

Carving Design Decisions

Questions to answer before taking that first cut

by Robert L. Buyer

It has been said that sculpture is the measure used by archaeologists to determine the cultural level of past civilizations. This statement always humbles me and makes me want to produce sculpture of the highest possible quality. Not that my woodcarving will ever find a niche in the great museums of the world, but I sincerely hope my work will be a reasonable statement of some of the concerns of the twentieth century. To this end the design phase of a woodcarving project takes on added importance.

From a practical standpoint, effort spent in the design phase is made up during the execution phase by eliminating mistakes and rework. Having decided to embark upon a woodcarving project, there seems to be a lot of emotional pressure to hurry into making chips. If the project is to be successful and fulfilling, however, some of this enthusiasm and energy must be channeled into the design effort. Some key decisions need to be made before the project is begun. How well we make those decisions could determine the

effectiveness of the resulting piece. We are all familiar with sculpture and carvings that, although beautifully executed in certain respects, are lacking in design cohesiveness.

Where do you begin designing a woodcarving?

If you are a professional woodcarver working with an architect, you receive sketches and specifications which describe the environment for the sculpture, the theme or message to be conveyed by the sculpture, and possible sketches suggesting the form of the sculpture. Unfortunately, most of us who are carving for our own enjoyment, or even for a specific exhibit, do not begin with architectural specifications. So we must begin by determining our own specifications, and that can sometimes be difficult to decide.

What's the theme or objective of the woodcarving? Is it to evoke smiles or to inspire some emotion? Where will it be placed? Should the carving hang from a wall or ceiling, or rest on the floor or on furniture? If we can determine a spirit and setting for the carving, we can then go on to make the first design decision: form.

What form should I use?

Knowing the site planned for a carving should suggest the general size and form to be used. If the site is a large wall, the viewing angle is limited to about 120 degrees, height is desirable, and the lighting is good, then a relief carving is suggested. High relief produces greater shadows, and so is capable of being more dramatic and realistic than low relief. Low relief is ideal for simplified or abstract carvings where the ambient light varies.

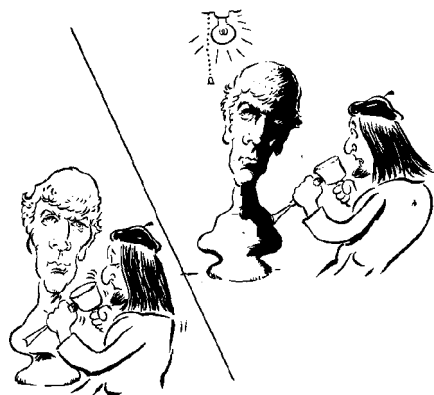
On the other hand, carvings in the

round can be more dramatic and warmer than relief carvings because they can be proportioned similar to natural objects. Moreover, they can be viewed from almost any angle and in almost any light.

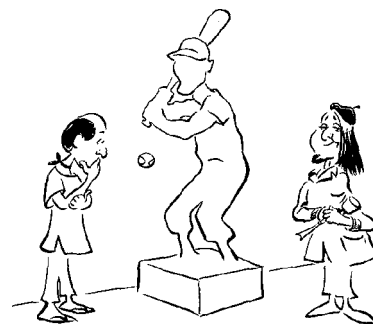
In either case, the size and proportions of the carving should be designed to harmonize with its eventual surroundings. Life-size or heroic-size sculptures require large, open display space. Miniature carvings decorate small tables or curio cabinets. Whatever the space available, make sure the sculpture is not crowded and that it stands apart enough to be contemplated separately.

What wood should I use?

Most professional carvers use mahogany and bass (linden or lime) wood almost exclusively. Mahogany is used where a wood-grain finish is required, and bass is used where the surface is to be painted or gilded. Both of these woods are commercially available in kiln-dried stock in a great variety of sizes, and both are soft hardwoods;



Light and shadow at the site can affect the attitude and dramatic quality of the carving. Cartoons by author.



"How did you carve that ball?" Your design must not only be esthetically pleasing; it must also be capable of being produced.

that is, they are relatively easy to carve, yet strong enough to survive.

Ideally, the wood should be selected, not from these two species alone, but from all the species available. Wood selection should be based on durability, color, figure, sizes available, ease of working, economic factors, and the finish to be applied.

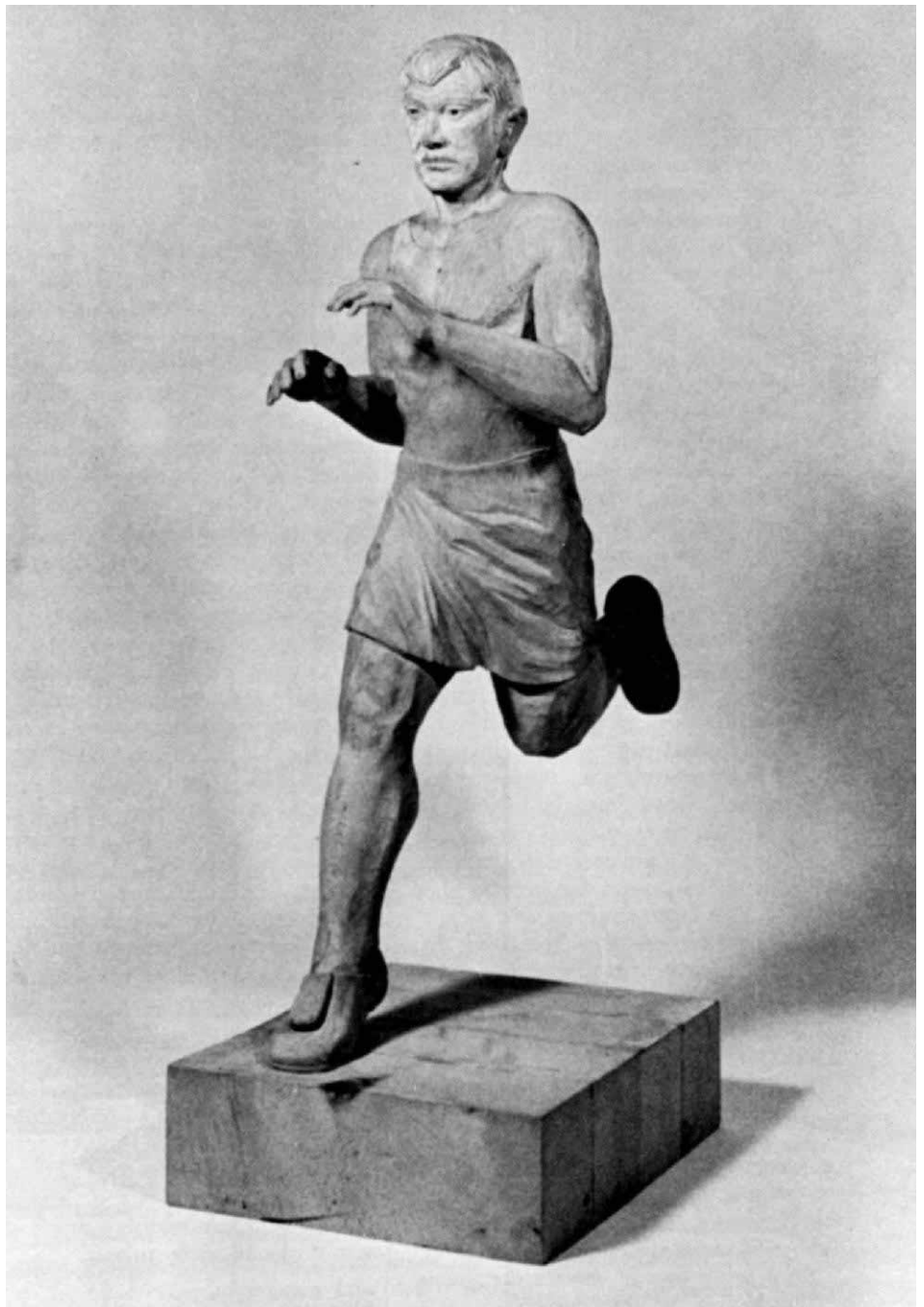
Almost any of the native fruit and nut woods are good—cherry, apple, pecan, butternut. Walnut is my favorite because of its beautiful grain and rich, dark color. I use cherry from time to time because it's a hard wood that has some beautiful grain and color variations. Pine is another wood I use frequently because it is soft, takes a stain well, and I can give it just about any flavor I choose. Fir and hard pine should be avoided because they are somewhat stringy and tend to splinter, making them hard to work.

The color and figure of the wood must harmonize with the theme and environment of the finished carving. The effectiveness of a finished carving often depends upon how it matches or contrasts with its environment. For example, you would not want a natural oak carving in a room that was paneled and furnished completely in mahogany. You might, however, want to make the carving in matching mahogany, or in contrasting woods, sometimes referred to as blond mahogany.

The color and figure of the wood should certainly be considered for carvings receiving a natural finish. Dark woods shouldn't be used for an intricate piece with a lot of holes and incisions that show up only through shadows.

Large carvings in particular can be greatly enhanced by the selection of a figured stock. Crotch and burl wood, or quarter-sawn lumber usually have beautiful figure. Figured wood is usually a little more difficult to work due to changes in grain direction, but the results are worth the extra effort.

Esthetically, the grain pattern should not be so strong that it interferes with the lines of the sculpture. That is, if there is too much contrast in the media itself, it can detract from the lines of the piece. However, in a well-rounded, smooth piece you can add interest by having well-figured grain. In other words, make the grain work for you rather than against you.



Jim Thorpe, the World's Greatest Athlete, by R.L. Buyer. In the unfinished state, this 39-inch high sculpture suits the harsh life of this American Indian and leaves open the option of other finishes to suit the final site.

This is true in the construction sense, too. In fragile pieces the grain must be parallel to the direction of the most slender section of the piece to give maximum strength. This often means that a piece must be laid out irregularly or at an unusual angle rather than parallel or perpendicular to the edge of the stock. This is an important consideration in the mechanical strength of the carved piece and affects the carving technique and the size of the stock required.

What surface finish should be used?

First, the surface carving technique used, combined with the finishing material, will determine the reflective quality of the piece. A smooth surface reflects light and suggests sophistication or formality. A mottled surface absorbs light and can suggest crudeness or informality. Variations in surface treatment can be used to indicate hard, cold, smooth materials or soft, warm, mottled materials.

Next, there is the question of no finish versus natural wood color, or painted or gilded finish.

A raw wood finish, that is, no finish, gives a rough, crude, no-gloss appearance that works well in limited circumstances. The theme must require a coarse effect, the site should be protected so the wood doesn't deteriorate, and there should be good lighting because of the poor reflective quality of raw wood.

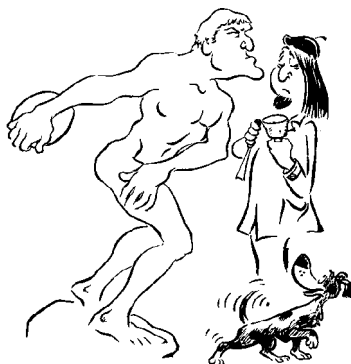
Natural wood finishes of oil, wax, varnish, etc., are my personal preference, for they offer the greatest variation in treatment, yet still show the wood grain. The choice is both technical and artistic—technical as to the protection desired, artistic as to the darkening and color desired.

With painted or gilded finishes, wood loses its character and identity. Nevertheless, paint or gild may be necessary when it's an outdoor piece that needs good protection. Gild is of course the strongest finish you can use outdoors. It's also good esthetically for contemporary pieces that need its high reflective quality and metallic look.

Paint is used when you need the multiple color to achieve true realism.

Finish also is affected by the wood carved. Hardwoods usually take a high polish whereas softwoods are more difficult to polish and are best used for stained, painted, or gilded carvings.

The choice of finish could also depend on the construction and holding methods used. The dovetailed or pegged legs of a carousel animal would need to be masked by paint, but the appearance of construction joints could enhance other subjects.



"Fetch!" The finish must be appropriate to the style of the carving and can vary in effect for realistic or abstract pieces.

How will the piece be held during carving?

Ideally, we want to design the piece so that it can be carved with minimum effort and without leaving holes or marks that must be covered up. Either we design the piece so the holding mechanism is an integral part or so it can be chopped off. An example of the latter is a relief carving that can be designed with tabs or other holding devices that can be removed by saw when the carving is completed. This eliminates clamp marks on the carving. If tabs are impractical, the relief carving can be glued to scrap stock with several intervening layers of newspaper. The scrap block can then be clamped in place during carving and separated easily from the carving afterwards.

Carvings in-the-round take special care, especially if a natural finish is to be used. The best way is to drill undersize holes where the final mounting will go and attach a piece of scrap wood with screws. The scrap wood can then be clamped in place during the carving. Upon completion, the scrap wood can be removed and the same holes re-drilled to accommodate the final mounting.

Commercially available devices such as carver's screws or work positioners (universal joint devices) can also be used effectively. Carver's screws can be simulated by gimbal or hanger screws with wing nuts. The advantage of these is in the variety of screw lengths available and the added security of more than one screw support.

What support is required for the carving?

The base or mounting design is extremely important. This should not be left until the end of the project, but should be considered and designed as an integral portion of the carving itself. The base not only provides the mechanical support and balance for a carving, but also provides the transition from the carving to the surrounding area. A well-designed base will not detract from the carving and sometimes can provide an extension of information about the subject.

For example, the base for a bird carving can be a formal mahogany stand or can simulate the normal habitat or nesting area of the bird.

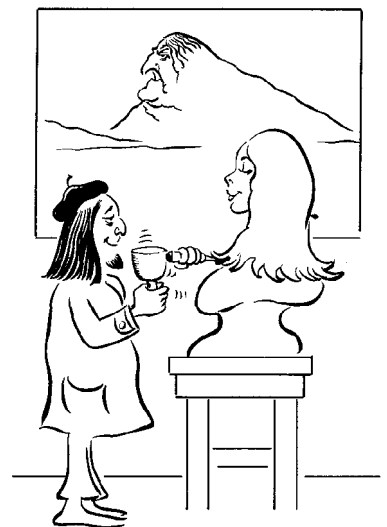
Sculptures by Frederic Remington and Charles Russell integrate the figures into a base that characterize the terrain of the "Old West." Carvings of jumping or swimming subjects can be supported on one or more thin metal supports in a way that either simulates the natural environment or emphasizes the fact that the carving is suspended.

Development of the base along with the carving can also provide protection during the construction and carving phase. This is especially true of complex carvings such as birds where the legs must fit into precisely drilled holes. The pieces can be removed from the base for carving, then returned to it for protection between work sessions.

While relief carvings can be fitted with hooks or eyes on the back, larger carvings may require mounting-screw holes that should be concealed with carved plugs. Some of the carvings in the round, especially abstract pieces, can make effective use of overhead wire or chain suspension using ceiling eyebolts or wall-mounted arms.

Do the answers work together?

Now that we've asked all the key questions, do all the answers work together? And do you have the equipment, materials, and skills required to produce the designed object? If so, then launch the project. If not, then back to the drawing board.



Mother Nature sculpted from life. No two creative, expressive people working from the same plans will ever produce identical works of art.