BRINGING TO LIGHT

— the studio of dirk van erp —

DEMYSTIFYING VAN ERP

By Michael Ashford

During my ten years as a metalsmith, much has been said about the work of the Dirk van Erp Studio, with much of the focus on their famous table lamps. As I progressed in my metalsmithing career, I began to look more critically at what was being portrayed as truth. I found that a number of assumptions concerning construction and design are at odds with the reality of building lamps in the Dirk van Erp style.

In this article, I will explain the various steps involved in smithing a lamp and how these steps are applied to the construction of the various lamp components. I will then talk about some of the common misconceptions concerning the way the van Erp lamps were built.

The main underlying factor in smithing copper is that the metal becomes "work-hardened" by repetitive hammering. Try it yourself: take a strip of copper, brass, aluminum or steel and bend it, then try and bend it back into its original shape. As you see, it won't bend back in the same place because the molecules along the bend line have become "work-hardened". So smithing copper has very much to do with reversing the effects of "work-hardened" metal. This involves the repetition of tasks. Some of the more unfamiliar of these tasks are defined below.

SINKING: The process of hammering the metal from its inside surface into a sandbag or a wooden form. This technique is used mostly for small items like the cap on the lamp shade. The limiting factor with sinking is that it actually stretches and thins the metal so you can only sink a piece so far before you get into trouble.

RAISING: This is the opposite of sinking in that you are working the metal from the outside surface, hammering over a steel "stake". The idea is to strike the copper just above the point that it touches the stake to drive it inward. *[Figures 1 &2.]*

Figure 1. The beginning phase of "raising" the bottom bowl section of a "rivet-base" table lamp.

Figure 2."Raising" the bottom bowl section of a "rivet-base" table lamp with a raising hammer onto the steel stake.

REGULATING: Adjusting and readjusting. Regulating is usually done with a wooden mallet. As you sink or raise the copper, it wants to wrinkle and get out of shape so you intermittently need to smooth and straighten out the piece or it will get irreparably out of shape. *[Figures 3 & 4.]*

Figure 3. Regulating the bottom bowl section of the lamp using a wooden mallet over a steel "mushroom" stake.

Figure 4. The "trumpet" section farther along in the shaping process being regulated with a mallet over a curved stake.

ANNEALING: Once the piece of copper becomes work-hardened, you can relieve the molecular tension and make the piece soft again by heating it with an acetylene torch. The copper becomes black with carbon deposits so you must clean it in sulfuric acid, rinse, and dry before continuing with the raising or sinking. *[Figure 5.1*

Figure 5. The "trumpet" section of the "rivet-base" lamp being annealed in order to soften the copper so it can continue to be worked into the eventual shape.

PLANISHING: The process of hammering out the final even-surface texture on the piece. The raising phase leaves ugly "working hammer marks" on the copper that need to be removed, and planishing accomplishes this.

Figure 6. The bottom bowl section has been partially planished and it continues to need regulation with the mallet.

PATINATING: The process of chemically aging the copper. This is usually done by repeated dipping and surface etching in a chemical solution in combination with varying degrees of heat.

In building a lamp, a two-dimensional design is drawn and then patterns are made for cutting out the copper components.

The copper for the lamp base is cut out and rolled into a cylinder with its edges formed into a box joint (or dove-tail joint) and silver-soldered together. The base is now ready for the process of being raised, regulated, annealed, acid-dipped, rinsed, dried and re-regulated. These steps are repeated numerous times to achieve the final shape of the lamp base. Most van Erp lamps have more than one component to the base. The "rivet base" lamp has a bottom bowl, a trumpet'-shaped section that connects to the bowl with rivets, and a top section (tower) that holds the sockets. All three of these components go through the steps outlined above. Once the base pieces are shaped, the bottom disk can be fitted and the arms (that hold the shade) can now be made. *Fig"re 7*

Figure 7. The three base components of a "rivet-base" table lamp that have been shaped, planished and are ready to be riveted together.

There are two primary choices in shade design that the van Erp Studio employed: the so-called early-period shade with its single-rolled rim and the so-called later-period double-rolled rim shade. Here are the differences and similarities in design and construction between the two *[figures 8 & 91:*

Figure 8. A "bullet"-base table lamp with an early-style conical shade, by the author.

Figure 9. A small "bean-pot" table lamp with a later-period conical shade, by the author.

1. The early-period rim is cut out from a geometric pattern that is curved in the shape of a `C'. This has the edge (to become the rolled rim) hammered over to capture a wire and then the rim is gently bent to form a circle. *[Figures 11 & 12.]* The later-period rim is cut from a straight strip of copper and curved into a circle with a silver-solder joint. The edge is hammered over a copper wire to form the bottom rolled edge. The rim is run through a "rimrolling" machine

'raised' to the a conical 45-degree angle, which will eventually form the bottom of the framework that supports the mica panels. *[Figures 10-15.]*

Figure 10. Once the rim has its edge rolled, it is hand-formed to a circular shape. The two ends are soldered together and it is ready to be attached to the battens and cap.

Figure 11. The rim of a later-period lamp starts out as a thin band that needs to have its top edge "raised" to the 45-degree conical shape. Here I am malleting over the edge to capture a wire.

Figure 12. The author forming the edge on an early-style rim.

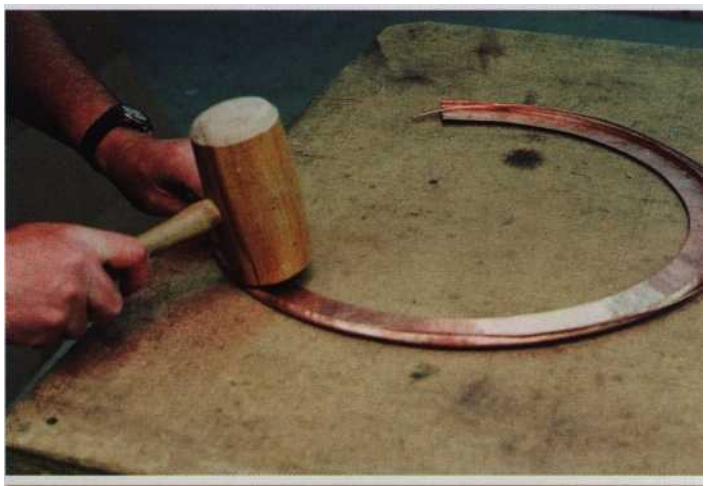

Figure 13. "Capturing" the wire by hammering over the edge to make the "roll" in a rolled rim.

Figure 14. The author using the rim-rolling machine to make the second roll.

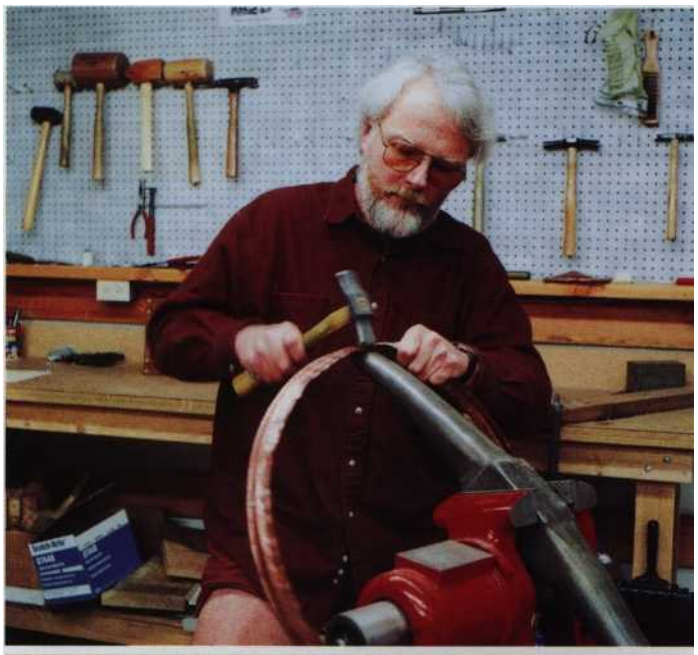

Figure 15. The author "raising" the top edge to a 45-degree angle on the later-period, double-rolled rim.

2. Both shades have battens that attach the cap to the rim. The early-period battens were club- or spade-shaped and attached to the top surface of the cap with three rivets. The late-period battens were cut and shaped exactly like the early ones with the exception that they fit under the cap and were attached with rivets. The top

Figure 16. Sinking a copper disk into an oak form is the beginning phase in building the shade cap.

Figure 17. Planishing the shade cap. Notice the ugly working hammer marks left by the steel hammer in the "raising" process.

Figure 18. Fitting the battens to the completed shade with screws. These screws will be removed one at a time and replaced by copper rivets.

terminal end of the bottom is straight-cut and installed so that it is hidden under the cap

3. Both early and later-period caps were formed by sinking and raising techniques, with the later cap having the addition of a ridge defining its lower edge just above the point where the rivets connect the battens to the cap. *[Figures 16-18.1*

4. At this point both styles have copper clips soldered to the inside to hold the mica panels and both need to have the mica panels cut and formed to fit the shade.

Put all of this together and you have about 65 hours into building a 20" table lamp. Of these 65 hours, about 40 hours are tied up in the construction of the base. About 12 hours are needed to build a

Figure 19. The bottom bowl section of a "rivet base" table lamp before planishing. Notice the ugly working hammer marks that contrast dramatically with the next photo of a "warty" style table lamp.

shade and the remaining time is taken up by forming arms (to hold the shade), fitting a bottom, patinating and waxing, and electrifying the lamp.

Now that you have the basics (and these are just the essentials) of how a hammered-copper lamp is built, I want to go over some of the misconceptions regarding Dirk van Erp lamps.

Misconception #1: A van Erp "warty" lamp or vase is simply a piece that has been formed and left unplanished with the working hammer marks left in their natural state.

Figure 20. A van Erp-style "warty" table lamp by the author.

If you look at the shade cap *(figure 171* that I am beginning to planish and at the photo of the "rivet base" bowl section 4 then contrast it to the "warty" table lamp *(figure 201,* you can clearly see a difference in the quality of the finished planishing. The "warty" lamp has a pleasing mottled texture that appears to be vegetal or organic in origin. The planishing has a finished look however "raw" it may appear. On the other hand, the working hammer marks that are a necessary byproduct of the "raising" process leave a dented, wrinkled texture that needs "planishing" to obliterate. The "warty" piece is most often formed with a wooden mallet and not a "raising hammer" in order for the surface to be free of the ugly marks that a steel hammer will make. The beautiful organic texture of a "warty" vase comes not as a result of unfinished work, but rather from much more work than would be otherwise required. In short, a "warty" texture is a special finishing technique that is difficult to execute well.

Misconception #2: The van Erp Studio began building double-rolled rim shades ('drop-rim') because they were quicker and easier to make and are thus more highly valued.

There are different approaches to copper smithing and one lamp maker's techniques is not necessarily the same as another's. I find it much easier and quicker to build the early style shade because you don't have to "raise" the top edge of the rim over to a 45-degree angle. This takes a lot of time and is not particularly easy, as the rim continually wants to warp out of shape during this process. Whether or not the batten end is cut out in a club shape or straight-cut, they both take about the same time to make and install. The battens on higher quality van Erp shades are smithed into a more three-dimensional shape with a smaller radius than the shade itself. This process tends to curl the batten up and requires more time to regulate. The cap on the later-style shade is more difficult to make because it has a ridge hammered into it to define the edge strip. It's an extra step.

Misconception #3: Later period lamps are not as good and are somehow of lesser quality due in part to their being quicker to build.

The factor that really matters with respect to how long a lamp takes to build is the size of the lamp and the shape of the lamp base. The bigger, rounder shapes, as well as the more complex "rivet-base" style, take a lot longer to make than smaller easier forms. A 22" "gourd-shape" lamp will take twice as long to build as an 18" "bullet"-base lamp due to the extra volume of the base. The other elements that take time and determine quality are how well a piece has been regulated during construction and how uniformly it has been planished. I have seen early van Erp lamps with poor regulation (which caused them to be asymmetrical) and fairly uneven planishing, and I have seen later van Erp lamps that have been perfectly rounded and true with beautifully even planishing. Suffice it to say that there was excellent work done at the Studio during its entire history.

Misconception #4: The van Erp flat-top " table lamp is a less valued piece than its conical-shaded counterpart.

The van Erp "flat-top" is, arguably, the most time-consuming and difficult lamp that the Studio produced. (The designation "flat top" is itself something of a misnomer, for these lamp shades are not really flat, but domed.)

While a normal conical shade takes about 12 hours to build, the "flat-top", with its intricate cutout work, takes about 40 to 50 hours. A 20" diameter "flat-top" shade has a band around its

Figure 21. The time-consuming task of cutting out the intricate pattern in the "flat-top" shade. This particular band is 75" long and is going on a 24" diameter chandelier.

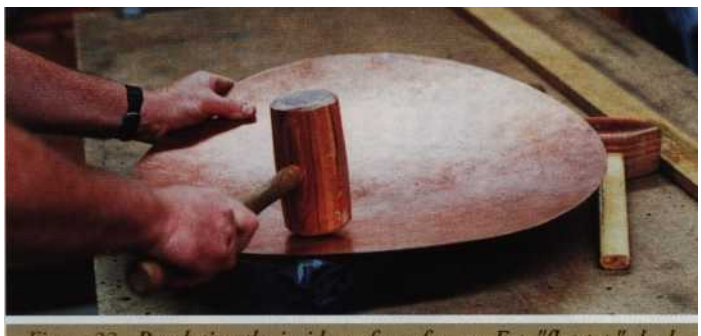

Figure 22. Regulating the inside surface of a van Erp "flat-top" shade. This is done with a wooden mallet over a sandbag.

perimeter that is 63" long and must be cut out with a jeweler's saw. *[Figure 21.1* If you happen to twist the fragile blade even slightly or use too much pressure with your saw cut, the blade will break. This process is the definition of tedious. The domed top section of copper is shaped and meticulously planished over a "mushroom" stake. Planishing is much more difficult with larger pieces of copper, like this 22" disk *[Figure 22],* because you lose *your* sense of where the mushroom stake is positioned and end up slightly denting the piece with your hammer blow rather than creating a crisp, faceted hammer mark. You then spend a lot of time regulating the top. It requires a great deal of concentration and a steady hand to build this shade. *[Figure 23.]*

Figure 23. A van Erp style "flat-top" table lamp built by the author.

Hand-built metal lamps has always been a personalized craft. Variations in style can be seen in contemporary examples. Upon close inspection, variations in both style and quality can also be seen in original Dirk van Erp lamps. The real point, however, is not whether an early lamp is better or worse than a later one. Although it is generally true that early Arts and Crafts designs by Stickley's Craftsman workshop were in many ways superior to later designs, this does not necessarily apply to the work of Dirk van Erp. It is certainly not applicable for Frank Lloyd Wright, nor is it true with Greene & Greene, to take two notable examples who worked in the Arts and Crafts style. Some may argue that the earlier work of the Dirk van Erp studio was "more Arts and Crafts" and "more sophisticated" and that D'arcy Gaw's design contributions made it so. These conceits are at best arguable, but the real point is that earlier isn't always better. It is only different. Then all that remains is what one may prefer. 1]

Michael Ashford,founder of Evergreen Studios, lives with his wife Cathy in the foothills of Capital Forest in Olympia, Washington. He has been in business building hammered copper lighting since 1989. His path to becoming a coppersmith began with a degree in Economics with an initial career in business and sales.

His love of wooden boats drew him to traditional handcraft work, first as a shipwright and then as a furniture maker.

While researching design ideas for the building of their house, Michael came upon the Craftsman Period and has never recovered.