

The Phoenix Guitar Company

Archtop Class

By George Leach and Diana Huber

We have been teaching guitarmaking since 2001, when most of the classes were taught out of George's home shop. A little over a year ago, we opened our new location in Scottsdale, where we have more room and a far better facility to work on our guitars, as well as to teach our classes. Our most popular class is our "Weekend Warrior" class, where a group of six students meet every Saturday for three to four months. They learn about guitarmaking basics, and each student builds his or her own guitar. However, not everybody can do a Saturday class. We have had several requests to do a class during the week, and recently have made a one on one (or two on one) class—held during the week— part of our normal offering. We will be describing a one on one class, held earlier this year, where one of our former weekend warrior students decided to build an archtop with us. Besides getting a lot more attention in an individual class, one of the instructors (in this case, Diana) will build an identical guitar, alongside the student, so each step can be demonstrated.

Photo 1 shows George and Diana (owners of the Phoenix Guitar Company), preparing the sides for the class. Our student, Mark, will bend the normal side, and we will bend the cutaway for him—since bending a cutaway is a bit tricky, but bending it out of flame maple is downright difficult.

Photo 1



In photo 2, Mark can be seen scraping his top. Both the top and back on this guitar are made from pre-molded sitka spruce and flame maple, respectively. They are not laminates. We have found guitars made from this pre-molded material have several advantages: They are very strong, since the arch is not carved, so there is no runout from carving. The process of building is simplified, without having to completely carve the tops and

backs, and the amount of waste is significantly cut down. In addition, in each case we have seen, the acoustic sound has been very strong and powerful.

Photo 2



In Photo 3, Mark is preparing the braces for his top. He will be using x-braces. He is making guides using cam clamps, to help hold the braces in place, while he sands the profile on the bottom of the braces to match the inner curvature of the inside of the top.

Photo 3



In photo 4, Mark and Diana are using a jig to locate the f-holes, and rout them into the top. Diana is routing her f-holes, while Mark uses a vacuum to clean up sawdust.

Photo 4



In Photo 5, Mark is cleaning up the f-holes using sandpaper and file.

Photo 5



Here, in Photo 6, Mark gets his x-braces glued and clamped to the top.

Photo 6



In photo 7, Mark gets the kerf glued onto the sides. He's nearly ready to glue on the top and back.

Photo 7



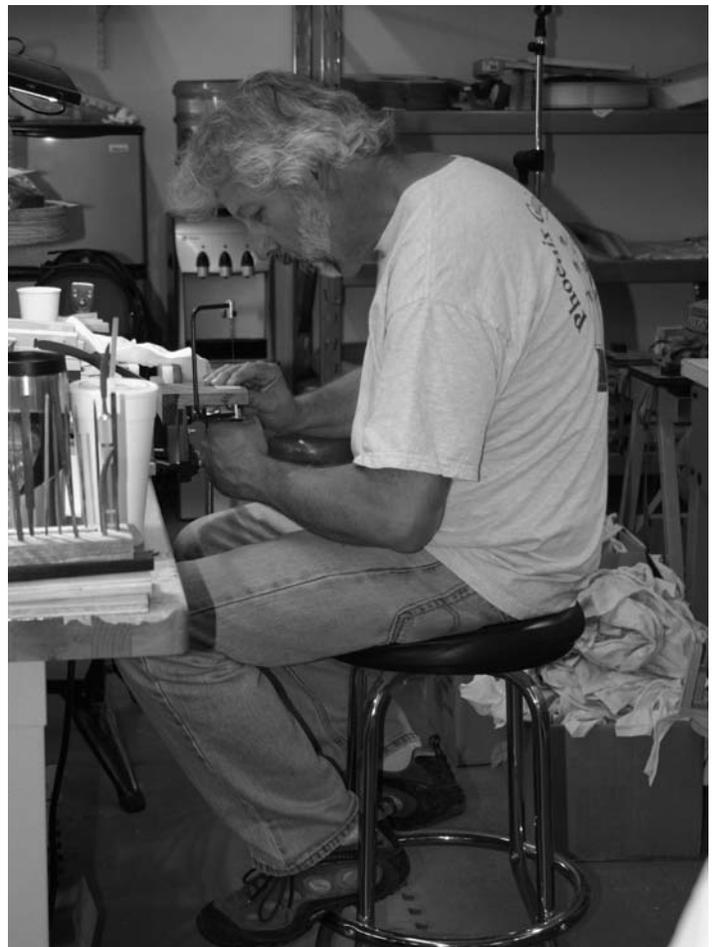
Top and back glued on, Mark sands the sides (photo 8). This guitar is not going to have binding, so after a few hours of carving a recurve into the top and back for additional flexibility (which significantly helps acoustic tone), the body is basically done.

Photo 8



Here, in Photo 9, Mark is cutting his inlays for his headstock.

Photo 9



In Photo 10, Mark glues the neck, which was made entirely from scratch using two pieces of flame maple around a strip of birdseye maple for the body. Mark and Diana glued up the neck blanks, slotted the neck blanks for the truss rod, and hand carved the necks, using mainly a spokeshave, rasps and files. The headstock laminate used was ebony.

Photo 10



In Photo 11, Mark is spraying his finish. He sprayed blonde shellac, with a sunburst of garnet shellac, and then added several layers of the water base lacquer-KTM-9.

Photo 11



In Photo 12, Mark has sanded his finish, and is doing his final buffing.

Photo 12



In Photo 13, Mark can be seen with his completed guitar. The bridge, tailpiece, and pickguard were also made by Mark. He also added a handmade Kent Armstrong pickup, with stealth volume and tone controls at the lower edge of the pickguard. Many congratulations go to Mark. A guitar like this is a big undertaking—and this one plays, looks, and sounds like a winner!

Photo 13



The Phoenix Guitar Company also teaches one on one classes for flattop steel string guitars and nylon string guitars (including classicals). Most of these classes take from 14 to 17 days to complete (including a finish). For more information concerning any of our classes, repair services or our custom built instruments, please call. We can be reached at (480) 664-6315, or through e-mail at george@phoenixguitarco.com, or Diana@phoenixguitarco.com. Our website is: www.phoenixguitarco.com.