

## **Uncle Lee Hardgrave**

Uncle Lee, my mother's oldest brother, was one of the stronger influences on me simply by proximity; he and his family lived in Midland, Texas, when we did, and moved to Austin not too long before we did. We wound up living near them when we moved to Austin, so I got to spend a fair amount of time hanging around him in his workshop. That only lasted a couple of years before they moved, and then shortly after, we moved away from that neighborhood too, but while it did, we both enjoyed it.

Still there were a number of occasions when I would be around him, and after I got a car, could visit again, though not with much frequency until later on when I was doing Mobile Mechanic.

One thing that made Lee different was that he went considerably against the pattern set up by his dad, who was basically a rural person, primarily a farmer and rancher, in choosing an urban livelihood: jeweler and watchmaker. He was following that trade in moving to Midland, and later to Austin, and was always the one we'd go to with a broken watch, or more often, when it needed cleaning (a frequent occasion in the days of mechanical pre-quartz movements). The other brothers wound up being ranchers also.

Later on, he got out of the jewelry rat race, and became what's called an "instrument maker" for the University of Texas Astronomy department. In practice, that meant that he made special devices to order for the ongoing scientific projects that the scientists would dream up for their experiments. Precise, exacting work, which while well specified in some ways, called for a degree of improvisation and invention in implementation.

He'd gotten into the business of making things such as these scientific apparati at least partly as a side effect of becoming proficient at the woodwork and machine work involved in making muzzle loading guns. It seems amazing to think about taking a bar of iron and a piece of maple and making a rifle, but that's basically what he did.

Later on, I discovered that he was also an instrument maker of another sort: he made violins, cellos, guitars, etc. Much to my surprise, I found that he was also a pretty good fiddler, having picked it up as a kid in West Texas. Learning fiddle construction turned out to have come first: he inherited a fiddle from the deceased husband of Aunt Augusta (?) which had had the poor luck to come through the great hurricane of 1900 in Galveston. The fiddle needed some degree of disassembly and remanufacture to work again, having had water damage from the flood.

Incredibly, he found an old man in San Angelo, Tx who was a trained violin maker from London (and who had a copy of the plans for the "Messiah" Stradivarius, which he passed along to Uncle Lee, which were later used for his own fiddles), who taught him enough to fix the fiddle, and how to make a bow from native mesquite wood. He was basically self taught, played for a number of years, but had quit fiddling by the time I knew him as a kid. Many years later, I was surprised to hear him play a large repertoire of old time fiddle tunes, as if he'd never quit playing in the interim. By then he was well into making fiddles for many of the cousins (between 20-30), so I naturally wanted one too, and he was happy to comply.

I've still got his fiddle now, and of course, not getting further along with my fiddle lessons is one of my constant regrets.

He also taught me how to do wood carving in a quick little lesson, and gave me a little set of wood carving tools, which I still have 30+ years later. Years after that little impromptu lesson, I did a spot of woodcarving for another of my fathers, John Kimmey, up in Taos, N.M., which was a direct result of that lesson. That in turn got me into doing leather carving, making billfolds, belts, purses, etc.

The common thread here is that he was a skilled maker of things, wood or metal, perhaps past the degree of craftsmanship to that of artist. A family friend, Byron Fullerton, gets many compliments on his Navajo style turquoise belt buckle made by Uncle Lee; most can't believe it was not made by an Indian. In point of fact, we do have a good bit of Cherokee blood, just not Navajo.

In some ways, it's curious that I didn't emulate him more in this regard than I have, but maybe there's still time. I have bought a professional set of woodcarving tools to go along with the old ones he gave me, but have yet to use them!

What really did stick though, was the creative part, making something out of raw materials just for the joy of creation itself. I like to make stuff, although I'm probably more like a (semi-)talented amateur than a craftsman, depending on which medium you specify. Enthusiasm counts though, certainly as far as the personal payoff goes.

I recently heard a great piece of advice: if you make a living doing something that doesn't produce visible, tangible results, make a point of having a hobby that does, because it's a sort of feel-good therapy. The speaker, Harold Best, president of Wheaton College, had mentioned that his hobby was restoring Studebaker cars, and said it was the only thing that kept him sane.

Lee had it both ways though, having the fun of making things for his job as well as for his hobby.

So achieving the creative joy was something I got from Uncle Lee on a mundane plane, but more than that, he was a man of the church, a faithful follower and a pretty good singer, who lived a sober life well under control. Those qualities have affected me over the years, probably in more fundamental ways, than the ability to make things.

It's struck me as odd, occasionally, to notice how he did something, and realize that he did it the same way I did, because we'd both learned it from the same person, his dad, E.W. Hardgrave. My cousin David Hardgrave also exhibits some of these same little habits, such as the trick of holding a pencil in the hand such that as you run your finger down the side of a piece of wood, you make a line a uniform distance all the way along it. Using a knife to trim one's fingernails is another.

He showed me how to sharpen a saw, using a file, and similarly, how to sharpen scissors, which involves a clever little trick of not cleaning up the "curl" left from the filing. Once used, each blade's curl gets cut off by the opposing blade, and leaves the pair as sharp as possible.

One of his more amazing improvisations happened one evening when I was in a panic trying to make a project for my Junior High Science Fair. I had come up with a pretty decent idea, making a miniature “Aeolipile”, which was invented by a Greek named Hero. The basic idea was that you had a boiler which was suspended over the fire in such a way that it could revolve, which produced steam when heated; piped and directed to the side through three or more “jets”, the steam would make the boiler revolve. There was no way to transfer the power to an axle, but demonstrating the basic premise of steam power led directly to later industrial steam engines and eventually to locomotives.

Working from an encyclopedia picture, I had come up with a boiler (a little Sterno can) and had gotten some tiny brass tubing from a hobby shop, but my mechanical skills were not up to getting them soldered into the can in a way that would work. I had also come up with a way to let it rotate, using a large fishing swivel, and had the suspension figured out (sort of like a hangman’s scaffold). I went down that evening to Uncle Lee’s garage and innocently asked for some help getting my jets soldered, and before I knew it, he’d taken charge and not only got them soldered for me, but also reworked the tubing in his drill press so that they would work much better. In a few minutes, he also found some scrap wood to mount the whole thing, making it much more polished in appearance.

Once heated, the little boiler worked like a charm, spinning merrily until the fuel (or water inside) ran out. I got credit for my project and tried not to feel guilty over getting so much help.

Man is supposedly distinguishable from other animals by our ability to make tools (although there seem to be some notable exceptions to this idea of late), and Uncle Lee could take the whole thing to another level. For instance, almost as soon as I got them home, I showed him my leather making tools; these are mostly metal stamps which are positioned on the leather, then struck with a hammer, embossing the leather with the mirror image of the pattern on the tool. Growing up on a remote ranch, with not too much ready cash, Lee was used to making such tools from whatever metal was at hand.

From a large metal spike (a big nail), he took a file, and a little saw, and cut the head into a stylized thunderbird, just as good as a commercial tool except that it wasn’t chromed. From a piece of metal rod, he shaped the head into a sort of pear shape, and then textured it with a special file he had for gun making; this kind of stamp is used to make a background behind a fancy flower in the “hand tooled” kind of leather carving. Again, just as good as the “real thing”, but home made, right there in his garage. The gadgets he made for the astronomers years later were orders of magnitude more complex, but still just tools.

More precious though, was the lesson that with a little cleverness, an improvised solution was often at hand. Again, the joy of creation was the subtle lesson he passed along!