THANKS TO KUMAR BALAN for sharing what he learned from “Tribal Lore.” This prompted me to reflect on my own stories. On-the-job training is often the only introduction to peening practices for a new hire. Depending upon the skill level of the mentor, this could be okay but sometimes things can go wrong.

I remember an incident many years ago when I received a call for help from a new hire trying to get a higher peening intensity on a glass bead peening project. I went through all the normal metrics of media classification, nozzle size, blast hose wear, air pressure and media flow rates but just could not achieve the desired results. I was very frustrated that I could not figure out the problem. Records showed that the required intensity had been achieved for many years. Something drastic was wrong but what was it? Surprise. It was Pinocchio. None of the predecessors had been able to reach the intensity but not wanting to upset the quality system, they recorded false data. Someone forgot to tell the new hire. Sometimes tribal lore can be very dangerous.

I remember another incident that took several days to resolve. Peening intensity tests with saturation curves were exhibiting unusual profiles. The curve seemed to have two maximum levels. After several days of conversation, the caller asked, “Does our shot mix have anything to do with this?” I asked him to explain and learned that they would often throw in a bag of larger size media just before a test. This was to make up for the broken media that had accumulated in the cabinet. The graph below is from our training presentation that shows what happens with multiple media sizes. The smaller media, with more pieces per pound, dominated the early impacts. Eventually the smaller quantity of larger media would get a chance to make larger impacts thus pushing up the curve to a higher level. This was such a good lesson it became part of our curriculum in our training programs.

Speaking of training, don’t miss Dave Barkley’s article on how he is managing the EI Shot Peening Training program during the COVID-19 pandemic.