

Anatomy of a Cone: Pens With a Sense of Humor

Rick O’Ryan

An egg, a top, or a finial can nicely display the beauty inside a cone. Turn a cone, leave it fat, add pen hardware, and the result is pens that beg to be picked up, examined, and used. A smile appears as the pen scribbles a few words. Some people laugh outright. One or two of the designs are easier to write with than others, but they all elicit humor.

Eldarica pine (also known as Afghan or Mondale pine) is plentiful where I live in New Mexico, so those were the first to end up on my shop floor when they disintegrated as I attempted to turn them. Discussions with a turner in the Netherlands led to an understanding of the characteristics of closed cones and the difficulties associated with finding not-yet-opened cones, which are usually still attached farther up on a tree. The closed cone has not released its seeds, so the tree has not yet cast it loose. Sometimes an open dry cone can be reclosed by soaking it in water.

While exploring Eldarica cones, I found an eBay store that sold cones from California trees—some native like Coulter, some introduced like Chir. Coulters and sugar pines had caught my attention years ago because of their size. I ordered a couple boxes and explored the differences between various species. A few trips into the New Mexico forest and I returned with limber pinecones.

Layers of beauty

Inside cones with large central cores, I found layers of beauty and character that changed with the distance from the center and often bent axis of the cone. This led to an exploration of which species would work well for various pen kits. The farther from the axis, the more character the cone contained; I looked for pen kits that would support larger-diameter and longer wood barrels. My pens got fatter and smiles grew more frequent. I was encouraged to see how fat I could make a pen—out there somewhere was a hand that could grasp it perfectly.

Closer to the center axis, at the area where the scales of the cone begin to develop, the characteristics lend themselves to being displayed in smaller-diameter objects. In the cones of many species, there is a core of brown, nondescript MDF-like material. Toward the outside of this material, the base of the scale starts. Outside this core is often a thin white layer of harder woody material. As the base of the scale extends through the white layer, it becomes more defined and distinct. Outside the white layer, there is often another nondescript brown layer within which the base of the scale begins to differentiate into light-colored woody strands.

Species vary in character at the base of the scale as it grows out beyond the white woody layer. In Chir pines, the look resembles a horseshoe. In Jeffrey pine, it appears



Included with a mostly closed Coulter cone hollow form is a pen from an opened Coulter cone. The vessel shows the scale character near the outside of the cone, and the magnetic vertex pen shows the character at the base of the scales.

like a cloverleaf or clubs from playing cards. In Coulter pine, the base leaves the white layer as a circle of white woody material with a brown center. The circle soon breaks on the side facing the stem of the cone and flattens considerably, resembling a bear claw as it separates into the strands that hold the scale material together.

The complex and loose characteristics of cones require one to use copious quantities of cyanoacrylate (CA) glue to stabilize the cone for turning. Several times I have had reactions to the CA fumes. It is imperative to have a well-ventilated shop space and stand upwind from any airflow. Currently, I am experimenting with stabilizing by pulling a vacuum on cones soaking in resin.

Enjoy the anatomy of various kinds of cones. A fat cone pen may materialize in your shop. They make people smile. ■

Rick O’Ryan has been a member of the AAW since the late 1980s and a woodturner since the early 1960s. More of Rick’s work can be seen at woodsongs.net.



Go Ask Alice is a closed Coulter cone and Cholla. This is what came of a cone vessel breaking up during hollowing. A partially turned Cholla base with carved stem ties the pieces of the cone back together.



The long leaf pine from South Carolina has a smaller core area than the Chir, Jeffrey, and Coulter, and hence does not make a large-diameter object. There is very little material outside the white woody layer, making it more evident.



A Coulter cone breaks up during turning.



Eldarica closed cone, featuring the scales at the base of the cone.



Open Coulter cones. The cone layers seen in the pen can be correlated with the cone section on the left.



Very papery on the outside and ready to crumble at a moment's notice, the Deodar Cedar cone (*Cedrus deodara*) does have some woody material in it, but the lack of structural integrity requires CA glue to be applied early on. The pattern made by the stabilized paper scales is lovely.



The cross section of the cones at the clicker end shows the MDF-like core, the white woody layer around the core, and the MDF-like material wrapping around that. The base of the scales develops at the intersection of the inner core and the inside surface of the white woody layer. The darker color of the cone on the right appears to be from a cone that had weathered longer on the ground.



The structure of Eldarica cones resembles the long leaf, but the cones are smaller. The closed cone is a fairly tight structure; in some cases, it can be turned to display the outermost character of this cone (as seen on the pen on the right). Also evident in this pen is the beautiful cross section at the base of the cone. The two on the left were made from open cones and feature the seeds (Eldarica pine nuts).



The scales near the base of the cone, to the left, show the side strands that hold the scale together. As one goes out on the cone to the tip, the strands are shown in cross section.



Three pens made from open Jeffrey cones, which usually exhibit a wonderful playing-card club pattern in cross section of the scale near the base.



Each of these pens was made from an open Chir cone similar to the cut cone to the right. The smaller closed cone at the left shows the seed area that presents turning challenges.