

**JANUARY 2018 DEMONSTRATION  
WORKING WITH BURLS WITH CHAD DAWSON & MEL TABER**

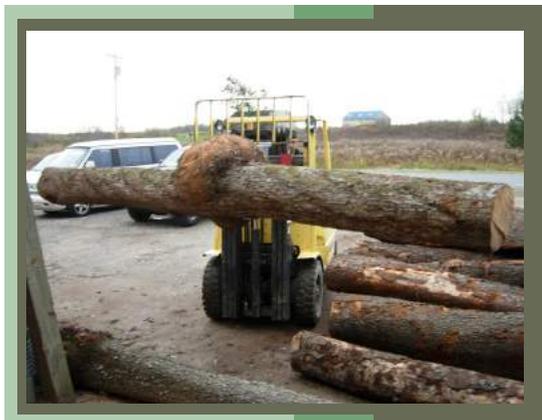
On Tuesday, January 9<sup>th</sup>, members and guests of the Central New York Woodturners gathered at the Camillus Middle School for their monthly meeting. Our demonstration for the evening was handled by **Chad Dawson** and **Mel Taber**. They focused our attention on burls.

Can it be true that most figured wood and burls used to be thrown in the firewood pile at commercial wood processing operations? It doesn't seem possible as it is now a much sought after prize. What is it? Where to find it? And what to do with your investment when you find some figured wood or burls? Mel and Chad tried to answer some of those questions.



Buying commercially harvested burls is the most reliable approach to acquiring a good piece for turning, but it is also the most expensive. Burls can be found through many suppliers that offer wood turning blocks ([www.nwfiguredwoods.com](http://www.nwfiguredwoods.com); [www.woodcraft.com](http://www.woodcraft.com); [www.keimlumber.com](http://www.keimlumber.com); [www.burlsource.com](http://www.burlsource.com); [www.cookwoods.com](http://www.cookwoods.com)) and they are more likely to be stabilized and partially or completely dry.

Harvesting your own burls or buying burls from an individual who harvests them is challenging and may or may not result in a quality product. It may cost less than a commercial product and it is an exciting chase to find good quality burls with good figure and solid structure.



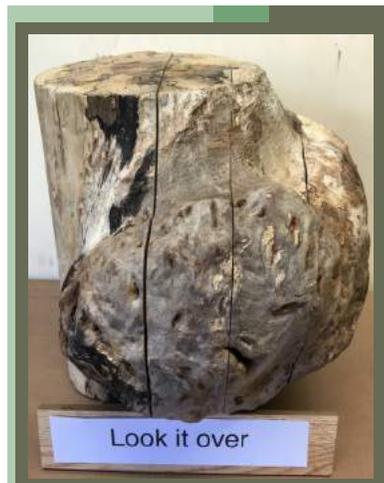
Figured wood and burls are most often the result of over stimulated growth hormones in the tree. The exact reasons for overgrowth is not known and many researchers have attempted to stimulate burl development without success. Figured wood grain such as curly maple or birds eye maple are the result of general growth stimulants in the tree while a burl is more localized and often started by some type of biological or physical injury to the tree.

Burls can develop in a branch, trunk, or root of a tree. Some tree growths look outwardly like burls but may actually be tree stubs that healed over leaving a dead stem inside, or an insect nest that is mostly hollow with a hard outer shell. Cutting open a burl is much like opening a geode – you never know what you are going to find.



Mel explained how he is always searching for burls at Adirondack sawmills and events like the annual Blue Mountain Lake Furniture Show. Once he has a good burl of any size he rarely uses it to make a round bowl, rather he carefully examines the burl to cut it up into slabs to get the most number of quality pieces around 3 to 4 inches thick. His slab turnings have a bowl center and a natural edge or an irregular shaped cut edge from the harvesting process.

Mel showed how he had slabbed a small burl into two pieces and a larger burl into five pieces. His message was “do not turn them round”, make the maximum number of useful pieces and use the entire burl. He



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cuts a large burl either by hand with a chain saw or at a sawmill if it is a larger burl on a tree trunk. Slabbing up the entire burl and trunk together often results in some interesting grain within the trunk, since the burl figure often extends into the main stem.



After summarizing his reasoning for turning slab pieces of burl, Mel demonstrated how he uses a screw chuck in the center of what will become the bowl to mount the piece on the lathe. He recommended specially designed and dedicated screw chucks like those from Glaser Hitec

([www.glaserhitec.com](http://www.glaserhitec.com)) or Penn State Industries ([www.pennstateind.com](http://www.pennstateind.com)) and not the thick and



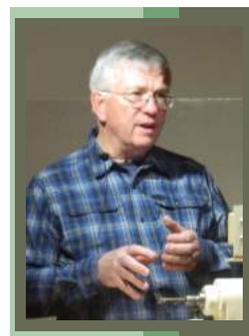
clumsy screw that comes with many scroll chucks. Mel turned the base of the slab to establish a foot and then slightly turned up the bottom edge of the slab to make it

easier to pick up off a table surface. He turned the slab around on the lathe and used a scroll chuck to hold the piece by the base (inside or outside tenon hold) and then proceeded to hollow out the bowl area. After a good bowl is created, he sometimes extends the bowl area in an irregular shape to match the shape of the slab. Wood removal is done with power carving tools and the difficult job of sanding down the carved area becomes a larger time commitment to achieve a smooth surface across the

turned bowl and the additional carved area.



Safely holding a burl with a chuck may require approaches like drilling into an irregular shaped piece with a Forstner-type bit on a drill press. The idea is to use a bit large enough to provide a flat space for an inside tenon attachment with a scroll chuck or the base for a dedicated screw chuck. Since burls are irregular shaped, oddly balanced, and often contain structurally weak lines and cracks, they must be turned with all possible personal safety equipment (face shields, turning cages, etc.) and turning techniques (safe speed, sharp tool, etc.). Stop the lathe periodically to check that the burl is stable, and no cracks or unstable pieces have developed that might cause the piece to fail or break apart. Burls maybe expensive but discard them if unsafe – or seek professional advice on how to reinforce a burl with epoxy or other means.



The irregular figured grain in a burl is challenging to turn and requires sharp tools that are re-sharpened during the turning session to minimize grain tear out. The speed of the piece should be as fast as you and your equipment can safely turn to minimize tear out.

The Saturday workshop included Mel demonstrating how to examine a burl and decide the best way to cut it into slabs safely on a band saw for maximum results in grain display and number of pieces created.

Submitted by Chad Dawson and Mel Taber  
Photos by Mel Taber & Shelly Kent.



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Maple Burl—450 lbs—44" diameter—cut into 52 highly figured burl pieces