



Volume 39

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Number 2

## March Tool Sale and Auction

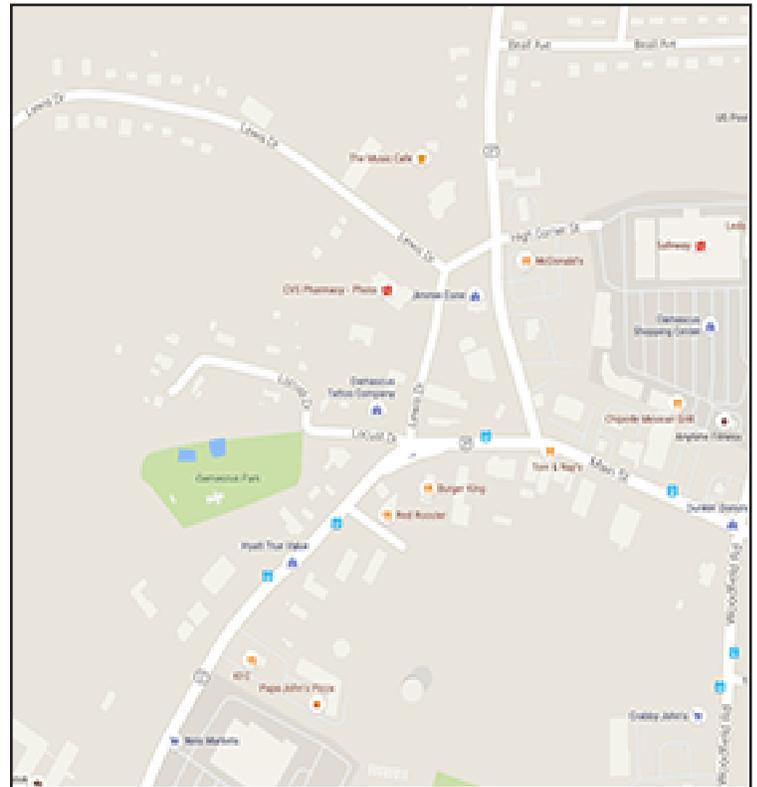
The PATINA annual spring Tool Dealer Sale and Tool Auction will be held on March 12, 2016. These events will occur at our traditional venue in Damascus, Maryland.

We expect a robust turnout of antique tool dealers offering selections of treasures bound to tempt all visitors. Our auction this year will include some 275 items and include the usual variety of tools, books, and related material.

Tailgating is encouraged and will commence at dawn on Saturday, the 12th. Doors open to visitors at 9:00 AM, or for early birds at 8:00 AM anxious to select the choicest deals after paying early admission fee of \$15.

Auction lots can be viewed all day on Saturday up until the Auction begins at 2:00 PM. Dealer sales will continue until the auction starts.

See the PATINA website for a list of auction items to be sold on March 12, 2016.



## DIRECTIONS AND MAP TO THE DAMASCUS VFD HALL

Damascus Volunteer Fire Department Activities Hall, Damascus Volunteer Fire Department Activities Center, 10211 Lewis Drive, Damascus, MD 20872.

A. From the north, Rt. 27 turn right on High Corner St. then right onto Lewis Drive.

B. From the south, Rt. 27 turn left on Lewis Dr.

Parking is available on the street, and in the parking lot across the street from the DVFD Activities Center.

## January Meeting Notes - Ted Boscana

Text and Photos by *Jim Glass*

The January meeting featured Ted Boscana from Colonial Williamsburg who demonstrated and discussed the craftsmanship of the 18th century sash maker.

Ted has worked for 20 years as a professional joiner reaching the title *Master Joiner* in the joiner shop at Colonial Williamsburg. He is currently supervisor of the shop and has shown exceptional skill in all aspects of the joiners trade. He recently was asked to reproduce an elaborate window for Mt. Vernon to replace the great window in the main building.

In addition to taking on projects for other historical settings, Ted works in the joiner shop meeting visitors four days each week demonstrating restoration work and reproduction projects for the Williamsburg Foundation.

The topic of sash making is of great interest to many woodworkers who strive to design and build authentic furniture with well proportioned windows, as well as those courageous enough to attempt architectural window sash making.

Ted began his presentation with some advice he received from his teachers - something all woodworkers eventually come to accept as indisputable wisdom. That is, to set aside measuring devices as soon as possible, and rely thereafter on story sticks to dimension work more accurately.



Ted Boscana explains the story stick

The advantage of a story stick cannot be overstated. Not only is it more reliable in repeating measurements, it serves also to reproduce work more accurately if multiple objects are needed. Building window sash involves only a few tools. Chief among these are, of course a sash plane, or more accurately, two sash planes.



*The ruler is the most dangerous tool in the shop.*

David Salisbury

(see Johann's article below - [Numbering On Wood Sash Fillester Planes](#)). Other tools needed are a dovetail saw, clamps, mallets, a diamond glass cutter, mortise chisels matching the blade width of the sash plane used, and mortise and marking gauges set to match the story stick used as the guiding template. Ted pointed out the critical side of the sash is the moulded side where the sash meets the window pane. Originally, 18th century window sashes were based on Roman quarter round design. Later, around 1750, the design shifted to the profile derived from Greek profiles based on the ovolo. This change supported more narrow moulding allowing more light into the room, and strengthened the connection with the window pane.

When planning a new project, the joiner shop receives a set of architectural drawings for the windows needed. Ted first looks at the size of the glass to determine the base requirements for all the sash- after all the glass is the most difficult material to redimension when final fitting finished windows are ready to hang. When you know the size of the glass you also know the size of the rabbet, and can leave 1/16" to allow final fitting, to prevent seasonal movement in the wood that can crack glass if sash is finished too tight. As Colonial Williamsburg uses only hand blown glass in its restoration work, the cost of hand blown glass being ten times the cost of modern float glass becomes problematic. Authentic hand blown glass from Germany is available for projects demanding faithful restoration.

Prior to describing the sequence of steps to build out the sash, Ted gave some advice on using glass cutters, or more accurately, glass *scribes*.

In the 18th century, glass scibes were diamond tipped knives that scored lines on the surface allowing the glass to break. When using a period cutter to dimension glass for the Mt. Vernon project, Ted found it difficult to make the cuts exactly where needed especially where rounded cuts were called for. He asked a glass cutter for advice and found a good tip. In order to make the glass behave it was helpful to tap the underside of scored lines with a small hammer. This produced a certain frequency in the surface that allowed the glass to break exactly as desired.

It was necessary in some cases to also use pliers to break small pieces. And, Ted advised to always begin glass cutting with the largest piece in the plan so that if it breaks unexpectedly, the piece may be available to provide another smaller piece. The modern glass cutting wheels are superior to the period diamond cutting tips for making other than straight cuts, and Ted used the round cutting tool for the circular shapes needed in the Mt. Vernon project.

Knowing the size of the glass then reveals the size of the rabbets, and the sash can then be layed out accordingly. In the 18th century, when a joiner was asked to build a window he typically asked for one-third of the money up front. This allowed him to immediately purchase the glass - which allowed him to determine dimensions for the sash, and the window frame.

**See Restoration Glass website here:**

<http://www.restorationglass.com/product-catalog.cfm>



When asked how long it takes a skilled joiner to make a window, Ted replied that records indicate an 18th century joiner would be able to complete a 12 light window, which amounted to about 1 yard of sash, in one 12 hour day. For himself, Ted can build an eight light window sash in 8 hours. Qualifying his answer with the caveat, his productivity in the shop on days when visitors are admitted, depends on the number of questions he encounters. The joiners shop is closed to visitors on Fridays, so his 8 hour performance standard applies to time devoted to the project uninterrupted by having to explain what he is doing while he is doing it.

It is interesting to note, as Ted pointed out, only about 5 percent of Virginians had sash built windows in the 18th century, Sash with glass was very expensive and those that could afford to have it made were able to sport windows that could be opened and closed. Those unable to afford this luxury settled for windows that contained no glass - hence were shuttered when weather demanded.



*The difference between a carpenter and a joiner - a carpenter can build his work on a pair of saw horses - whereas a joiner cannot build a door or window sash on a saw-horse.*

Eighteenth century sash could be made of any species of wood, however the preferred variety was southern longleaf pine. Using poplar as the least expensive alternative, longleaf pine was about as expensive as plain grain walnut. Other finer varieties, such as figured walnut or mahogany added three to four times the cost of longleaf pine, which by the 1730's was generally available from South Carolina.

Thomas Jefferson was said to have ordered and paid for mahogany sash made in England. However, before it was finished and delivered, the Colonial government passed a measure restricting importation of English finished goods such as woodwork. Jefferson, upon learning the sash would arrive in Virginia put the sash up for auction, and in an act of patriotism, promptly bought it back himself.

Throughout the presentation Ted demonstrated each step needed to build window sash. For detailed information on how the story stick guides the layout, and the cutting sequence, readers are encouraged to listen to the Podcast of the presentation available on the PATINA website.



# Numbering On Wood Sash Fillester Planes

By Johann von Katzenelnbogen

At the last PATINA meeting, Ted Boscana did a fantastic bit of demonstrating on the topic of laying out and making sash windows in the Colonial Williamsburg/18th century manner. In the course of the discussion, he mentioned something that got some of the audience confused, and I found quite interesting; namely that sash makers had pairs of profile planes, numbered “1” and “2”, in order to be able to keep track of which was which.

I found this intriguing because in my collection of planes I have a couple with a ‘1’ on them, and several with ‘2’s. I have often wondered what these numbers were for. Now, thanks to Ted, I know.

One can find many different sorts of numbers on planes, and they do not all have the same meaning; the numbers Ted was referring to are usually on the heel of the plane, and at least on most of mine, are found right down at the corner of the fence. Other unrelated numbers found on planes are for size, and numbers in a set; not the same as a pair.

The purpose of having pairs, as made quite logical by Mr Boscana, is that when one is making a whole set of sashes, the plane is bound to get dull before all the profiles are made. If the plane must be sharpened, it is nearly impossible to get it set exactly as it was before. Having mismatched profiles would lead to misfit parts when the window was assembled.

This problem is largely eliminated by the act of having a pair, made to the same profile. Most of the work is done with the first plane, and if it gets dull, and must be sharpened again, the joiner is not concerned, because he knows he has a second

plane which he will be using to make the final one or two passes with. In this way, all the parts will be finish-planed with the same profile, and he need not worry about it getting dull before he finishes up the group of windows that he is working on.

Quite clever actually. In connection with this idea is also the notion that the #1 may be set ranker (having a more aggressive cut) than the #2 and thus he can get the work cut down to size more quickly but still maintain a smooth finish with his second plane, set to make finer finish cuts.

This situation invokes a few questions and thoughts however. Not every joiner would have had, or been willing to spend the money needed to buy a matching pair of planes for every profile. Thus, there are many sash planes “out there” with no numbers on them. (Most of those I have, are not numbered in fact) Also, not all joiners would have had enough work to need a matched set. If one only made a few windows at a time, it is doubtful that he would have needed a pair. I would guess, then, that those numbered pairs came from larger shops where production work was done.

There were tens of thousands of houses built in this country in the 18th and 1st half of the 19th century, before machine made windows became available, therefore, there must have been scores of shops cranking out windows, day in and day out. (I am glad I am a cabinetmaker; that sounds mostly like drudgery to me!)

In the book, *British Planemakers from 1700* by W L Goodman et al, There is a short section in Chapter 8 subtitled; “Pairs”. In this section, the



Three sash fillester planes from the author's collection, Two #2s and one unmarked, with a possible owners numbering. Top plane, Maker's mark defaced, early 19th century. Middle, J Dolman c1900. Lower, Ward and Payne c1850.

Photo by Johann von Katzenelnbogen

authors state;

“The practice of selling sash planes in pairs gathered such momentum that by the last quarter of the 19th century Varvill & Sons (1879) and Edward Preston (1891) only listed pairs. [in their catalogues] ...

Amongst the earliest recordings are several pairs by Christopher Gabriel including a pair of astragal and hollow with heavy boxing and pairs by John Green, York, and Robert Bewley, Leeds. ...it is not possible to be categorical about the date this practice started but the end of the 18th century seems probable.”

In preparing for this article, I had a conversation with Lee Richmond from The Best Things, one of our club members. He told me he has a note about matched pairs in the frequently asked Questions section of his website. I had initially called him to confirm my suspicion that one would find more #2s than #1's. He said that that is definitely the case based on his experience. He also noted the same thing that is mentioned in the British Planemakers book, namely, that the #2s would be set at a higher pitch.

Taking into consideration that there are always exceptions to the rules, one will obviously find objects which do not seem to keep to the general rules, but I must have a large group of them, because out of around 20 such planes that I have, only one (and it is a #1) has a lower pitch than the others.

This example has a pitch of 50 degrees as opposed to the 53 on all of the others. (less than “half pitch” [55] but more than “York pitch” [50]) None of the sash planes I have are matched pairs, though several have a near like profile, and only 5 of them are marked; 2 #1s and 3 #2s. Based on this very small, unscientific survey, I would also argue against the oft stated idea that they were “almost always sold as pairs”; 75% of what I have are not numbered.

Anyway, this whole notion gives an interesting insight into the daily workings of the joiner's trade before the days of machinery. Just as now, time was money, and the more time one spent fiddling with his tools, the less time he had to use them to earn a living. Jigs and gadgets seem to most people like a product of our modern era, but this suggests that even in the “good old days” people were willing to invest considerable money (double the cost for a set, as compared to a single plane) because they realized their initial investment would soon be made up in the time the second plane would save them.

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