

## Mortice Axe or Billhook???

Apart from the recent revival of green oak framed timber building, there have been few large scale buildings or roofs built from timber in England since the pre-war years. From Victorian times large roofs have often had steelwork introduced to reinforce or replace the large mortice and tenon jointed trusses that had been used since medieval times. In France and elsewhere in continental Europe, and also in North America, where large old grown softwoods such as Douglas fir, or long trunked oaks, are still common, timber framing remains in use. In France their apprentice system, le Compagnonnage, ensure young carpenters are still taught to frame large buildings and roofs in timber, and although modern techniques such as stainless steel brackets, and studding are becoming more common, the use of large mortice and tenon joints can still be seen.

As a result the mortice axe is still being made and used in many European countries. It was a tool shown in some 19<sup>th</sup> century tool catalogues in the UK – usually in the form of a side axe about 1 ½ to 2 inches wide with a blade length of about 10 to 12 inches, and sold un-handled. Today, not much is known of its use: was it used like an axe, or pushed like a chisel. Its American cousin usually has a shorter blade and a larger poll, and is used as an axe or struck with a wooden maul.



Above: American mortice axes, below: German or Austrian *kreuzaxt* or *lochaxt*.

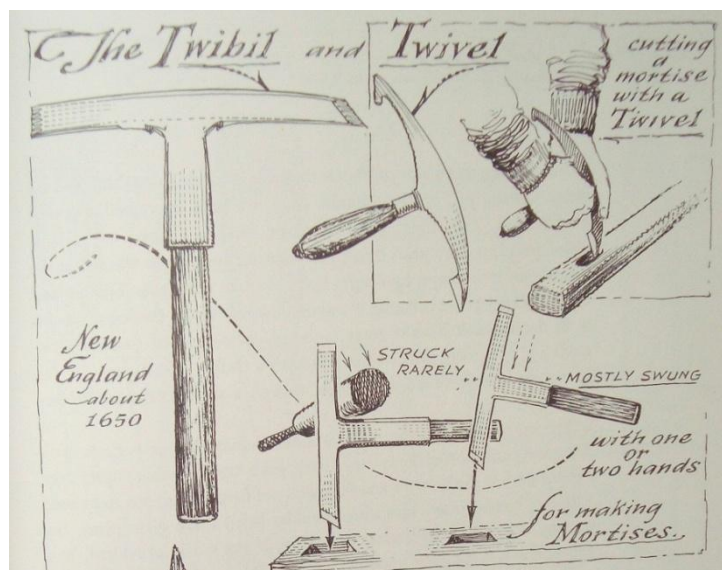


Illustration from "Early American Tools" by Eric Sloane

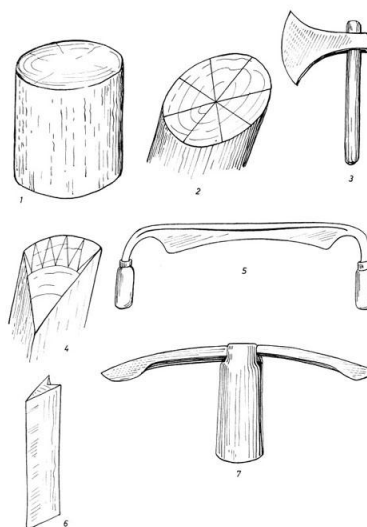
In Germany and Austria the *stossaxt* (*stoßaxt*) or *stichaxt* (also known as in French as a *bondax*<sup>(1)</sup> or *demi-bissaigue*) remains common, and is still being made by most of the major edge tool manufacturers. Although having a hollow socket like some axes, it is used without a wood handle, the socket being held in the head and the tool pushed like a paring chisel.



All these tools have a common feature, a relatively thin and wide blade, used with a paring motion, and thus useful for cleaning the sides of both mortices and tenons. In the UK, tenons are often sawn to size with a tenon saw, and mortices cut out with a thick and very strong mortice chisel. One UK tool which combines both morticing blade together with either a paring blade or a hook to remove the waste wood is the *twybil* (also spelled *twibil*, *twibill* or *twyvil* (US) or known in Kent as a *cantfro*). Most commonly used in rural or coppice crafts, in the south of England for cutting the mortices in cleft oak or chestnut gate hurdles, used on the downs to pen in sheep during the lambing season.



Until recently the author thought this was a uniquely English tool, although examples have come up for sale in continental tool auctions, but a recent discovery is the use of an almost identical tool in Hungary. Known as a *zsindegyvelő* (which loosely translates to shingle axe or cutter) it was used to cut a groove in the side of wooden roofing shingles.



Images from the website: <http://mek.niif.hu/02100/02152/html/03/124.html> the Hungarian equivalent of Google books, an on-line web resource (if anyone can translate appropriate text (shown below)\*, please let me know).

In France the *bisaigüe* (also spelled *besaigüe*) is still to be found. This is a long double ended mortising tool, with both a paring and a mortising blade. Like the German *stichaxt* it usually has an integral steel socket handle. It is used by resting the blade against the shoulder, and putting body weight onto the blade through the handle.



In Eastern Europe a shorter version, fitted with a wooden handle is more common. Used with a chopping action, as with an axe, it is common in Hungary (*keresztfejsze, sasvéső, takarítóvas*) and the former Slavic States. Known in French as *piochon* it is also found in certain parts of Western Europe, and in parts of Germany is synonymous with the *stossaxt*.



In 2011 and 2012 a number of tools have been sold on eBay as mortising axes, and while these have similarities in appearance, my research shows that these are in fact unrelated tools, designed for a very specific and different usage.



They are in fact vine pruning tools, mainly from the central and southern Spain, but similar are also found in Catalonia, the region of Spain that crosses the border into the Languedoc region of south-eastern France.



As with other Spanish edge tools, there also appears to be several regional variations in blade shape.





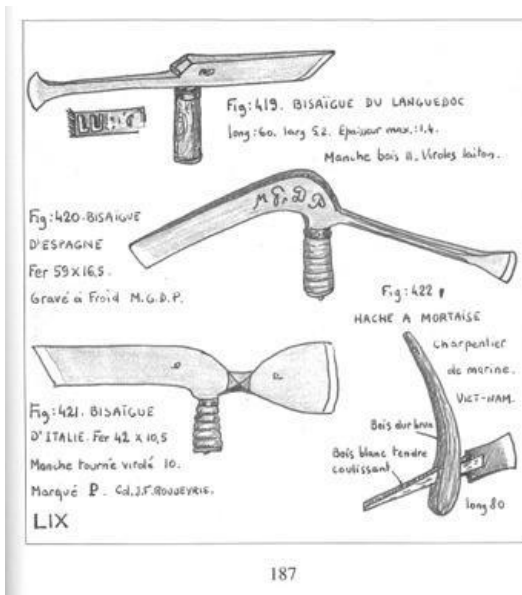


Most appear to have a fine double bevelled blade, which is often sharpened diagonally and a long secondary blade at the back which is thicker and narrower and often appears not to have been sharpened.



Left: a cutting blade from one of the above

Daniel Boucard, in his book, *Les Haches* also calls them *bisaigües* (p187) and shows them alongside mortice axes (*haches à mortaises*), but in recent correspondence with him he agrees that they are probably misnamed.



Page 187 (edited) from *Les Haches* by Daniel Boucard

Several variations on these tools have been offered for sale on TODOcoleccion, a Spanish based auction site similar to eBay. In all cases these have been called a *hacha de podar* (pruning axe) or *podón* (billhook), plural *podone* (billhooks), and shown as having been used for vine pruning.



The above three tools are all vine pruning tools (*podone*) from the Córdoba region in central-southern Spain, although lacking the long and narrow blade, the general shape is similar to those shown above.

A recent internet search found the answer on the blog of **Señor Louis Vicente Elias**<sup>(2)</sup>, ethnologist and an expert on the wines from the Rioja region of southern Spain. He calls them *podadora* (pruning hook):

*Herramienta de acero y madera de cuya hoja sale un vástago que se introduce en un mango de madera el cual se refuerza con una virola metálica.*

*Está compuesta de dos hojas cuyo filo se encuentra en los extremos, la hoja ancha se utilizaba para podar las cepas una vez sujetado el sarmiento con la otra mano y el pequeño para eliminar los trozos muertos del tronco de la cepa.*

*Desapareció sobre los años 30-40 al aparecer las tijeras de podar.*

*Solían ser realizadas por los herreros del pueblo, estas en concreto fueron hechas por Alfonso Gallego de Guzmán, mas conocido como "El tio Quemayerros" nombre que le venía de su condición de quemar hierros, en su fragua de la calle Real según consta en la marca que aparece grabada.*

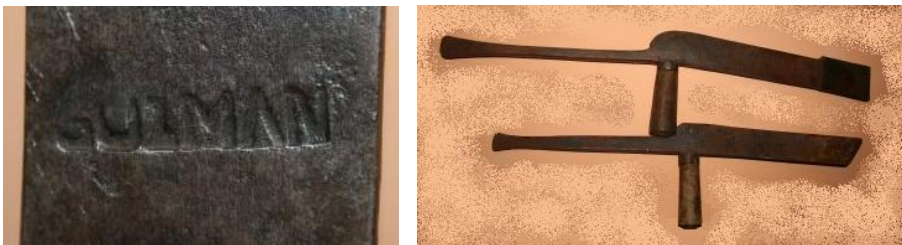
Which loosely translated confirms that they are in fact vine pruning tools, NOT mortising axes:

*A tool of steel and wood with a blade that has a tang inserted into a wooden handle which is reinforced with a metal ferrule.*

*It consists of two blades whose cutting edge is at the extreme end: the wide blade was used to prune the vines – once cut the other end was used to remove the small pieces of dead tree stump.*

*Disappeared over 30-40 years when replaced by pruning shear (secateurs)s.*

*They used to be made by the blacksmiths of the village - these were specifically made by Gallego Alfonso de Guzman, better known as "Uncle Quemayerros" - his name was stamped into the hot blades of tools that came out of his forge in Real Street.*



Left: stamp of GUZMAN, right: two vine pruning podadora made by him, from the Cadalso region of Spain

Señor Elias has carefully researched the use of these tools in his native Spain, and thus describes their origins, as well as their appearance and function, in detail.

### **Miscellaneous other tools:**



The origins of these two is uncertain, but they are believed to be medieval (possibly Viking) mortice axes.

To further confuse the issue some of the mortice axes from northern Europe do look very similar to the above Spanish podadora, but minus the long, thin blade:

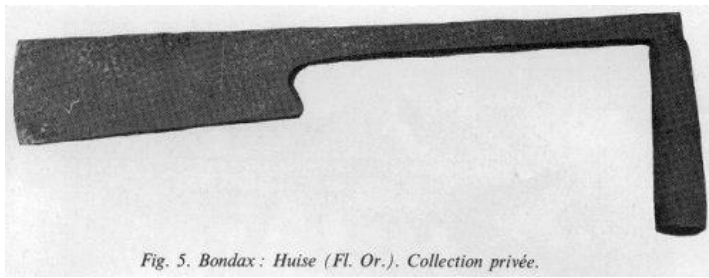


Fig. 5. Bondax: Huise (Fl. Or.). Collection privée.

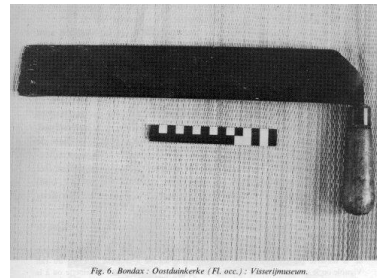


Fig. 6. Bondax: Oostduinloeker (Fl. soc.). Vriesijmuseum.

**Two bondax: the one on the right is a Dutch *steekbijl***

It is possible that they could have been cut down from another tool, and used for another purpose than that originally intended, or the similarity in shape could just be a coincidence. Note the cutting edge is square to the blade, as in an axe.

French clog makers, or *sabotiers*, also use an adze with long blades to work on the inside on the clog:



known as a *herminette à deux lames* (two bladed adze) the similarities with the small English *twybil* are obvious.

Another German tool which at first glance is similar in appearance to some shapes of the English *twybil* is the *zeigelhammer* or brickhammer. This form from Saxony is more commonly used to cut clay roofing tiles, or roofing slates:



When one thinks of a billhook in the UK, one tends to think of the common single or double bladed tool used in coppice work and for hedge-laying. Before the invention of the *secateurs* c 1815 by a French aristocrat, Marquis Bertrand de Moleville, and their becoming commonplace in vineyards across Europe by the 1870's, all pruning was carried out with a pruning hook. Those shown in medieval manuscripts from France and England would not appear unusual to English eyes. However, if one visits parts of Spain, southern France, Italy, Sicily and Greece, one can see where the Spanish *podadora* referred to in this article get their origins:



## Some other vine pruning tools from Mediterranean countries:



Above: Spanish *podadora* or *podone*



Above: Italian and Sicilian *roncole*



Above: French *poudo*

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The Hungarian text for the shingle cutting (referred to on page 2 above):

\* Ezt követően a zsindelet a faragószékbe szorítva kézvonóval elvékonyították, megadták a kívánt szélességet (8-10-12 cm). A következő munkafázis a zsindelet hornyolása, Szegeden használt kifejezéssel vőgyellése. Erre fanyelű, hajlított vasú, két végén bepöndörített hegyben végződő eszközt használtak, amivel a zsindelet vastagabbik oldalát kihornyolták, kivőgyellték, vagyis körülbelül egy centiméter mély vájatot véstek bele. Tetőfedésnél ebbe a vájatba csúszatták be a következő zsindelet elvékonyított élét. Az előbbi munkafázist a székely háziiparos hornyolópadon, a háromhutai és a szegedi zsindelevágó a földön, faforgácson ülve végezte. A zsindelevágás általában férfimunka volt, ám Varságon a hornyolásban olykor asszonyok is segítettek.

References:

- (1) <http://www.mot.be/w/1/index.php/Reading/NotesSurTroisOutilsAnciensDuCharpentier>
- (2) <http://www.luisvicenteelias.com/publicaciones.html>

Notes on the images:

Most of the images have been taken from the internet e.g. auction sites such as eBay and TODO, and other peoples' web-pages.

Some of the images of German and Austrian tools are from the website of Christian Peglow, a German carpenter and collector of old woodworking tools. His website, Hobel & Axt can be found at: <http://hobelaxt.wordpress.com/>