

# Sumitsubo - Japanese Ink Lines

By Bob Garay

The Sumitsubo is one of the most important marking tools used by the master Japanese carpenter. Similar in function to the Western chalk line, it is used to mark thin, straight lines on wood and other materials. A fine silk line is drawn out through an ink soaked wad of cotton, tensioned and then snapped against the workpiece. This allows you to mark very long and exceptionally thin accurate lines.



Above - A typical design of a sumitsubo with wheel for the cord, crank handle and ink pot.

The Japanese sumitsubo has its roots in ancient China and ancient Egypt. Its use in Japan in its present form is evident in the 14th century, and may be traced back almost 2000 years ago. In Japan the Sumitsubo is symbolic of the carpenters spirit. Often on a major project the master carpenter would come to the site at the beginning of the construction and use the sumitsubo to snap a line on a major timber. After this his work was considered done and he would leave for the day - with a full days pay. It is a symbolic tool and its importance can be seen in the ancient custom at the end of construction of a shrine or temple to leave the sumitsubo in the building as a treasure.

Old sumitsubo were made of mulberry wood, which is



Above - A large ornate sumitsubo with dragon creature housing the inkpot. On the back a frog sits watching.



Above - A detailed carved horse sumitsubo with hidden inner line wheel and ink pot. Saddle removes to reveal inner workings. Photo courtesy of Jim Bode Tools.

the best material because it resists cracking under severe weather changes. Today they are made of well-seasoned keyaki, a fast growing hardwood, similar in looks to red oak, but as hard as rosewood.

Japanese carpenters usually tended to keep their tools simple and practical in design. Decoration was seen as boastfulness and thus despised. However, these rules did not apply to the Sumitsubo, which was a spiritual symbol, sometimes left in the finished building. Because it had this ceremonial function they were crafted by the carpenters themselves, frequently with very rich carving. Often sumitsubo carvings depict creatures with mythical features and floral designs.

### Sumitsubo Parts.

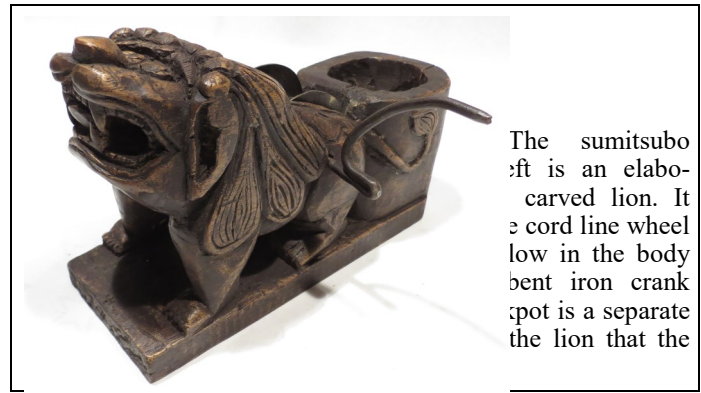
1. The wooden parts are made of keyaki (Japanese elm), a



Above - Sumitsubo's generally come in three sizes. Top - 12", middle - 9", bottom - 7"

wood prized for its durability and beauty and comprise of ;

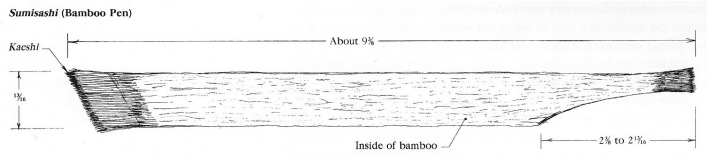
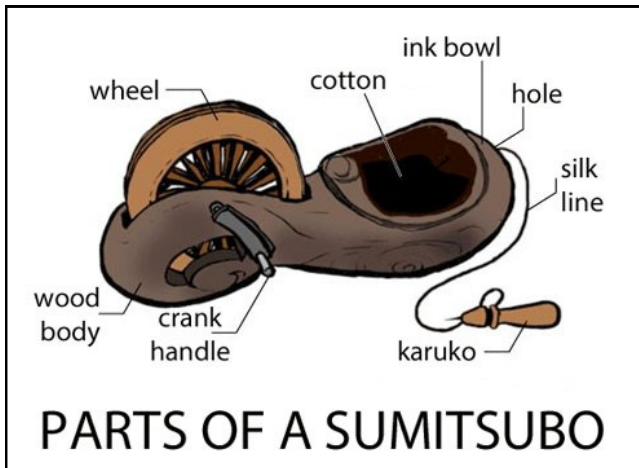
- a. A reel,
  - b. A body with a place to hold the reel and
  - c. A large bowl shape to hold the wadding.
2. The metal is bent iron sometimes with a material fashioned into a comfortable handle.
  3. There is often a small porcelain insert for the string to pass through to reduce wear.
  4. The included wadding is a silk cotton, the line is also silk and the bowl has been coated to prevent the wood becoming warped from the ink.
  5. The "karuko" is a steel pointed wood peg the string is tied to and inserted into the wood before drawing out the line.  
The best ink line is made of silk, which is springy and strong. To ink the line a wad of silk cotton is saturated with ink and the line drawn thru it. Three colors of ink, black, red



The sumitsubo is an elaborately carved lion. The cord line wheel is low in the body bent iron crank pot is a separate piece the lion that the

and the other end is wider to act as a brush. A sharp razor knife slices these ends into thin feather like fibers so they will hold the ink from the sumitsubo. This tool is wetted from the ink in the ink pot and used to mark joints or draw cutting information with Japanese letter characters.

The sumitsubo has the advantage over a chalk snap line in that it produces perfect, very fine lines. It is not unheard of to have a craftsman use a Japanese handsaw to cut a log over 3ft.



Above - Bamboo sumisashi - drawing pen used with sumitsubo.

and white are used, with black being the most common. The black ink is made with rabbit-skin glue and is water resistant. When a carpenter is working outside it can take months for the ink to fade.

The sumitsubo is often used with a piece of bamboo called a sumisashi. It is a small carved writing tool to mark the wood being worked. One end is carved narrow to act as a pen

in diameter, and 6 ft. to 10 ft. long, into 3/8" thick boards. The skill for this is enormous. Not only in sawing, but in snapping the lines. As many thin lines must be snapped on a complicated surface of the log.



Above - An elaborate carved sumitsubo. It is unique in that it has one large carved depression containing both the line wheel and the ink pot. Photo courtesy of Jim Bode Tools.



Sumitsubo with deer carving on reel housing with separate carved ink pot.



Above sumitsubo with bat carved in side of reel housing.

Below - Sumitsubo made of painted brass.



Thanks to Toshio Odate and his book - *Japanese Woodworking Tools: Their Tradition, Spirit and Use.*