



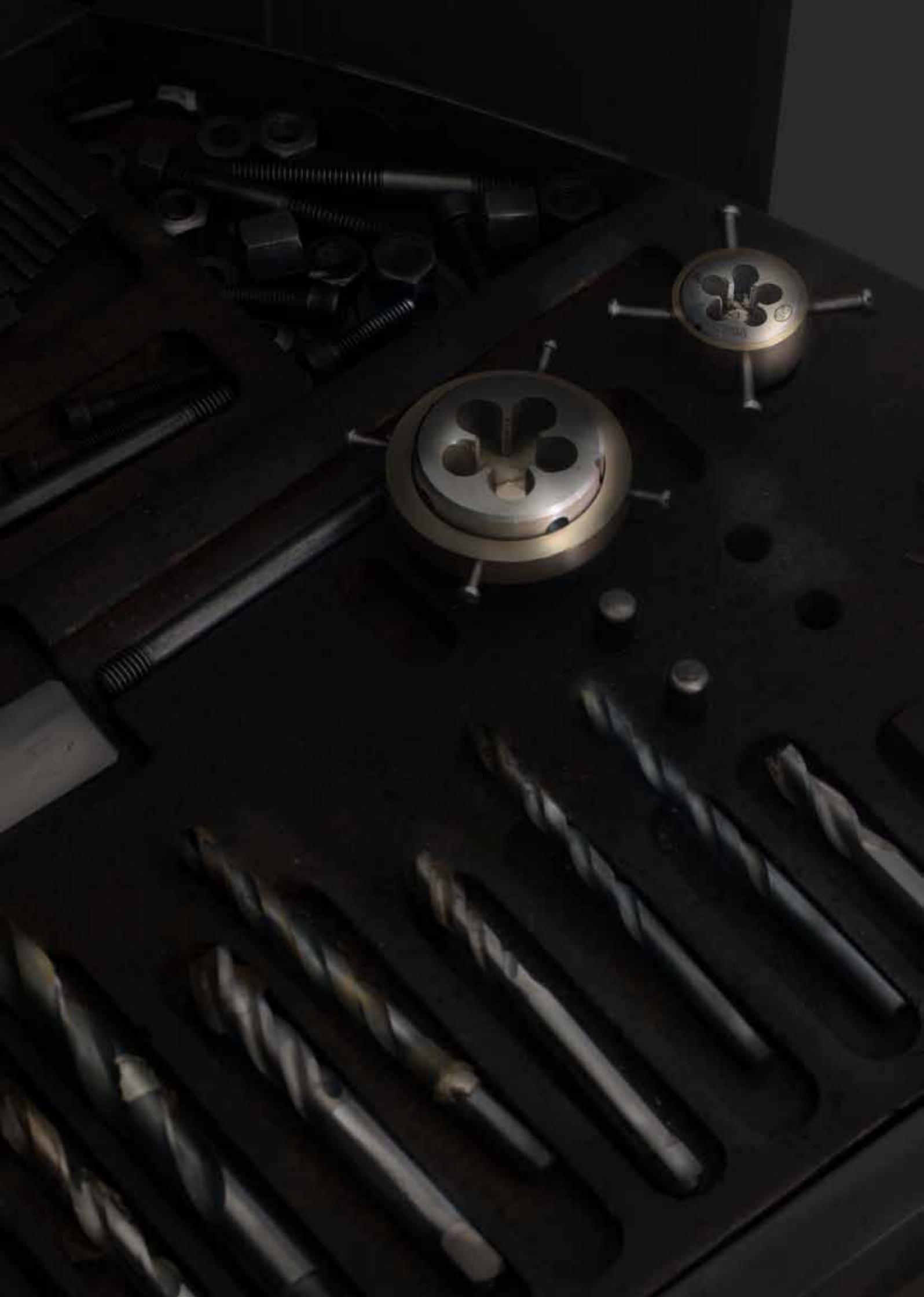
MANV PROPRIA

Angular Momentum of Switzerland



Chadô Nuri

The Making of an Ebonite & Urushi Fountain Pen



To make a fountain pen, only a few tools are needed

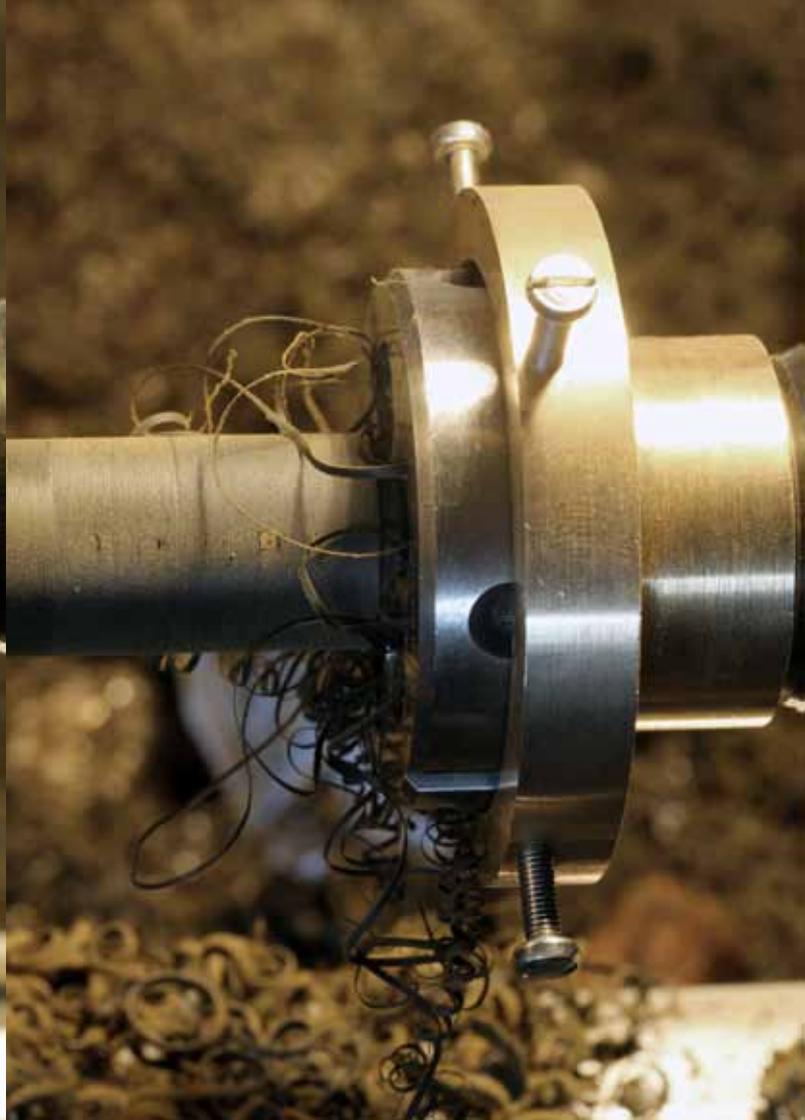
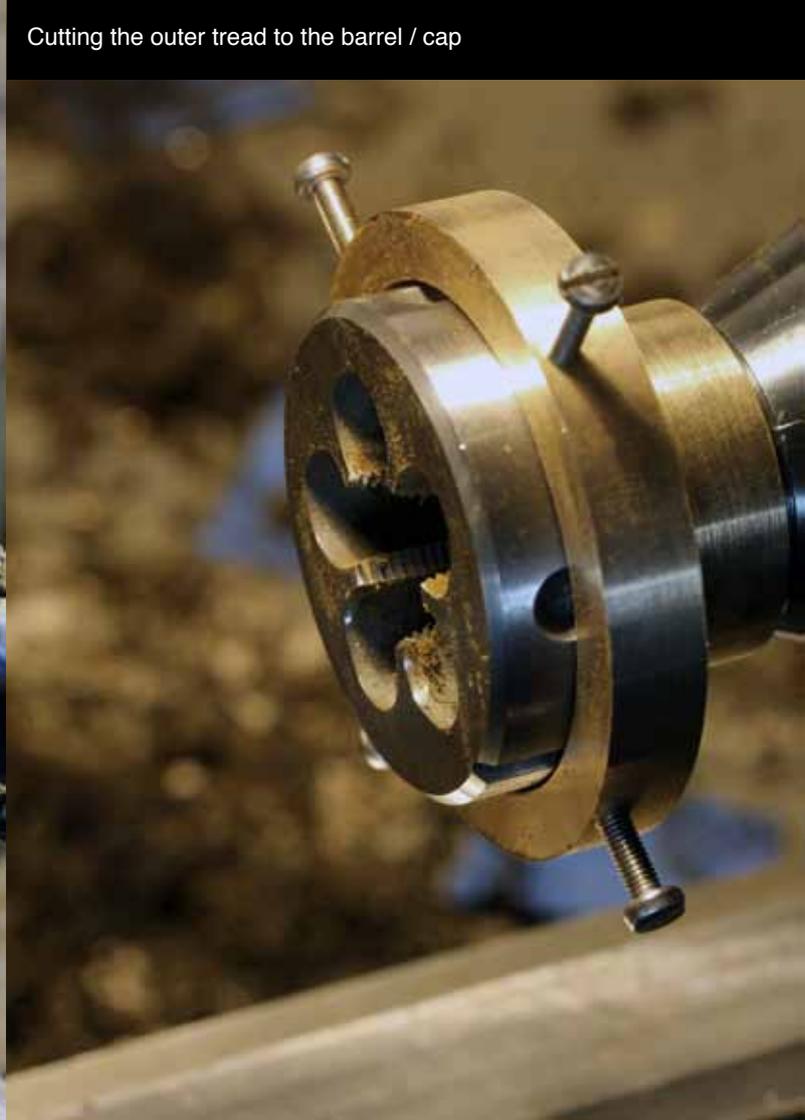
In a first step the barrel is turned to the needed diameter on the lathe



Drilling the barrel to make space for ink converter and thread



Cutting the outer tread to the barrel / cap





Cutting the thread for the section





Shaping by hand

barrel and cap get their final shape



For this work I am only using Japanese hand forged chisels. Not necessary but nice



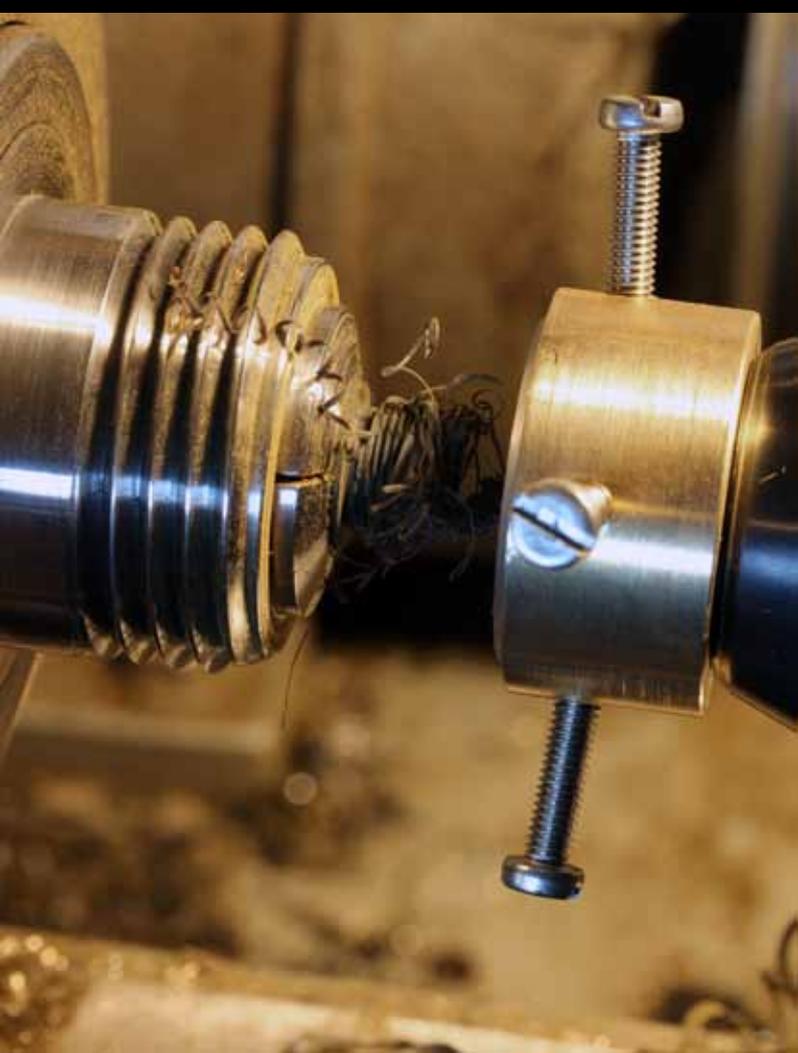
Barrel and cape are shaped and made to fit



Section is turned and drilled



Section gets its thread to be screwed into the barrel



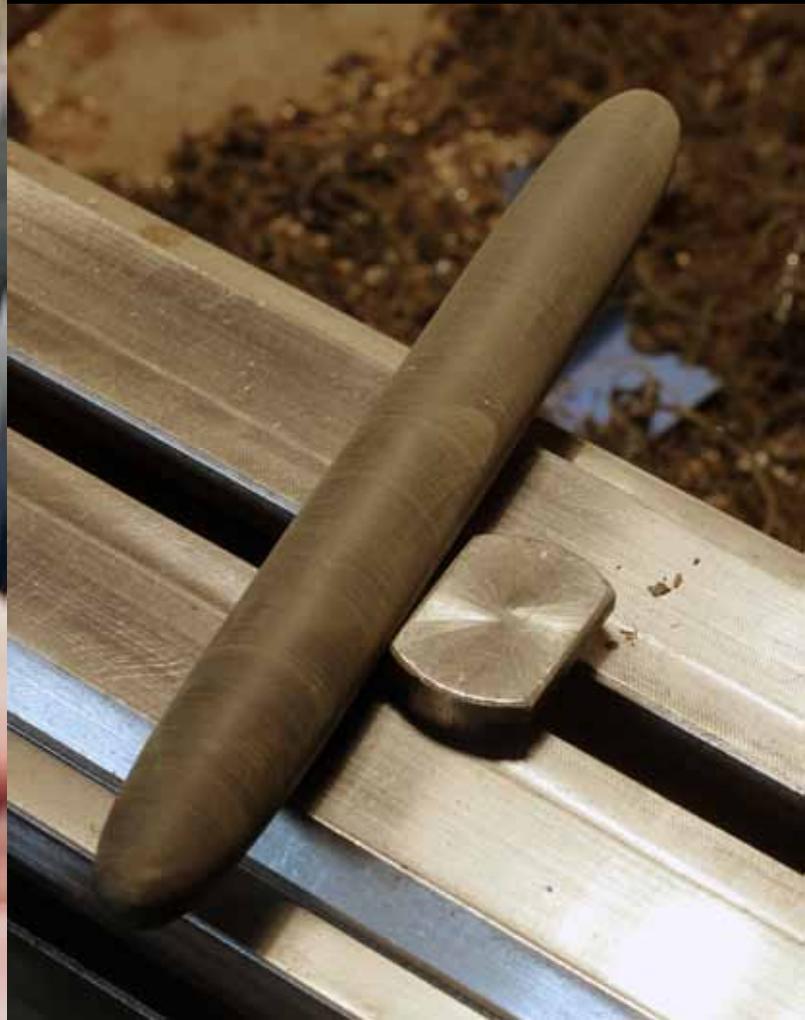


Finissage

After shaping, the cap and barrel have to be smoothed and ground with abrasive paper starting with grit 240 up to 2000

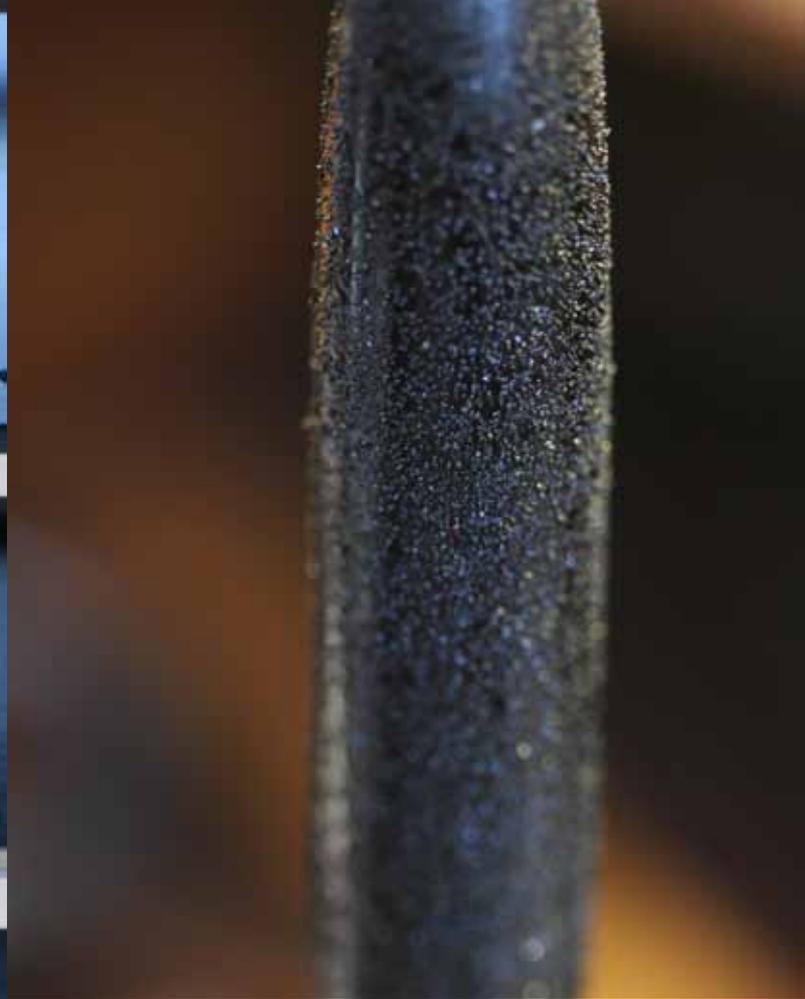


Ready for lacquering





Urushi lacquer work



Suikomidome - After the finished parts have been cleaned with acetone, they are lacquered two times with a very thin coat of raw lacquer „ki-urushi“ and each time put into the „furô“ for 24 hours at 25°C and 75% humidity

After application of 5 layer of „nakanuri“ low quality urushi, dry lacquer powder is sprinkled deeply into the last thickly applied wet lacquer



and being cured in the „furô“ for 48 hours

Shitanuri - a thin layer of black „roiro“ high quality urushi is applied evenly



and put into the „furô“ again for 24 hours. This process is repeated 5 times

After the parts have been lacquered 5 times and dried, they are prepared for grinding



Shitanuritogi - The pikes of the dry lacquer powder are flattened and finely ground with abrasive paper

Dôzuri - Rapeseed oil and „tonoko“ clay powder is mixed to a paste



Soft cotton pad used for *Dôzuri*



The cotton is dipped in the paste...



... and distributed on the lacquer surface...



polished with slow strokes



After Dôzuri process, the parts are carefully cleaned that no oil remains on the surface

filtering highest quality and transparent Kijômi-urushi for uwazuri



Uwazuri - rubbing transparent Kijômi-urushi into the surface

And removing again with a special paper and cured in the furô for 24 hours. Uwazuri is repeated 4 times



Roiro Migaki - preparing rapeseed oil and polishing powder „migako“



Oil is distributed on the urushi surface with a soft cotton pad



First polishing softly with the cotton pad and migako



then continue polishing with the fidget tips



After cleaning again Uwazuri is executed and Kijiomi rubbed into the surface



After 24 hours again polishing with rapeseed oil, migako polishing powder and finger tips



Uwazuri Roiro Migaki is repeated 3 times



After Roiro Migaki has been done a thin coat of finest „sukurome urushi“ or „sakari urushi“ is applied and cleaned off with a paper, that little urushi only remains in the deeper sections of the surface structure



Copper powder is applied with a special brush made of horse hair



The copper powder is partially removed



Using urushi filter paper „shin-yoshinogami“ to polish off any remaining copper powder from the polished surface



After this step, the pieces are put in the furô for 24 hours



again „sugrome urushi“ is rubbed into the surface to stabilize and protect the copper powder, repeated 3 times

After proper hardening a hard dry polish with migako is made and the pen is finished



Ryukyu Tsuikin technique

The little snail with the function of a stopper is built directly on the chadô nuri in a last working step. It is built up with a paste made of urushi, iron powder and black pigments in thick layers. The snail structure is made with a small metal tube, just in the moment before the lacquer completely hardens





„Chadô-Nuri“

Fountain Pen on its rest made of ceramic, „yakitsuki“ lacqued several times and cured by a temperature of 180°C. Ebonite body and Urushi lacquer 165.00 x 20.00 mm, 37g

