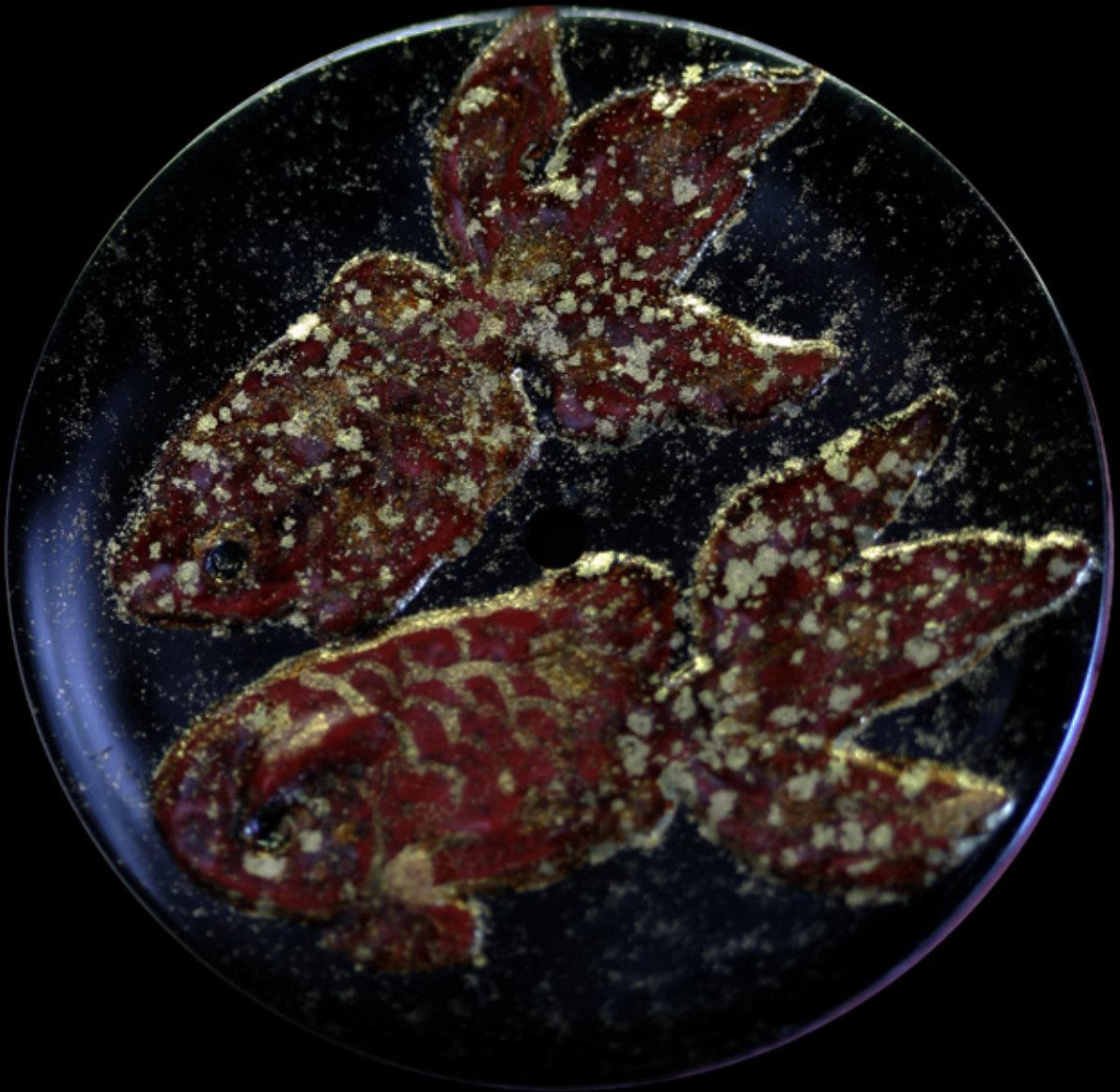


*Angular Momentum  
of Switzerland*



Manu Propria Urushi Timepiece

Two little „Ryûkin“ Goldfish



When I started to mak the dial, I had first to prepare the base dial, which is made of a 32.00 x 0.20 mm steel plate. The fondation consists out of three very thin layers of black Urushi of lower quality so called "nakanuri" or middel-layer-lacquer which is burned into the surface on a hot iron until smoke has disappeared.





Then nakanuri is filtered through a special paper "washi" to make sure no dust remains in the lacquer



The lacquer brush is soaked with lacquer and is cleaned to make sure no dust remains in the hear of the brush





The nakanuri is distributed thinly on the dial

After drying in the "furô" over night, the dial is ground flat and lacquered again. A furô is a wooden box with constant temperature between 25 and 29°C and a constant humidity between 64 and 80%. Urushi does not dry but hardens under these conditions.







After third time repeating the process, the dial is ground starting with sand paper 2000 up to 5000 to remove even finest scratches



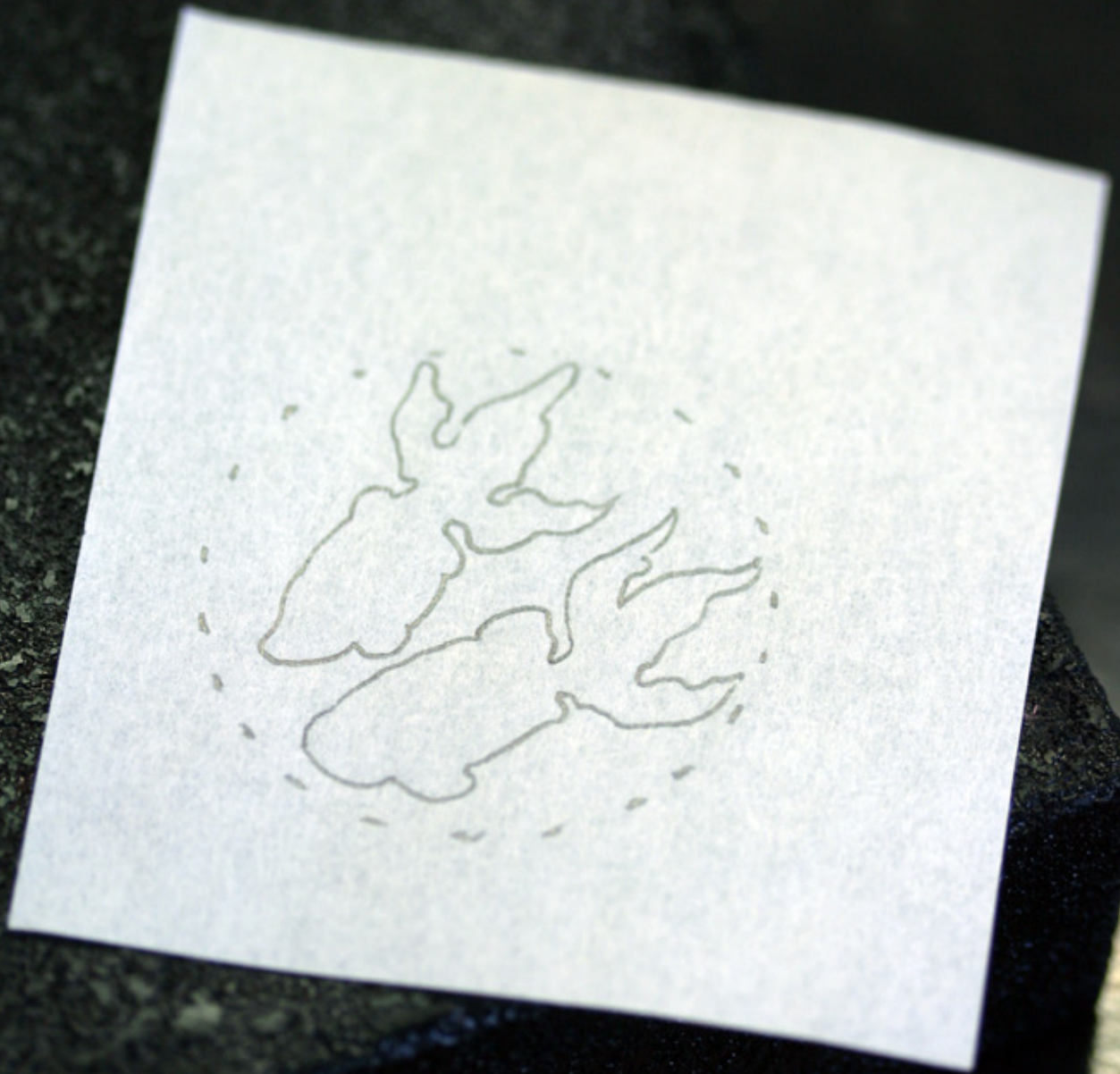
After pre-polishing with "Amor" Polishing paste the final polishing is done by "migako" polishing powder, linseed oil and the fingers.



After polishing with migako, some high quality transparent Urushi is rubbed into the surface and removed. After a short period in the "furô" the polishing process is repeated. This process is done five times to fill micro inclusions to produce the marvellous gloss of urushi







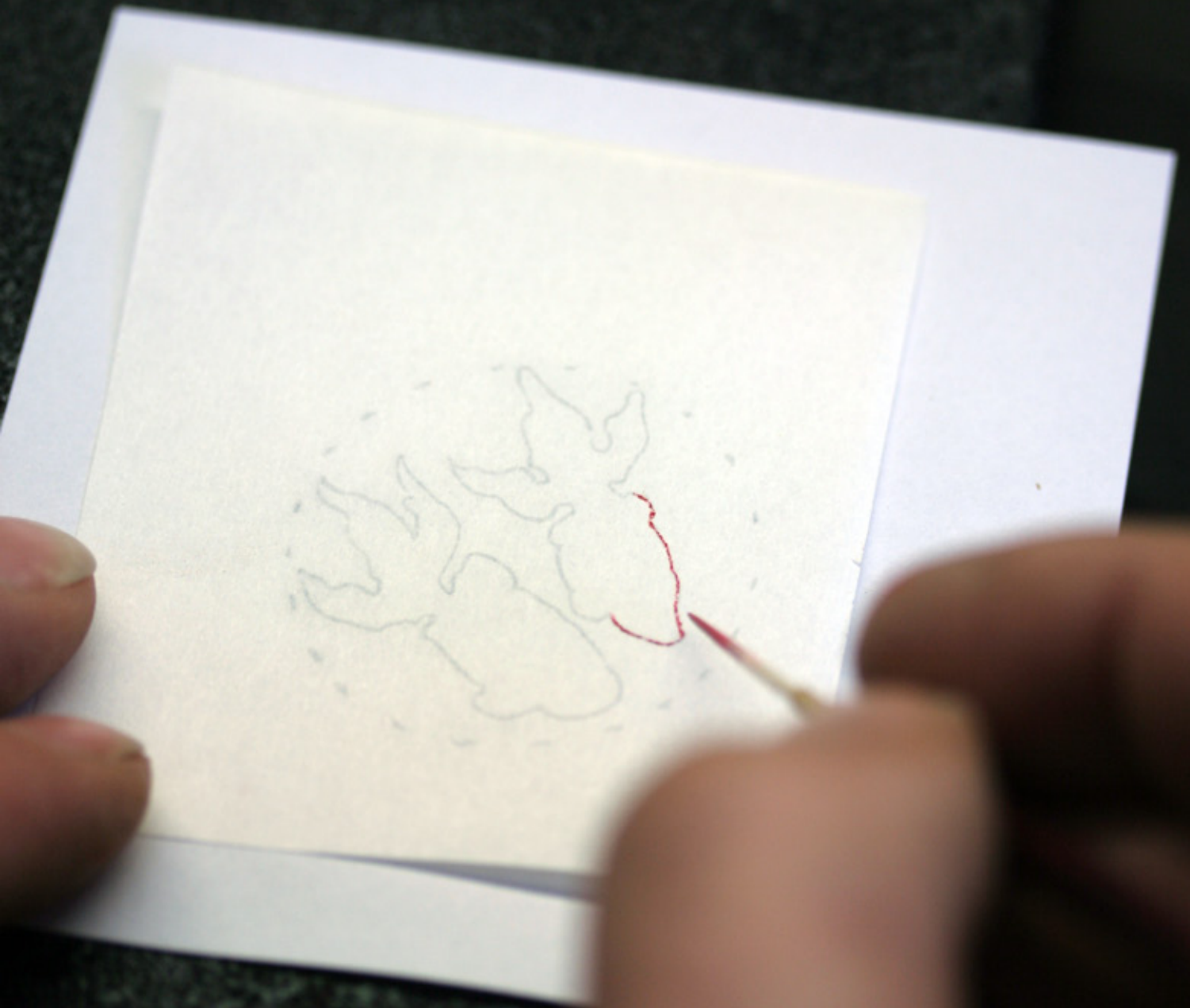
On a transparent paper I draw the contours of the two goldfish





Red urushi has been heated on a spoon. Urushi which was heated will not be able to dry anymore and the heating process makes the lacquer viscous.





With a fine brush, the contours are drawn on the back side of the paper









The polished black "roiro" dial is placed on a working plate





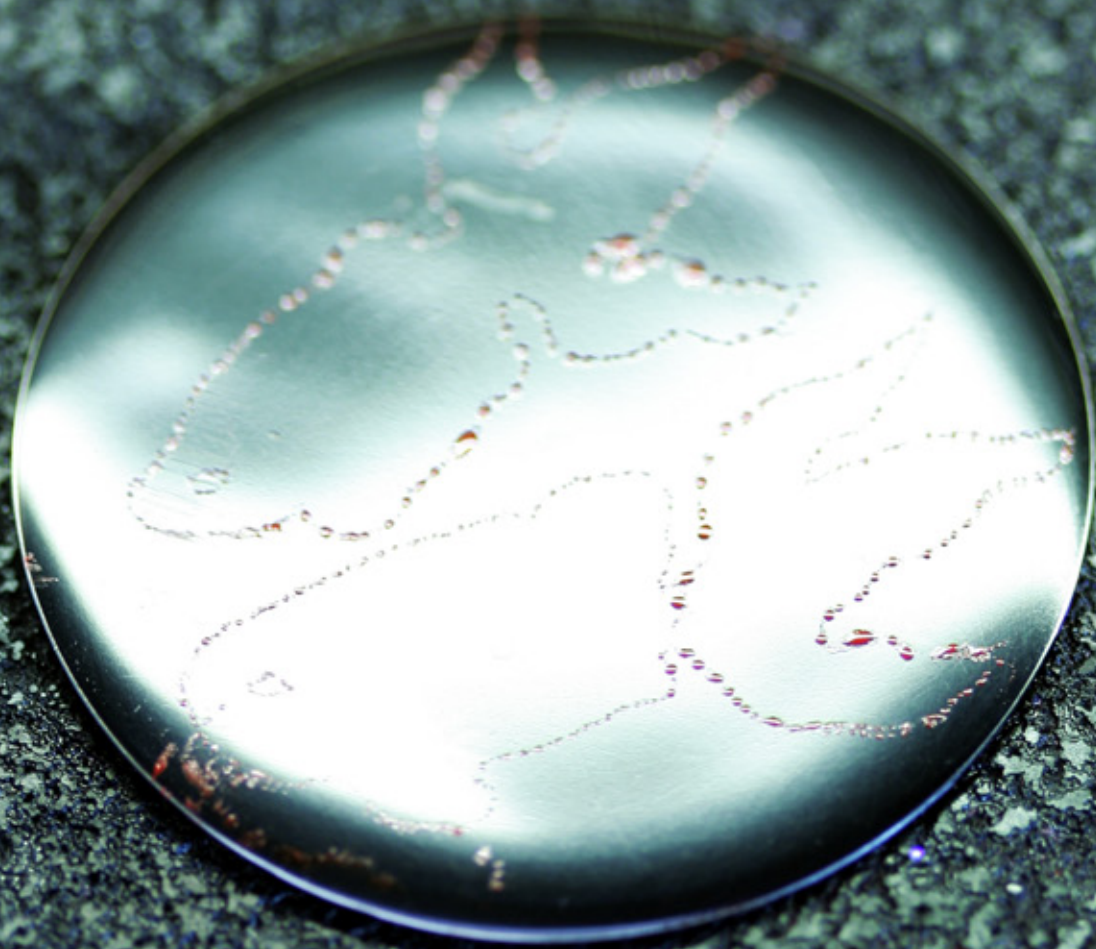
The drawing is placed over the dial





The lacquer is rubbed onto the dial surface





Lacquer transferred onto the dial surface





Lower quality black lacquer "nakanuri" is used to fill the body of the two fish





It takes a few minutes for the lacquer to settle.  
Bubbles can be removed by the flame of a lighter



Pure iron powder is prepared





The iron powder is filled into a duster pipe with a small copper spoon



The iron powder is sprinkled over the lacquer carefully Another technique is to sprinkle Charcoal powder instead of iron





But I prefer iron powder, because it fuses with Urushi even better than copper powder which can be used as well

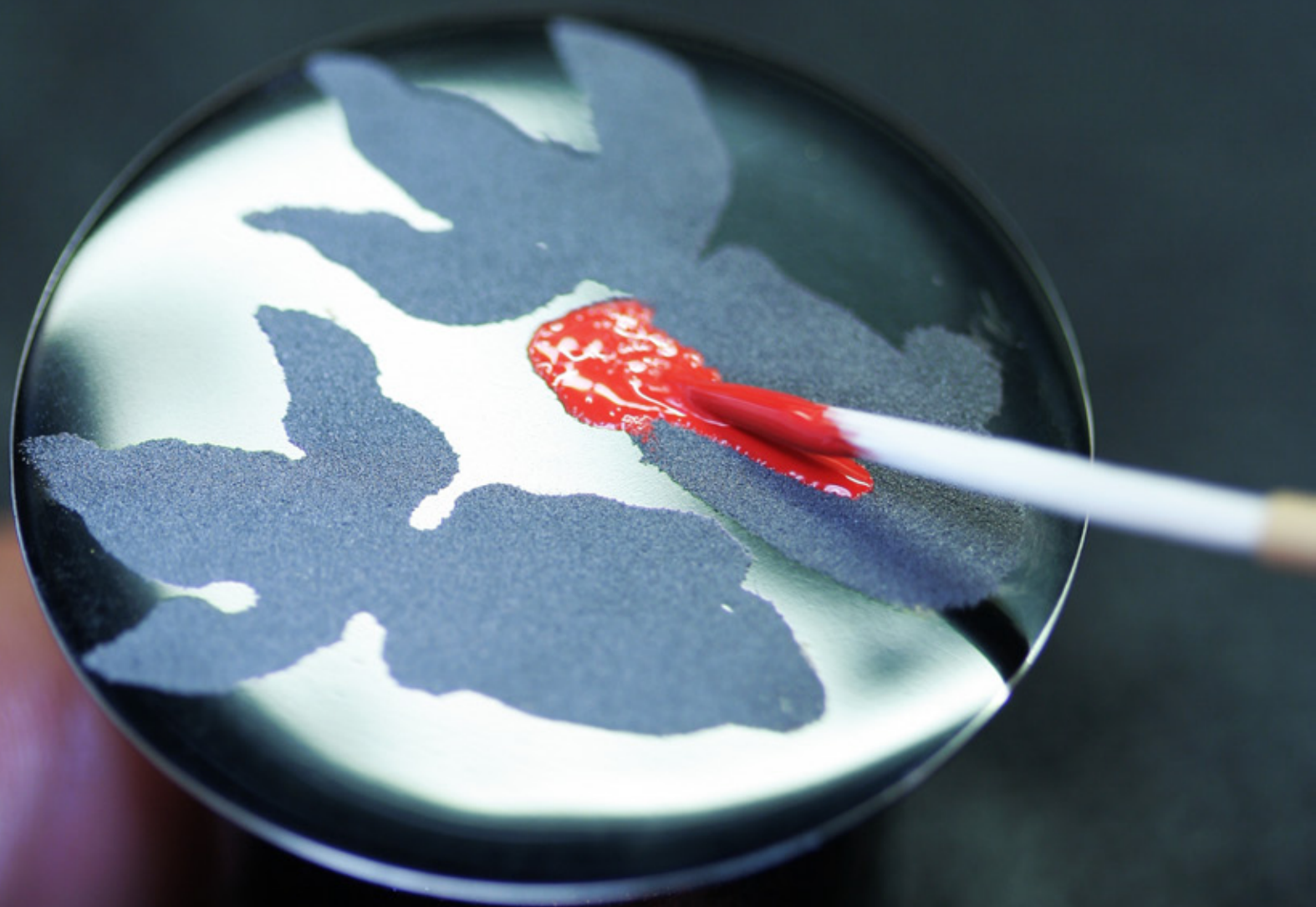


Red "shû" urushi is mixed with yellow pigments.





The mixing is done with a wooden spatula



With a fine brush the red urushi is applied onto the iron/lacquer surface



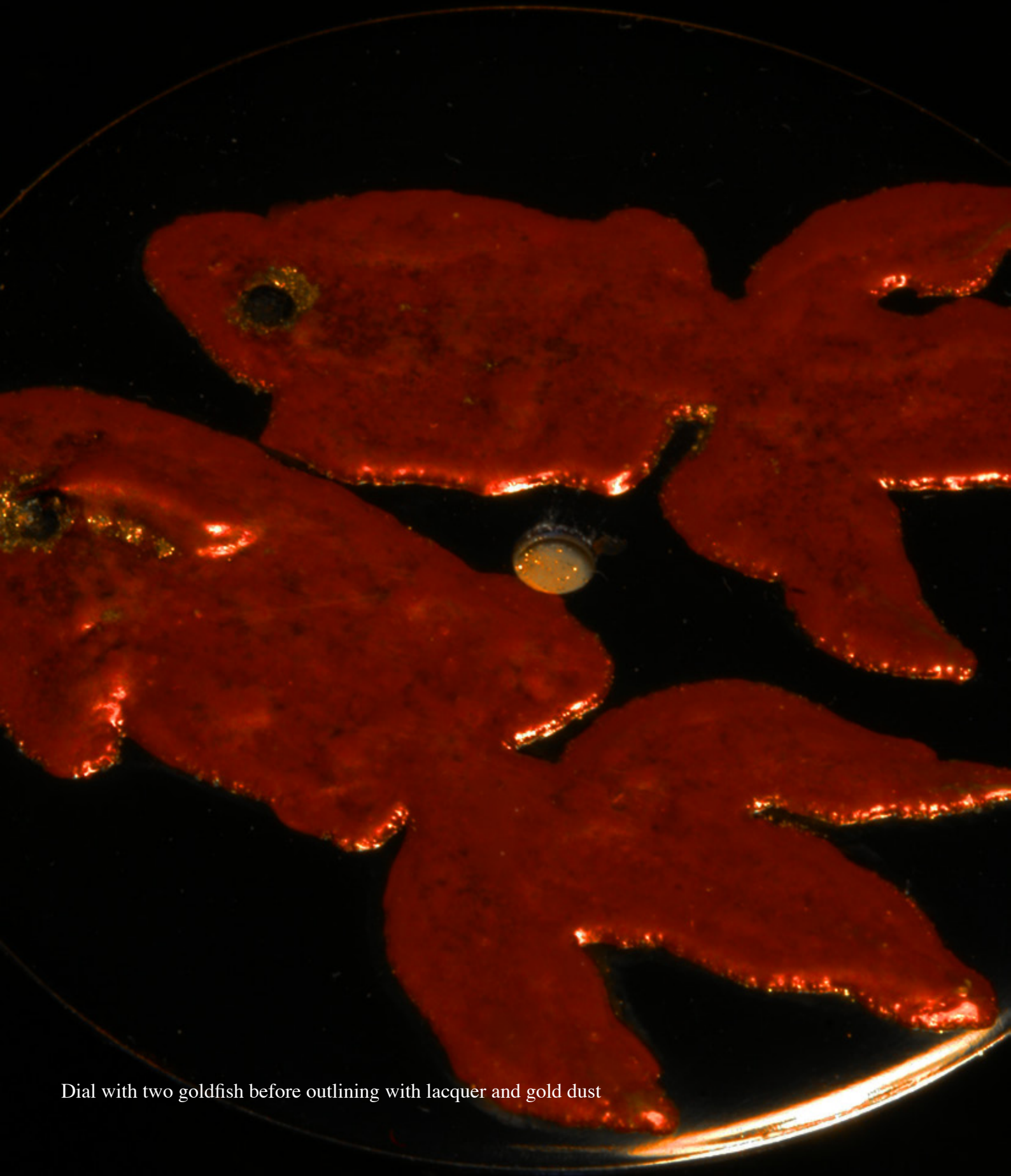


After the red urushi is applied it is placed in the furô upside down because the red pigments are heavier than the lacquer.



After drying in the furô red lacuer is applied a second time but more bulky to produce structure





Dial with two goldfish before outlining with lacquer and gold dust



Working place with dial and brushes





Gold powder of purest and finest quality





After Outlines have been drawn with red „shû“ urushi and gold dusted, fine details, dots and high-lights are added with transparent lacquer and dusted with gold powder





Working board and palmrest for painting fine lines with the brush, both lacquered in black 'ishimeji' stone surface urushi





Dial with two „ryûkin“ goldfish before final polish and eye stting











Final timepiece with black „roiro“ polished urushi dial with „hiramaki“ low relief goldfish in red lacquer and gold dust