Conservation of historic leather. Sample 3 day programme.

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Mornings will be mainly theory and afternoons mainly practical. Case studies will be included when there is spare time. The programme can be adjusted to suit you.

Day one.

Morning

Introductions.

Case study.

What goes wrong with leather.

Leather as a material. Some basic properties which can affect its use in conservation.

Good and bad use of leather.

Adhesives used for leather.

Afternoon

Introduction to practical exercises. The leather working skills - sewing and skiving - are not programmed for a specific time but can be fitted in when you have a little spare time.

Practical:

Gilt leather manufacture, stage 1
Attach leather to board. Dampen the leather with a water spray first.
Silver the leather with silver leaf using rabbit skin glue as an adhesive.

Make Beva 371 filler. Warm up the paste, mix in a little pigment, pour onto silicone paper. Leave to dry. (It will distort on drying)

Prepare Beva 371 on Reemay. Lay small piece of Reemay, about 20 x 20 cm., on silicone release paper, and spread warm Beva 371 on it. Leave to dry. (It will distort on drying)

Prepare Lascaux on Reemay. Apply two coats. .

Look at leather samples - identification.

Try different adhesives and repair materials. Apply them to the strip of leather.
(You may need to finish this tomorrow)

You have a long strip of leather to apply the different tests to. Fix your samples onto the flesh (back) side. Most repairs for leather are made on this side and it sticks better. Label them as you go so you know what they are. You also have a bag of samples to stick to it. This includes leather, silk, Reemay and Japanese paper.

1) Tests with Lascaux acrylic mixture. (but not the sample you prepared earlier) Apply with a brush to both surfaces and bring together. Press into place with damp paper towel.
a) Leather
b) Reemay
and, if you have time,
c) Japanese paper
d) Silk

2) Tests with Evacon-R. Apply with a brush in the same way as Lascaux. above.
a) Leather
b) Reemay

3) Tests with Beva Film. There are **3** layers. There is a white silicone release paper. Remove this first. There is then a layer of adhesive, and then there is a layer of Melinex with a silicone release layer on it. Lay the adhesive side on the repair patch, iron it into place with a heated spatula at about 110°C. Trim the patch to size. **Remove the Melinex layer**. Iron the patch into place.
a) Reemay
b) Leather (this is harder as it is difficult to get the heat through the leather)
c) Silk. Once the film is on the silk it is much easier to cut it to size as it stays flat.

4) Tests with starch paste.
a) Leather
b) Silk
c) Japanese paper.
and if time:
d) Reemay. This works for some people, but the bond may be very weak. Not a recommended treatment, but it may work.

5) Solvent reactivation. (Do on second day)
Take the sample you prepared on the first day - the Reemay coated with Lascaux acrylic - and wet the surface thoroughly with solvent so it becomes sticky. Lay it in position and work more solvent in through the Reemay. You need to get it quite wet to get a strong bond. Solvents - try iso propyl alcohol. Can also try if time, and you have some sample left.

6) Heat-set the Reemay and Beva 371 you prepared yesterday. (Do on second day)
The sample will probably have distorted. Place it between two sheets of silicone paper and iron it flat. You can use a domestic iron or the heated spatula. This will force the Beva into the structure of the Reemay. Cut the sample to size and iron it into place with a heated spatula. You can put silicone paper over it first. You need enough heat to melt the Beva completely. The result may be messy if it spreads out - a common problem.

7) Try other combinations if you have time.

Anything else you can think of!

Day two.

Morning

Repair materials

Colouring leather.

Gap filling

Cleaning

Humidification and reshaping

Afternoon.

Mould your gilt leather or decorate with punches. (This should really be done after varnishing, but this is a short cut)
To mould: Cut the leather to fit the mould. Spray the back of the leather to humidify it - not too much - damp not wet. Place in mould and press tight with cramps. Leave for about 10 minutes. Take it out with care, the silver may have stuck to the mould (it should really have longer than 1 day to dry). Staple back onto board. Leave to dry.
To decorate with punches: Leave on board. Work out a design and then punch the leather to match.

Varnish gilt leather. Add a little bitumen paint to the varnish to make it yellow, and paint it over the silver. Leave to dry. The more bitumen you use the deeper the colour, try it on the edge of your silver before applying it.

Finish adhesive trials. Items 5 & 6 from yesterday.

Start some of day three's afternoon's exercises.

Day three.

Morning

Consolidation

Treatment of red rot

Finishing leather - dressings, in-painting etc.

Afternoon.

Gap filling with solid Beva. First try the gap in the plain leather. Melt the Beva in with a heated spatula. Finish with silicone paper laid over the Beva. Then try screwing up the paper and ironing this on - it will give a less smooth effect.

Gap fill the fake crocodile. Find the area on the large piece that matches the hole on your piece. Take a mould from this with the silicone rubber, this is a type used for moulds for hearing aids. When the rubber has set use this to make a fill to go in the gap. Melt solid Beva into the mould with a heated spatula to give a piece of Beva bigger than the gap. Trace the hole with a fine pen onto Melinex and mark the design of the surrounding leather on the Melinex. Locate this over the moulded Beva and tape the Beva and the Melinex down onto a cutting board. Cut through the outline of the hole on the Melinex and the Beva with a scalpel. If you have got it right it should fit the hole exactly and the pattern should match. Fix Reemay over the back of the hole with Beva film and then stick the fill into place with Lascaux acrylic (do not try and use heat instead, it will destroy your moulding!)

Dying leather.

Use the colour triangles and the Sellaset dyes to try and match the colour of a sample of leather. The dye is expensive, use the syringes to accurately mix small amounts. Try not to contaminate the colours - wash the syringe between each colour. Try the dye on different leathers, you may get a different colour.

Repair hole in red leather, colour areas of lost colour.

Optional: Strip line your gilt leather and mount on frame. Could do this with leather on one edge and Reemay on another. Apply inlay to edge to fill space and bring level up to original.

Optional: Repair split in sheep skin. This involves splitting the leather and putting Reemay between the layers.

Paint your gilt leather with oil paints (if time allows, otherwise do at home). Care: If you make a mistake and try and wipe it off with solvent this will probably remove the yellow varnish.