

HARP BY J. LOUVET A PARIS

RESTORATION REPORT

Beat Wolf, Schaffhausen

THE HARP

The single action harp in the style of Louis XVI might be built between c.1765 and 1770 with originally 34 strings Bb¹ to g³. With a total height of 155 cm and as light as 9,3 kg it is a very delicate and elegant instrument.

The frame (neck and pillar) is decorated with delicious carvings, the top line of the neck with cyma. The volute shows fine foliage work on fish-scale ground.

Unique: The round body-shell is made from one piece of walnut veneer, with 8 thin and wide inner ribs (an anonymous harp in the Music Museum Basel has also round shell but 3 slim inner ribs: BW 30/396/100). All parts of the soundbox are kept very thin, e.g. the soundboard thickness runs from 3.5 mm in the bass to 1.7 mm in the top descant, but at the border it is not much thinner than at the centre. The soundboard appears plain, and no trace of an earlier decoration is visible (the Basel-harp too has no paintings).

The harp is branded „J LOUVET / A PARIS” on the middle of the neck’s left side (Jean Louvet 1718?-1793).

“Laborde” or “Laborde C.” appears handwritten in ink on several places: inside the neck, under the bottom block of the soundbox, on the bridge rail (bottom). Possibly this mentions the first owner.

Perhaps: Jean-Benjamin de Laborde [La Borde] (1734 Paris - 1794 Paris) ?? or: Jean Baptiste de Laborde (published “Le Clavessin électrique” in 1761) ??

A mysterious pencil script “Si La Sol / ata[node] / à La Suite” appears under the bottom block.



DAMAGES

The walnut veneer of the body shell is cracked by shrinking process in the middle, from bottom to top, at the line where the year-rings run flat. At the crack the wood is lifted up from the ribs and so interrupts the homogeneity of the shell. Some of the 8 thin ribs are stressed at the point where the veneer has cracked. They would need reinforcement. The veneer is also pulled inside between the ribs, forming a wave-shaped surface; the gaps are the biggest at the points above the ribs.

The spruce soundboard is very dry and has a lot of shrinking cracks crosswise. A cracked and broken part is repaired with an inner lining. Some grains of the wood are interrupted by worm-holes. The glued joints at the border strips and on the blocks are still tight.

The neck has two small gaps on the surface left side, but no deep cracks.

The pedalbox is largely damaged by wood worms, the front is nearly like powder but the bottom is quite well, perhaps once renewed?

The mechanism is not moving; pedals and tuning pegs are rusty. The D C and B pedals move to the wrong side (switching to left instead of right side)! Why this?



Soundbox state:

before repair; after repair; varnished.

THE MAIN RESTORATION WORKS 2005

Sound box:

First of all I had to reinforce four of the bent ribs at its highest point, where they are stressed and tend to break. I prepared spruce linings with a curve which may bring the ribs back to the original arching. To do this job I had to work inside the body shell through the small hole in the bottom block. Therefore I fixed the lining on a plate (fixed on a long stick). The plate itself has two screws which I could insert through the broken veneer to the outside surface. Thus I could glue tight the inner lining and lay down the veneer tight to the ribs at the same time. A counter-plate with nuts makes this possible.

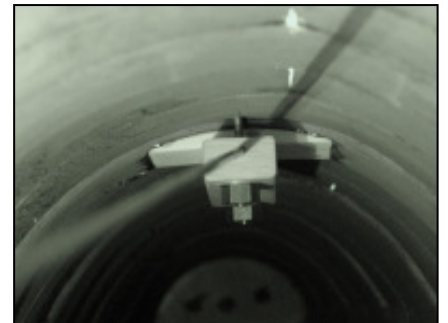
The other ribs were intact, so there it was possible just to push down and glue the veneer to the ribs from outside. Hot rabbit-skin glue was used for all works.

Now I could wash down the rest of varnish and clean the surface of the walnut veneer.

The gaps now are filled with walnut-fillings. The larger gaps should have a wide outer lining with a piece of walnut with the year-rings standing upright. This may prevent further cracks and give back the homogeneity to the shell.

Therefore I fixed the shell in an improvised mould and planed down the veneer with a router. Then the new walnut piece was glued onto the shell and planed and sanded smooth. Now the shell is compact again and secures good acoustic and static performance.

The new pieces were stained and an oil-varnish (two layers, brown) was brought on.



Gaps in body shell: reinforced ribs (> equipment !); fillings; planed centre part; doubled and shaped.

Sound board:

I washed down the poor rests of old varnish. As the soundboard appears without any painting decoration, it was easier to decide to replace the damaged part (8 cm) of the soundboard completely. So I carefully removed the broken part. Through this opening I could also glue a small

lining under a place where the grains were cut by woodworm leaving a gap.

A new part of fine spruce was brought into shape and glued into the space and onto the border strips; the middle strips glued tight again and 3 iron staples were replaced. The shrinking gaps now are filled with spruce fillings, except a few small ones which were glued only. All fillings are smoothed and all new spruce parts are stained with "Kaliumdichromat". The idea was to adapt the colour, not to imitate.

Together with the shell a new oil-varnish was hand brushed and the surface polished with a silky finish (first layer brown, second layer amber; new part: both layers brown).

I adapted 29 new buttons in boxwood, stained and varnished; 5 original buttons survived.

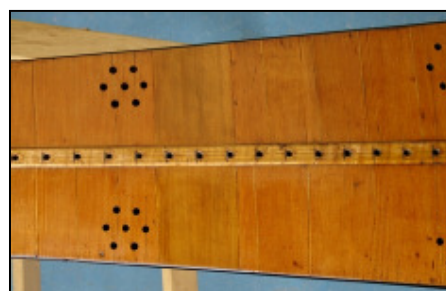
I put a screw at the lower end of the bridge rail to secure it tight into the bottom block.



Further works:

I renewed the front of the pedal box completely and replaced a small part of the bottom front. I shifted the iron feet to reach a better stand of the harp. I lined a crack of the mechanism lid and cut off the "clef de couvercle" which was glued to the lid.

I cleaned the varnish of the neck and pillar with "Viol" cleaning oil.



Mechanism:

I dismantled mechanism and pedals and cleaned off grease with ammoniac 12%, the brass parts cleaned with Sigolin. Then the pedals and tuning pegs were put into a bath of vinegar-acid 80% to remove rust, an antioxidant wax was brought on both mechanism and pedals. The bandage of the pedal rods has been repaired, threads cleaned off rust. The pedals D C and B moved to the wrong side (no idea why)!! To change this fault I had to open the rivets and adapt the connecting part.

Most of the bridge pins were bent sideward to equalize the slanting drilled holes. I plugged and drilled 15 holes and replaced 17 brass pins D A B c d e g a b c' d' e' f' b' c'' d'' e''.



Stringing:

Because of the extremely light and delicate construction I calculated the strings to a very light gauge for a tension of 180 kp at tuning pitch

$a' = 415 \text{ Hz}$ with a compass running from Bb_1 to g^3 . The first two strings Bb_1 and C are copper wound on nylon-floss core, D to Bb high twisted gut strings, c to g^3 normal gut.

After the regulation the intonation worked fine at equal temperament by 100 cent steps.

The sound:

The sound of the Louvet harp arrived amazing, very resonate and warm with very direct, brilliant voicing, charming timbre.

Beat Wolf, Schaffhausen, May 2005