

The Working Methods of Guarneri del Gesù and their Influence upon his Stylistic Development

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Arching and Thicknessing

After Del Gesù had finalized the outline of the back from the ribs, he turned his attention to the arching. The puzzle of Del Gesù's arching is one of the most difficult aspects of his work to unravel, since clues about his method are not easily interpreted. Our best guide is his approach to other technical problems, in particular the body outlines, the heads and the soundholes: In every case the method is concealed by Del Gesù's interpretation, and in every case the method remains the same throughout his career. The quality of his archings strongly suggests that there was a theory underlying his method; their diversity demonstrates that the concept was flexible and that Del Gesù was using this flexibility to maximum effect. His genius lay in the great variety of shapes which he developed within the narrow confines of that which worked well. As with the heads and soundholes, a general progression can be observed, but exceptions occur on a regular basis. He produced deeply scooped archings like the "Ysaÿe", full, swollen archings like the "Vieuxtemps" and almost all stages in between, including the slightly square arch of the "Dancla". Despite these variations, in all his archings something which is intrinsically "Del Gesù" can be recognised.

The "Dancla" is in some ways an oddity in Del Gesù's production. It approaches the form of the Stainer model which guided the majority of violin makers throughout Europe in the first half of the eighteenth century. Del Gesù's uncle, Pietro Guarneri of Mantua, was perhaps the only Cremonese-born maker who adopted it fully, but the style of working with a deep and wide flute around the edge rising to a full arch seems to have appeared only once in the work of Del Gesù. Immediately after this stylistic excursion, he began working in the distinctive manner which he was to maintain throughout the rest of his career.

Taking an example from the other end of this career, the arching of the "Vieuxtemps" appears to have been influenced by the work of the early Brescian makers, Gasparo DA Salò and Maggini, whose arches are very rounded and full from the edge. When viewed from the end, the curves across the instrument seem to be struck from arcs of a circle. In the long arch, the effect is of a full convex curve rising steeply over the end blocks, but flattening out over the length of the instrument. In stark contrast to the full modelling of the "Vieuxtemps", the "Kochánski" of the same year reverts to a style of arching Del Gesù had favoured earlier, low and deeply hollowed around the perimeter from which the beau-

tifully rounded back emerges.

While the “Vieuxtemps” is probably the strongest expression of the fuller type of arch, this slightly swollen form is found also on the “Cannon” and “Sauret”. In other violins of the 1740s, such as the “Lord Wilton” and the “Alard”, the arching is reduced in height but is nonetheless modelled to produce a distinctly Brescian shape. The instruments in this group betray less certain craftsmanship in the execution of the arching, and whereas the earlier instruments might show scraper marks here and there, in the later ones distinct troughs and bumps appear where strokes of the gouge and thumb-plane have been inadequately blended. These scraper marks usefully show the direction of Del Gesù’s working, rather like the brush strokes of a painter. They usually run across the upper and lower bouts, but along the length of the middle bouts the three sections are more or less well blended together, with slanting strokes through the corners. The arching of the earlier “Kreisler” is somewhat different, since it appears to have been worked across rather than along the arch in the centre bouts. The trend in Del Gesù’s last instruments, exemplified by the “Ole Bull” and the “Leduc”, is towards a complete elimination of unnecessary bulk, and most of the tool marks run in a longitudinal direction. The front arching is reduced to a low continuous curve with no flattened area beneath the bridge, and on the back the centre bouts rise like a bubble, falling gently away in the upper and lower bouts.

It seems likely that Del Gesù developed his arching in stages, with the initial stage for back and belly being completed at different times. When the outline of the back was completed, Del Gesù, like Stradivari, probably arched the back plate, leaving the edges flat as described by Sacconi.⁷⁷ If this were the case, then any initial arching guides cannot have included the edgework fluting. Furthermore, because of the variation in width of the backs and bellies, any cross-arching guides are unlikely to have spanned the entire width of the plates. Although no such templates survive, it is reasonable to assume that any guides would have been of the reversible half-arch type (figure 33). If the arching height, edge thickness and plate widths had been consistent on Del Gesù’s instruments, then theoretically a set of fairly constant curves would have been formed. However, as soon as the height of the long arch was altered (either intentionally or due to the thickness of the available wood), the cross-arch created by the template would have been raised or lowered accordingly. In-

creasing or decreasing the edge thickness would also have had an effect on the cross-arches. Assuming that the template could also be moved in and out slightly on the still flat platform of the edge, then clearly the basis for a wide variety of archings was established

Giuseppe Guarneri del Gesù

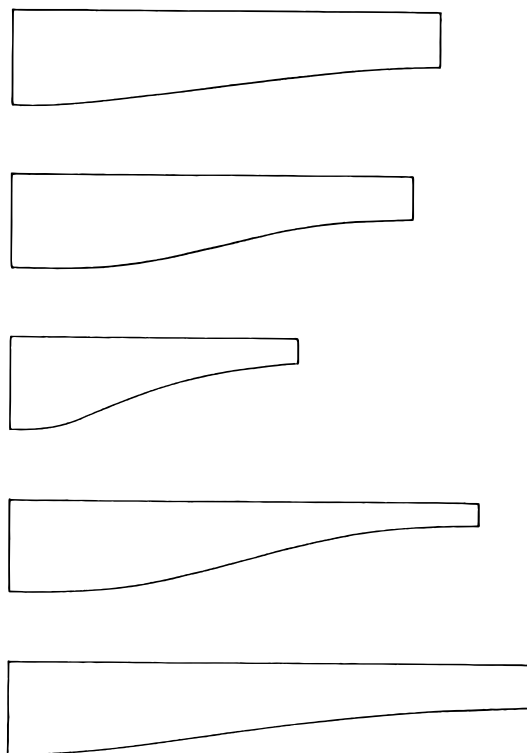


Figure 33. The possible form of Cremonese cross-arch templates.

I. This theory can be demonstrated using the upper corner cross-arching on the treble side of the “Kemp” back, taken from the purfling to the centre line. If this half-arch is repeated and mirrored several times, using only slightly different arching heights and moving them in and out a small amount, the character of the arch can be altered considerably (figure 34). Add to this the process of cutting the edge fluting and blending it into the prepared arch, and it is possible to account for a large assortment of archings.

If the half-arch profiles of the instruments described in this work are compared up to the line of the purfling, but ignoring the edge outside, it is striking how with very few exceptions, they fall into two groups. The archings made between 1731 and 1742 are consistent with each other, and it is difficult to avoid the conclusion that not only were arching guides used, but that they were the same guides throughout.

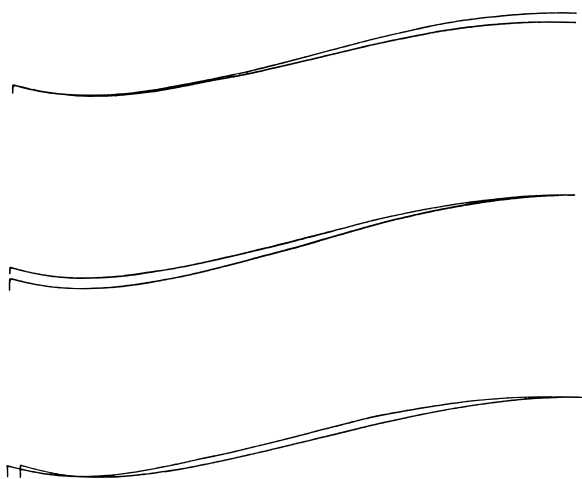


Figure 34. On most instruments the upper treble cross arching on the back is usually the least distorted. Using this arch taken from the “Kemp” back, the possible variations of the reversible half-arch template are demonstrated in their simplest form. Although this arch includes the present hollowing and fluting, it runs up to the line of the purfling only, ignoring the edgework. Initially the edge would have been flat and the final hollowing of the edge was a further opportunity of altering the archings. Clearly more complex combinations are possible.

- a) Shows the changes which occur when the height of the arching is altered slightly.
- b) Shows the changes when the edge thickness is altered.
- c) Shows how moving the template in and out on the initially flat edge could cause variations in the arching form.

Because of distortion and variation in overall arching heights, on some of these instruments comparisons only work when half-archings are matched like with like, i.e. bass with bass, treble with treble. Del Gesù may have used more or fewer templates than in this survey and they may have been used in different positions; furthermore, he may not always have worked with consistent accuracy. Add this to the fact that his instruments have survived more than 250 years of wear and tear, and possibly even distortion, and the similarity between these archings can only be described as exceptional. At the beginning of this period, some instruments such as the “Haddock” and the “Diable” are so close as to be practically interchangeable; towards the end of the period, however, in keeping with the general workmanship after about 1738, the archings are less consistent though still clearly similar. After 1742 the instruments are also consistent with each other, but they certainly do not match the earlier group. In particular, the “Carrothus” and the “Cannon” are remarkably similar, even in the long arch, and they display an accuracy of workmanship which rivals the early instruments of the first

group. Most intriguingly, the archings of the final two years appear to match the later archings of Stradivari, in particular those of the “Milanollo”, a perfectly preserved example from 1728.⁷⁸

Exceptions inevitably occur: The “Dancla”, the “Stretton” and the “Kreisler” all predate the first group and appear to have little or nothing in common with each other or the two main groups. Although the “King” and the “Stern” fall chronologically within the first group, they do not conform in any identifiable way. The “King” is flat and full to the purfling, and the “Stern” is extremely scooped at the edges. Whether such differences are due to a conscious and deliberate manipulation of the tools to achieve a desired result is open to question. The thickening pattern of the “Stern” suggests that Del Gesù was compensating for the severe scooping. What is clear is that the archings on these instruments are different from the others beyond the point of accident or chance.

No arching guides have survived from any classical Cremonese maker; however, even if Del Gesù never employed templates of this kind, the similarities which these arching comparisons reveal cannot be ignored. Some concept was clearly controlling his efforts, even when his interpretation was highly flexible. Given Del Gesù’s proven creativity within the confines of an established design, as his work with outlines, heads and soundholes demonstrates, it seems likely that his archings were also a volatile mix of template, interpretation, and a highly original use of tools.

At the point where the back arching was finished but probably still without the edge fluting and purfling, Del Gesù hollowed and thickened the back plate. As a guide, he used a scribe line marked from the inside of the rib structure at the same time as the back outline was finalized. Such markings are found on many Cremonese back plates. No similar line could have been taken for the belly because as the belly outline was being marked, the back was permanently fixed to the ribs, making access impossible. The extent of the belly hollowing was probably marked with an odd-legged caliper, of the type found in the Museo Stradivariano collection.

The plate thickening is intrinsic to the form of the arching and outline. Its importance in determining the tone of Del Gesù’s instruments is paramount, though immeasurable. It is a great pity that a large number of his instruments no longer retain their original thicknesses. Count Cozio remarked that the

“Vieuxtemps” was “too strong in the wood”,⁷⁹ although the graduations now seem quite reasonable. There are numerous accounts, from David Laurie and Horace Petherick⁸⁰ among others, attesting to the great thickness of Del Gesù violins in their original state. Paganini wrote repeatedly to violin dealers, even from his death-bed, urging them to find Guarneris for him that, like his “Cannon”, were thickly wooded.⁸¹ In fact, the best-preserved Del Gesù violins today, including the “Cannon” and the “Kemp”, are enormously thick in the back, rising to greater than 6 mm in the centre, where Stradivari rarely exceeded 4.5 mm. They retain this relative difference right to the edges. The “Cannon” is commensurately thick in the belly, one of the few examples that still exceeds 3 mm. (Stradivari favoured a table thickness of between 2.7 mm and 2.4 mm.) These strong thicknesses extend perhaps most crucially to the edges of the centre bouts. This seems to be a particular source of strength in Del Gesù’s instruments and may be of significance to the distinctive quality of his sound. Instruments from as early as 1736 follow this scheme of graduation, but since so many have been reworked there is no hard evidence as to how early in his career Del Gesù employed these radical thicknesses. However, a Giuseppe Filius Andreæ violin of the year 1714, thought to show the hand of the young Del Gesù, measures 5.8 mm at the thickest point of the back. The “Dancla” and at least one other instrument of the transitional period reaches more than 5 mm in the back, already a substantial amount. Of the instruments made from slab wood, both the “King Joseph” and the “Pollitzer-Koessler” retain a maximum thickness of 6 mm. This is quite consistent with the other examples, although it is usually held that slab wood, being slightly more flexible across the arching, should be left stronger than quartered wood.

The Hills speculate that the thickness of the plates made Del Gesù’s instruments more difficult to play in, accounting for the success of Paganini’s “Cannon” more than fifty years after it was made, and it may well be that the thicker instruments of Del Gesù suited the more modern set-up and improved strings of the nineteenth century. Nevertheless, it is difficult to believe that he made a conscious decision to produce instruments which would not develop their sound until well after his death, or even that these fuller graduations were the result of mere laziness. Other makers in Cremona were perfectly successful in applying what are seen today as more normal graduations. That Del Gesù eschewed their practice suggests that he considered there were acoustic ad-

vantages in doing so. It is somewhat ironic that Del Gesù’s fame in recent times was founded on the power of Paganini’s playing on a magnificently strong violin, yet during Paganini’s career the re-graduating of Del Gesù’s violins was already under way. Count Cozio employed the Mantegazza brothers to adjust and alter violins for him in the early 1800s, and they were undoubtedly responsible for much of the rethickening that has taken place. Although most of this sort of work was done in the nineteenth century, the process has certainly continued into recent times, and there can be very few Del Gesù violins which have not been thinned out.

Perhaps because of the subsequent rethickening, there are no indications that Del Gesù used a puncture-point gauge of the type described by Sacconi, and which is housed in the Museo Stradivariano. It is possible that his method of thickening was different from Stradivari’s, but it seems more likely that Del Gesù was working in the Amati tradition, and that it was Stradivari who was using a different, possibly quicker system, to reach similar ends. An indication that this may have been the case can be found in the central region of Del Gesù’s backs.

One of the great mysteries of the internal working of Del Gesù’s violins is the small conical wooden pin set into the middle area of the back. Between 1.5 and 2.5 mm in diameter, it is usually clearly visible on the inside of the plate except when hidden by studs, dirt or other obstructions. In most cases, the pinhole was bored right through the back, and because of its conical shape, when it does emerge on the outside it does so as a tiny pinprick, often unnoticed among the usual dents and scratches (figure 35). This device is seen on all the instruments made by the Amati family, and in the majority of instruments made by their pupils; it was adopted by the Guarneris but by neither Francesco Rugeri nor Stradivari. The function of the pinhole is unclear, but its position usually marks the thickest point of the back. The most obvious theory is that it was intended as a permanent marker for the dividers, which were used to lay out the contours of the back thickening. It would have been drilled almost all the way through, in order that it should not be erased by each subsequent gouge or plane stroke working towards the final thickness. Some confirmation of this interpretation is provided by a Deconet viola of 1764, which has a conspicuous conical hole bored in the back at a position 215 mm from the lower end and 184 mm from the upper end. Compass circles are scribed from it at radii of 21 mm and 42 mm. Deconet was almost certainly a pupil of Del

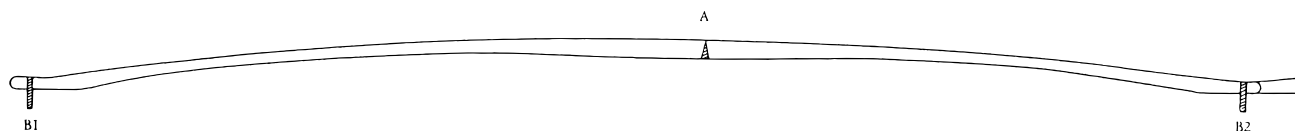


Figure 35. Section through the long arch of a del Gesù violin back showing the approximate position of the central pin (a) and the two end pins (b1) and (b2)

Gesù's brother, Pietro Guarneri of Venice, from whom he would have learned the technique.

On Andrea Guarneri's instruments, like those of the Amatis, the thicknesses of the backs appear to have been based on concentric circles, centred on this pinhole. Accordingly, the pin is usually found at the centre of the back, marking the thickest point. On at least one late Andrea Guarneri the pin is set higher, at 163 mm from the side of the button and 189 mm from the lower end. At the same time Stradivari was also placing the thickest point of his backs in a similar higher position.⁸² Giuseppe Filius Andreae seems regularly to have set this pin on the halfway position and sometimes moved it higher, but, like his father, never quite reached the reverse stop measurement (195 mm). Del Gesù's pins seem always to have been set higher, though unusually, in the case of the "Dancla", at 179 mm from the bottom edge and 175 mm from the top, this is only just so.⁸³ Otherwise the vertical setting is remarkable for its variety. The measurement from the bottom edge ranges from about 182 mm to 190 mm, with at least one instrument, the "Kochánski", reaching 197 mm. On two-piece backs the pin is invariably set on the centre joint, but on one-piece backs there is occasionally some deviation from the geometric centre between the bouts. On the 1733 "Soil", the pin is noticeably set off to one side.

Unfortunately, because on so many of Del Gesù's violins the thicknesses have been altered, the pin no longer corresponds to the thickest point. In some cases, it may have been completely eliminated by the process of regraduation. In fact, a number of instruments have only a small prick-mark, which is hard to distinguish, and a few late instruments lack even this. What emerges from these investigations is that Del Gesù gave particular thought to the whole question of graduating the violin, and did not, as many have suggested, simply finish the process as quickly as possible, without consideration for the acoustic results. Indeed the implications are that he was again using as a basis the system he had inherited from the Amatis, but that he chose to abandon one of their the long-established practices, adopting instead the new

centre of thickening preferred by Stradivari. He persistently increased the thicknesses beyond those of Stradivari, and in so doing created a violin which was radically different not only in appearance but also in performance.

Once the hollowing of the back was complete, but probably still without the edge fluting and purfling, Del Gesù glued the back plate permanently onto the rib and head construction, using the small wooden locating pins and the previously scribed outer rib outline as a guide. A rebate was cut into the neck block to receive the belly overhang. Remains of these rebates can be seen on the necks of the "Alard" and the "Cannon" (see section on neck length p. 140). The belly wood was jointed and flattened and one end was squared off. This squared end was butted into the rebate (figure 36).

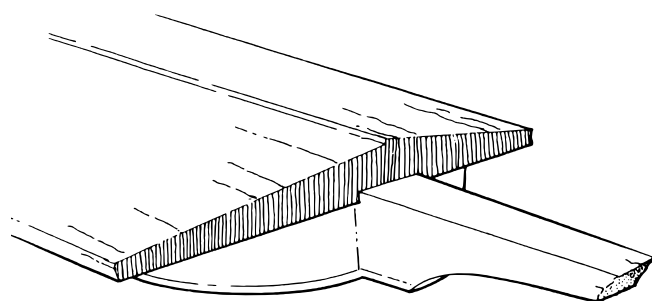


Figure 36. The squared belly end set into the rebate in the neck block.

The belly was clamped to the ribs, and it was a simple matter to drill two holes for locating pins similar to those in the back. Here, however, instead of allowing the structure to pivot and turn, the pins locked the belly firmly against the neck root, and with the clamps in place the whole structure became exceptionally rigid. It was at this point that the belly outlines were taken, marked from the ribs. Del Gesù marked two outlines: The first included the overhang and was to be the final outline of the belly, and the second was the exterior rib outline, essential for re-

locating the belly. For the hollowing, a suitable third line could have been marked with an odd-legged caliper.

Once the outline arching and hollowing were completed, the belly had reached the same stage as the back. As a direct result of Del Gesù's construction technique, the back outlines remain relatively consistent, while the fronts are often irregular. For instance, the back outlines of the "Stretton" and "Kreisler" are virtually identical, but the front of the "Stretton" is narrower than the back (due in part to the ribs not being perfectly square to the back), whereas the reverse is true of "Kreisler" – the front is appreciably wider than the back. Such anomalies inevitably affected the soundhole settings.

In general, Del Gesù seems to have aimed at a strong barrel shape for the belly, a long cylinder making up the centre of the arch, pressed flat rather suddenly at the ends and Xowing out more gently to the sides in the upper and lower bouts. As might be expected, the back and belly arches tend to be closely related, but there is as usual a great deal of variation between individual violins, whose bellies may be higher or lower than their backs. The conclusion that Del Gesù's belly thickening, though governed by different principles, was carried out with reference to his work on the back is inescapable, and instruments such as the "Cannon", where the original thickening remains, testify to this.

The Soundholes and the Bassbar

As mentioned earlier, when Del Gesù marked the belly outlines from the ribs, like Stradivari he marked two outlines. The first included the overhang and was to be the final outline of the belly, and the second was the exterior rib outline.⁸⁴ It was of particular significance, as Sacconi observed, because it was also the point from which Stradivari and his contemporaries fixed the position of the top and bottom circles of the soundholes. Stradivari's surviving drawings show how the soundholes were marked out and the method is related by Sacconi.⁸⁵ Although the markings he describes have not been found on Del Gesù's works, the end product indicates that the same basic principles were being applied. Clearly any variation in the centre bout curves would have influenced the placing of the soundhole (figure 37). The possible reasons for such variations have been discussed extensively in previous chapters.

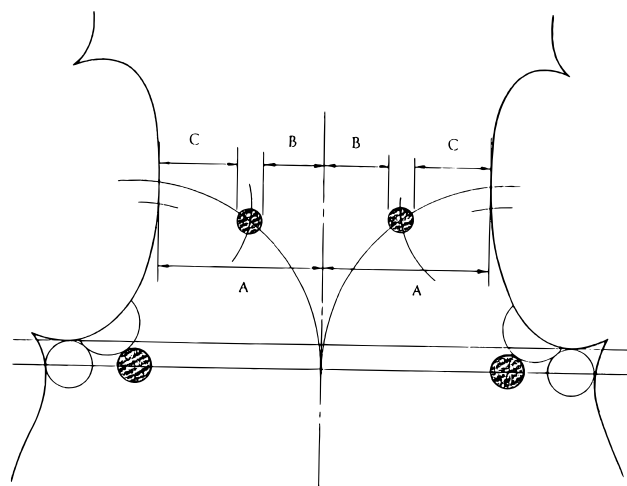


Figure 37. Reproduction of Stradivari's soundhole placement drawing, showing how the centre bouts are bisected by the line of the neck A. B shows the circles equidistant from the centre line and C shows them equidistant from the outer edge. Also obvious is the influence which the (variable) lower bout curves have on the placement of the lower circles.

One detail appears to have been of paramount importance to the Cremonese masters: The top circles of the soundholes were always equidistant from the centre line as bisected by the neck (usually but not always corresponding with the centre joint), and equidistant from the outer edges of the centre bouts (figure 37). This was a direct result of aligning the neck, between the top edges of the centre bout ribs, as the back outline was being established.

Andrea Amati and his Cremonese followers valued the idea that the neck should fall into line with the bridge, the soundpost, the bassbar, the tailpiece and the area between the top circles of the soundholes. As can be seen from the measurement tables, this rule was considered so important that even Del Gesù's wildest works abide by it. The upper circles of the soundholes were set equidistant from the outer edges, usually to within 0.5 mm, later occasionally 1 mm, rising very rarely to 2 mm (figure 38).

Even the astonishing soundholes of the "Ole Bull" have a discrepancy of only 1.5 mm. This is precision indeed. Moreover, such discrepancies as there are can usually be explained by variations in the overhangs and worn edges. A further explanation is that a smaller pilot hole was used to guide the circle cutter, and this could easily have been deflected by the strong grain lines of the belly wood. Such hazards notwithstanding, Del Gesù's positioning of the upper circles of the soundholes shows remarkable consis-

tency: There is generally less than 2 mm difference between any two instruments, the average distance being some 36.3 mm from the outline to the furthest extremity of the top circle.⁸⁶ With a few rare exceptions, all Cremonese instruments comply with these measurements.

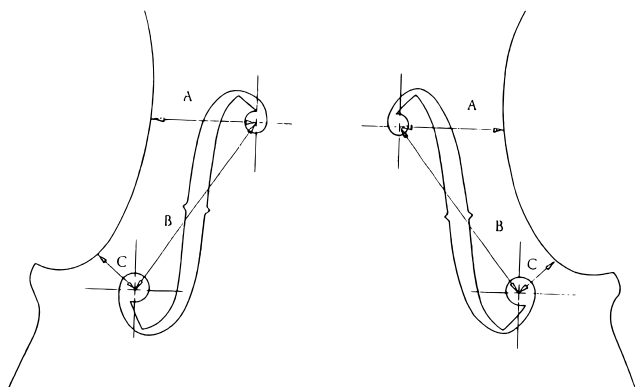


Figure 38. Measurement A represents the distances from the centres of the upper circles to the outer edge, which are generally equidistant. Measurement b represents the distance between the top and bottom circle centres, which on any given instrument are usually equal but vary between instruments. Measurement c represents the distance between the centres of the lower circles and the edge of the centre bout, which often vary considerably even on the same violin.

On any given instrument, the distance between the top and bottom circles was the same on both bass and treble soundholes, although differences certainly occurred between instruments (figure 38). This held true even in the later years, as the “Sauret”, the “Doyen” and the “Ole Bull” testify.⁸⁷ Only occasionally do the pairs on individual instruments differ by 0.5 mm, and rarely, as on the “Joachim”, by 1.5 mm, or the “Cannon”, by 2 mm. However, between instruments this distance ranges from a minimum of about 60 mm (as with the “Sauret” and “Heifetz”) to the 65 mm of the “Dancla” and 66 mm of the “Leduc”. Thus the bottom pair of circles was always related to the top pair, but when it came to positioning the bottom circles in relation to the ribs, Del Gesù apparently considered accuracy sulphurous. On any number of the master’s instruments, the distance between the lower circles of the soundholes and the outer edge varies considerably, even on the same violin.

In spite of the effect which variations in Del Gesù’s belly outlines and the subsequent positioning of the circles undoubtedly had on his soundhole shapes, any modifications were usually slight when com-

pared with the marking and cutting process. Having established the positions of the top and bottom circles, Del Gesù drilled the holes at right angles to the curve of the arching, in the traditional Cremonese manner. This process was responsible for one of the most distinctive features of Del Gesù’s soundholes. Drilling made it possible for him to cut outrageously trumpeting soundhole wings, at speed and without breaking the delicate points. The wings of the “Ole Bull” would have been extremely difficult to form in any other way.⁸⁸ The diameter of the top and bottom circles was determined by the size of the cutter. On the “Kreisler” (c.1730) and one or two other instruments from the same period, the upper circles are slightly smaller, reminiscent of some of his father’s work before 1705. Curiously, this is also a feature of the later “Doyen”.

It is highly probable that Del Gesù used a soundhole template much like Stradivari’s, made from paper and representing only the soundhole body (figure 39). With this he joined the top and bottom circles. On several of his early instruments, the influence of Stradivari is apparent and nowhere more so than in the bass soundhole of the “Kreisler”.⁸⁹ If the “Kreisler” bass soundhole is placed over that of the “Betts”, they appear to match so perfectly that the same template might have been used for both (figure 40).⁹⁰ This is however probably coincidental, for the two treble soundholes are by no means identical and besides, both treble and bass soundholes of the “Kreisler” appear to have been marked out from Del Gesù’s own template.⁹¹ His soundholes may well have been inspired by those of Stradivari, but his form was almost certainly unique.

Variations in the position of the pre-cut circle must have presented Del Gesù with considerable problems in adapting his template to Wt. However, the worst positioning imaginable, coupled with a highly distorted outline, could not have been responsible for the bizarre appearance of Del Gesù’s soundholes development after about 1740 and especially in his final year. Taken in isolation, it seems inconceivable that the soundholes of the “Ole Bull” and the “Diable” are in any way related, yet they were almost certainly marked out from the same template. As with the heads and the moulds, Del Gesù’s interpretation concealed his method.

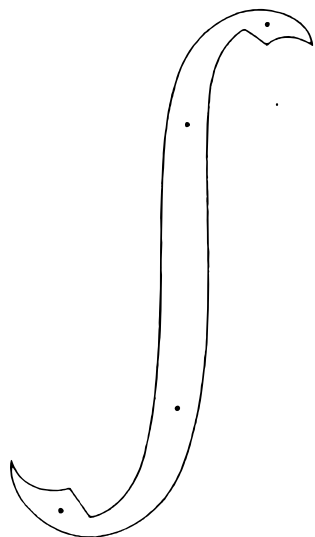


Figure 39. Reproduction of a Stradivari-type template for drawing the body of the soundhole. The surviving templates usually have three or four holes. Two at the ends, as shown, and one or two in the body of the template.

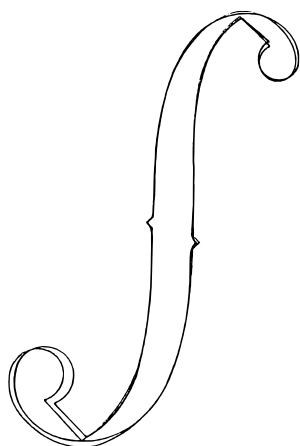


Figure 40. Similarity between the body of the bass soundhole of the “Kreisler” and that of the 1704 “Betts” Stradivari.

Stradivari’s surviving soundhole templates show a remarkable flexibility. Unlike the external templates more commonly used today, they could be laid onto a variety of archings and retain their form.⁹² Because of the accuracy of his work, Stradivari was able to link the top and bottom circles with comparative ease. Any discrepancies were taken up by minor adjustments to the wings. These were sometimes narrow and sometimes wider, occasionally hinting at the trumpet form which is generally associated with Del Gesù. With a little creative manipulation, Del Gesù appears to have increased the flexibility of this type of template.

Stradivari evidently pinned his soundhole templates to the arching in four places. Del Gesù apparently chose to pin his in the upper and lower curves only, one end at a time. The template may have been two-piece,⁹³ or one-piece like Stradivari’s. If the latter, he would probably have begun by marking out the upper half of the soundhole first and later pinning the template on the lower curve, marking the lower half, and joining them in the middle. This arrangement would have allowed him to lengthen and shorten the soundholes at will, initially to Wt a range of upper and lower circle spacings, later to accommodate the extended curving wings. The “Ole Bull” soundholes have clearly had a long body-section inserted, whereas on the “Heifetz” the template(s) probably overlapped in the middle. The bass soundholes of the “Vieuxtemps” and the “Lord Wilton” have a distinct bend where the two halves were marked on at slightly different angles.

Del Gesù’s method of pinning the template opened up a more radical possibility: By allowing the template to swivel upon the pins, the curves connecting the soundhole body and the circles could also be adjusted (figure 41). This is probably the major cause of the familiar pointed soundholes, but it also explains such details as the flatter curves and the wider lower wing of the 1731 “Huberman” bass soundhole. After 1740, a number of soundholes become shorter, remarkably so on the “Heifetz”, whose circles are a mere 60.5 mm apart on the bass and 60 mm on the treble. This contrasts with the much longer soundholes of the “Sauret” (1743), whose circles are equally close together (60 mm on each side). Del Gesù appears to have achieved this extra length by using more acute curves at either end (figure 42). His famous elongated style emerged quite early in his career, as the soundholes on instruments of his transitional period bear witness. It probably went back even further: The slightly wider wings and the broad and upright set of the soundholes on some of the later violins of Giuseppe Filius Andreae are possibly early evidence of his son’s hand at work.

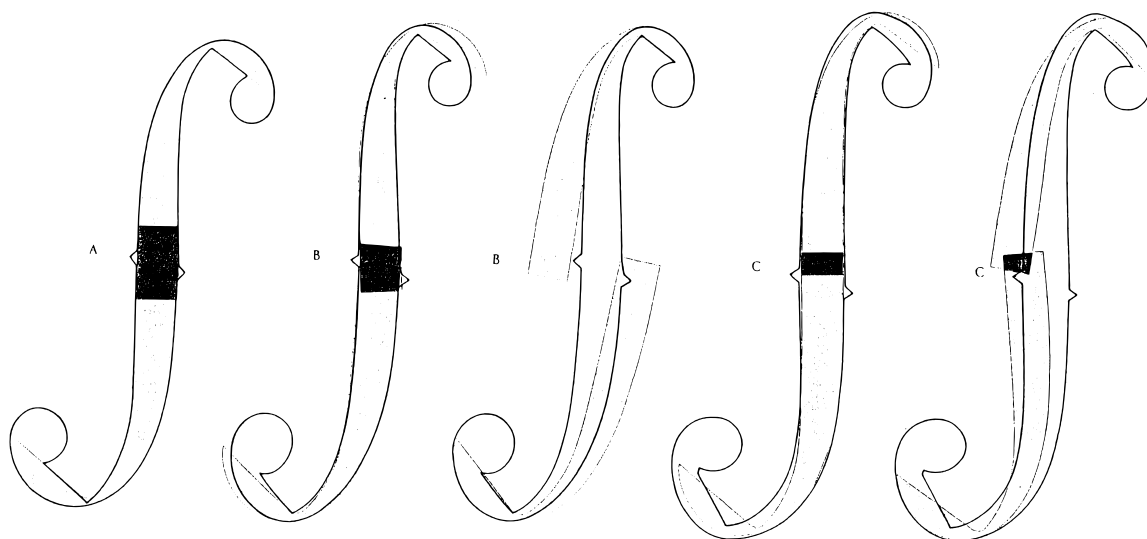


Figure 41. In order to illustrate this theory a template was made of the “Diable” bass soundhole (a). This soundhole is relatively unworn and is almost interchangeable with several soundholes of the period. The template is shown reconstructing the “Carrodus” soundhole (b) and the “Ole Bull” (c); by pivoting the template at the centre of the upper and lower soundhole curves, del Gesù could create a variety of soundhole shapes. Because, as seems likely, the templates were in two pieces he could also manipulate the length of the soundhole. The “Diable” template was also shown to fit all of the 36 pairs of del Gesù soundholes tried by the author. However, this template did not convincingly fit any other Cremonese instrument tried, and no other Cremonese soundhole appeared to fit those of del Gesù.

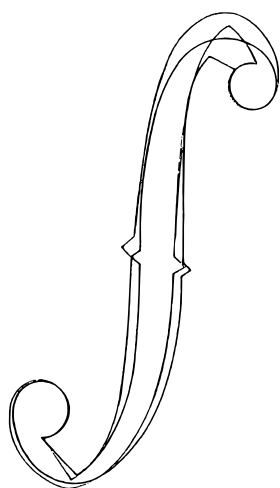


Figure 42. The outlines of the “Heifetz” and the “Sauret” soundholes show how the length of del Gesù’s soundholes can vary even when the circles are similarly spaced.

In the early years and throughout the 1730s, Del Gesù’s soundholes remained relatively conservative in both cut and form. Differences can largely be explained by such details as anomalies in the belly outlines leading to circle misplacement. By about 1737 there are signs of a slightly more adventurous approach. Nevertheless, Del Gesù continued to work accurately, and there is barely a knife stroke of difference between most soundholes of this period. The cutting remains forceful, with a strong undercut

noticeable along the inner edge of the soundhole bodies. On the outer body curve, the back edge is visible when the holes are viewed at right angles to the belly plate. (On the later holes this cut becomes more vertical.) The wing tips are often cut extremely close to the upper and lower curves, with barely room for a knife point to pass through. The problem this presented can often be seen in later instruments such as the “Vieuxtemps”, where the knife has taken a small nick from the lower curve as the flat end of the wing was being cut.

By the 1740s major changes were taking place, but they were neither random nor uncontrolled: Within the confines of the tradition he had inherited, Del Gesù was making a conscious effort to create something new. While the development of his heads may arguably be dismissed as a product of some debility, or of economic pressure, the soundholes offer the clearest evidence that he was working towards a specific aesthetic objective. The Hills, however, were not convinced, describing Del Gesù’s final efforts as “truly amazing f-holes ...which betray an unsteadiness of hand and mind only too apparent”.⁹⁴ Yet even when he seemed to be throwing all caution to the wind, Del Gesù was conforming absolutely to the principles of Cremonese construction. True, he stretched those principles to their limits – as the soundholes of his final years show – but he never ignored or rejected them, merely demonstrated their

flexibility. Just as the rib structure was allowed to twist and turn on its pins, so the soundhole template was allowed to pivot until it fell into line. In an inspired moment, Del Gesù lengthened the soundhole bodies even further and extended the wings, curling them around towards the circles. This produced the dramatic effect epitomised by the soundholes of the “Doyen” and “Ole Bull”, first seen in a slightly milder form on the upper bass wing of the “Lord Wilton”. The template was probably used as has been illustrated; the remaining effect was achieved simply by cutting the wings freehand. A certain amount of licence had always been exercised by Del Gesù when forming the wings, some of which must be set down to a careless or over-zealous use of tools. This is a possible explanation for the G. B. Rogeri-style turn to the “Stretton” upper wing and the narrow or truncated upper wings of the “Kortschak” and “Heifetz” respectively. In other cases, interpretation is the key. The “Dancla” and the “Leduc” have almost identically spaced circles and must have shared the same template, yet the results are highly distinctive.

Having cut the soundholes, Del Gesù fluted the lower wings. At exactly what stage this was done is not known – perhaps before the belly was finally fixed onto the ribs, or perhaps as the edgework was being blended into the arching after the instrument had been closed. The earlier wings are well fluted with a strong, straight gouge cut running from the tip of the lower wing to blend with the edge fluting in the middle of the centre bouts. The execution may have been simple, but the result is no less aesthetically effective than that achieved by Stradivari, whose fluting is sculpted around the curve of the wing and often extends the entire length of the soundhole. On Del Gesù’s late instruments the fluting of the lower wings gradually became a mere gesture, reduced to a superficial gouge stroke indifferently blended into the arching. On the “Doyen”, the soundhole wings have what is in effect a negative fluting, being slightly crowned in section.

The nicks, which theoretically represent the bridge position, were the final detail of the soundhole to be cut. Stradivari, like the Amatis before him, cut them carefully; Del Gesù formed them with two simple strokes of the knife. He positioned them with no great accuracy and they often vary from one side to the other (this may be a direct result of the way in which he used the soundhole template). The stop length which he preferred was generally shorter than that of Stradivari, who averaged between 195 and 198 mm. In the 1730s, Del Gesù’s stop lengths were com-

monly between 191 and 193 mm. In the early 1740s the nicks were set longer, as on the “Cannon” and “Vieuxtemps”, at about 198 mm. However, in Del Gesù’s final years the stop length was again reduced. These fluctuations may have been linked to variations in the belly overhangs, especially at the side of the neck. On the “Leduc” the circles of the holes are shifted high up the body in relation to the lower corners, again placing the nicks in a shortened stop position. Sacconi describes Stradivari’s system of finding the position of the nicks from the inside, using a pair of dividers. No such tell-tale marks are apparent on the interior of Del Gesù’s soundholes.

Before closing the belly, he fitted a label and a bassbar. While no original full-sized violin bassbar of Del Gesù has so far come to light, some idea of the dimensions and form can be derived from a surviving example made by his brother, Pietro Guarneri of Venice. This bar measures 241 mm in length, and is set 15 mm from the centre joint and parallel to it. It is 4 mm wide tapering to 2.5 mm at the ends. Its highest point, an almost flat convex curve, is 7.5 mm. From the apex two longer concave curves gradually reduce the height to less than 1 mm at each end; in cross-section, the shape tapers towards a slightly rounded top. The bar has been cut on the half-slab and appears to be a randomly selected oVcut.

Petherick describes, but does not identify, what he claims to be an untouched Del Gesù from the late period, “in the state the maker left it”. The measurements he gives for the bar are 93 4 ins bare (247.5 mm long, 5 16 ins full (8 mm deep), tapering to 1 8 ins (3.2 mm) at the ends, and 3 16 ins (5 mm) wide. He also states that the bar is fitted with the grain on the slab, which is consistent with the bassbar of the “Fountain” pochette, which is probably original.⁹⁵