## A VIOLIN BY JACOBUS STAINER 1679

## Roger Hargrave examines the construction and workmanship of this violin, which still retains its original undisturbed baroque neck.

Roger Hargrave se penche sur la construction et la facon d'un violon Jacobus Stainer, 1679, qui conserve son manche baroque original encore intact.

Roger Hargrave untersucht den Bau and die Machart einer Violine von Jacobus Stainer, 1679, deren ursprünglicher barocker Hals unversehrt erhalten ist.

Jacobus Stainer is one of the very few non-Italian violin makers whose life and work have been seriously researched.

There have been a number of important publications, most of which have drawn upon the scholarly research work of the late Professor Dr. Walter Senn. However, in spite of Senn's magnificent efforts, several important questions remain unanswered, the exact dates of Stainer's birth and death, whether he used both written and printed labels, and undoubtedly the most controversial of all: where did Stainer learn his trade?

Stainer was certainly not self taught, the diversity and quality of the instruments which he produced point to an extremely thorough apprenticeship. It is also very unlikely that he received only a rudimentary training and afterwards improved himself through con-

tact with great instruments. Once again, the sophistication, even of his early works speaks against such a conclusion.

It is hardly possible that Stainer learned his trade in Austria, where at that time there was no one with the necessary experience.

Earlier Füssen in the Allgäu might have been a consideration, however, the ravages of the thirty years war had left Füssen bereft of skilled instrument makers, most of whom had found refuge in Italy and in particular in Venice, Rome and Padua.

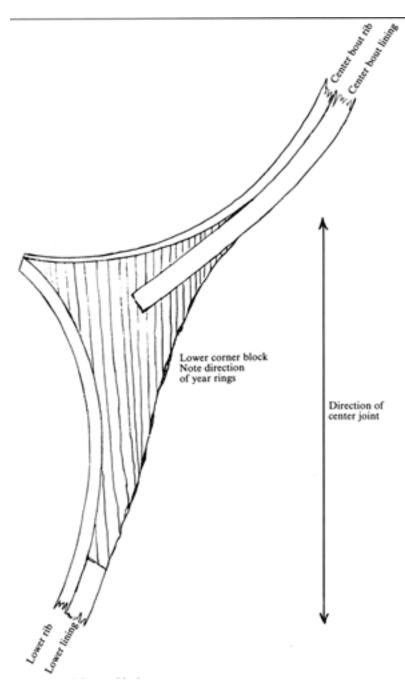
Experts seem to agree that Stainer learned his trade in Italy. And although this agreement mostly rests on analogies of Stainer's work, it is also known (from his writings) that he was familiar with the language. Furthermore, there are several oral traditions relating to an Italian apprenticeship. As might be expected

however these oral traditions are contradictory, on the one hand saying that Stainer worked in Venice and on the other that he worked in Cremona.

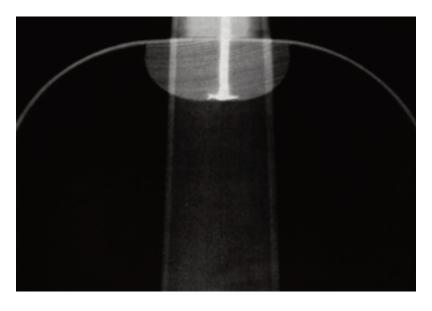
Although Senn seems to have been convinced that Stainer... "was in fact apprenticed to a German violin maker resident in Italy" (The New Grove dictionary, W. Senns)... he offers no hard evidence for this statement.

If Stainer had been apprenticed to a German violin maker the likelihood is that this would have been in Venice. At various times thirty four makers from Füssen alone are known to have lived and

worked in Venice and there were certainly makers from the Füssen region working in Venice at the time in which Stainer would have served an apprentice-ship, c.1630 to 38. These makers would have included Matteo and Georgius Sellos and Martino Kaiser. Magnus Tiefenbrucker II, often thought to have been a



Above: Diagram of Corner Block. Below: X Ray showing position of nail in the neck of the violin.



possible teacher, was already dead at this time. Petro Vinercati who has also been considered as a possible teacher of Stainer, was probably of Italian origin, but he was almost certainly not established before 1638. At later dates there are several documented trips made by Stainer to Venice. These prove that Stainer had connections with the city, however, there is also ample documentary evidence for similar trips to Salzburg, München, Innsbruck, Bozen and several other important centres.

There are those who point out that a Venetian apprenticeship is apparent in the construction and style of Stainer's instruments, saying in essence that ... 'Stainer's technique and style clearly show that he learned the basics of his craftsmanship not from an Italian, but from a German violin maker, more than likely a refugee from Füssen living in Venice.' (Jacobus Stainer and 18th century violin masters W. Stenn presented by Jacques Francais).

I personally find this argument to be very weak. Whilst it may be accepted that Stainer learned musical instrument making in Venice and from a German, he could not have learned violin making specifically, since there were no violin makers of note in Venice at that time. Matteo Goffriller, who was the first important violin maker to work in Venice only arrived there to begin working for Martin Kaiser about two years after Stainer's death. In all honesty it is difficult to associate any contemporary Venetian instrument maker with the style which Stainer so rapidly developed and in a field of instrument making which was indisputably Cremonese in origin.

For what my own opinion might be worth, the style, method and above all the varnish of Stainer point most definitely towards Cremona.

'Cremona, the undisputed centre of violin making, is one of the few Italian cities upon which the Füssen School did not leave its mark. Amongst the early lute makers there is not one solitary Füssen maker to be found and even in the first years of the development of the violin (mid 16th) the Cremonese makers were a group which

kept very much to themselves. Only in the middle of the 17th century, the time of the exodus in the North, do we find several German apprentices in the workshop of Nicolo Amati.' (Die Lauten and Geigenmacher des Füssener Landes, by Friedrich Hofmeister, my translation).

At the time of Stainer's supposed appren-

ticeship only Nicolo Amati could have been regarded as a possible teacher for Stainer in Cremona. Hieronymus Amati I having died of the Plague in 1630. Certainly the similarity between some of Stainer's instruments and those of the Amati, are so strikingly obvious that it is difficult to imagine any other possible source for Stainer's inspiration. The Brescian School was so totally different as to defy comparison, but it can be noted in passing that Maggini had also died in the plague of the 1630's which wiped out all violin makers of note, the sole exception being Nicolo Amati. Quite apart from certain structural comparisons which can be made, between Stainer's work and that of the Cremonese School, few violin makers ever succeeded in producing instruments of such aesthetic beauty. The superb curving lines, the sculptural depth and the delicate craftsman-

ship of Stainer's instruments are the epitome of the baroque. I would maintain that in this respect alone Stainer at his best comes closer than any other classical maker to the Amati ideal.

There is, however, no mention of Stainer's name in the Cremona archives and so, once again, we can do little more than speculate.

Whoever it was that taught Stainer initially, it is abundantly clear that by the 18th century his own works had become the dominant influence upon European violin making. The only major exceptions being Brecia and Cremona. By the latter half of the 17th century, in his own lifetime, Stainer's reputation had reached remarkable heights. Around 1658 he was even supplying instruments to the Spanish court. For the next 150 years Stainer's instruments were considered the non plus ultra.

`Literary sources confirm the high esteem in which his instruments were held, even in comparison with those of the Cremona masters. Hawkins for example wrote: "The violins of Cremona are ex-

ceeded only by those of Stainer . . . whose instruments are remarkable for a full and piercing tone." The Encyclopedia methodique states that: "the violins with the greatest reputation are those of Jacob

Stainer" and Stainer heads a list of distinguished makers compiled by Francesco Galeazzi.' (Taken from the New Grove dictionary and including quotations from: Hawkins H., Encyclopedia methodique: arts et métiers mécaniques IV Paris 1785).

'How much Stainer was favoured above his competitors may also be seen from the prices their instruments commanded: in Italy a Stainer violin brought 100 Gigliati, a Stradivari 10 14 Gigliati (1776); in London a Stainer brought £136 1/2 in 1791, a Stradivarius £14 in 1775.' (Jakob Stainer, Leben and Werk des Tiroler Meisters 1617 1683 by Senn and Roy).

It was the changes in musical tastes, technique and technology, towards the end of the 18th and into the 19th century, which were mainly responsible for Stainer's fall from grace. The works of Stradivari and Guarneri were somewhat better suited to these changes.

It is sometimes difficult to understand why the eclipse of Stainer's star was so total, especially since his in-

struments would have been the first choice of contemporary musicians. Perhaps the baroque revival will help to revitalise interest in this much undervalued master violin maker. I sincerely hope so. This 1679 violin by Jacob Stainer is one of the few Classical violins which have never been converted to modern playing specifications. No similar violin is known to exist from the `accepted' Cremonese school. Remarkably after over 300 years this instrument still retains its unaltered original neck fingerboard and bassbar.

Perhaps even more remarkable is that a second violin dated 1668 in almost the same state of preservation was sold at Sothebies, London, in November 1988. The similarity of the fingerboards left me with little doubt that both were.from the same hand and that in both cases the wear was comparable and consistent with that of the accompanying instrument. (It is always possible that these boards are replacements, but I consider this very unlikely and in any case they would certainly be very early replacements). I was pleased to hear that the 1668 Stainer

has found a permanent home at the Shrine to Music Museum in the U.S.A.

The 1679 Stainer illustrated here was made at the time when Stainer was beginning to suffer from what appears to have been attacks of manic depression or some similar mental disorder. On this particular instrument however there are no signs of any deterioration in Stainer's craftsmanship as a result of his illness. The work is quite beautiful and very clean.

Before I continue with the description of this instrument, I must point out that because of the nature of Stainer's work, it will be difficult to avoid constant comparisons with Cremonese works. However, we should not necessarily see these comparisons as attempts to forge crude links between Stainer and Cremona. The simple truth is that Stainer was influenced by the Amatis, even if he was not directly taught by them.

Stainer is often associated with lion heads, but these are very much the exception rather than the rule. They belong to the South German tradition and they are one of the features which link Stainer to a German master and the city of Venice. Such lion heads were not exclusive to Stainer and it does not seem unreasonable to assume that these heads (carved from pear wood) were simply ordered from a skilful woodcarver, for which the Tirol is justly famous. But then, who am I to take away credit from such a master as Stainer?

The material for this `normal' scroll type head, in common with most classical heads, is quite plain, obviously for ease of carving. What little figure there is, is similar to that of the back. Slightly more unusual is the rate of growth. On both the head and the back the year rings, though barely visible, are quite wide (5 to 6 mm).

Even at this late stage in Stainer's development the head of this instrument has many features which resemble the Amati school. However, the downward curve of the upper pegbox line, as viewed from the side, begins its quite pronounced turn into the scroll at a point just above the A and D pegs. On an Amati head this change in the curves begins fractionally later. This feature is common to most of Stainer's heads so that whilst the outlines are often deceptively Amatis—the pegbox scroll relationship has a little more swing. The fairly open throat and its accompanying chamfer reaches back slightly as it joins the underside of the head, helping to accentuate the flow of the pegbox into the first turns.

If we compare this feature with those Stradivarian heads illustrated in previous STRAD posters we can see that in contrast Stradivari's narrower throats make a small tight curl upwards at the end.

Still looking from the side, it is apparent that the turns of the scroll itself are very similar in size and form to an Amati head. Only the finishing of the eye has an extra quarter of a turn. This extra turn is not always found on Stainer's works, sometimes found on Amati's instruments, but almost always found exaggerated on Stainer's copies. With or without this extra turn the eyes of Stainer's scrolls usually have the look of an inverted comma. Although this comma is also a regular feature of Amati heads the final turn into the eye is usually more open in the case of Stainer.

On this instrument the flat cut to the volutes, as the pegbox sides turn into the scroll, resemble the work of Andrea Amati or Francesco Ruggeri. However, I think that it is fair to say that Stainer's heads are usually cut with a little more definition into the first turn. Coming out of the second turn and running in towards the eyes of the volutes more typically increase in depth quite markedly and certainly far more than we would expect to see on a Stradivari scroll.

Viewed from the back the pegbox has a long taper, perhaps a fraction more extreme than an Amati. There is no sign of that extra width to the back of the box opposite the throat which we associate with the later Cremonese school, particularly Stradivari.

The flutings have a rounded finish which is well defined but not deep, especially over the top and front of the head. The chin is beautifully rounded off at the end without any no hint of the squareness, which again, characterises so many of Stainer's copyists. At the chin the flutings are filled with sealing wax bearing an unknown seal. (Possibly a family crest or a customs seal). Under the front of the head the central spine between the flutings fades quickly away so that the two flutes blend to become one large curve above the throat. This is also very much an Amati school feature and it is particularly associated with Francesco Ruggeri and Andrea Amati. There are, however, no signs of ascribe line, or compass pricks, on the central spine, which are often characteristic of the Cremonese school. I cannot recall seeing such marks on any other Stainer head.

The whole head is extremely clean with delicately worked chamfers. The only signs of tool marks are a

few fine traces of the gouge, on the vertical surfaces of the scroll bosses and there are certainly less of these

than we would see even on a Stradivari.

From the front the head is again very Cremonese in style. The pegbox walls are generously thick and only Stainer's usual narrowness of the box at the A pegend deviates from the Cremonese ideal.

It can be seen that the walls of the pegbox have been thinned out as they approach the nut. This is to allow the E and G strings easier access to the box. This feature seems to be original, but it may be .a later alteration.

The outline of this instrument is only one step removed from the Amati concept. The curves are generally broad and open, especially the C'bout curves and there is that distinctive Amatese flatness across the top and bottom blocks. The archings are very reminiscent of the Brothers Amati, in their well scooped edges, although this particular arching is much flatter across the top than any Amati arching would be. This flatness gives the arching that characteristic boxy Figure of Eight fullness which is usually regarded as Stainer's trademark.

I have seen instruments by Stainer, where the archings, the outlines and the purfling of the backs so much resemble the work of Amati that it is only an extremely clever eye that can distinguish them before the belly has been seen.

This particular two piece back is cut on the quarter and has a med to tight figure. The growth structure as I mentioned before, is quite wide. Stainer used a variety of maple backs. His two piece backs are often joined in the Amati style with the flame continuing across the centre joint in the same direction. Stainer also used one piece backs cut on the quarter, the slab and sometimes even the half slab. Only rarely can the flame or figure be described as wide.

Stainer is often associated with the use of bird's eye maple, which although more frequently used than the lion heads was also the exception rather than the rule. His use of bird's eye maple most defin-

tely distances him from the Cremonese position. I cannot recall the use of bird's eye maple by any member of the `accepted' Cremonese school. (Josef Filus Andrea Guarneri did make a number of instruments on which the flame of the back has the appearance of having a very small amount of bird's eye cut on the quarter. Normal bird's eye is cut on the slab).

On the back of this example, the purfling is beautiful, with slender mitres which stand up even to microscope scrutiny. There are no stings, but the mitres seem to move just a little off centre pointing very slightly inwards. The blacks of the purfling are very intense and relatively fine.

The whites of the purfling do not have the usual Cremonese appearance of fine longitudinal splits. Instead they have very tiny brown flecks. Of the Cremonese makers only Francesco Ruggeri regularly used similar white wood for his purfling. Ruggeri has several other features in common with Stainer. We have already touched upon the finishing of the central spine between the volutes under the head. Another practice common to both makers was the fact that they did not use the tiny wooden locating pins, that is to say those pins which pass through the backs and bellies and into the top and bottom blocks, usually on the centre line and close to the purfling. I do not know of any other Classical Cremonese maker who did not use these pins.

Very unlike the Cremonese school is the treatment of the edgework on the underside of the plates. On this instrument the rounding off is extremely even with no sign of the knife cut chamfer, which usually remains to be seen on all clean Cremonese instruments. This cleanly rounded underside to the edgework seems to have been a regular working practice of Stainer's. The upper edgework is, however, finished in the Cremonese style. Sometimes Stainer's edgework is even more deeply worked than this example with tighter curves and with the

ample with tighter curves and with the purfling set closer to the outside edge. On these instruments the highest point of the edge seems to lie about halfway between the purfling and the outside curling. On this violin there is very little ware to the back edges and it is quite clear that the highest point of the edge lies much further out. I would estimate

that it was originally at least two thirds of the distance from the purfling to the outside. Understandably the corners are slightly more worn than the edges. They are typically quite short, but they are well balanced and finished with just the suggestion of a hook to give them more definition. This subtle hook is often seen on Cremonese instruments and it was even exaggerated on occasions by (among others) G. B. Rogeri and Guarneri Del Gesu. There is a definite increase in the thicknessing of the corners and of the edges in the centre bouts. (See measurements).

Before leaving the back I should mention the button. In spite of its being slightly elongated, it is also Cremonese in shape and form, tapering slightly and increasing in thickness away from the edge.

The ribs, of a similar figure to the back, are cut on the slab. Slab ribs were fairly common on early classical works, but in later times they were largely dropped in favour of more stable quarter sawn ribs. As would be expected, the top rib is of one piece. It runs through the joint between the neck and the upper block thus helping to avoid the risk of the block splitting as in this case the single nail was being hammered home. The bottom rib is of two pieces, but Stainer also used one piece bottom ribs.

When this instrument was opened it was possible to see that the ends of the centre bout ribs had been thinned to about 0.5mm or less as they ran over the corner blocks out towards the mitre.

Since the rib corners were relatively stubby and void of any extreme curves, it may have been possible with such a trick to have bent the ribs without the use of heat. I have seen similar treatment to the ribs of Del Gesu's instruments. Del Gesu also used short rib corners and open centre bouts.

We now turn to the belly. Two pieces of even, straight grained pine, of medium growth widening slightly in the flanks. It is the type of wood which Stradivari seemed to prefer in his late period. Stainer sometimes used belly wood of extremely fine growth, of a type seldom seen in Cremona and which we normally associate with the Mittenwald School. Here again the edgework is in a very good state of preservation with only the corners and the chin area showing any real signs of wear and tear. An interesting feature of this belly is that the purfling runs through

underneath the fingerboard. This feature can also be seen on the Messiah Stradivari, where the modern neck has not been let in as deeply as would normally be the case. This would seem to contradict Sacconi, who suggests that the belly was glued on with the help of wedges placed under the fingerboard. If such were indeed the case then the purfling could not have been inserted after the soundbox was closed as Sacconi also suggests, since the fingerboards would have been in the way.

It can also be noted that the scoop of the belly runs right to the outside edge underneath the fingerboard.

The soundholes sit on a short stop, in this case 191 mm and 192mm. For this reason the bottom circles of the soundholes also sit high in relation to the

lower curve of the centre bouts. This short stop was frequently copied, but it was not a feature of the Cremonese school generally. Only Del Gesu in the early 1730s experimented with this idea. Normally Cremonese lower circles lay below the line of the centre bout purfling.

The top and bottom circles are clearly drilled. Although the right hand lower circle is slightly oval crossways, this is due to the process of joining the circle to the main body of the soundhole. It is a feature often noted on Stainer's works. On the outside of some instruments, running around the upper soundhole circle, are tiny pin pricks, probably left over from the marking out process. These are similar to the markings which can be found around the eyes of Guadagnini family scrolls, though not as crude.

For those modern makers who do not drill their soundhole circles, this example shows how easy it is to create finely pointed wings without any risk of the tip breaking off during the cutting process. Even Del Gesu at his wildest was capable of creating flimsy pointed soundhole wings simply because he drilled his circles first. Unlike the circles, the main bodies of the soundholes are not cut at right angles to the surface of the arching in the normal Cremonese style. They seem instead to be cut on the same vertical plane as the ribs, so that when viewed from the front neither side of the soundhole body can be seen in depth. The soundhole nicks are quite large and reminiscent of Nicolo Amati at the time when he was reverting to his grandfather's style of nick cutting.

The nicks on these soundholes are not cut vertically, through to the inside of the plate. Instead they closed up slightly towards the inside.

The lower wings of the soundholes have no flutings, they are simply an integral part of the arching flow. In contrast, Stradivari's soundhole flutes definitely change the direction of the arching flow.

The soundhole wings themselves curve tightly round towards the circles. If you can imagine these wings tapering slightly towards the ends, rather than remaining almost parallel, you will end up with something very much like a Brothers or an early Nicolo Amati soundhole. As is usual for Stainer, however, the main body of the soundhole is slightly straighter and stiffer than an Amati soundhole should be.

As I have previously pointed out the arching has a slight Figure of Eight character, with a deep scoop around the edges and a flattish top. Because of the sharp rise in the arch from the scoop and the resulting tight curve onto the flat top, the upper outside curves of the soundholes droop considerably, when the instrument is viewed from the side. This droop is common to many of Stainer's works and it is a feature which is often exaggerated to the point of caricature by his copyists. In contrast, the more curving soundholes of the Amatis and Stradivari, lift the upper section of the soundhole bodies so that they appear to lie parallel to the line of the belly edge and ribs.

As can be expected on all classical instruments, the inside work is sound but not fussy. On the inside of the ribs there are no traces of a tooth plane iron, such as occasionally decorates the works of

other classical craftsmen, includ-

ing some Cremonese makers. From the size and shape of the blocks we can summarise that the rib structure was constructed around an inside mold similar in function and form to those which survive in the Stradivari museum. The corner blocks are "fairly wide and are made of pine. Occasionally these blocks were

made of walnut,

but pine was the usual material. Stainer seems to have taken pains to ensure that the year rings of these pine corner blocks ran parallel to the centre joint. See diagram of corner block. I have not seen very many Stainer violins from the inside, however, this feature did repeat itself in every case. The centre bout linings are let deeply and squarely into the corner blocks. Where the linings were let into the corner blocks in Mittenwald and other areas outside of the Cremonese sphere they were often only let in with a shallow point cut by a knife. This practice of Stainer's is one of the principle constructional features of his work which strongly indicates a Cremonese apprenticeship. The linings are about the same height as those of Nicolo Amati (approx. 7mm). They are slightly angular in section being finished with a large chamfer which has been softened at the edges. The material for the linings, distinctly Stainer, is walnut wood. Karl Roy points out that walnut trees are still common in the area around Absam. (Jacob Stainer, Leben and Werk des Tiroler Meisters).

The two end blocks are half round and very substantial. Again they are of pine and in each case the year rings run parallel to the rib. Understandably the neck block is considerably thicker than the end pin block. It has a single nail passing through its centre and into the neck root. From Stradivari's relics we know that he was a belt and braces man. He used three nails for violin necks and five for celli. So little is known about the nailing methods of other classical makers that it is not possible to make comparisons.

The original bassbar is still in place. It lies almost parallel to the centre joint. (It actually seems to be very slightly closer to the centre line at the end pin end). It is shorter, thinner and lower than a modern bar (see measurements). The bar is not tapered in its width like almost all the other baroque bassbars I have seen, including those of Northern Europe. Here again, however, there is too little available information to make accurate comparisons.

From the thicknessing charts we can see that Stainer's, in common with most classical makers, was not as accurate as modern makers would try to be. We can, however, distinguish certain patterns to his thicknessing technique.

From the available belly measurements, it can be seen that a band of strength runs through the middle section of the plate, having its greatest thickness in the region between the soundholes. The areas beneath the deep outside scooping of the arching are correspondingly thinner than the rest of the plate.

The more comprehensive back measurements are

very similar in concept to many Cremonese plates. It has a clearly defined central thickness radiating outwards. Like the belly, only the weakness around the edges, which again conforms to the deep arching scoop, does not correspond with the works of Stradivari and Guarneri Del Gesu. I suspect that this is the main feature which gives Stainer violins their distinctive sweet sound, but which robs them of the power of a Guarneri or a Stradivari. Scooping in itself may not be a bad thing. Some Carlo Bergonzi violins for example are quite well scooped. What is probably more important is the thicknessing at this point.

In previous articles I have mentioned the single wooden pin which is set into the backs of instruments of the Guarneri family and several other Cremonese makers. (See the 'Kreisler' Del Gesu poster May 1988 THE

STRAD).

There is no sign of such a pin having been used by Stradivari and its use in Cremona was certainly not universal. The reason or reasons for this pin have been a source of increasing speculation since this `secret' information became more general knowledge a few years ago.\*

Although not filled with a wooden pin in the manner of the Guarneri family, many of Stainer's instruments do seem to have had a diagram. These holes are clearly visible through the parchment strip which is glued onto the back along the centre joint. Such strips of Velum seem to have been regularly used by Stainer. Presumably they are there to support the centre joint. The reason for the pins and or conical holes remains a mystery and in this particular case they do not seem to be directly related to any thicknessing system. I have never seen another Stainer with more than one such 'hole', however, a 1679 Stainer which was recently opened in the workshops of Hieronymus Kösler in Stuttgart had five similar holes.

Any classical violin in original baroque condition is a great rarity. There are no known violins from the Cremonese school in such an original state. Even the great 'Salabue' Stradivari 1716, also known as 'Le Messie', has a new neck, fingerboard and bassbar.

Whilst I personally believe that Stainer did learn his trade in Cremona, even if he did not, his work was clearly highly influenced by the Cremonese school and we can take it for granted that not only were the bodies and heads of this instruments made in the Cremonese style, the fixtures and fitting would also have been very similar.

The length of the neck and fingerboard may have been slightly different from that of the Cremonese as a result of Stainer's short stop, although throughout the classical period string lengths and neck lengths seem to have varied considerably. I can only offer a few alternatives here. The fingerboard of the `Lady



Blunt' Stradivari, 1721, is considerably shorter. The nut to table length is 120mm. The total fingerboard length is 213mm. A J. B. Guadagnini board from 1757 has a nut and table length of 127mm with an overall length of 237mm. In both these cases the fingerboards have an ebony or some stained hard wood veneer on the top surface only.

An instrument more closely related in time to the Stainer is the large Andrea Guarneri Viola of 1664. The fingerboard has been tampered with (a wedge has been placed beneath it), but I think that otherwise it can be considered original. The measurements cannot, of course, be compared, but it is interesting to note that it too has black veneers on both the top and the sides. (This viola is in the Shrine to Music museum. See also the notes on varnish in this article).

The fingerboard of the 1668 Stainer which has already been referred to is also surfaced with black ve-

neers on both the top and the sides. (I did not take note of the measurements for this instruments). Also in the Shrine Museum is a large viola by Stainer. It is 446mm long and supposedly dates from 1665. It too has a baroque style neck and fingerboard, these are however the result of a re conversion. Very much the same story applies to the three large violas in the Ashmolian museum. These violas are by Andrea Amata 1574, Gaspara da Salo Brecia, late 16th century and Hieronymus and Antonius Amati, 1592. All three of these instruments have what are probably original tailpieces. The Gasparo viola is also said to have its original board, but I cannot verify this. The point about all of these viola, is that the fingerboards and tailpieces are of figured maple, inlaid with a diamond criss cross pattern of black and white purfling strips. The use of such inlays seems to have become the standard on modern baroque instruments. However I believe that this kind of work was a feature only to be found on the very early instruments. The practice may have been superceded by the advent of the wound string. This development began in the second half of the 17th century. Quite obviously metal wound strings would have worn an inlaid maple fingerboard far more quickly than one faced with a hardwood veneer such as ebony. Furthermore, a veneer could be more easily replaced after wear. Even when Stradivari inlaid his fingerboards he was basically using a single (ebony?) veneer.

The fingerboard illustrated here has remarkable thick (ebony?) veneers about 1.7 to 2mm. These are laid over a slab cut board which does not appear to be of maple. Of the few surviving boards which I have seen, most are roughly gouged and rasped underneath. In contrast, this board is extremely clean. It is only slightly hollowed underneath and the V shaped cut out runs squarely through from one side to the other. The shape, form and cleanliness closely match that of the (considerably shorter) 1721 `Lady Blunt' Stradivari board.

The top curve of the board is very flat and it has a tiny saw or file cut in the centre at the end (see drawing). This "notch" is about the size which a string would fit into. I have no ideas about its originality or use.

Unfortunately the tailpiece is not original. Neither is the lower nut or saddle. There is one peg which was with the instrument. It is made of ebony and has a large ivory ball (2.5mm) on the head. Its originality is questioned by some authorities mainly on the grounds that it is made of ebony(?). I am not certain

about when and how ebony first arrived in Southern Europe, but I suspect that it was available before 1679. The present pegs are copies of the single surviving peg.

I have left until last the question of Stainer's varnish. In the final analysis it is the quality of the varnish which makes or breaks the product.

Usually it is the varnish on Stainer violins which, at a glance, distinguished them from those of his copyists, placing him firmly in the ranks of the Cremonese masters and in particular alongside the Amati family. The varnish on this instrument is, however, a little unusual. It is of an orange brown colour and has been extremely thinly applied. It is present in large amounts and it is in a very pure state of preservation. But it is not what most people would consider a classical varnish.

The process of polishing varnish lifts the refractive index, effectively making it more transparent. It also raises the intensity of colour. Too much polishing breaks down the surface texture and creates a glassy coating, which reflects the light almost before it has had the time to penetrate down to the wood. Unfortunately, the vast majority of classical instruments have been overpolished, usually with a thick layer of shellac. Simply because pure unpolished instruments are so extremely rare, they are often not recognised by the inexperienced eye. This is one reason why the 'Salabue' Stradivari, 1716, better known as 'Le Messie' is often denounced. The Stainer violin illustrated here falls into this category.

Although it takes a practised eye to appreciate the full beauty of this mercifully unpolished varnish, it is certainly worth making the effort. In fact it is worth making the effort to see as many examples as possible of such varnishes. The largest collections of such varnishes are to be found in the following museums:

- •The Shrine to Music Museum, Vermillion, South Dakota, USA.
- •The Paris Conservatoire, Paris, France.
- •The Ashmolian Museum, Oxford, England.

Roger Hargrave and THE STRAD wishes to thank Karl Roy and the Publisher 'Verlag' E. Bochinsky, for permission to reproduce the thicknessing charts which appear on this poster. They are taken from the book 'Jakob Stainer Leben and Werk des Tiroler Meisters 1617 1683' by Senn Roy. Also the owner of this violin, Master Violin Maker Michael Franke of Wiesbaden, West Germany.

|                        |    | ME     | ASUREME | ENTS               |           |
|------------------------|----|--------|---------|--------------------|-----------|
|                        |    |        | Back    | Belly              |           |
| Length (over arch)     |    |        | 351.5   | 352 a <sub>j</sub> | pprox.    |
| Upper bouts            |    |        | 162.5   | 162                | ,,        |
| Middle bouts           |    |        | 110     | 112.5              |           |
| Lower bouts            |    |        | 200     | 201.5              |           |
| Edge thickness corners |    |        | 4.2     | 4.2 approx.        |           |
| **                     | ,, | centre | 3.7     | 4                  | ,,        |
| -,,                    | ,, | bouts  | 3.5     | 3.7                | ,,        |
| Overhang in C's        |    |        | 3.2     |                    | ,,        |
| ,,                     | in | bouts  | 2.5     |                    | ,,        |
|                        |    |        | 11-     | abe Wadel          | Thislenge |

| пец                    |                   | in wiam inckness |  |
|------------------------|-------------------|------------------|--|
| Button (from outside o | 19.25 Tapers from | 5 to 4.1         |  |
| Ribs                   | Left              | Right            |  |
| Neck root              | 29.5              | 29.5             |  |
| Centre upper bout      | 29.5              | 29.25            |  |
| Upper corners          | 30                | 30               |  |
| Mid centre bout        | 29.25             | 29.5             |  |
| Lower corners          | 30.25             | 30               |  |
| Centre lower bouts     | 29.5              | 29.75            |  |
| End pin                | 30.25             | 30.3             |  |
|                        |                   |                  |  |

String length approx. 327, original probably 328 (neck has lifted slightly).

| Bass bar 233 length, 4 width, 5 at highest point on outside. |                      |             |  |  |  |  |
|--|----------------------|-------------|--|--|--|--|
| Purflin  | g distance from edge | 3.5 approx. |  |  |  |  |
| ***  | total width          | 1.5 ,,      |  |  |  |  |
| -,,  | width of white       | 0.8 ,,      |  |  |  |  |
|  |                      |             |  |  |  |  |

\*Approximate #Varies

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Photographs: Michael Franke Research Assistance: MicheleAshley LEFT SIDE RIGHT SIDE

