

Chapter 4 The Standard Viola

Maurice Riley's two-volume work is a valuable resource for the violinmaker. There is lacking a reference comparable to this enormous work. The contributions of violin dealers such as Bein and Fushi, Jacques Francois, William Hill & Sons, William Moennig & Son, William Salchow, and Kenneth Warren & Son furnished photographs and important information. Numerous institutions provided photographs, microfilm and other materials. Many owners of violas supplied photographs and information about their instruments and many violists and musicologists from other countries provided a supplement to Riley's researches.

Riley stated in the Preface to Volume II: *The decade between the publication of Volume I in 1980 and the writing of Volume II in 1990, has been one of the most eventful and productive periods in the history of the Viola. --- Many deserving violists had been unintentionally omitted from the biographies in the "Appendix" of the 1980 edition. There has been an EXHAUSTIVE ATTEMPT to rectify these omissions in the present edition.*

The past fifteen years since the publication of Riley's Volume II *The History of the Viola*, as witnessed by the activities of the American Viola Society and International Congresses (see Pounds) has contributed to establishing the viola as a string instrument of comparable quality, beauty and influence as the violin and cello. The composition of music ideally suited for the viola and the enormous growth of talented young violists is overwhelming.

The time is long past that the necessary work be accomplished to define and establish guidelines for the standard viola - defined herein as having a body length of 16 inches, plus or minus $\frac{1}{4}$ inches, with a string length of $14\frac{3}{4}$ inches. It may be that some 80% of talented advanced students and young artists could establish firm foundations for their careers with a standard viola. There remains perhaps 10% who would require a smaller viola, capable of concert performance. Another 10% may prefer and be able to play on a larger viola. If we can accept these guidelines, then what should be the model and other details, other than body length and string length?

Appendix I of *Biographies of Violists*, by Riley, in Volume II, provides a valuable reference for makers as well as players. Violists returned over 300 questionnaires, most including the date on the label, but few returned photographs or dimensions of the violas. Included are violas by Rivolta, 1824 (16 $\frac{3}{16}$ inches), Tononi 1710 (16 $\frac{1}{4}$ inches), Gofriller, (16 inches), Grancino (16 inches), P. Testore 1743 (16 $\frac{5}{16}$ inches), Johannes Alban 1698 (16 $\frac{1}{16}$ inches), Landolphi 1765 (16 $\frac{3}{16}$ inches), Balastrieri, 1765 (16 $\frac{1}{8}$ inches), Carcassi, 1765 (15 $\frac{1}{2}$ inches), Storioni 1784 (16 $\frac{1}{4}$ inches) and J.B. Guadagnini 1781 (15 $\frac{13}{16}$ inches). Other makers listed violas by Brescian makers such as Gasparo da Salo, Maggini, Mariani; Cremonese makers such as Brothers Amati, Andrea Guarneri and several by Enrico Ceruti; Venetian makers such as Montagnana and Gofriller; Tecchler from Rome; Tononi from Bologna; Gagliano from Naples; Milanese makers such as Testore, and Grancino; and several by J.B. Guadagnini. The great heritage of violas with measurements as noted above and displayed in photographs can serve as inspiration for modern makers.

William Bartruff at the 2004 Viola Congress provided to me a draft of his paper *The Alto Viola*, which he had submitted to the Strad for publication. From Bartruff: *If you*

were to lay the outline of the Amati Brothers mold over the same mold of the viola by Stradivari, you would find that they are identical. --- Then if you were to do the same with many other makers of the period see that they are also very similar if not identical. He suggested that I look up the Strad Poster for the 1620 Brothers Amati. I also obtained a copy of the Tradewinds poster for the 1615 Brothers Amati viola. These are apparently the only contralto violas by the Brothers Amati extant. The fact that the outlines of both violas were so much alike suggested to me that Andrea Amati must have made a similar contralto viola.

Riley states in Volume I, pp 15 - 18, under the caption - An Andrea Amati Viola, the following: *The viola shown in Plate 6 is believed to be the work of Andrea Amati, except for the ribs. The most dependable appraisers are sometimes hesitant to state with full assurance that an instrument that is over 400 years old is definitely the work of a particular maker. Emil Herrmann, who sold and certified this instrument, told the purchaser that in his opinion the instrument is the work of Andrea Amati. The certificate is worded in a cautious manner.*

The viola is an Italian instrument of the school of Andrea Amati, of Cremona, with the exception of the ribs, which have been replaced. It bears a label of Andrea Amati, 1567.

The back is formed of one piece of rather plain curly maple, and the scroll to match. The table is of spruce of medium wide grain in center and much finer in the flanks. The varnish is of a dark golden-brown color.

Everyone who has played or heard this instrument played vouches for its beautiful tone. It is not one of the violas ordered by the French Court. Its dimensions are:

Body length - 40.7 cm. (16 in.)
 Upper bout - 18.5 cm. (7 ¼ in.)
 Middle bout - 13.4 cm. (5 ¼ in.)
 Lower Bout - 23.1 cm. (9 in.)
 Lower ribs - 3.5 cm.
 Upper ribs - 3.4 cm.

The dimensions of the Brothers Amati violas of 1615 and 1620 are shown below and are different from this viola, especially in the widths of the bouts.

In a footnote to p 7, Volume II Riley states: *See Maurice Riley, Volume I of the viola, pp 14-21, for descriptions of three other Andrea Amati violas. The first is the Stanley Solomon Viola, which has been cut down to a present body length of 43.3 cm. (17 1/16 in.), a second viola, with a body length of 40.7 cm. (16 in.), belongs to an owner who chose to be anonymous, and the third, the famous Walter Trampler viola, was cut down to a body length of 44.5 cm. (17 ½ in.).*

The 1615 Brothers Amati viola, from the Tradewinds Poster,

Body length - 41.1 cm. (16.2 in.)
 Upper bout - 19.3 cm. (7.6 in.)
 Middle bout - 12.7 cm. (5.0 in.)

Lower bout - 24.2 cm. (9.5 in.)
 Lower ribs - 3.4 cm.
 Upper ribs - 3.2 cm.
 Stop - 22.5 cm.

The 1620 Brothers Amati viola (from the Strad poster)

Body length - 40.9 cm. (16.1 inches)
 Upper bout - 19.4 cm.
 Middle bout - 12.7 cm.
 Lower bout - 24.2 cm.
 Sides - 3.9 cm. to 3.7 cm. (from photo)
 Stop - 22.5 cm.

From these measurements, the two Brothers Amati violas have an upper bout that measures 19.4 cm. exactly, compared to 18.5 cm. for the supposed Andrea Amati viola; while the lower bouts of the Brothers Amati violas measure 24.3 and 24.2 cm, compared to the supposed Andrea Amati viola, which measures 23.1 cm. On the other hand, the C-bouts of the Brothers Amati violas are only 12.7 cm. while the supposed Andrea Amati measures 13.4 cm.

I would not conclude from the above measurements comparing the supposed Andrea Amati contralto viola with the Brothers Amati violas that the Brothers used this model for their contralto violas. Nevertheless, I can't imagine where else the Brothers Amati would have found a contralto viola model other than in the shop of their father Andrea Amati. Perhaps one day a contralto viola by Andrea Amati will be found.

At this time of celebration of the 500 year anniversary of Andrea Amati's birth, I think it is about time that Andrea Amati is known as the founder of the contralto viola, as well as the tenor viola.

Andrea Amati has been credited with the development of the violin. From *Amati Violin Makers*, by Carlo Bonetti, p 69: *Bologna and Brescia have contested the honor of being the birthplace of the violin. Today, Cremona is entering the contest. In our opinion, the honor goes by right to the Cremonese school of the Amatis, a school, which initiated its luthier's tradition in the first half of the 16th century. This fact has been demonstrated by the archival documents ---.*

The violin was later perfected by his sons Antonio and Hieronymus, his grandson Nicolo and students of Nicolo among whom were Stradivari and Andrea Guarneri (and Andrea Guarneri's grandson Guarnerius del Gesu).

Andrea Amati is also credited with making the first cello. From Bonetti, p 25: *The fact that Andrea had been a master since 1525 confirms the hypothesis that in 1546 he was the first to make a violincello, among other instruments. And thus deserves the title of creator.*

There is only one Amati contralto viola extant other than the two Brothers Amati violas of 1615 and 1620, and that is a Hieronymus Amati II viola of 1703 . It was Stradivari who followed the Brothers Amati with his 1672 "Mahler" viola. Just four years later, in 1676 Andrea Guarneri made his first viola, the "Conte Vitali".

All but one of Stradivari's contralto violas since his 1672 "Mahler" viola were based on the same model, the 1690 Stradivari viola. The 1696 Stradivari "Archinto" viola, available in a Strad poster can give us a good idea of the similarities of the Stradivari violas compared with the Brothers Amati violas. The measurements of the 1690 and 1701 Stradivari violas, from the Hill brothers *Antonio Stradivari, His Life and Work*, Appendix p 296, show about the same length, widths of the bouts, and the stop - 22.2 and 22.0 mm. The sides are higher in the 1701 Stradivari viola. The arching of the top plate for the "Archinto" Stradivari is 18 mm. high and is very similar to the 1620 Brothers Amati viola.

The 1696 Stradivari "Archinto" viola

Body length - 41.5 cm. (16.3 in.)

Upper bout - 18.5 cm. (7.3 in.)

Middle bout - 12.9 cm. (5.1 in.)

Lower bout - 24.1 cm. (9.5 in.)

Sides - 3.5 to 3.2 cm.

Stop - 22.3 to 22.4 cm.

Before going on to the Andrea Guarneri violas, something must be said of the tone of the Brothers Amati violas and the Stradivari violas. This controversial subject was raised in my discussions with Mr. Bartruff and others at the 2004 Viola Congress. Firstly, both Brothers Amati violas are unplayable, however, they will both be displayed at the Triennale in Cremona at the end of September (2006). I have never heard a live performance by an artist playing a concerto or sonata on a Stradivari viola, nor have I heard recordings of concertos or sonatas played by a great artist on a Stradivari viola. Recordings of William Primrose became available and were widely appreciated. The contributions of William Primrose have been noted in books by Primrose and Dalton as well as in the Primrose International Archive at BYU, Provo, Utah. Bein and Fushi published their monograph, *The Primrose Viola* in 1983. The details of this viola based on measurements of Bein and Fushi are found in Appendix A. A Strad Poster of the 1676 Andrea Guarneri viola followed.

I began making violas based on the Andrea Guarneri violas instead of a Strad or Brothers Amati viola. The opinion of Primrose regarding the weak C string of the Macdonald viola was presented above in Chapter 2 as well as the Hills opinion that Stradivari violas lacked resonance on the G and C strings. Many recordings of William Primrose playing on his Andrea Guarneri are available. I was also impressed with the artistry of Pinchas Zuckerman playing on an Andrea Guarneri viola.

I began making an Andrea Guarneri viola, at first with a 16 1/2 in. body length with a stop of 22.5 cm. My first researches on the viola were to determine the effects of playability and tone by reducing the body length from 16 1/2 in. to 16 3/8 inches, and then to 16 1/4 inches with reduction of the stop to 22.2 cm. I found there was no difference in tone, yet the smaller viola was a little easier to play. This research was reported in the January (Part one) and February (Part two), 1993 *Journal of the Arizona Violinmakers Association*. The 1676 Andrea Guarneri viola as well as the 1697 Andrea Guarneri Primrose viola have been used successfully by many violinmakers. There are differences

between these two Guarneri violas, especially in wider widths of the middle bout and the higher and fuller arching of the top plate of the 1676 Andrea Guarneri.

The dimensions of the 1676 "Conte Vitale" Andrea Guarneri are as follows:

The 1676 Andrea Guarneri viola (from the Strad poster)

Body length - 41.8 cm. (16.5 inches)
 Upper bout - 19.5 cm.
 Middle bout - 13.6 cm. (belly), 13.8 cm. (back)
 Lower bout - 24.2 cm.
 Sides - 3.8 cm. to 3.5 cm. (from photo)
 Stop - 22.2 cm.

The 1672 Mahler Stradivari viola was Stradivari's first viola and one that differed significantly from his other violas, such as the 1696 Archinto viola noted above. The 1672 Stradivari viola may have been the inspiration and model used by Andrea Guarneri in his first viola of 1676.

The 1672 Stradivari (from Hill)

Body length - 41.1 cm., (16.2 inches)
 Upper bout - 19.84 cm., (7.8 inches)
 Middle bout - 13.5 cm. (from photo)
 Lower bout - 24.13 cm. (9.5 inches)
 Sides - 3.33 cm.
 Stop - 21.6 cm.

It would be almost fifteen years after making violas based on the Andrea Guarneri models that I would begin anew to make violas. I had meanwhile made cellos based on only one model, the Stradivari Forma B cello. It was the 2002 Viola Congress, which renewed my interest in making violas. I had almost finished the wood I had stored for cellos at this time and had wood stored and seasoned for more than two decades for violas. The Camillus Camilli 1739 viola as well as an article on Roberto Diaz was presented in an article in the Strad February 2003. I also discussed the dimensions of this viola with Gabriel Kundert who made a remarkable copy of this viola, which Roberto Diaz played, along with 35 other violas by modern makers.

The Camillus Camilli 1739 viola used by Roberto Diaz and his student David Aaron Carpenter at the Primrose Competition and Festival at Provo, Utah in 2005 was very important to me. I believe a maker should be inspired by live performances and on recordings. I regarded the tone of this viola, barely over 16 inches, as well as the Nicola Bergonzi of Kim Kashkashian as the examples of ideal viola tone for the "Standard Viola". The Camilli, however had a string length greater than 14 $\frac{3}{4}$ inches, with a stop longer than what I would consider sufficient. I reduced the stop from 230 mm to 222 mm to make the viola easier to play. The squared shape to the upper bout in the original was changed to sloping shoulders of the upper bout. These were easy matters to correct in my own model based on the Camilli. The detailed measurements of my own model based on the 1739 Camilli are presented in Appendix B. Perhaps the most striking findings for this viola was the wide middle bout - 141 mm. and the high arching which on the top extended to nearly the ends of the top plate. Another finding that I believe is very significant, is the reduced lengths of the middle bouts. The findings of a shorter middle

bout on Paul Coletti's old Moennig viola, as well as shorter middle bouts on other violas by da Salo, Maggini and Guadagnini are also significant. Not shown in the Hill book, the Strad posters or in the literature is what I regard as a most important measurement, namely the length of the C-bouts on these violas. The length of the C- bout is measured from the join of the purfling on the upper corner to that of the lower corner. In both Brothers Amati and the Stradivari violas the length of the C-bout measures 103 mm. compared to 93 mm. With this wasted space of 10 mm, we have a viola that is longer than it needs to be. By reducing the length of a middle bout from 10.3 cm. to 9.3 cm. and moving the upper plate toward the middle bout, one can add ¼ inch or more to a 16 in. viola, by simply getting rid of this extra space.

The performance of Kim Kashkashian playing the Hindemith sonata for viola and piano, opus 11 No. 4 and the Brahms Sonata No. 2 in E-flat major, opus 120 was a landmark event for me clearly establishing the foundation for the "standard viola". She performed on a Nicola Bergonzi viola which had remarkable tone, which I regard as a model for a "standard viola tone". According To Charles Beare, who has had this viola. for decades in the Beare shop and who sold the viola to Kim Kashkashian, the dimensions of this viola are "more or less identical" to the 1781 Nicola Bergonzi (grandson of Carlo Bergonzi) at the National Music Museum in South Dakota (see Appendix C). From conversations with William Bartruff, who obtained the dimensions of the 1781 Bergonzi, he told me that the Bergonzi viola is very much like the Brothers Amati contralto viola of 1620. Not having detailed measurements and photos of Kim Kashkashian's Bergonzi viola I started with the outline of the 1620 Brothers Amati violas, comparing it carefully with the photos of the 1781 Nicola Bergonzi on the National Music Museum's website, and then took the liberty to make some of my own modifications.

In keeping with my resolve not to exceed 93 to 95 mm for the lengths of the C-bouts I brought the upper bout of the Brothers Amati viola 8-10 mm toward the middle bout thus lengthening the upper bout by at least ¼ inch. I increased the width of the middle bout from 127 to 136 mm. and fashioned the slant and corners like the photos of the 1781 Bergonzi. I also increased the height of the sides to 38 mm. for the lower bout and 36 mm. for the upper bout. The measurements of my own violas based on the above, are presented in Appendix C. It will be of tremendous value to violinmakers who are interested in the viola to have detailed measurements and photos of Kim Kashkashian's Bergonzi viola published.

Violas by the same maker can differ in important respects as noted above for the Andrea Guarneri violas. There are important differences between the 1615 and 1620 Brothers Amati violas even though the outlines are almost exactly the same. The heights of the sides are different for the 1615 and 1620 Brothers Amati violas, 3.4 to 3.2 cm. for the 1615 viola and 3.9 to 3.7 cm. for the 1620 viola. Even more important is the difference in the arching of these two violas. The 1615 viola has full arching for the top as well as the back, and measures approximately 18 mm. for the top and 19 mm. for the back. The top longitudinal arching of the 1615 viola extends further toward both ends of the plate. The top plate of the 1620 viola is 18 mm. high and the longitudinal arching reaches a peak in the middle and then begins to lower to the corners.