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## Some Things You Should Know Before Purchasing a Cremonese Violin

By Roger Graham Hargrave

“What are you thinking about?” she asks.

At this point I lie. I wasn't thinking about Martin Amis or Gérard Depardieu or the Labour Party at all. But then, obsessives have no choice; they have to lie on occasions like this. If we told the truth every time, then we would be unable to maintain relationships with anyone from the real world.

— Nick Hornby, *Fever Pitch*.

Shortly before the end of the 20th century, classical Cremonese violins had become a multimillion-dollar business. Although there has always been big money in the violin trade, within three decades the value of these extraordinary antiques increased at an unprecedented rate. During the 1980s and early 1990s, instruments of the violin family were one of the world's most rewarding investment possibilities. This relentless surge in the value of important Cre-

monese violins drew all other “old” violins into its wake. Today, whether inflated by association or by merit, the prices realized for instruments once considered basic to every orchestral string player have risen almost beyond their reach. As a result, when purchasing an instrument, professional musicians are not only investing larger amounts, they are also investing a larger proportion of their salary.<sup>i</sup>

There can be no doubt that many musicians have benefited from these inflationary conditions. On leaving the profession after years of service, they were able to fund a comfortable retirement from the sale of their prized musical companion. For those fortunate players, investing in the tools of their trade has proved significantly more profitable than any inflation-linked pension fund. Indeed, this arrangement would be ideal were it not for the fact that, year after year, many of their colleagues have their dreams of a comfortable old age brutally shattered. On trying to sell their precious Cremonese instrument, many will discover that it is not what they confidently believed it to be.

Some instruments, though genuine and outwardly fine, will be in poor condition internally. Some may be composites made from several instruments. Some will no doubt turn out to be clever fakes. But most will be cases of mistaken identity, fraudulent labelling or deceitful attribution. In truth, the possibilities for deliberate deception or simple but costly mistakes are as endless as Wagner's Ring.

Some of the problems that can arise will be examined in the course of this essay. However, this essay should be regarded as a warning, not a solution. In the violin business, when errors become apparent several years after the event, it is notoriously difficult to win redress in the customer's favour.

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It is not without reason that the word “fiddle” has a sinister connotation.<sup>ii</sup> The price tags of antique violins and the palpable lack of any professional regulatory body have always attracted rogues. And although for centuries, numerous otherwise prudent

individuals have been persuaded to invest in worthless “fiddles,” in our times such investments can – and often do – cost musicians a lifetime of saving. A major reason for this inflation has been the recent willingness of banks and credit institutions to finance expensive instruments, when less than half a century ago this was hardly possible. This easier credit has persuaded many more musicians to buy expensive antique instruments and has undoubtedly contributed to today’s price increases. Since credit institutions are interested only in the borrower’s collateral, players are more or less at the mercy of the dealer and the certification of the instrument in question. When these fail (for whatever reason), musicians are usually left to pick up the tab with little chance of compensation.

Remarkably, credit institutions have themselves become so convinced about returns on violins that many have formed their own collections. In 2002, the Austrian National Bank (Oesterreichische Nationalbank) published a catalogue of the 29 most important instruments in their possession.<sup>iii</sup> The collection includes seven instruments by Antonio Stradivari, three by Giuseppe Guarneri del Gesu and four by the Bergonzi family. At today’s prices, the collective value of these 14 instruments alone is many tens of millions of dollars.

In fact, in collusion with several major violin dealers, numerous banks and credit institutions have been actively encouraging city investors. Such investors only speculate where private money has established the market’s long-term reliability. Indeed, although few professional musicians can afford the spectacular sums that the great Cremonese masters can bring, it is their aspirations and capital that continue to sustain this vigorous trade. Unfortunately, it is they who usually suffer when things go wrong.

In fairness, it might be argued that the violin business is no better or worse than the art and antiques trade generally. However, nowhere in this vast market are the livelihoods of individuals so demonstrably interwoven with the potential rewards and hazards as they are in the violin trade. Art and antiques may be purchased as an investment or simply for the love and appreciation of what they are, but they are generally considered luxury commodities and, as such, are usually purchased with expendable income. In

contrast, as much as they might be works of art, antique violins are also working musical instruments. The problem is that their reputation for sound has been given so much credence or hype (depending upon your point of view), that many professional players consider them essential to their career prospects. The widely held belief that antique instruments, and in particular classical Cremonese instruments, sound better has been propagated for centuries by those engaged in their trade. Whether justified or not, this conviction has persuaded many musicians to finance such works regardless of the sacrifice.

Surprisingly, notwithstanding their close association with instruments and their undoubted ability to assess playability and tonal quality, few musicians can either identify or evaluate instruments. Neither are they generally aware that the identity of the maker is far more important to an instrument’s monetary value than the sound the instrument produces. Indeed, many young players are shocked to learn that the sound of an antique violin has little if any bearing upon its price.

Despite the great emphasis laid on sound, tone quality is almost never assessed or referred to in insurance or auction valuations. Only when instruments are being offered for sale does this factor become a major issue. Dealers are acutely aware that tone is the musician’s Achilles heel. They know that musicians will often pay highly inflated prices for good-sounding but otherwise inferior instruments, or that they will take on large loans to purchase an antique violin in the belief that somehow it will transform them into a Stern or a Milstein.

It has often been claimed that Cremonese instruments can be identified by their unique tonal qualities. Some aficionados even believe they can discern a specific Stradivari timbre. This is nonsense. The simple truth is that, while players can occasionally be recognized by their style and technique, no one has yet proved capable of identifying the instruments of a particular maker solely by their sound. Even the apparently obvious distinction between the acoustical properties of a Stradivari and a Guarneri del Gesu has continually defied serious analysis. The idea of a tonal fingerprint unique to a specific maker is pure fiction.<sup>iv</sup> While it is possible to identify a fine tone in

a violin, it is not possible to identify a violin by the tone. Documentary evidence excepted, the process of instrument identification, as with all other objects of art and antiquity, is essentially a visual one. Indeed, even the latest scientific weapons of analysis such as dendrochronology and electron microscopes are merely an extension of this ocular process.

## The Connoisseur's Craft and Its Role in Instrument Identification and Valuation

I have suggested that the process of identifying and valuing antique bowed stringed instruments is essentially a visual one, and that most players have little or no expertise in this field. I have also stated that bowed instruments have become increasingly more expensive.

In the following pages, I discuss why violin connoisseurs monopolize the identification and valuation of instruments, and I examine the dilemma caused by the fact that these connoisseurs are also often dealers who handle the very instruments they appraise. I also explain why, in spite of this dilemma, there is still no viable alternative to consulting a reputable connoisseur-dealer.

Ideally, a reputable connoisseur should be able to confirm the identity and authenticity of an instrument, accurately assess the extent of repairs and restorations, and from this information, calculate its market value. But this is a formidable task, and one that not every connoisseur is equal to. Moreover, for numerous reasons, even the best connoisseurs do not always concur. Regrettably for the potential customer, assessing the value of a connoisseur's opinion can often be as demanding as assessing the provenance of a particular instrument.

At present, the only way to become a connoisseur of violins is to become seriously involved in dealing. The single viable alternative to this path lies in restoring antique violins for a prolific dealer. Although it does not follow that all dealers are experts, it is mainly they who are tasked with assessing the constant flow of merchandisable instruments from

which, if they are astute, they can gradually learn the craft of instrument identification. In contrast, even the wealthiest and most active of collectors cannot afford to amass the number and diversity of instruments needed to become a recognized connoisseur. And in this respect, even the world's most important museum collections are woefully inadequate.

Very occasionally, a musician will become adept at instrument identification, but here again their expertise is often linked to a secondary interest in dealing. Otherwise, musicians are generally limited to familiarizing themselves with the instruments of their colleagues, and usually without reference to provenance, certification or other guidance.

Because access to a sufficient number and diversity of instruments is largely restricted to dealers, it is they who control and regulate expertise. They alone can acquire enough knowledge to become recognized connoisseurs. And, only those dealers who become recognized connoisseurs have the authority to assess, evaluate and certify instruments. So those who buy and sell violins are the consumers' only form of protection, their only safeguard against dishonest or misguided dealers. Unlike other branches of the arts, the violin world has never had the controlling influence of an independent body of scholarship, such as might be found in galleries, museums and universities.

Put simply, there are no independent experts in the violin trade. And no potential customer should fail to remember this fact. In the end, customers are heavily dependent upon the honesty and integrity of the connoisseur-dealer concerned.

However, in spite of these worries, the violin business has some formidable expertise and, if one knows where to look, some considerable honesty and integrity at its disposal.

At its finest, instrument identification not only involves the naming of a particular master but also the period of that master's career in which the work was completed. In order to achieve this, the connoisseur must have had access to many instruments over

many years and have studied these works in meticulous detail. Eventually, the very process of compiling, analyzing and correlating information heightens the connoisseur's perception. In another context, such a state might well be termed "enlightenment." Enlightenment of this nature, however, is not an innate gift. Like a good golf swing, it requires hard, repetitive practice. Natural talent (whatever that might be) may help, but it is total dedication to any discipline that creates outstanding ability, and such dedication is invariably the product of passion. There never has been and never will be a truly great connoisseur who was not obsessed with fiddles.

Regardless of effort or obsession, the extent of any connoisseur's "enlightenment" is more restricted than generally imagined. History has seen hundreds of thousands of violin makers. Some were celebrated and prolific but many, perhaps most, were obscure and produced very few instruments. Although theoretically it is the job of the connoisseur to identify all surviving instruments, this is an impossible task. The simple truth is that no connoisseur can claim to have examined even a single example of every school, let alone of every maker's work. Accordingly, each connoisseur is required to make judgements based upon a relatively small sample of the available whole.

It may surprise musicians and collectors to learn that when a connoisseur knows the life and works of 25 to 30 historical makers in detail, this is already an exceptional achievement.<sup>vi</sup> With considerable effort, a dependable familiarity with a further hundred or so may be realized. However, beyond this, most connoisseurs are at best reduced to calculated guesswork. Although this is no exaggeration, it does not mean that connoisseurs are incompetent. Considering the incalculable number of men and women who have made one or more instruments of the violin family,<sup>vii</sup> a well-educated guess is more than might fairly be expected.

Given the enormous number of violin makers, there has always been a tendency for connoisseurs to specialize. Some specialize in geographical regions, others in price ranges. Although minor national schools or inexpensive instruments may be as worthy of academic scrutiny as classical Italian works, in most other respects, they are not. The intrinsic beauty of many classical Italian instruments,

their undeniable sonority and their stylistic authority has caused their monetary value, and hence their prestige, to increase dramatically over the centuries. Consequently, when the violin world speaks of leading connoisseurs, it is usually referring to those conversant with classical Italian instruments. Furthermore, because the status of experts on classical violins is exalted, their broader ability is often overestimated - even within the trade. In reality, among the world's famous connoisseurs, past and present, knowledge of the minor schools is often extremely limited. This is because such connoisseurs ignore the minor, less valuable schools either by design or default, and connoisseurs cannot hope to know that which they do not see on a regular basis. The truth is that genuine universal experts are a rarer breed than virtuoso violinists. They may even be a myth.

Given the numbers involved, recording the names, dates and dwelling places of violin makers has always proved a notoriously demanding task. But these difficulties cannot be compared to the perils of recording and recalling the physical peculiarities of the instruments these makers produced. And this is especially true whenever such information is applied to the business of buying and selling. Dabbling with dealing may not be as hazardous as volcanology or as menacing as nuclear physics, but the potential for disaster is still substantial.

In spite of this, albeit with some effort, the physical details and typical features of violins can be learned. Nevertheless, simple data, however all-inclusive, does not in itself constitute insight or enlightenment. In this respect, top connoisseurs are usually so well versed in the technical details and typical features of fine violins that they need only refer to this knowledge in challenging cases. As a rule, any instrument that lies within a connoisseur's sphere will be recognized intuitively. Familiarity with minutiae may be an essential part of the connoisseur's skills, but reliance on such details is usually the mark of a novice. Accordingly, it is the novice who will take fright when a usual feature is absent from a perfectly genuine instrument, and it is the novice who will accept the fake that includes all the salient features of a maker's work.

Partly because of the perils referred to above, a



number of connoisseurs believe in restricting information about instrument identification, invoking such arguments as “a little learning is a dangerous thing.” Unfortunately, however sincere their motives, they are basically advocating a cartel, and whenever a cartel seeks to restrict or control information, it not only hinders competition but also stifles scholarship. In addition, no matter how well intentioned, restrictive practices almost always lead to corruption.

Regardless of these concerns, everyone must begin somewhere and as long as the dangers and limitations of such knowledge are fully realized, violins of any school can be described, compared and identified with some success.

## A Brief Look at the History of Classical Cremonese Violin Makers and Their Influence on Later Schools

For anyone wishing to understand more about violins of any denomination, it is essential that they research the history and provenance of both the makers and the schools to which they belong. The value of such documentary evidence can never be underestimated. In the history of expertise, countless works of art have been endorsed or rejected on the strength of a single sentence in some ancient document.

Archival research on the history of the violin has recently moved to a higher level, with serious investigative efforts being made to shed light on the context within which the instruments were created. The results have cast considerable doubt about the ability of connoisseurs to identify instruments with the confidence displayed by previous generations. From a profession of relative certainty, instrument identification has become a continually changing discipline, with fresh findings increasingly upsetting established doctrines.

In developing expertise, it is simply not enough to scrutinize instruments. Although the available information about a maker’s life and times may be ex-

tremely limited, it remains an essential element of the connoisseur’s craft. The examination of a single instrument can only assist the expert in identifying similar examples of the same maker’s work from the same period. However, if it is known when and where a maker worked, who they worked for and with, and who in turn worked for them, the examination of a single instrument can frequently reveal something about the work of several makers.

The following short introduction to the Cremonese school is by no means complete. It is included so that the reader can have a better sense of how important the Amati family and the system they developed are to understanding and identifying works of the entire Cremonese school, and the subsequent influence that this school had on the entire world.

Andrea Amati (before 1505/11-Cremona, December 26, 1577) was probably the first and arguably the most innovative Cremonese violin maker.<sup>viii</sup> Little is known about Andrea’s life. However, his few surviving works are often elaborately decorated and were clearly produced for an aristocratic clientele.<sup>ix</sup> It is possible that there were many violin-type instruments before Andrea’s time in other places, but only from his 16th-century Cremonese workshop has the entire violin family come down to us complete and in a highly sophisticated form. In particular, the sophistication of these violins suggests that they were conceived and designed as a group by a highly skilled artisan. No other surviving violin or violin family group displays anything like this level of refinement. Moreover, outside the Amati family circle, nothing similar materialized for almost a century. Andrea Amati made two sizes of violin, viola and cello, and virtually all modern instruments of the violin family stem from these designs.

Following Andrea, his two sons, Antonio (ca. 1540–March 4, 1607) and Hieronymus I (ca. 1561–November 2, 1630), known as the Brothers Amati, made a wide variety of instruments related to the violin family. Their workshop was highly productive and undeniably experimentalist.<sup>x</sup> The Brothers carefully refined Andrea’s designs and, perhaps more than has been previously suspected, contributed to the distinctive method of construction that – for more than two centuries, without exception – Cremonese makers utilized.

construction is virtually identical.

The third generation of the Amati family was represented by Nicola (December 3, 1596–April 12, 1684), the son of Hieronymus I. Exceptionally well trained in the art of violin making, he became the most extolled maker of the family. Nicola was certainly the most important Cremonese teacher. His grandfather, father and uncle may have developed the violin, but it was Nicola who eventually gave it to the wider world.

Following two years of famine and the devastating plague of 1630, Nicola was obliged to impart the Amati method to makers outside his immediate family circle.<sup>xi</sup> All the evidence suggests that he did this both willingly and well, but the unerring nature of the workshop's production indicates that he was also an uncompromising perfectionist who expected the same from his apprentices.

In due course, Nicola's apprentices – and there were many – passed on their knowledge to successive generations, creating an unbroken line of instruction between the early Amatis and the entire classical Cremonese school. Because of the meticulous nature of Cremonese training, regardless of each individual's subsequent stylistic development, the Amati method remained ubiquitous within the city.

During the two centuries of the classical Cremonese school (ca. 1550–1750), Cremonese makers continued to extend and refine Amati designs until the first half of the 18th century, at which time the Amati influence became almost unrecognizable. In spite of this, concealed beneath a veneer of stylistic details, the Amati method flourished, and its basic rules of construction largely remained unchanged.

It might be difficult to imagine two more divergent styles than those of Andrea Amati, who initially developed the Cremonese method, and Giuseppe Guarneri del Gesu, one of its last and wildest exponents. Although working in the same immediate neighbourhood, they were separated by almost 200 years. In spite of this chronological discrepancy, when the instruments of these two makers are scrutinized, it gradually becomes apparent that even with glaringly obvious stylistic differences, the method of

Curiously, although the Amati method characterizes the Cremonese school, it was a clever and innovative development of an earlier system of instrument construction. Moreover, until at least the mid-18th century, numerous variations of this earlier system were being employed throughout Europe. Certainly at the time of Andrea Amati, most if not all hand-held bowed and plucked instruments – including guitars, gambas, lutes and violins – were created using variations of this basic system. Essentially, this system involved fitting the neck to the sides of the instrument (or in the case of lute-type instruments, the panelled back) before aligning the neck and finalizing the body outline. Regardless of the various means of constructing the sides and attaching the neck, the objective was always the same: to allow the strings to run in a straight line along the fingerboard and over the bridge to the tailpiece and endpin. Any soundholes cut through the belly's surface were then centred on this axis. Moreover, this was done in spite of any resulting discrepancies to the instrument's final body outline. This process aligned the body and soundholes to the neck rather than the neck to the body and soundholes, as is usually the case today.<sup>xii</sup> As a result of this basic pan-European system, such instruments share a common feature. To some degree, there is always a geometric imbalance between the treble and bass sides of their bodies. This characteristic persisted more or less until the method of inserting the neck into the finished body was developed and widely adopted in the early 19th century. At this point, instrument outlines became more accurate and, above all, symmetrical.<sup>xiii</sup>

Fortunately for today's connoisseurs, before the 19th century, the various European schools of violin making (usually centred in a town or city) developed different methods of aligning the instrument's neck. Therefore, in spite of having the same basic objective, the methods employed by each school often varied considerably and each solution created features on the instruments that are unique to that school. Moreover, because each school often retained its method for centuries, the said method also defined that school. Accordingly, it is the peculiarities of the Cremonese (Amati) method of construction and the particular features it engendered that help experts distinguish Cremonese violins from other European schools of the same epoch.

In dealing with antique violins, it is reasonable to conclude that construction methods define schools, while stylistic details distinguish the individuals within those schools.<sup>xiv</sup> In this case, “stylistic details” refers to those modifications which – consciously or unconsciously – individuals apply to the basic patterns and methods of their particular school. These details may take the form of subtle changes to instrument design, the selection of unusual materials or some idiosyncratic use of tools. There are, of course, exceptions to this general directive,<sup>xv</sup> but by and large it is the interplay between the construction method and an individual’s stylistic interpretation that forms the basis of visual expertise. And, in essence, it is the connoisseur’s job to interpret this interplay and reach some form of appraisal.

From an early stage, instrument makers of different areas and traditions began to copy the successful designs of Cremonese violin makers. Initially, they imitated the works of the Amatis, then Jacobus Stainer and eventually Antonio Stradivari and Giuseppe Guarneri del Gesù. When this happened, it was usually only the basic designs which were reproduced, in particular the body, head and soundhole outlines. Normally, each copyist retained the construction method of his or her original teacher.<sup>xvi</sup> There are numerous examples. In early 18th-century London, Daniel Parker made outwardly accurate copies of instruments by Antonio Stradivari,<sup>xvii</sup> while continuing to use the construction method peculiar to the English school of Barak Norman and Nathaniel Cross. In the second half of the 18th century, a similar situation developed with the Buchstetter family of Regensburg:<sup>xviii</sup> the Buchstetters reproduced the appearance of a 1690s long-pattern Stradivari violin with considerable success, but they too retained the construction method specific to their native school.

The influence of Cremona’s violin makers spread far and wide, becoming ever stronger over the succeeding centuries. Three great factions initially developed, based on the work of the Brothers and Nicola Amati, then Jacobus Stainer and, later, Antonio Stradivari. Other Cremonese masters had a minor influence from time to time, but through the 17th and 18th centuries, these makers led the field. They were later joined by Giuseppe Guarneri del Gesù and

to a lesser extent Carlo Bergonzi and Giovanni Battista Guadagnini. In due course, no important group or individual maker remained unaffected.

Understandably, the Amatis – chiefly represented by the brothers Antonio and Hieronymus and later by Nicola – were the first undisputed leaders of violin making in Europe. Their fame was enormous and long lasting, and they were copied and even counterfeited from very early times.<sup>xix</sup> In addition to the many individual makers who were taught either directly or indirectly by Nicola Amati in Cremona, the family’s works influenced several Italian schools. In particular Florence, Venice, Turin, Milan, Padua, Bolzano and Bologna fell under their spell. Outside Italy, their instruments motivated makers in the Tyrol, the Low Countries and later, toward the end of the 18th century, England. It was only with the increasing vogue for Stainer’s instruments that the Amati star was eventually eclipsed.

It is uncertain where Jacobus Stainer (Absam, ca. 1617<sup>xx</sup>-late 1683) apprenticed. However, his use of the Cremonese method places him firmly in the Cremonese circle. In the beginning, he closely followed the Amati method and model, adopting many of the stylistic traits that characterized Amati violins. However, while Stainer remained dependent upon the Amati method throughout his career, he transformed the appearance of their model by developing his own distinctive style. Eventually, Stainer’s fame outstripped the Amatis’ almost everywhere.

Remarkably, unlike the Amatis’ influence, Stainer’s remained largely indirect. He professed to have taught no one. The response of other makers to the public’s demand for Stainer instruments was therefore all the more astonishing. In Italy, his model penetrated every important centre of violin making, except Brescia, Milan and, logically, Cremona.<sup>xxi</sup> The list of Italian makers who adopted Stainer’s model is seemingly endless. It includes Thomas Eberle in Naples; Michael Platner, David Techler, Francesco Emiliani and Giulio Cesare Gigli in Rome; Francesco Gobbetti, Matteo Goffriller, Carlo Tononi, Domenico Montagnana and Seraphin in Venice; Giovanni Florenus Guidantus and Giovanni Antonio Marchi in Bologna; and Lorenzo and Thomaso Carcassi and Giovanni Battista Gabrielli in Florence.



With the exception of the Klotz family in Mittenwald, who alone remained faithful to the Amati ideal, in Germany and Austria<sup>xxii</sup> Stainer's influence was almost ubiquitous.

In the Low Countries, a typical scenario was that of Hendrich Jacobs and his pupil Pieter Rombouts, working in Amsterdam. Jacobs built beautiful instruments after the Amati pattern, but Rombouts gradually adopted the more popular Stainer model.

Because Stainer taught no one directly, in spite of his exceptional influence, his working method and stylistic traits were often only loosely adhered to by his followers. Indeed, his patterns were often copied and recopied to the point of caricature. It was in England, however, that the effect of "Stainerization" was perhaps the most devastating. Daniel Parker's outstanding copies of Stradivari's instruments should have laid the foundations of a great English school, but unhappily it was not to be. Almost every 18th-century English violin is a copy of a Stainer or an Amati, with some makers, like John Dodd, alternating between one and the other their entire working lives.

With a few notable exceptions, it was not until the 19th century, when the French rediscovered the classical Italian school, that Stainer's influence waned. From this moment, it was Antonio Stradivari who inspired the majority of violin makers.

Unlike Stainer, Antonio Stradivari had pupils. He was directly responsible for teaching his sons Omobono and Francesco, and possibly several other makers.<sup>xxiii</sup> Although a number of makers claimed to be "Antonius Stradivarius alumnus," to date no documentary sources have confirmed their association with his workshop. There are, however, strong stylistic indications that a few prominent Cremonese makers worked for Antonio. Unfortunately, only time and considerable luck will reveal who was really employed in his shop.

During his lifetime, Antonio Stradivari inspired many makers, both inside and outside Cremona, but

the full effect of his authority was felt long after his death. Over the centuries, Stradivari's works have been copied as badly as those of Stainer and the Amatis, but generally instruments inspired by his designs have proved the most successful. Since classical times, his works have been copied by exceptional violin makers more often than those of anyone else. This fact is reflected in the prices that such instruments reach at auction. The Gaglianos and Guadagninis, Lupot, Pressenda, Rocca, Vuillaume, Lott, the Voller brothers and Sacconi, to name but a few, were all inspired by Stradivari.

The influence of Giuseppe Guarneri del Gesù developed much later than that of Stradivari. Indeed, with the possible exception of his wife Catarina Guarneri and Lorenzo Storioni, the classical period was long gone before his instruments were imitated. In fact, it was only after Paganini's endorsement in the first half of the 19th century that Giuseppe Guarneri del Gesù joined Stradivari in the first rank. Unfortunately, in attempting to imitate his popular but rather eccentric later works, most copyists fell disastrously short of the mark. It might even be argued that the eminent Parisian maker Jean Baptiste Vuillaume, who was so successful with his Stradivari models, never really understood the idiosyncrasies of Guarneri del Gesù.

As I mentioned earlier, there are ways of becoming an established expert on minor national schools or inexpensive instruments without needing to study classical Cremonese works. Nevertheless, for anyone wishing to become proficient at instrument identification, the importance of Cremona cannot be overestimated. The designs created and brought to perfection by the Cremonese makers are the stuff from which virtually all subsequent makers derived their inspiration (with the notable exceptions of Venetian cellos and Brescian violas). This inspiration may be many times removed from the original source, but even in the most rudimentary instruments, some Cremonese influence can generally be detected. Consequently, anyone who can identify the works of these important classical makers is already well on the way toward a better understanding of all violins.

The argument for developing expertise through the study of Cremonese instruments is both powerful



and persuasive. It is supported by the fact that well-certified Cremonese instruments can be found in major orchestras and museums throughout the world, and with a little effort, an aspiring expert can gain access to many of them. Furthermore, apart from the instruments themselves, a wide variety of supporting documentation is now available. The lives of most Cremonese makers have been well researched, with new information becoming available at regular intervals. In addition, a sizable and reasonably accurate iconographic record of their instruments exists in various publications and, of course, on the internet. Admittedly, there are difficulties with some of this supporting material. It is occasionally inaccurate and often only available in rare and expensive editions. However, this same criticism can be applied to the instruments themselves – rare, expensive and occasionally inaccurate.

## Labels

There is frequently a shyness of an unlabelled violin which demonstrates how deeply the love of a label goes.

- Arthur W. Dykes, *The Strad* (1936).

The most important documents pertaining to instrument identification are – and have always been – authentic and undisturbed labels (in some cases, brands or stamps). They are the only indication as to the true authorship of any instrument. Every decision made about an instrument's provenance is initially dependent upon the examination of original undisturbed labels. This even applies to instruments that are fraudulently labelled or have no label (or similar identification). In such cases, decisions are made with reference to similar instruments that do contain authentic and undisturbed labels. In fact, if the classical violin makers had not labelled their works, then no amount of analysis or archival research could help connoisseurs identify them. Even the most obvious visual characteristics are useless without an attributable name.

Violin labels are so important that an in-depth study of them should become an essential part of the connoisseur's education. Not only should connoisseurs concern themselves with their appearance and

the materials from which they were made, they should also consider the accuracy of their wording.<sup>xxiv</sup> Unfortunately, the serious analysis of violin labels has for the most part been neglected.

As a rule, the material upon which labels were printed or written was, as it still is, paper. In Europe at the time of the classical violin makers, the choice of papers was limited. Manufactured from linen or cotton, paper types were often specific to certain towns or areas. (In fact a paper expert might reasonably be expected to identify not only the country and town of origin, but also the exact paper mill and an approximate date of manufacture.) For this reason, violin makers of the same school and period will almost certainly have employed similar recognizable papers. Again, it is regrettable that such possibilities are being overlooked by those investigating the authenticity of violins.

Similar arguments apply to the large assortment of typefaces, printing techniques and inks. As with papers, at the time of the classical violin making schools, printing techniques were limited. Labels were generally printed with movable type, and often individual letters were subject to wear, tear and movement. The resulting letter shapes are often as distinctive as fingerprints. A comparison might be made with the unique imprints left by typewriter keys.

Although some attempts have been made to investigate printing techniques as well as typefaces and their imprint on violin labels, in-depth studies are rare. In spite of this, a number of useful details have been observed that demonstrate the value of analyzing print. Giuseppe Guarneri del Gesu never changed the wording of his labels (aside from the missing "Nepos" labels).<sup>xxv</sup> However, over the years, the individual letters and their placement did vary. For example, in some periods the letter "m" in Cremona is set high, and in others it is set low. In addition, one or two letters stood proud and straight while others were shallow or twisted. Such distinctive multidimensional imprints on the surface of labels are often specific to particular makers and even to certain periods of their work.

Even typographical errors and spelling mistakes can help establish particular periods, especially when (as is often the case) dates have been deliberately obscured or obliterated. A case in point is the inverted letter “u” in the word Antonius that was used on Stradivari’s labels before 1700. This resulted in the inscription Antonins.

As with papers and typefaces, no serious scientific analysis has been made of the various inks used on violin labels. However, as the techniques of forgers improve, this will probably become a necessity. In the meantime, connoisseurs are once again restricted to simple visual examinations.

Fortuitously, both Antonio Stradivari and Giovanni Battista Guadagnini provided connoisseurs with opportunities to observe several ink types on single labels. Both makers imprinted an extra monogram stamp on their labels.<sup>xxvi</sup> In each case, these small round stamps were printed with inks that differ in colour from the main typescript. Moreover, on occasions where Stradivari’s monogram stamp was not clearly printed, he added the missing portions by hand, providing a third ink type.

Wholly or partially handwritten on most labels is the date of an instrument’s construction. These dates were written with normal writing inks and generally do not have the intensity of the printed letters. Today, they are often faded browns and greys. Sometimes, acids in the ink have attacked the paper, almost etching or burning the numbers into the surface.

For financial gain, label dates have often been tampered with. However, although examples are rare, a number of classical makers made alterations to their own dates as well. This was probably done to avoid reprinting otherwise usable labels. Stradivari printed a series of labels in the 1660s that included the numbers 166. The final number was to be applied by hand. At the turn of the decade, he simply scratched out the final 6 and added two numbers by hand. When the 1680s came along, he still had a supply of these labels and changed the second 6 into an 8 with a stroke of his pen.

In many cases, all that is known about a maker is that which is written or printed on their labels. Such is the case with the labels of Giovanni Battista Rogeri. Bearing the following inscription, they are among the most comprehensive of all classical Italian labels:

Io: Bapt. Rogerius Bon. Nicolai Amati de Cremona  
alumnus Brixiaë fecit Anno Domini 1 --

Although disclaimed by some scholars, the abbreviation “Bon.” is believed to denote Bononiensis, meaning “of Bologna,” and may indicate that he was born in Bologna, not Cremona.<sup>xxvii</sup> He certainly lived and worked in Brescia, or “Brixiaë,” and consequently among violin fanciers, the name of Giovanni Battista Rogeri is usually coupled with the suffix “of Brescia.” Rogeri claims to have been a pupil of Nicola Amati in Cremona, “Nicolai Amati de Cremona alumnus,” and it is this final aspect of his mini curriculum vitae that is of particular interest.

Living in Cremona at that time was the similarly named Rugeri family of violin makers, of whom Francesco Rugeri was the first and most important member. Because names were frequently misspelled by the recorder (usually the parish priest), it is believed by some that Francesco Rugeri and Giovanni Battista Rogeri were related. Unfortunately, no documentary evidence has emerged confirming this claim. However, like Jacobus Stainer, Giovanni Battista Rogeri of Brescia was using the Cremonese (Amati) method of construction. Moreover, he and Stainer were the only makers doing so with (as yet) no proven connections to the Cremonese school.<sup>xxviii</sup>

Other than the label, the only indication that Giovanni Battista Rogeri of Brescia may have been trained in Cremona by Nicola Amati is to be found in a Cremonese parish census. In 1661 and 1662, a Gio Batta Ruggieri is recorded living in the house of Nicola Amati in Cremona. The parish of the Amati family was extremely small, and like many others, it was gradually absorbed by larger parishes. As a result, many records were lost or mislaid. Not unusually, the census for 1663 is missing, but by 1664, this Gio Batta Ruggieri is no longer resident in the Amati household. In spite of the spelling, most authorities

agree that this is Giovanni Baptista Rogeri of Brescia, rather than one Giovanni Battista Rugeri, a son of Francesco Rugeri. In 1661-1662, this son of Francesco would have been only eight or nine years old. Even by the standards of the time, he was probably too young to have been an apprentice. It is further assumed that Giovanni Baptista Rogeri, coming from Bologna, would have resided in the Casa Amati like other foreign apprentices,<sup>xxix</sup> causing him to be included in the annual census of this tiny parish. Francesco's son, being Cremonese, would not have required accommodation and consequently would not have been included in the Amati household.

Although no references to Francesco Rugeri and his family have been found in Cremona for the relevant years, there may be several reasons for this, the most obvious being the fact that many parish records are missing. In addition, numerous ancient documents remain unopened, and it may simply be that the relevant records have not yet been examined. Apart from these possibilities, some historians believe that the Rugeri family may have been living close to, but outside, the city walls.

In stark contrast to the highly informative labels of Giovanni Baptista Rogeri, the decision of the Brescian makers Gasparo da Salo and Gio Paolo Maggini not to date their labels has created numerous problems for connoisseurs. This simple omission has made it almost impossible to establish accurately the stylistic development of these two makers. The enigma is heightened by the fact that almost anything Brescian has been fraudulently relabelled as either "Gasparo da Salo" or "Maggini." Accordingly, it has also become difficult to distinguish this famous pair from many other Brescian makers whose names are recorded in the archives but whose identity in the form of extant instruments has almost certainly been lost forever.

In sum, clean undisturbed labels are all that is required for the identification of any instrument,<sup>xxx</sup> and if such labels were commonplace, expertise would be painless. Sadly, they are not.

Taking a relatively small sample of Cremonese instruments, the label problem quickly becomes obvi-

ous. More than half of the violins believed to have been made by Giuseppe Guarneri del Gesu contain no label or fake ones. The same can be said of Carlo Bergonzi and several members of the Rugeri family. Even more remarkable, labelled examples of Hieronymus Amati I and Giacomo Gennaro are extremely rare (fewer than ten between them), and although there are several instruments certified as the work of Antonio Amati, no undisturbed label actually exists. While two genuine labels of Omobono Stradivari have survived in collections, as have several sotto diciplino labels of Antonio Stradivari and Andrea Guarneri, none have survived undisturbed in instruments.<sup>xxxi</sup> In addition, there are cases, such as the infamous "Nepos" labels of Giuseppe Guarneri del Gesu<sup>xxxii</sup> and those of his wife Catarina Guarneri, which reliable documentary sources corroborate but of which no examples have endured.

The fact that some makers appear to have inserted deliberately misleading labels has also clouded the picture. In his latter years, Giovanni Baptista Guadagnini claimed to have been a pupil of Antonio Stradivari.<sup>xxxiii</sup> Although the claim cannot be entirely disregarded, most experts have dismissed this possibility.

Almost certainly for quite legitimate reasons, the labels of the Brothers Amati are also confusing. Antonio Amati died March 4, 1607, and by accounts quite suddenly. In spite of this, labels printed with both the brothers' names were inserted for a further 23 years, until Hieronymus Amati died in 1630. It would seem that the company name was simply retained, as it might well be today.

With the recently discovered information about the early death of Antonio Amati, for the first time the notion that instruments may have been made by people other than those named on Cremonese labels can seriously be challenged.

One of the greatest weaknesses of connoisseurs is their tendency to become infatuated with lofty ideas and ideals. In spite of the magnificence of Cremonese instruments, violin making was (and still is) a traditional, repetitive craft, where technical proficiency took precedence over artistic inspiration. However,

almost since the time of Cozio di Salabue,<sup>xxxiv</sup> many connoisseurs have chosen to ignore this reality, preferring instead to perceive violin making as an autonomous art form. As a result, individual makers were elevated to the status of artists, a process which altered the perception of Cremonese instrument production. Ultimately, the myth of the lone individual creating one-off masterpieces became firmly established, and it continues to shape the thinking of many connoisseurs.

The reality, however, was somewhat different. Cremonese masters obviously trained their apprentices extremely well, and they are unlikely to have wasted their investment with undemanding tasks. The truth is that at some point in their working lives, all the classical Cremonese makers were marketing instruments that, at least in part, were made by someone else. Traditionally, the help they received came from their sons. But, although barely recognized (at least officially), this help must often have been considerable. Moreover, the help many Cremonese masters received was by no means limited to immediate family members. In this city of violins, ancillary workers were a major fact of life.<sup>xxxv</sup>

Such revelations do not call for the denigration or devaluation of Cremonese violins. They merely offer an alternative explanation which is perhaps more accurate and certainly more interesting. In fact, at the time of the classical violin makers, such interaction occurred in almost every trade and artistic endeavour. In this regard, the artistic merit of the Sistine Chapel is not devalued by knowing that a small army of craftsmen was working under the direction of Michelangelo. Nor are the chairs of Robert Adam and Thomas Chippendale any less worthy because they never raised a chisel in their preparation. The world can live with a Henry Moore sculpture which, though weighing several tons, was never more than a tiny model in the artist's hands. Perhaps the world must now learn to live with violins to which the accredited master may have contributed little more than the plans and some fatherly guidance.

Unhappily, the possible presence of extra hands has created serious problems for those whose only interest is exclusive star names, which are exploited by devious dealers to pump up prices and by pretentious customers to boost their status. It has never

been common practice to sell no-name violins. Nor will it prove popular selling instruments with several names. But, no matter what emerges from the archives, it seems unlikely that the cult of star names will disappear very quickly. Indeed, this long-standing insatiable desire for eminent names and the spiralling of prices has led to more than simple label manipulation.

Even several centuries ago, the desire to own a fine violin by an important maker was already outstripping the supply. False labels and label-switching became and have remained the simplest and most common form of faking instruments. It has also proved by far the most successful. Regrettably, it has created serious confusion for those attempting to classify fine antique instruments. And unfortunately, the practice continues unabated, especially with instruments of the modern Italian schools.

For the purpose of instrument identification, authentic and undisturbed labels remain the most important documents. Either in situ or by proxy, they are the key to identification. However, for more than a century, another kind of paper has gradually developed in authority and in many cases has superseded the genuine and undisturbed label. "Important" instruments tend to accumulate documents – be they certificates, bills of sale, old insurance valuations, repair bills or letters of recommendation. Such papers are of enormous interest and belong to the history and provenance of any instrument. But they are not proof of an instrument's authenticity. However, although individually such documents are often worthless, collectively they frequently acquire credence and credibility. All too often, dealers are prepared to write certificates (for which they are handsomely remunerated) based upon already existing papers, thereby adding authority to the group. Accordingly, accompanying documents – especially those issued by persons deceased or companies that have ceased trading – must always be regarded with suspicion. Indeed, over the centuries such documents have often been concocted and issued by charlatans.

With the help of "good" papers, even a junk fiddle may be sold for a tidy sum, a fact that has led to the production of many fake papers, because fake papers are easier to generate than fake instruments. What-



ever their nature, fake or otherwise worthless, papers are frequently successful. This is because customers are more likely to accept documentation without question than they are to accept a violin with no accompanying papers. And, if they are led to believe they are getting a bargain (though not cheap enough to arouse suspicion), they can eventually be persuaded by their own greed.

Toward the end of the 19th century, William C. Honeyman wrote the following about violin certification:

An expert is a very expensive luxury; he is not always correct in his judgement and he is frequently not honest. The usual charge of an expert for judging a violin is 2½% of its value, so an opinion may cost pounds, and yet be worth very little. There are some experts who will give an opinion on any violin for 5 shillings, and for that sum you will get from them a paper containing an infinitude of nothing in all doubtful cases.xxxvi

In spite of Honeyman's guide and the previous observations, not all certification is useless. Indeed, in recent times, even the finest Cremonese masterpiece would have been unsalable without some form of certification. Accordingly, when purchasing a fine instrument the buyer should always seek certification from at least one reputable connoisseur. Nevertheless, in the end, as important as certificates are, it must always be remembered that even the best are only the result of opinions, and whatever their wording, they are not and never can be an absolute guarantee of authenticity.

In spite of these limitations, some connoisseurs – a rare few – are held in such high esteem by the trade that the documents they issue establish the instrument's value better than the instrument itself. Moreover, even long after their death, such connoisseurs can continue to influence the price of instruments. In fact, in many cases, it is legitimate to ask whose contribution was greater – the instrument maker or the person who signed the certification. And, as has recently been shown, if an influential connoisseur does not endorse an instrument, its value can plummet.xxxvii

Finally, it is something of a paradox that the value of any connoisseur's opinion is in turn determined by the opinion which the trade has of their ability to express an opinion. As a result, factions often develop, and when factions develop, as they generally do where money is involved, serious problems can arise for any customer caught between the lines.

## Repairs and Restorations

The authenticity of a work of art depends on the relation between the work itself and the artists to which it is attributed ... A damaged painting by Rubens that has been deceptively restored, so as to lead the buyer to believe it all in Rubens' own hand, is also a fake, even though in some areas or beneath the restoration Rubens' own brushwork is still extant. It would be nonsense to talk about a work as a "Rubens," if it was painted by somebody else. Such an object could at best be an imitation; if it claimed to be a Rubens it would be a fake.xxxviii

The faking of instrument labels and documentation constitutes only two of the problems that connoisseurs face when they examine instruments. Among their most challenging tasks is assessing the depreciation of instruments that have sustained serious damage. This problem is compounded by fashion and time,xxxix and above all, by the quality and extent of any repair or restoration.

Connoisseurs are often at their most vulnerable when assessing repair and restoration work. Few have spent time working at the bench, and without some clear insight of what can be done, assessing what has been done becomes extremely demanding.

The genuine conservation of musical instruments is extremely rare, even in museums. Conservation involves keeping instruments in a controlled environment and protecting them from danger and exploitation in order that they might be studied and admired by future generations. However, for the majority of violins the situation is somewhat different.

It would be difficult to imagine another branch of artistic endeavour in which the created object is subjected to the kind of rigorous treatment the average violin usually receives. No matter how valuable these instruments become, they remain the tools of the musician's trade. Damage, whether by accident or through general wear and tear, is inevitable. And whenever such problems arise, the player naturally turns to his or her violin maker for help.

In the violin business, repair and restoration are degrees of the same trade and many attempts have been made to define the meaning of these two titles. One popular definition is that when a repairer succeeds in making the damaged area look like the surrounding original area, then such a repair may be called a restoration. Although basically true, this interpretation is somewhat inadequate.

Repairers usually concern themselves more with getting musical instruments to work efficiently and less with preserving the substance and integrity of the original maker's work. It may be that in many cases this is a reasonable and quite legitimate goal, since the vast majority of instruments have little artistic or aesthetic value. However, the greatest concern of the connoisseur is that, through inexperience or ignorance, a repairer will occasionally handle an especially fine piece like a cheap school fiddle.

In contrast, the restorer professes considerable deference to the substance and integrity of the original maker's work. The best among them are highly acclaimed and extremely skilled individuals. Furthermore, they are almost always conscientious and idealistic, which makes criticism of their work extremely difficult. Nevertheless, this subject must be addressed. Whatever their motives, not only are restorers often failing to conserve instruments, but like the players who use them, they are actively contributing to their destruction. If the terms "genuine" and "fake" can be described as black-and-white categories, then "restoration" is the grey area in between.

Although current methods of restoration are generally considered more sophisticated than those used in the 19th century, posterity may not judge them so

kindly. Many of the techniques used by restorers today are irreversible, and future generations may view them in much the same way as we now regard the cutting of violas and cellos in the 19th and 20th centuries.

In the distant past, when an instrument was ravaged by woodworm or trampled on by a runaway horse, whole new pieces were made or fitted which are now quite apparent to the trained eye.<sup>xl</sup> However, since the beginning of the 20th century, there have been restorers capable of invisibly mending seriously damaged instruments, so that their work is virtually undetectable from the outside and sometimes even from the inside. As this book will no doubt demonstrate, the advanced techniques available to today's restorers have led to the near miraculous reconstruction and cosmetic regeneration of many badly damaged old masterpieces. These have included instruments ravaged by woodworm, run over by cars or passing motorcycle carriers and even washed away in floods to be recovered many kilometres down river.

Remarkably, referring to a violin being offered for sale as "fully restored" has become a positive description in the repertoire. The phrase is attached to the dealer's sales jargon much as it might to the sale of an old house. And much as it might with an old house, the work carried out may have little to do with the object's original appearance. Moreover, "fully restored" can mean that a minute wing crack has been invisibly mended or that the last owner put his knee through the instruments as he fell on the podium steps. Unless specifically notified, the buyer has no way of knowing this, and even an experienced restorer can have trouble spotting the work of a talented colleague. As for the connoisseur, not always aware of the restorer's tricks, assessing the extent of clever restoration work can be an alarming challenge. In addition, the kind of subtleties that experts register almost subconsciously can be destroyed by even the smallest of repairs, ultimately altering opinions and changing classifications.

Until the later part of the 19th century, repairs were mostly done to keep the instrument in a playable condition, with little or no consideration being given to cosmetics. Understandably perhaps, this was not enough for many aggrieved owners who

wished to see their beloved instrument as it was before damage was inflicted. Moreover, as prices rose, dealers quickly became aware that apparently healthy instruments sold better than ones showing obvious signs of repair. As a result, although invisible repair work was ostensibly developed to appease distraught owners, in reality its main purpose became the financial enrichment of dealers. Indeed, since the end of the 19th century, skilled craftsmen and women have been regularly undertaking what can only be described as “cosmetic” restorations on valuable instruments. Astonishingly however, even when an instrument is offered with a complete description of the repairs involved, the gravity of the situation is seldom fully realized by the buyer. Usually the instrument’s pristine appearance is more than enough to allay any misgivings they may have about some previous catastrophic accident. Moreover, once such an instrument has been resold, these details are often conveniently forgotten by both dealer and customer.

Whatever the extent of repair or restoration work, it is important to bear in mind that not a single instrument has survived unaltered from classical times. Even those extremely rare examples which have retained their original necks and fingerboards have been altered in some way; for the remainder, modifications which have been carried out since classical times can, in every case, be described as extensive. Altered to such an extent, most other works of art would be considerably devalued. In spite of this, it is not uncommon for such heavily altered instruments to be described as being in an excellent state of preservation or an extremely well preserved example.

So, at what point does a so-called mint condition Stradivari, already fitted with a new neck and part of its pegbox, a new fingerboard, tailpiece, pegs, endpin, bass bar and soundpost, stop being a Stradivari? Perhaps when it has also had its shattered belly doubled with one or more major patches, some studs and a little half-edging? Perhaps when it receives patches in the back,<sup>xli</sup> new blocks and linings, a bit of new purfling, a couple of replacement corners and edges, a new button, maybe one or two new ribs, not to mention a replacement scroll? Or perhaps the attribution changes when its famous varnish has been extensively retouched, overpolished or removed altogether?

It cannot simply be that a Stradivari’s attribution changes when the weight of new material exceeds that of the genuine old, for on most Stradivaris, indeed on most classical instruments, replacement parts already outweigh original parts. In fact, unlike the damaged painting by Rubens, the authenticity of even a heavily restored or repaired violin is seldom questioned on these grounds alone.

No doubt, the peculiar nature of musical instruments has changed the general perception of what is and is not original. Clearly, tremendous importance is placed upon those parts of instruments that are concerned with generating sound. Even such nebulous factors as design and concept appear to be of greater importance than the usual missing materials. As far as musical instruments are concerned, it would seem that assessing the percentage of original materials is a superfluous enterprise.

Disregarding the percentage of new material that may rob a violin of its originality, alterations of any kind pose problems for the connoisseur. Perhaps the most challenging legacy of past repairs and restorations involves instruments whose outlines have been altered by the restorer’s knife. Largely in the 19th and early 20th century, many violins, violas and cellos were reduced in size (or, more rarely, enlarged), often to a ridiculous extent. There is frequently some considerable reworking and relocating of corners, edgework and purfling. As a result, their archings and purfling channels have been seriously distorted. Accordingly, even where soundholes have not been recut, in most cases their relationship to the archings and corners has been radically transformed. Taken together, such “repair” work has often removed many of the typical features that connoisseurs depend on.<sup>xlii</sup>

In spite of their severity, it is usually assumed that such modifications were carried out legitimately. Unfortunately, this is not always the case. A fine line often separates legitimate restorations and alterations from those made with the intention to deceive.

## Copies and Fake Instruments

Ay, sir. To be honest, as this world goes, is to be one man picked out of ten thousand.

– Shakespeare, Hamlet

The “legitimate” work of the restorer’s knife is clearly a problem for the connoisseur, but the faker’s knife can be a greater worry. Whether creating clever alterations or outright copies, top fakers have almost always come from the ranks of top restorers. Who else but top restorers can develop the skills and obtain the knowledge required?

The reasons why restorers turn their hands to such work are complex. However, it is probably true to say that relatively few violin copies were made to be fakes, and certainly not every fake began life as a copy. Actually, the basic difference between a copy and a fake lies in the intention to deceive (mainly, though not always, for financial gain). This intention to deceive may be on the part of the original maker, but more typically it is the objective of some later dealer.

Forgery and counterfeiting have been a fact of life for many thousands of years. Historical precedents can be found in abundance. A manuscript supposedly written by Sophocles in the 5th century B.C.E. was declared a fake by Dionysius, who had penned the manuscript himself in the 4th century B.C.E. During the Renaissance, the young Michelangelo carved a copy of a Roman cupid, which he sold as an antique to a wealthy collector. Like Dionysius, Michelangelo eventually exposed his own deception in order to achieve the acclaim he felt was justifiably his.

Today, a whole range of brand-name products, such as Adidas and Chanel No. 5 are being faked, and on a daily basis companies lose millions of dollars. Largely because of such activities, it is commonly supposed that all reproductions are or were made solely for financial gain. But this is certainly not the only motive. Fakes and counterfeits, especially those of high quality, have been inspired by a variety of impulses, not least a desire to understand and emulate great works.

Some fakers, perhaps angry or disillusioned with individuals or legislative systems, are simply driven by anger. However, as with Dionysius and Michelangelo, over the centuries an astonishing number of fine-art forgeries have been exposed by the forgers themselves, and it would appear that their egotistical requirements are often more important than any financial gain or fear of recrimination.

A fine line has continually divided the inspired copy from the unadulterated fake. It has always been recognized that there is much to be learned from copying works of art, be they paintings, sculptures or violins. Even musicians use this learning process when motivated by the recitals or recordings of great players whose style they seek to emulate. Indeed, for centuries copyists enjoyed an honourable and perfectly official status. Until quite recently, copying was a skill which all artists were expected to acquire during the course of their training, and for violin makers this position has never changed. Whenever a maker is employed by a master, he or she is expected to work exactly in the master’s style - a style in turn usually inspired by the great classical makers.

It seems obvious that to reproduce any artist’s work with some degree of success, the copyist must be well versed in the techniques and materials that artist used. However, they must also be aware of the historical background within which the original was created. Such insight requires a good deal of dedicated research. Methods are carefully studied and materials searched out or re-created. On the plus side for the connoisseur, violin makers who fall into this category are usually well known. They can only develop such skills slowly and in the presence of fine genuine instruments. Consequently, it is virtually impossible for their development to pass unnoticed. For the connoisseur, knowing a faker’s identity and *modus operandi* is the key to recognizing their work, which is why copyists like the Voller brothers and John Lott are well known (although their work is not always so easily identified).

It is no exaggeration to conclude that in the history of the arts generally, high quality copyists, whether legitimate or criminal, have generally contributed more to the craft of expertise than they have



to the long-term deception of experts.<sup>xliii</sup> Furthermore, the need for experts to remain one step ahead of the forger's game has promoted a good deal of valuable research. A comparison can be drawn with the development of the lock. Because thieves develop increasingly clever ways of overcoming locks, locksmiths are constantly obliged to invent new devices to defeat them.

Generally, the production of fake artworks is proportional to the ease of their manufacture and the potential financial rewards. For example, until the late 20th century, almost no fake Grecian urns were made.<sup>xliv</sup> Financially, they were viable, but technically they were too difficult. In contrast, there are now more fake paintings attributed to the French artist Jean-Baptiste Camille Corot than there are genuine ones.<sup>xlv</sup>

That which applies to the production of fake artworks certainly applies to the production of fake violins. Though financially viable, because of the technical difficulties involved, well-made fake classical Italian violins are extremely rare, whereas fake modern Italian violins are much more common and almost certainly exceed the number of genuine ones.

By the beginning of the 19th century, violin copyists had already begun imitating the wear patterns of old Italian varnishes. Although it is impossible to know how many, if any, of these early copies were made with the intention to deceive, within a remarkably short time the production of artificially worn instruments had increased dramatically. Since then, reproductions of classical instruments, of both good and bad quality, have sold extraordinarily well.

Obviously, some legitimate copies are eventually turned into fakes by simple label manipulation or more complex alterations. However, to complicate things further, a number of intentionally made fakes, identifiable in retrospect, are now being legally handled under their makers' real names. In fact, it is fair to claim that the best of these older reproductions/fakes still produce more profit for dealers than non-reproductions of the same period, even by the same maker. For this reason alone, the indignation expressed by some dealers about modern copies is

difficult to justify with their obvious desire to sell the works of such worthies as John Lott and Jean Baptiste Vuillaume.

As well as instruments specifically created either as copies or as fakes, many existing instruments are altered or transformed in a variety of ways. Some methods are highly sophisticated, others downright crude. A microscopically thin veneer of varnish and wood might be painstakingly grafted over an arching to create the ambiance of an aged surface. Alternatively, with little more effort than two or three knife strokes, a pair of soundholes might be given a little more flare.

Because the presence of genuine pieces makes new components appear more authentic, instruments were and possibly still are being cannibalized for parts. At the turn of the 21st century, there was a cello in New York with a front by Antonio Stradivari and the sides and back by John Lott. The rest of this Stradivari cello sat on the Atlantic's opposite coast with a front by John Lott. Clearly, for the clever craftsman the possibilities for altering instruments are almost unlimited, and when the price is right, little remains sacred.

## The Scientific Analysis of Violins

Although for many decades, scientific analysis has been successfully employed for the authentication of artistic works, the eye of the connoisseur still remains pre-eminent. Scientific analysis can only assist connoisseurs, it cannot replace them. And above all, it cannot appreciate art. It cannot recognize creative or aesthetic qualities. Indeed, before any individual can begin to scrutinize and assess the authenticity of artistic works, they must first learn to appreciate them. Moreover, it is probably fair to say that, if at some future date scientific analysis ever replaces the connoisseur, then all genuine appreciation of the arts will have died in the process.

While there has been some very positive scientific input in the field of violin identification, particularly with regard to the accurate ageing of spruce bellies, this is a fairly recent phenomenon. On the whole, as

alluded to earlier in the section about labels, the possibilities of scientific analysis have been largely neglected by the violin trade. The reasons for this omission are, in part, valid. Until recently, the value of bowed instruments did not justify the use of expensive scientific investigation.

More especially, in the 1970s, several disastrous attempts were made to identify instruments using scientific methods only. Understandably, these attempts did little to develop the reputation of scientific expertise among connoisseurs of the violin. But these efforts largely failed because, following a major scandal in violin dealer circles, those carrying out the research chose, somewhat justifiably, to reject the advice of prominent connoisseurs entirely. Consequently, the investigating scientists asked their equipment the wrong questions and placed too much faith in the answers they received.

In particular, ultraviolet light was misused with abandon on one infamous project. Although extremely useful for detecting repair work, ultraviolet light was initially used to classify violin varnishes, where it was hailed as a panacea. Under ultraviolet illumination, certain organic chemicals that are otherwise indistinguishable fluoresce and give out visible light. Depending upon their chemical make-up, they do this with different intensities and colours. The problem is that a connoisseur is still required to interpret the results. For whatever reason, the scientists who conducted the tests did not realize that under ultraviolet light, many obviously non-Italian instruments display a similar profile to those of important Cremonese works.<sup>xlvi</sup> To make matters worse, eight volumes were published on the back of this project mainly identifying instruments on the strength of their profile under ultraviolet illumination. As a result, beautiful Italian violins appear indiscriminately alongside shoddy reproductions.<sup>xlvii</sup>

The first real cooperation between scientists and connoisseurs of the violin came with the development of dendrochronology.<sup>xlviii</sup> Dendrochronology is a branch of science whereby the growth patterns of certain tree varieties in specific climatic regions are studied and compared. By overlapping timbers of known age, scientists have recorded several thousand years of growth data for some species. The species pertinent to violin identification is spruce, from

which the top, or belly, is made. As a method of dating spruce, dendrochronology is extremely accurate. By establishing the exact date of the youngest remaining year ring, scientists have been able to ascertain the minimum age of the belly wood; and clearly, the belly on a violin dated 1716 cannot have been made at the time alleged if its youngest year ring was formed after that date. Dendrochronology can also match bellies cut from the same tree. In some cases, this has enabled the dendrochronologist to match bellies from several different instruments, and usually but not always by the same maker.

Without doubt, dendrochronology is the greatest single advance in the business of violin identification. Unfortunately, it is not foolproof. In fact, its data can be relatively easily abused to support even the most banal fake. Spruce can be obtained from many sources old enough to fool those who rely too heavily on this ingenious branch of science. And since maples cannot yet be dendrochronologically analyzed, if the back, head and sides of an instrument are new, they cannot be exposed by this method. Moreover, there is little point in knowing that the belly wood of an instrument is from the relevant period if the question is whether or not the instrument has been revarnished or whether the violin was made by Andrea Guarneri or Francesco Rugeri, both makers of the same period.

In the great search for the “secret” of Stradivari, scientists have also made limited use of chemical analysis, gas chromatography, electron and other microscopes, infrared, and even radiography. Unfortunately, as yet these systems have never been employed to establish the authenticity of instruments. On the whole, their use has been limited to the analysis of classical varnishes and grounds. What is more, these studies were largely instigated by violin makers wishing to reproduce the singular qualities of Cremonese varnish.

Undoubtedly, there is a need for increased collaboration between violin connoisseurs and scientists. In other fields of expertise, this has been standard practice for decades. Quite simply, violin connoisseurs cannot tell the age of timbers or the composition of varnishes, and scientific equipment cannot evaluate style or aesthetics. Together, however, they have a greater chance of assessing and identifying vi-

olins, raising the level of expertise and winning the trust and respect of those who purchase fine violins for whatever purpose.

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No article can offer a foolproof guide to violin identification or recognizing repairs, cosmetic restoration and fraud. It can only make the reader aware of these matters. Like every other business, the violin trade is full of well-meaning individuals unaware of their potential for creating mayhem. It also has its share of clever tricksters with fascinating and dangerous ideas. Fortunately, it also continues to produce honest dealers and some outstanding connoisseurs.

In conclusion, anyone wishing to become a connoisseur-dealer should be aware that it is not a job for the faint-hearted. They must be prepared to make expensive mistakes, a factor that gives modern expertise a seriously intimidating edge. Moreover, if they wish to remain successful and respected, they must be prepared to pay handsomely for such mistakes. Accordingly, may their moral code remain strong and failing that, let the buyer beware.

## Notes

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*i* In the 1980s, a Stradivari violin could be acquired for less than USD 200,000; now they cost up to and more than USD 4,000,000.

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*ii* In standard UK English, the term fiddle still means “to swindle, cheat or defraud.” The term comes from the poor reputation that buying a fiddle gained in the 19th century. “Fiddle 5, a swindle, a fraud; a piece of cheating. Colloq.” *The New Shorter Oxford English Dictionary* vol. 1, ed. Lesley Brown (Oxford: Clarendon Press, 1993), p. 942.

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*iii* *Meisterwerk der Geigenbaukunst*, ed. Rudolf Hopfner (Vienna: Oesterreichische Nationalbank, 2002).

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*iv* For some time now, it has been possible to identify the human voice electronically. Although it may eventually prove possible to identify the tone of a specific instrument, the problems of identifying the complete works of a whole school or of an individual through tone are, for the moment, insurmountable. There are too many factors which must be taken into account when analyzing the sound of a series of violins: damage to the varnish layer; repair or restoration, the differing pieces of wood and models employed, the player, bow, bass bar; bridge, soundpost and strings being the most obvious.

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*v* Roger Hargrave, “Identity Crisis: Why the ‘Sainton’ del Gesu Divided the Experts,” *The Strad* 116, no. 1383 (July 2005): pp. 50-56.

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*vi* Coincidentally, this is approximately the extent of the classical Cremonese school.

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*vii* There have always been fewer women violin makers, but it is known that some records were deliberately destroyed in the 19th and (seemingly) early 20th centuries; consequently, the works of many women remain unknown. It is even possible that there were women violin makers working in Cremona, in particular, the wife of Guarneri del Gesu. See Carlo Chiesa and Duane Rosengard, “Guarneri del Gesu: A Biographical History,” in *Giuseppe Guarneri del Gesu* vol. 2, ed. Jane Holloway and Jennifer Laredo Watkins (London: Peter Biddulph, 1998), pp. 12, 15, 16, 18, 20-21; Hargrave, “The Working Methods of Guarneri del Gesu and Their Influence on His Style,” in *Giuseppe Guarneri del Gesu* vol. 2, pp. 151-152 and 155; and Hargrave, “Seeking Mrs. Guarneri,” *The Strad* 111, no. 1325 (September 2000): pp. 950-957.

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*viii* Andrea Amati was certainly the first known violin maker whose instruments have survived.

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*ix* Hargrave, “Andrea Amati,” *The Strad* 103, no. 1220 (December 1991): pp. 1093-1107.

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*x* As well as those of the violin family, they made a wide variety of bowed string instruments.

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*xi* There may have been non-family makers working for or with the Amatis before Nicola, but for whatever reason, none appear to have established themselves as independent violin makers.

- xii *Remnants of this system still exist, although most have been superseded by the almost universal post-baroque method that was initially widely adopted – if not entirely developed – by the French makers of the 19th century. This “French system” basically involved fitting and aligning the neck to the completely finished body of the instrument (rather than fitting the body to the neck).*
- xiii *For further information on this system, see Hargrave, “The Working Methods of Guarneri del Gesu and Their Influence on His Style,” pp. 129-155.*
- xiv *This rule, which incidentally governs most schools of art and artifacts, has become less obvious in modern times. Especially among contemporary copyists of classical Italian makers, for whatever reason, many have chosen to emulate the method as well as the stylistic and design features of the old masters.*
- xv *Such information is often extremely difficult to decipher. The maker Carlo Bergonzi provides the perfect example of how stylistic details can both help and hinder the process of establishing a maker’s teacher and his relationship with other members of the school. The already complex stylistic relationship between Bergonzi’s work and that of his Cremonese contemporaries is further aggravated by personal relationships with both colleagues and family, which have recently been uncovered. Such examples abound in every major school of violin making. See Duane Rosengard, “Cremona after Stradivari: The Bergonzi and Storioni Families,” *Journal of the Violin Society of America* 12, no. 1 (1992): p. 91.*
- xvi *See sources listed in note 7 for further information on women violin makers.*
- xvii *Daniel Parker (active ca. 1700-1730) appears to have had access to a set of instruments by Antonio Stradivari which were ordered for King James II of England. Parker was probably the first copyist of Stradivari outside Italy.*
- xviii *Gabriel David Buchstetter (ca. 1752-1771) and his son Joseph (active late 18th century).*
- xix *See Charles Beare, “Francesco Rugeri,” *New Grove Dictionary of Musical Instruments* vol. 3, ed. Stanley Sadie (New York: Macmillan Press, 1984), p. 276.*
- xx *Walther Senn, *Jakob Stainer der Geigenmacher zu Absam* (Innsbruck: Universitäts-Verlag Wagner, 1951), p. 15.*
- xxi *Even in Cremona, Guarneri del Gesu’s use of a short stop may have been the result of Stainer’s influence.*
- xxii *Ironically, factories in Germany paid the ultimate insult to Stainer’s memory. In the late 19th century, they were producing hundreds of thousands of primitive Stainer copies. These instruments owe little to Stainer’s good working practices and even less to his sense of style.*
- xxiii *See Hargrave, “Cremonese Confusion,” *The Strad* 111, no. 1326 (October 2000): pp. 1104-1109.*
- xxiv *In the main, this is a matter of checking supporting documentary evidence in the available archives.*
- xxv *See Hargrave, “The Working Methods of Guarneri del Gesu and Their Influence on His Style,” in *Giuseppe Guarneri del Gesu* vol. 2, pp. 141, 151.*
- xxvi *This may have been applied or commanded by some form of guild or governing body.*
- xxvii *Bologna was an important town in the 17th century and an early centre of instrument manufacture in Italy.*
- xxviii *Although both Peter Guarneri of Mantua and Peter Guarneri of Venice also worked outside Cremona, their initial apprenticeships in the city are well documented.*
- xxix *In this context “foreign” simply meant being from another town city or province. Cities were often autonomous states with their own laws, weights and measure systems and, because of the strength of dialects, to some extent even their own languages.*
- xxx *Problems occur whenever several makers worked together in a particular workshop. But their contribution can only be identified if they eventually made instruments labelled with their own name that can be used for comparison.*
- xxxi *An original Omobono Stradivari label was taken from a label collection, probably the Salabue-Fiorini collection that is now housed in the Shrine to Music Museum, Vermillion, South Dakota, United States. Whatever its source, this label is now inside an instrument attributed to Omobono Stradivari and therefore cannot be described as an authentic un-moved label.*
- xxxii *See Hargrave, “The Working Methods of Guarneri del Gesu and Their Influence on His Style,” in *Giuseppe Guarneri del Gesu* vol. 2, pp. 141, 151.*
- xxxiii *Giovanni Battista claimed this on his Turin labels. See Ernest N. Doring, *The Guadagnini Family of Makers* (Chicago: William Lewis and Son, 1949), p. 295; and W. Henry Hill, Arthur F. Hill and Alfred E. Hill, *Antonio Stradivari: His Life and Work (1644-1737)* (London: W. E. Hill & Sons, 1902), p. 84. For a more detailed analysis, see Duane Rosengard, *Giovanni Battista Guadagnini* (Haddonfield, New Jersey: Carteggiomedia, 2000).*
- xxxiv *Turin violin enthusiast Count Ignazio Alessandro Cozio Di Salabue (1755–1840). The major part of his work became known as the “Carteggio.” It is the Rosetta Stone of violin expertise.*
- xxxv *Several articles have referred to the problem of ancillary workers in Cremonese and other workshops. See Hargrave, “e Furono liutaio in Cremona,” in *Archettai A. Stradivari Cremona* (Cremona: Consorzio Liutai & Archettai A. Stradivari Cremona, 2000), pp. 41-45.*
- xxxvi *William C. Honeyman, *The Violin: How to Choose One* (Edinburgh, 1893), p. 3. This guide was available for one shilling.*
- xxxvii *See Hargrave, “Identity Crisis: Why the ‘Sainton’ del Gesu Divided the Experts,” pp. 50-56.*
- xxxviii *Fake? *The Art of Deception*, ed. Mark Jones (London: British Museum Publications, 1990), p. 50.*



xxxix *For example, at the beginning of the 20th century it was considered highly undesirable to have a soundpost crack in a belly, and a soundpost crack in the back made an instrument virtually unsalable. Today a soundpost crack in the belly is considered normal and a back crack undesirable but acceptable.*

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xl *In fact, several early Cremonese instruments were repaired in this way by later Cremonese makers. On a repair label of 1719, Antonio Stradivari states that he made the belly. Also around 1720, he made a belly for a 1686 violin of his own.*

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xli *At the beginning of the 19th century, it was not uncommon for the soundpost half of a back to be replaced when a crack appeared. Even in the later part of the 20th century, this type of work was carried out on classical instruments. Today, such a replacement piece is considered less valuable than a well-repaired soundpost crack. In fact, it is considered vandalism.*

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xlii *Around 1900, the Voller brothers of London, one of the shadier families of the violin trade, exploited this uncertainty by making at least one copy of a large Amati viola, which they later reduced in size to make it more convincing.*

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xliii *One of the greatest 20th-century violin copyists, Simone F. Sacconi, probably contributed more than any other individual to our understanding of Stradivari's methods. At least in part, his knowledge was derived from making accurate copies. Sacconi's copies were never made with any criminal intent.*

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xliv *Fake? The Art of Deception, p. 247.*

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xlv *"Forgery: Art," Encyclopaedia Britannica, 15th ed., vol. 4 (Chicago: Encyclopaedia Britannica, 1998), p. 230.*

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xlvi *Of greater concern today is the fact that modern copyists can mimic the appearance of classical varnishes under ultraviolet light. In fact, they can do this more easily than they can fool a good connoisseur's eye in normal daylight.*

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xlvii *Verband Schweizerische Geigenbaumeister, ed., Alte Meistergeigen: Beschreibungen, Expertisen, 8 vols. (Frankfurt and Main: Verlag Das Musikinstrument, 1977-1982).*

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xlviii *See Peter Klein and Stewart Pollens, "The Technique of Dendrochronology as Applied to Violins Made by Giuseppe Guarneri del Gesù," in Giuseppe Guarneri del Gesù vol. 2, pp. 159-162.*

