Comité International des Musées et Collections d'Instruments de Musique

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REGIONAL TRADITIONS IN INSTRUMENT MAKING

Challenges to the Museum Community

Edited by
MARTIN ELSTE
ESZTER FONTANA
JOHN KOSTER

Leipzig/Halle (Saale) 1999

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The International Committee of Musical Instrument Museums and Collections (CIMCIM) encourages, promotes and organises professional activities relating to collections and museums of musical instruments of all kinds from all countries. CIMCIM is a committee of ICOM, the International Council of Museums. CIMCIM publications include *Recommendations for Regulating the Access to Musical Instruments in Public Collections* (1985), *Contributions to the Study of Traditional Musical Instruments in Museums* (1986), *Musical Instrument Exhibitions in Scandinavia* (1986), *Recommendations for the Conservation of Musical Instruments in Collections: An Annotated Bibliography* (1993), *Training in Musical Instrument Conservation (1994), and Copies of Historic Musical Instruments* (1994).

A number of these publications are available on the CIMCIM website at: http://www.icom.org/cimcim/

Preface

Since its foundation in 1960 at the Musée des Arts et Traditions Populaires in Paris, the Comité International des Musées et Collections d'Instruments de Musique (CIMCIM) has held nearly forty annual meetings in different countries of the world to expand the professional knowledge of its members and to exchange ideas and opinions which arise from daily work and research. The major topics of the past meetings show the needs of the museums and collections of musical instruments which vary according to the demands of changing times.

The papers compiled in this volume explore regional traditions in instrument making, the subject of the CIMCIM Conference 1996 in Vienna, Bratislava, Nagycenk and Budapest, not only from the viewpoint of museology but also from the viewpoint of organology, musicology, ethnology and sociology. The diversity of the subjects of the papers show the wide-ranging scope of the work of the experts who are concerned with museums and collections of musical instruments.

Many organizations, museums and institutions of Austria, Slovakia and Hungary supported the most successful meeting organized by Eszter Fontana (Musikinstrumenten-Museum der Universität Leipzig), Gerhard Stradner (Sammlung alter Musikinstrumente, Kunsthistorisches Museum, Wien) and Ivan Mačák (Music Museum of the Slovak National Museum, Bratislava). CIMCIM expresses gratitude to all persons who represent these organizations: Hofrat Dr. George Kugler, Chairman, ICOM Austria National Committee, Direktor, Kunsthistorisches Museum, Wien; Hofrat Dr. Wilfrid Seipel, Generaldirektor, Kunsthistorisches Museum, Wien; Dr. Gerhard Stradner, Sammlung alter Musik-instrumente, Kunsthistorisches Museum, Wien; Dr. Margot Schindler and Dr. Franz Greishofer, Museum für Volkskunde, Wien; Mag. Helmut Lerperger, Organist, Stift Klosterneuburg, Niederösterreich; Hofrat Dr. Alfred Willander, Haydn-Geburtshaus, Niederösterreich; Dr. Ivan Mačák and Dr. Jana Kalinayová, Music Museum of the Slovak National Museum, Bratislava; Dr. Attila Környei, Director, Széchenyi István Emlékmúzeum, Nagycenk; Dr. Zoltán Falvy, Director, MTA Zenetudományi Intézet, Budapest; Dr. Mária Eckhard, Liszt Memorial Museum, Budapest; Dr. Dózsa Katalin, Deputy Director, Budapesti Törteneti Múzeum, Budapest, and acknowledges the efforts to publish the Proceedings of Dr. Eszter Fontana, Musikinstrumenten-Museum der Universität Leipzig, Dr. Martin Elste, Musikinstrumenten-Museum SIMPK, Berlin, and Prof. John Koster, Shrine to Music Museum, Vermillion, SD.

Last but not least, CIMCIM gratefully acknowledges the generous sponsoring of this publication by the Open Society Institute, Budapest, with special thanks to Emily Martinez, Grants Manager.

Tokyo, 1998

Sumi Gunji
President of CIMCIM

ANNETTE OTTERSTEDT

Presenting a Violin-making Tradition in its Historical Context: *Die Alemannische Schule* – Second Edition of Olga Adelmann's Monograph

THE PROJECT

The early history of the violin family has attracted increasing attention among researchers in recent years. Even though the fantastic approach to history, as propagated by Alexander Hajdecki, who attributed the "invention" of the violin to the painter Raphael[1], has been discarded for a long time, it is only during the past few years that a critical method of investigating and assessing the violin family independently of the opinions of violin dealers, who also write certificates of authenticity, is beginning to emerge. As part of these efforts, doubts have, for the first time, been expressed concerning the Italian origins of the violin, which had so far been taken for granted. Various recent publications have pointed out that, apart from Italian traditions, others existed simultaneously in regions north of the Alps, and these deserve the same level of attention as Italian developments[2].

Pioneering in this field is Olga Adelmann's book *Die Alemannische Schule, Archaischer Geigenbau des 17. Jahrhunderts im südlichen Schwarzwald und in der Schweiz* which she published in 1990[3]. During her employment as chief restorer at the Berlin Museum of Musical Instruments, she had been confronted with so many instruments of this style that she took up the subject thoroughly after her retirement, complementing her work about the instruments with archival findings. The first edition met with much acclaim and was soon out of print. Meanwhile, a profusion of newly discovered or identified Alemannic instruments, as well as previously unknown masters, have made a comprehensive revision inevitable, including the appropriate amendments and corrections.

In course of the preparations for the second edition, the following terms and designations have been reconsidered:

The term "Alemannische Schule" was not introduced by Olga Adelmann but by her musicological adviser in the project, Alfred Berner, former director of the Berlin collection. A number of objections have been raised from various sides based on the problematic transfer of a geographical term to a tradition of instrument making. Weighing against this it must be stated that the term has become firmly established to describe a building tradition which is unusually well-defined geographically and will therefore remain in use.

The term "archaic" violin making, which has meanwhile become similarly common in violin-making circles, however, is by no means less controversial[4]. The implications of what it professes to describe prove false on closer scrutiny: Most of the instruments now classed "archaic" are contemporaneous with the classical schools of Italian violin making; they are certainly not precursors of the latter but constitute a separate tradition in their own right. The term has been employed to describe a building tradition which comprises the Alemannic School. Violin construction north of the Alps has a remarkable number of features in common, regardless of regions of origin, reaching from England, the Low Countries, Mirecourt, the Alemannic areas, to Saxony and Poland. Among them are:

- construction without inner mould (unmistakable from the outside by the pointed and projecting corners, unsupported by corner blocks on the inside);
- neck and upper block made in one piece;
- a rib in the belly carved from the plank, either as a reinforcement of the middle – perhaps initially to support the glue joint – or off-centre towards the bass side, thus becoming a bass bar.

Most of these features (excepting the central rib) can be studied in the Saxon instruments at Freiberg cathedral, presumed to be the earliest examples of this non-Italian tradition in a reliable state of preservation[5]. Genuinely "archaic" making, on the other hand, implies something else altogether, clearly to be distinguished from the north-of-the-Alps tradition: non-professionally made instruments might be referrred to as "archaic", especially where the player and the maker were the same. Such instruments generally consist of a body carved from a single solid block with a front glued or nailed on, and have come to light in medieval archeaological finds[6] and later instruments made in the minstrel tradition. It would be best to reserve the term "archaic" for those instruments, particularly as it has a ring of being not quite finished, not to be taken quite seriously yet. The Alemannic School, on the other hand, bears witness to a highly developed craftsmanship. Its rash classification as second-rate could obscure our perception of similar developments. For these reasons, the title of the second edition is *Die Alemannische Schule – Geigenbau des 17. Jahrhunderts im südlichen Schwarzwald und in der Schweiz.* (The Alemannic School. Violin Making of the 17th Century in the Southern Black Forest and in Switzerland)[7].

In pertinent publications, the identification of this non-Italian tradition has given rise to a German nomenclature consistent with the origins of the instruments and their names at that period. Whilst Olga Adelmann, in the first edition of her book, used a somewhat insecure threefold terminology ("Violine, Geige, Discantgeige", "Violone, Halbbaß, Bassett"), which is not only unwieldy but historically inaccurate. Heyde, Liersch, and Moens refer to the instruments as "Discant-", "Tenor-", and "Baßgeige". This was adopted for the

second edition of the book, emphasizing the fact that no previous Italian influence is to be assumed. Those were the terms in use in the region in the 17th century, and there is no reason why we should avoid them.

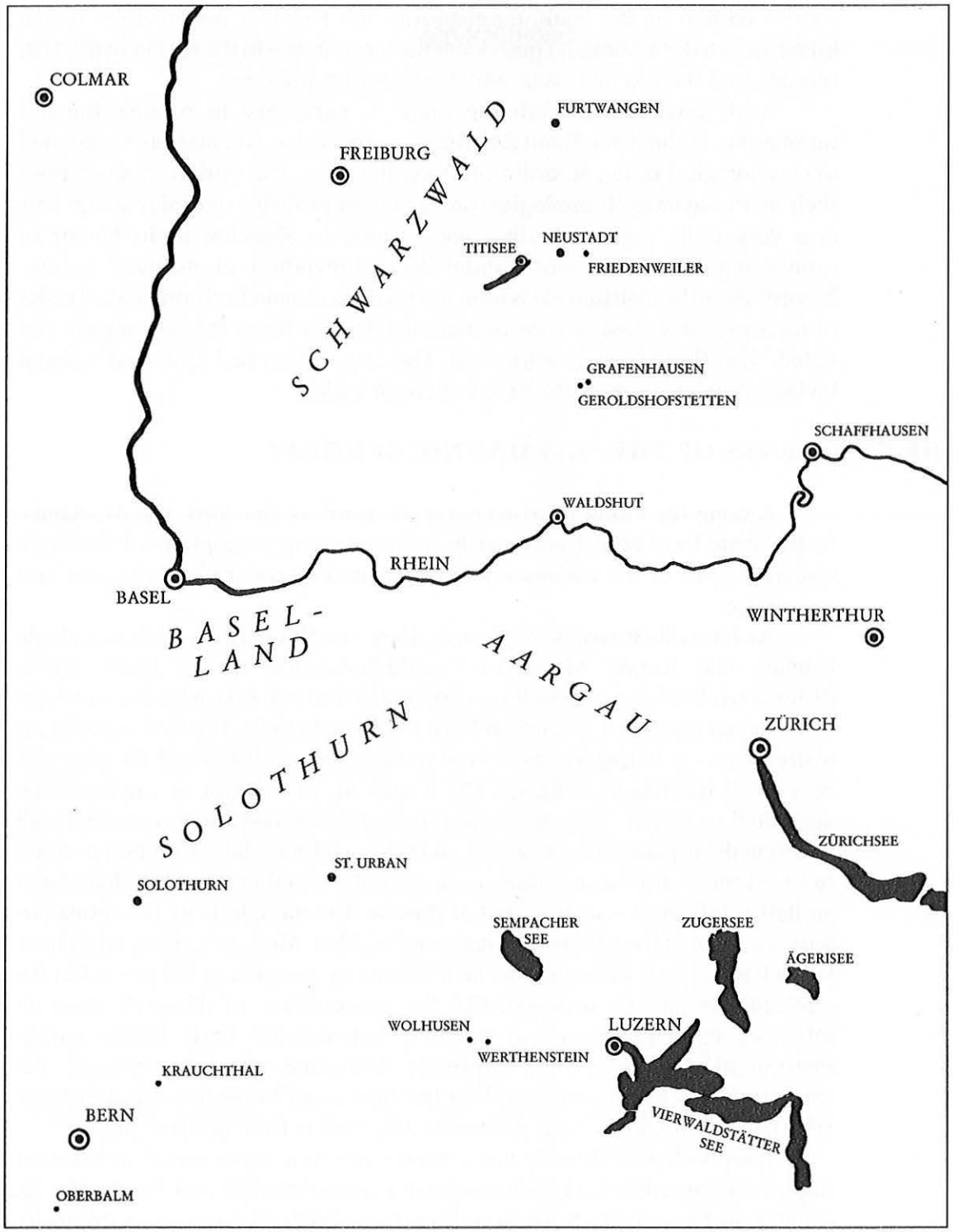
Additions to the catalogue made it necessary to rethink the old numbering. In the first edition it had been consecutive, i. e. masters were listed in chronological order, according to their life span, and within these sections their instruments in chronological order of their probable date of making. This is a very finite system, so that we decided to abandon it[8] in favour of numbering the instruments under an abbreviation of masters' names. Nevertheless the instruments within the sections remain in chronological order of their probable date of construction, listing first those that are signed and dated, then those that are attributed. The first edition had appeared without bibliography or index; these have both been added.

THE EXPONENTS OF THE "ALEMANNIC SCHOOL"

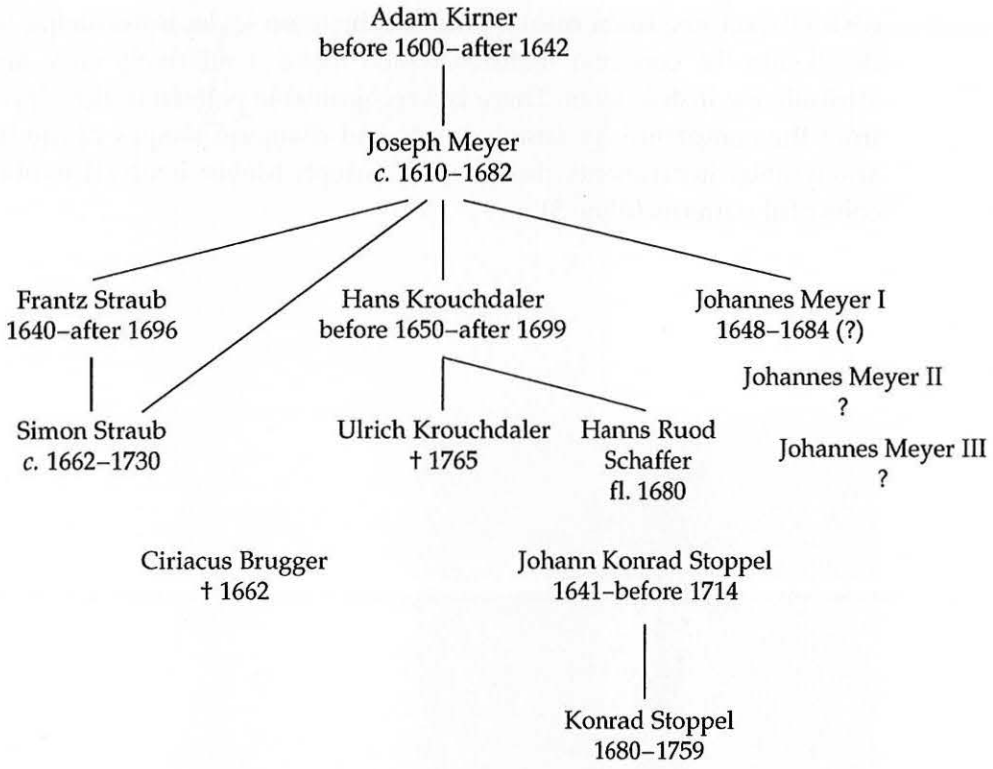
Among the violin instruments made north of the Alps, the Alemannic instruments form an extraordinarily uniform group susceptible of thorough research. Most of the makers are either related or connected as master and apprentice.

As far as their works are known, they can all be traced back to a single teacher, viz. Joseph Meyer of Geroldshofstetten in the Black Forest (Schwarzwald). Meyer himself was apprenticed to one Adam Kirner, of whose instruments no signed specimens have yet come to light. The two anonymous instruments – a Tenorgeige preserved in excellent condition and the fragment of a small (portable?) Baßgeige (*An 1* and *An 2*) – might or might not be attributed to Kirner. They are conceptually mature and show a manual skill which make it plain that there was an earlier violin making tradition to draw from. At this point the question arises naturally whether this could have been an Italian influence – such as that of Brescia. The thought is by no means far-fetched: some of the Alemannic instruments (*Me 4, Me 5, Kr 7, Str 6, Str 8*) have faked Italian labels predating the instruments by as much as 150 years. But the question can also be reversed: Did the predecessors of this style exert an influence upon Venetian and Brescian instruments? Early Italian string-instrument making – here expressly including the lute, because the construction of instruments south of the Alps owes some of its most decisive criteria to lute making – was determined by factors from north of the Alps.

Joseph Meyer evidently had a good name as a violin maker, as his most important apprentices, Hans Krouchdaler (Krauchthaler) and Frantz Straub, came from far away to learn from him. Krouchdaler's family was originally from the vicinity of Berne, where the village of Krauchthal is still to be found. From 1479 there is evidence of the name at Oberbalm, close to Berne[9]. In 1678 the violin maker acquired citizenship of the place (anew?). Frantz Straub came



illus. 1 Map of the southern Black Forest and of Switzerland



illus. 2 Genealogical tree of the Alemannic School

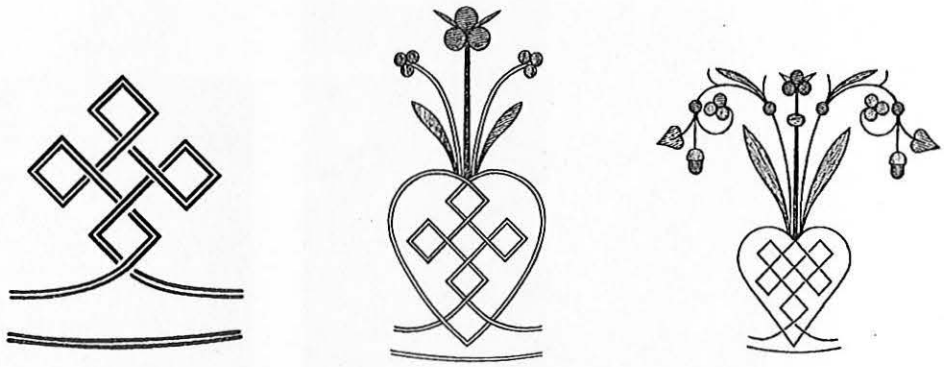
from an extended family of instrument makers of Füssen, and his choice of the teacher Meyer is all the more intriguing as he was the only member of his clan not to go to Italy to train as a violin maker but to remain north of the Alps. This is an indication that even late in the 17th century, at a time resplendent with the fame of Italian violins, local traditions were certainly not thrown out at the drop of a hat. His son (?) Simon Straub continued in the tradition as far as outward appearance goes, even though he seems to be definitely influenced by Italian or Tyrolean techniques. He even continued with the intricate purflings designed by Meyer (after 1700!). But the only known Discantgeige by his hand sports not one of those characteristic Alemannic scrolls but a lion's head reminiscent rather of Stainer's work in its round and flowing contours.

Inspired probably by the impressive teaching personality Meyer, the Alemannic School developed a code of characteristic features which were upheld for nearly a century. Among them, apart from the body construction without corner blocks, the centre rib, and the neck/upper-block unit, there are the lavish and excellently executed purflings, which might be the characteristic

not least responsible for the instruments having been preserved at all. In these, each of the three main masters created his own style, introducing individual detail into the common features which make it relatively easy and safe to attribute the instruments. There is a recognizable pattern in this development: from the comparatively simple knots and diamond shapes of the two oldest anonymous instruments the hand of Joseph Meyer evolved exuberant and colourful patterns (illus. 3).

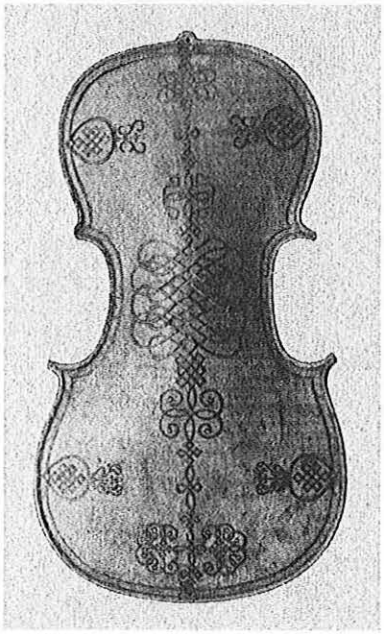
illus. 3 *An 1* , *An 2*, fronts

Meyer introduces the heart surrounding the diamonds (illus. 4) and eventually has coloured flowers sprouting from this nucleus, an idea taken up and soon stylized by Krouchdaler.



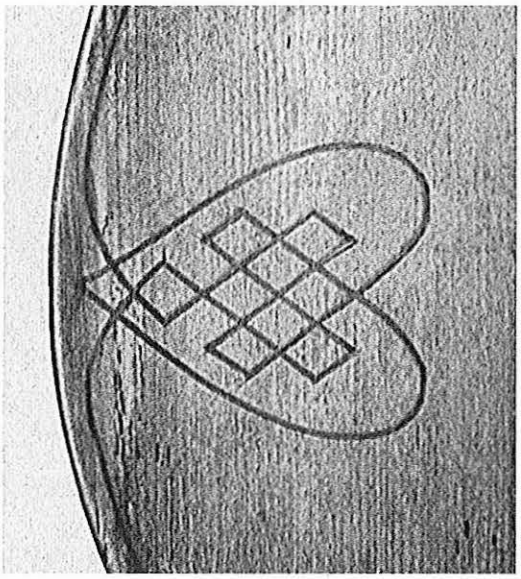
illus. 4 ***An 1, Me 6, Me 3*, fronts, inlay: individual diamond group**

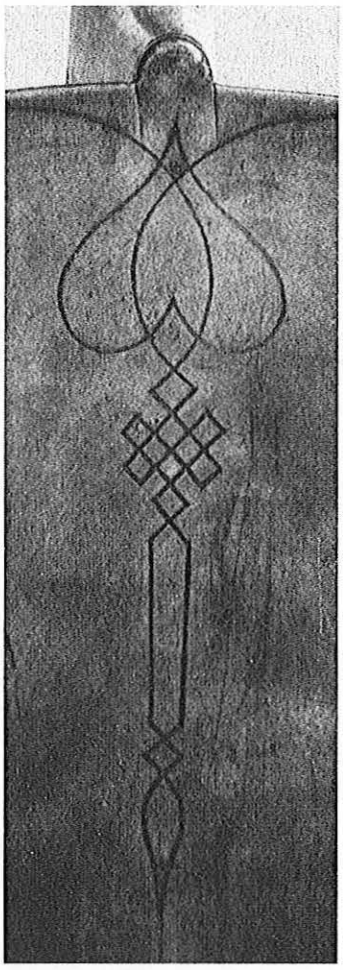
Krouchdaler is the most luxuriant of these violin makers, and the amount of pleasure he must have taken in purfling can be gathered from two surviving backs he made, one for a Discantgeige, the other for a Tenorgeige (illus. 5).



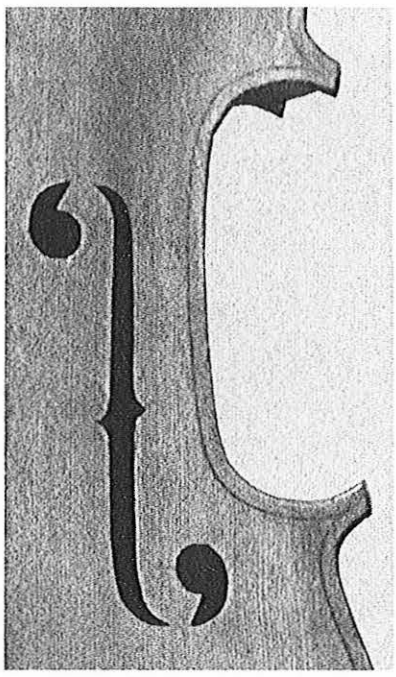
illus. 5 ***Kr. 6, Kr. 2*, backs**

By comparison, Frantz Straub's work is reticent. His heart-and-diamond patterns are parsimonious and a little dissolute and lack the tautness of line of the other two (illus. 6).





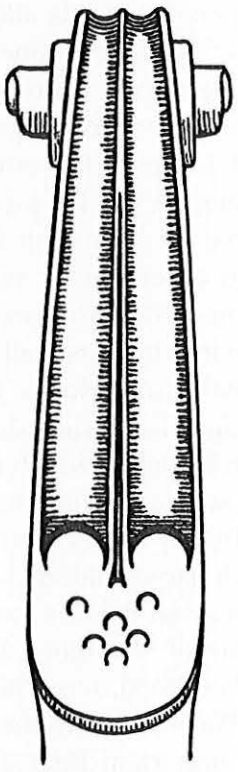
illus. 6 ***Str 1*, heart; *Str 2*, back**



Some details of the instruments have undergone changes later on, among them the sound holes which, in many cases, were originally cut leaving the end drops separate from the length of the hole; the partition was removed at a later period, and only very few survive unchanged. But frequently tool marks can be used to show traces of the original shapes (illus. 7).

illus. 7 ***Str 1*, soundhole**

The pegboxes are equally important, not only as they end in extremely individual scrolls, but also because they are not gouged hollow at the lower end of the back (illus. 8).



illus. 8 ***Str 6, Kr 1, Kr 6,*** **back of pegboxes**

Karel Moens has suggested[10] that "archaically" made instruments were made by maker-musicians. There is corroborative evidence for this both from the Middle Ages in Europe, as well as most other parts of the world, and from extant instruments such as Flemish instruments investigated by Moens[11] or those of Freiberg cathedral[12]. Moens points out an interesting detail: he distinguishes between bourgeois professional makers in cities[13] and itinerant musicians. According to his interpretation, the former specialized rather on the "noble" instruments, lutes and viols, the latter on violin instruments. But in counting courtly makers among the latter he has, I am sure, dropped a historical brick[14]. For this would mean that courts were prepared to put up with traditional, or even second-rate, instruments, whilst the rising bourgeoisie revelled in lutes and viols. The initial thought, however, is no less fascinating, particularly as none of the Alemannic makers appear to have made any "noble" instruments[15], but exclusively members of the violin family.

There is nothing to indicate a double role as musicians and makers among Alemannic violin makers in the archives discovered so far. They were full-time craftsmen supplying for the demands of their rural surroundings, just where most of the instruments in question have been preserved. There is nothing as yet to prove or disprove the use of these instruments among the nobility, although court records allow us to conclude that there was a very early preference for Italian instruments over those made at home[16].

A parallel case is to be found in the work of William Baker of Oxford[17]. The five known instruments of his production resemble those of the Alemannic school in various respects. In contemporary documents, Baker is called a "fiddle maker"[18], and he, too, is a professional instrument maker without being a player. Not unlike the Alemannic instruments, his work is marked by a love of purfling done by expert hands, and the very perfection of their concept is an indication of having grown from an extended previous development. Like the Alemannics, these instruments – all violin-type – were built without a mould and had no original corner blocks. Necks and upper blocks are in one piece, and the tenor violin still has the integral carved bass bar. Even better: there is a small bass violin by Baker, which may at one time have served to be carried around, and whose dimensions are similar to the fragmentary front *An 2*. Moreover, Peter Trevelyan has been able to show[19] that the dimensions of the instruments match James Talbot's measurements to a surprising degree[20]. Nothing is known about Baker's customers, but as the instruments are still in the vicinity of Oxford[21] it might be assumed that Baker was making for his immediate neighbourhood, too. The demand may have been either from the city (such as the 'Waits') or from the nobility and gentry.

There is an important English painting[22] showing five musicians with violin instruments very similar to those by Baker. The instruments are two treble violins, a tenor violin, and a portable small bass violin, as well as a harp. Recent publications have it – for no plausible reason, I think – that these are members of the King's Music[23], but from the difference in attire and mien it is evident that two of them are socially superior. Both are obviously the youngest in the group, and one of the young gentlemen in particular, hardly more than a child, has his black servant hand him a part book with accustomed supercilious serenity. Violins, at one time sneered at as inferior, are here represented in opulent surroundings, a fact well in keeping with professionalism in instrument making, as exemplified by Baker. Alas, similar representations of Alemannic violins are absent.

By a lucky chance, there is notable evidence of Hans Krouchdaler's professional craftsmanship. A Communion table was found in the church at Oberbalm bearing the inscription "H*K*G*1678". At the same time documents were found in the village archives disclosing that Hans Krouchdaler made a table for the parish of Oberbalm in the same year:

Auff getaner Jahrrechnung der Gemein zu Oberbalm 1677 ist Hans Krauchthaler auff der Lehmen zu einem Kirchgenoss auff- und angenommen worden. Hat für seinen Einzug dem Ehrenfesten Herren Stiftschaffner geben söllen 1 Dublonen, daran der Herr ihme 5 Batzen geschänkt. Der Gemein aber anstatt dess Einzugs hat er einen schönen vierecketen Tisch in die Kirchen gemacht.[24]

In the annual account of the parish of Oberbalm 1677 just completed Hans Krauchthaler auff der Lehmen has been admitted and confirmed a member of this parish. For his admission he was to give the Honourable Treasurer of the Collegiate Church 1 doubloon, of which his Reverence made him a present of 5 batzes. But in place of the entrance fee he made a fine rectangular table to be used in church for the parish.

Found in regrettable condition, the slab missing altogether, the table has meanwhile been restored and can now be seen again as the Communion table in the church at Oberbalm. The reference mentions the instrument maker in a wood-working context rather than that of music making. It should be noted that, although violin making could be considered as an advanced form of joinery, Krouchdaler did not make this table as a stepping-stone to higher violin-making things, but completed the table at a time when he was already earning his livelihood actually making violins. The lettering of the inscription might thus be deciphered as "Hans Krouchdaler Geigenmacher" (Hans Krouchdaler fiddle maker), so that the table was a logical product of his trade rather than a precondition to being accepted as a violin maker.

MUSICAL PRACTICE

In view of the considerable number of extant Alemannic instruments, the question of their musical application arises. Ironically, there is an almost unbelievably wide chasm between the instruments and their musical context. Hardly any other European region can have been such a musical desert in the middle of the baroque era, of all times! There were neither princely courts nor cathedrals, no connection to musical centres, no public performances of music whilst public concerts were becoming the craze elsewhere, nor composers of any fame outside the region. Sinful public music-making, whether in church or for dancing, was not encouraged in Calvinistic Switzerland.

There is also food for thought in the types and sizes of instruments. There is a remarkably high proportion of Tenorgeigen: We know of 7 by Meyer, but no bass instruments. By contrast, Hans Krouchdaler made at least 4 large basses and one small one. These bass instruments repay a closer look: there are large and small Baßgeigen, the smaller of which it would surely be inaccurate

to call "violoncelli". Without a doubt, the bass member of the Alemannic set of instruments was the large Baßgeige with 4 or 5 strings (some converted to 3-stringed basses during the 18th century). Thus the bass section was very strong and versatile. Out of the ten surviving basses three are of a size roughly like a 'cello' (*An 2*, *Kr 7*, *Str 2*). But these instruments vary so much in their dimensions that they are clear evidence of the fledgling state of what was to become the violoncello. *An 1* is the fragment of a (presumably) portable small bass, mentioned above. *Kr 7* seems spurious in several parts: the ribs are probably not original. This instrument is the closest to a modern violoncello in its dimensions, and it remains to be investigated how much change the outlines have undergone. Of *Str 2* only the original ribs, back, and pegbox remain; the whole thing looks like a shrunken version of a bass. The body is unusually long, and the ribs are very high. Maybe Straub was trying to satisfy a – customer's? – wish for a small-dimensioned, strong-sounding bass. Any attempt to declare the smaller basses "solo versions" of the larger instruments must be frustrated by the simple fact that no traces of any such music can be found. The following table lists the various types in order of their back lengths.

maker	**Adelmann/ Otterstedt no.**	**date**	**length of back**
1. pochette			
Frantz Straub	*Str 4*	1696	242 (lost)
2. Discantgeige (treble violin)			
Hans Krouchdaler?	*Kr 8*	1690–1700?	338
Joseph Meyer?	*Me 8*	1650–75?	353
Simon Straub	*Sist 3*	1712	364
Frantz Straub?	*Str 7*	1690?	365
Hans Krouchdaler	*Kr 1*	1685?	371
Simon Straub	*Sist 2*	1711	? (lost)
3. Tenorgeige (tenor violin)			
Frantz Straub?	*Str 9*	1690–1700?	400
Frantz Straub?	*Str 6*	1695?	415
Frantz Straub?	*Str 5*	1690?	416
Frantz Straub	*Str 3*	1693	418 (lost)
Hans Krouchdaler	*Kr 6*	1699	418
Joseph Meyer?	*Me 5*	1673?	420
Joseph Meyer	*Me 3*	1673	422
Joseph Meyer	*Me 2*	1670	423
Joseph Meyer	*Me 1*	1668	425 (lost)

Joseph Meyer?	*Me 7*	1670?	425
Frantz Straub?	*Str 8*	1690–1700?	430 (reduced)
Joseph Meyer?	*Me 4*	1650–75?	435
Joseph Meyer?	*Me 6*	1650–75?	439
anonymous	*An 1*	1600–50?	444
4. viola d'amore			
Simon Straub	*Sist 1*	1706	430 (lost)
5. Kleine Baßgeige (small bass violin)			
anonymous	*An 2*	1600–50?	680
Hans Krouchdaler?	*Kr 7*	1685?	760
Frantz Straub	*Str 2*	1689	816
6. Große Baßgeige (great bass violin)			
Hans Krouchdaler	*Kr 3*	1689	910
Hans Krouchdaler	*Kr 4*	1694?	912
Hans Rudolf Schaffer	*Scha 1*	1692	915
Hans Krouchdaler	*Kr 5*	1696	920
Johann Konrad Stoppel	*Sto 1*	1666	945
Hans Krouchdaler	*Kr 2*	1685	953
Frantz Straub	*Str 1*	1684	987

Some inventories permit us some glimpses of music practice in German-speaking Switzerland. It is private throughout, based on the Calvinistic view of life which even forbade the use of the organ during divine service here and there; in Basel alone the picture of musical practice is less grim. Most instruments were made in Protestant areas. The exception is significant, however, and one may be justified in assuming that these instruments were also used in monasteries of the Catholic parts of Switzerland. Schaffer glued a label into his instrument showing him to be a resident of Werthenstein near Lucerne. Werthenstein was among those monasteries newly founded in the wake of counter-reformation, where the splendour of sacred musical practice was meant to form a sharp contrast to Protestant austerity. The ornaments used by Schaffer show him to have some connection with Hans Krouchdaler, perhaps as his apprentice.

From surviving music inventories we can infer the existence of music collegia. Music from the north prevails; works by Johann Rosenmüller and Andreas Hammerschmidt are particularly frequent. The Hamburg composers Thomas Selle and Hieronymus Praetorius are also notably represented, and there was one manuscript, unfortunately lost, owned by an otherwise unspecified collegium at Berne (1697), containing four-part ballets by Johann Jenicken[25], which is probably a corruption of the name of the English composer

John Jenkins. Summing up, it can be said that this type of instruments, including kindred instruments in France, Flanders, and England, are a suitable medium for 17th-century music north of the Alps. The wide range of variations in size and shape of the instruments, all made without a mould, shows that violin making was still far from any standardization like that which is so characteristic of modern instruments. Apart from the joy of visual exuberance, this is an indication of a fundamental musical attitude: the thought of forming orchestras of any kind, with several instruments of a type playing the same part, had not been thought. The concept of constructional standardization cannot emerge unless orchestral and uniform instrumentation become desirable. It might be productive to speculate whether it was a gradually spreading orchestral practice, rather than any superior performing qualities of the instruments, that gave Italian violin making the advantage. The orchestral discipline of Lully's 'Vingt-quatre violons' at the French court is not necessarily a contradiction. For one thing, Lully himself was Italian, and, for another, not nearly enough is known about early French violin making to permit any conclusions about this. It is certainly conceivable that, here, some degree of standardization of proportions was contemplated, and that the urge to uniformalize playing techniques, quite revolutionary for the period, was accompanied by a similar tendency in instrument making. In contradistinction, the Alemannic instruments reveal quite another concept: first and foremost they are ensemble instruments without public aspirations.

THE EXHIBITION AT THE BERLIN MUSEUM OF MUSICAL INSTRUMENTS

To support the public presentation of the new book, an exhibition took place at the Berlin Musical Instrument Museum (14 December 1997 to 28 February 1998). It was judged neither to the purpose nor necessary to have all extant instruments in the exhibition. Most are privately owned and still being played, a sure sign of their uncommon durability. About half of the 33 instruments documented have been modernized and some are still in use not merely in baroque ensembles but also in symphony orchestras. Five are lost (one quite recently) or untraceable, so that information about them is fragmentary. Seven in museums have been restored to a presumptive original state. An additional Discantgeige made by Olga Adelmann in accordance with Alemannic principles is in the Berlin collection. Therefore, the aim was to present a selection of the best-preserved specimens. Pictorial material and explanatory text were included to explain the principles of construction. But, above all, the focus was on the musical context. Accessories such as bows (replicas[26]) and contemporary sources in facsimile together with period representations were also exhibited, with one section of the exhibition dedicated to playing technique, specifically, bowing.

The practical musical material is all the more important as these instruments constitute a body mostly neglected in current early-music performance practice. Indeed, these instruments are not brilliant solo instruments, as is again and again erroneously taken for granted even by representatives of the early-music movement, but were created for an ensemble which allows none of its members – not even the top part – to stand out above the others. The construction with a centre rib instead of a bass bar could result in a tone quality with gentle high notes and a rich middle register. The mighty bass instruments supply the foundation of sound, and it is impossible to over-emphasize that, in 16th- and 17th-century music, it is not the highest voice which should dominate, although this is precisely the role it routinely assumes today, but the bass. The fact that these instruments continued to be made with a centre rib in the late 17th century, i. e., that no one felt the necessity of enhancing the bass register, casts a light on a fundamentally different sound ideal. One might suspect that these instruments would work exceptionally well in ensemble. To verify – or perhaps to disprove – this assumption, an attempt was made as part of the exhibition to reactivate, carefully and for a brief period, those instruments in the Berlin collection which are still playable, and to document the result on CD. The aim of the recording, prepared with the utmost care, was not to achieve maximum brilliance of sound or virtuosity, but, on the contrary, to focus attention on the way the instruments blend. Another item during the exhibition was a concert with the instruments by William Baker.

The Alemannic school and the instruments by Baker are a fascinating chapter of the history of violin making, not only for understanding the variety in violin history, but also for its possible repercussions on the practice of early music. I have suggested to the Schola Cantorum Basiliensis that it should acquire replicas of an Alemannic ensemble to be played by students. Basel would be naturally suited for such a project, as it is situated at the heart of the region in question and is also a thriving centre for the practice of early music. But is the time ripe yet for ensemble playing of this order? We must hope for the future, which we at the Museum ought to await with patience.

1 Alexander Hajdecki: *Die italienische Lira da braccio.* Mostar 1892, pp. 38 ff.

2 Herbert Heyde and Peter Liersch: Studien zum sächsischen Musikinstrumentenbau des 16./17. Jahrhunderts. Die Geigen- und Lautenmacher von Randeck und Helbigsdorf. In: *Jahrbuch Peters.* 16–19 (1979), pp. 231–259; Karel Moens: Die Frühgeschichte der Violine im Lichte neuer Forschungen. In: *Tage alter Musik in Herne. Lauten, Harfen, Violinen.* Herne 1984, pp. 54–86; Peter Trevelyan: A quartet of string instruments by William Baker of Oxford (circa 1645–1685). In: *The Galpin Society Journal.* 49 (1996), pp. 65–76.

3 Olga Adelmann: *Die Alemanische Schule. Archaischer Geigenbau des 17. Jahrhunderts im südlichen Schwarzwald und in der Schweiz.* Berlin: Staatliches Institut für Musikforschung Preußischer Kulturbesitz 1990.
4 Karel Moens, op. cit.; Fred Lindeman: Dutch violin making in The Netherlands from its origins in the mid-17th century until the early-20th century. In: *The Strad.* August 1995, pp. 782–791.
5 Heyde and Liersch, op. cit.
6 Frances Palmer: Musical instruments from the Mary Rose. A report of work in progress. In: *Early Music.* (1983), pp. 53–60; Ewa Dahlig: A sixteenth-century Polish folk fiddle from P≥ock. In: *The Galpin Society Journal.* 47 (1994), pp. 111–122.
7 Olga Adelmann and Annette Otterstedt: *Die Alemannische Schule. Geigenbau des 17. Jahrhunderts im südlichen Schwarzwald und in der Schweiz.* Berlin: Staatliches Institut für Musikforschung Preußischer Kulturbesitz 1997.
8 A synoptic chart of both systems has been added in the catalogue, p. 98.
9 Olga Adelmann, op. cit. (1990), p. 20.
10 Karel Moens: Der frühe Geigenbau in Süddeutschland. In: *Studia organologica. Festschrift für John Henry van der Meer zu seinem fünfundsechzigsten Geburtstag.* Tutzing: Hans Schneider 1987, p. 354.
11 Karel Moens: Vroege Hollandse vioolbouw. Enkele voorlopige resultaten van een onderzoek naar een glorierijke traditie. In: *Musica Antiqua.* 7, no. 3 (August 1990), pp. 101–107, no. 4 (November 1990), pp. 171–179.
12 Heyde and Liersch, op. cit., p. 231.
13 Karel Moens, op. cit. (1987), p. 358f.
14 Moens, op. cit. (1987), p. 382.
15 The lost 'viola d'amore' by Simon Straub (*Sist 1*) formerly in the possession of César Snoeck may have been the only exception, although it was more than doubtful if the neck had not been added much later. The question will remain unanswered.
16 Annette Otterstedt: Der historische Kontext. In: Adelmann/Otterstedt: op. cit., footnote 7, pp. 19–36.
17 John Dilworth: Mr Baker the fidell maker. In: *The Strad.* May 1995, pp. 474–481; Peter Trevelyan, op. cit. (footnote 2).
18 Trevelyan, op. cit., p. 66.
19 Trevelyan, op. cit., p. 74.
20 Robert Donington: James Talbot's manuscript (Christ Church Library Music MS 1187). II. Bowed strings. In: *The Galpin Society Journal.* 3 (1950), p. 29f.
21 The small bass violin has returned to England after a short period in Canada.
22 anon. ca. 1660, in Nostell Priory, Yorkshire; a reproduction is shown in Peter Holman: *Four and twenty fiddlers. The violin at the English court.* Oxford: Clarendon Press 1993, plate 5b.
23 Holman, op. cit., p. 280 f.
24 Kirchenrödel von Oberbalm (Switzerland), K Oberbalm 1–14, in State Archive of Berne, cf. Adelmann/Otterstedt, op. cit., p. 41.
25 MS in Berne, Stadtbibliothek: Schärer Msc H X 1.6, Beilagen Nr. 163b; cf. Karl Nef: *Die Collegia Musica in der deutschen reformierten Schweiz, von ihrer Entstehung bis zum Beginn des neunzehnten Jahrhunderts.* Sankt Gallen 1896, p. 146f.
26 Since the verb 'to replicate' signifies the reproduction of an object 'in the manner' the maker himself, or herself, made it, I have chosen this term quite deliberately, to distinguish what I think has to be done from what is currently the practice, i. e. 'copying' in various degrees of 'imitation', or cloning a 'model'.

RUDOLF HOPFNER

German Bow Making Tradition – A Wide Span in Quality or: When is a Bow Worth Collecting?

When speaking about violin bows one inevitably thinks of the French bow making school, especially of Tourte, Vuillaume, Voirin, Peccatte, et al. Undoubtedly these outstanding craftsmen established a standard which served as a guideline for the following generations. But the ratio between the output of these – I dare say – artists and the great number of mean or inferior makers can be compared with an iceberg: only a fraction is visible, the vast majority only comes to our attention on rare occasions. For obvious reasons, curators in a museum try to collect only worthy, interesting, and precious items. By going through the inventories of our institutions one inevitably will find a great number of bows that do not match these criteria: cheap, worn, often damaged mass-produced bows of poor craftmanship. Where does this discrepancy come from?

Most of the thoughts in this paper occurred while working on a catalogue of bows[1] in the Sammlung Alter Musikinstrumente (SAM) of the Kunsthistorisches Museum in Vienna. The reasons for planning such a catalogue were numerous:

- Bows often are treated as part of or even as an appendix to catalogues of bowed instruments. Sometimes this practice may be caused by the small number of items; but it stands in contrast to the importance of the bow in the hands of a musician.
- The Sammlung Alter Musikinstrumente and the Gesellschaft der Musikfreunde (some 150 instruments of this Society are on loan to our collection) both hold a great variety of bows ranging from the late 16th to the 20th century. Therefore a catalogue offers the opportunity for a comprehensive survey of the evolution.
- In existing catalogues the description of the bow and the given measurements of bows often are rather scanty: material, length, maximum and minimum diameter, height of tip and frog, weight. Prior to the actual work, a standard for the description and for taking measurements had to be established.

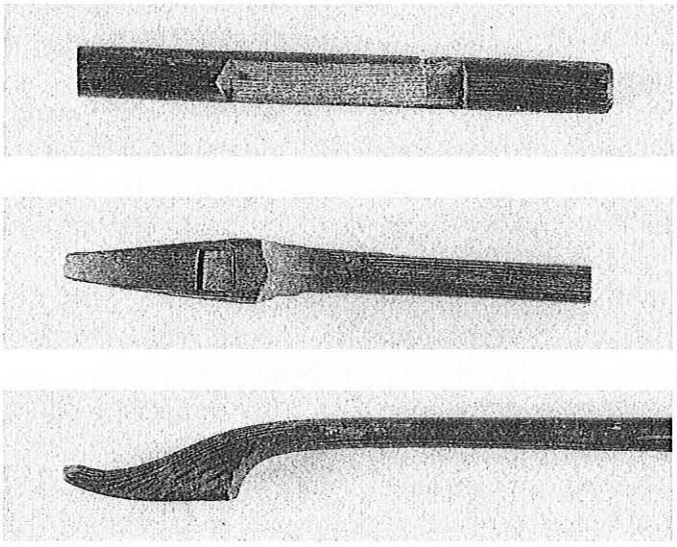
The first question to be asked is: How should the term "German" be understood in our context? A great quantity of bows which now are considered to be German were, in fact, produced in Bohemia. On the other side up to now no Austrian bowmaker could be identified. After comparing different stylistic features it seemed to be fair to combine the bowmakers of the three countries under the term "German bow making school". The comprehensive book about this branch of craftmanship of our region is still to be written. Therefore my

paper is not the place for an extensive summary. By focusing on objects in our collection I only intend to shed some light upon typical developments.

Who was the first Austrian, German or Bohemian bow maker? It is impossible to answer the question at the moment. There is only evidence that, for instance, Jakob Stainer (1617–1683) in 1655 delivered a violin with bow and case to the Bavarian Court in Munich[2]. The invoice is speaking of a bow of "Indian wood" (*indianischen pogen*). This term in Stainer's day generally was used for hard, heavy, and resilient wood from overseas. It is impossible to identify a certain species like snakewood, ironwood, or pernambuco. Given the fact that Stainer tried to achieve highest standards in violin making, the bow he delivered with the instrument by sure was not of inferior quality. There is no evidence that he purchased bows from other craftsmen. So there is at least a chance that he also was active as a bowmaker. This assumption of course can also be made with regard to other violin makers.

Interesting enough, in Roda's book about *Bows for musical instruments* a contemporary of Stainer, namely Mathias Alban of Bozen (1621–1712) is listed as bowmaker. Without quoting a source Roda writes that Alban "made some bows which are highly regarded"[3]. We have to take into account that prior to the second half of the 18th century no stamped bows are known. Therefore information like that mentioned above should be taken with care.

One of the earliest items in connection with bow making in our region is a bowstick which was found some years ago in Lower Austria (SAM 712, illus. 9). It is a clip-in bow with swan-bill head, made of larchwood. The stick was found under the floor boards a church near Klosterneuburg. The history of the building is well documented, and therefore we know that somebody disposed of this bow between 1683 and 1725, a statement which is confirmed by stylistic features. This particular bow was a cheap but nevertheless sufficient tool for a tutti player who did not have to execute rapid staccatos or arpeggios.

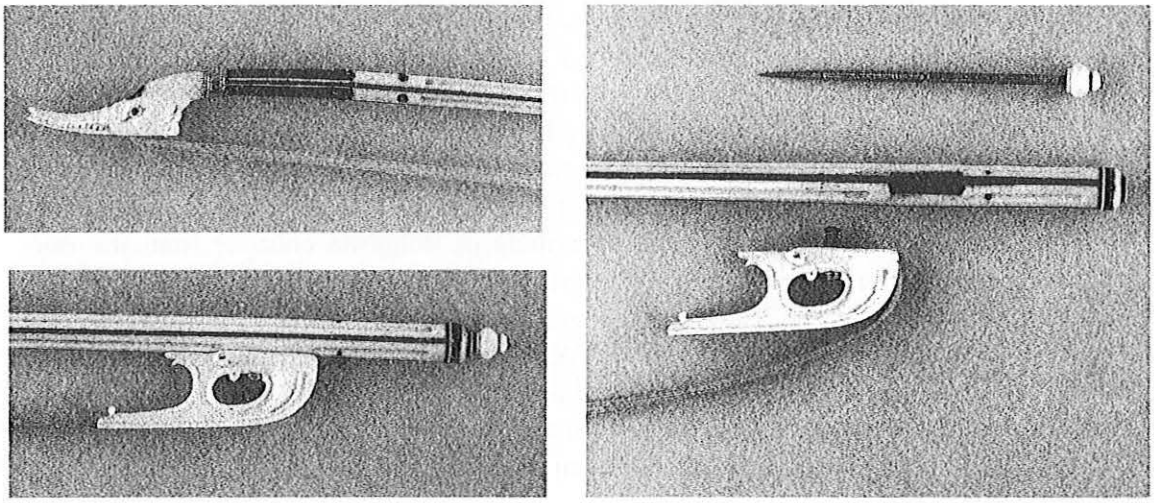


illus. 9 **Bow inv.-no. SAM 712**

Virtuoso players like Biber or Walther probably used more refined bow types. But the great majority of average players by sure played bows like the one under discussion. We can assume that these bows were made by local instrument makers. As these clip-in bows were of very simple shape, they were not worth repairing once they were damaged. Lacking any monetary or aesthetic value, these items were thrown away once they became useless. This can be taken as an explanation for the fact that only very few items of this type have survived in collections.

The next item we have to deal with, shows completely different qualities (SAM 638, illus. 10). Up to now it is the earliest bow with a screw mechanism which can be dated precisely. On March 6th, 1749 Empress Maria Theresia purchased a violin made of tortoise shell and ivory with bow and case for the treasury of the court. The instrument is signed "Kowansky, 1749". Kowansky is known as a case maker and it is very likely that in this instance he cooperated with a local violin maker. The violin and bow are exquisite pieces of art. They are very elaborate and show every detail of a typical instrument of the middle of the 18th century[4]. The bow has a core of wood with stripes of ivory and tortoise shell, mounted with pins of gold wire. Due to this construction, the upper third of the bowstick is very thick and lacks the resiliance which is necessary for a playable bow. Therefore it is only for show, but it displays some interesting features worth discussing. Looking at the face of the frog, one inevitably thinks of a clip-in frog. The hair runs in a channel over the heel of the frog. The mortise for the bow hair lies on the underside of the nut, in other words, between nut and bow stick. The frog is adjusted by a long brass screw. The swan-bill head is relatively high. It is of carved ivory and resembles a crocodile's head.

The bow shows some similarities with the bow depicted in Leopold Mozart's Violin School of 1756[5]. The relatively high frog, the convex bow stick, and the shape of the head are indeed very close to Mozart's model. The stick



illus. 10 **Bow inv.-no. SAM 638**

of our bow measures 671 mm in length. Mozart gives no scale with his print, but we can estimate that it also is reasonably shorter than the modern bow, 720 mm long.

Looking at the development of the following decades one gets the impression that Mozart's bow was already old-fashioned in the sixties of the 18th century. The next step towards the Tourte model is marked by a bow type, associated with the German violinist Wilhelm Cramer (1745–1799)[6]. Between 1772 and 1792 he lived in London, and it was during this time that his reputation was at its height. The bow he used was described by Woldemar (1789)[7] and it shows features quite different from Mozart's bow: the bow stick is longer and has an inward curve. Therefore the tip has to be higher: it has the shape of a "battle-axe". The camber of the stick is especially responsible for a number of qualities that the baroque bow lacks. All the intricate bowings, arpeggios and ricochets, for which Viotti and his successors were famous, can be easily executed with a Cramer bow. It is interesting that one of the most famous lithographs of Paganini shows the artist playing a bow with a battle-axe head.

We can assume that the description Johann Samuel Petri gives in his *Anleitung zur praktischen Musik*[8] also refers to this "transitional model" – as it is often called. According to his measurements the bow stick is 707 mm long, and the playing length is 636 mm. These compare well with existing bows of the period.

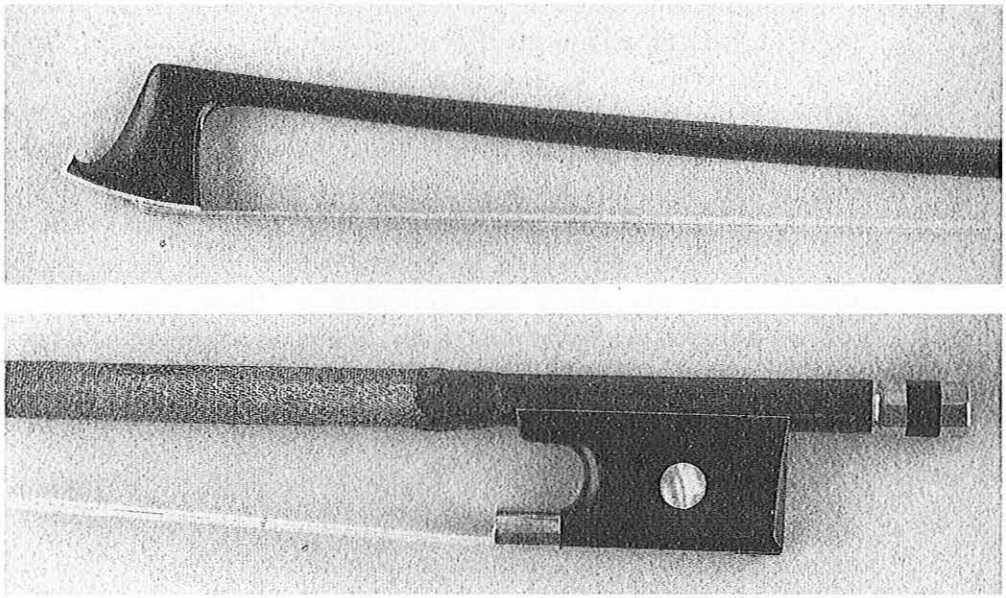
The long lasting and fertile bow making tradition in Saxony was founded by a certain Joseph Strötz (Ströz). His name is mentioned in an article in Paul de Wit's *Zeitschrift für Instrumentenbau* in 1882[9]. He was a cabinetmaker and musician who immigrated from Bavaria and - according to Lütgendorff[10] – finally devoted himself to bow making. Strötz died in 1760, only 45 years of age. During the following decades Saxony, particularly Markneukirchen, became one of the most important centres for bowmaking. As I pointed out in the introduction, we tend to focus our attention only on the outstanding and interesting items. But we must not forget that there has also been a high demand for cheap, mass-produced bows. This demand was satisfied by the workshops (or shall we better say factories?) in Southern Saxony and Northern Bohemia. There was a fierce rivalry between these two adjacent regions. Most of the Bohemian instrument makers worked only part time and often had to make their living as farmers. Division of labour was customary. This and the low level of wages made the products of Bohemia cheaper than the ones produced in Saxony. German dealers used to buy in Bohemia. The better bows were branded, while low-quality bows were sold without a brand mark.

Some figures reported in de Wit's *Zeitschrift für Instrumentenbau*[11] give an impression of the enormous production in Saxony and Bohemia: In 1882 in Markneukirchen and in the surrounding villages 500 people were busy with bow making and there were twenty-six master bowmakers in the city. The

annual output was some half million bows. Ninety percent were made of beechwood, ironwood, snakewood, and bulletriewood, only ten percent of pernambuco. In looking at Julius Heinrich Zimmermann's catalogue of musical instruments, which was released around the turn of the 19th to the 20th century[12], we see the wide range of bows he offered. The cheapest pupil's bow cost 75 pfennigs. The range goes up to 100 marks and Zimmermann states that bows up from seven marks (pernambuco, fine stick) bear his brand mark and that the bows over 20 marks are produced in his own workshop.

Zimmermann's catalogue also offers a "Modell Bausch", thus giving the catchword for our next chapter. It goes without saying that Germany did not produce only cheap, low-quality bows. In fact, there was a number of excellent craftsmen who were not inferior to the renowned French makers. Ludwig Christian Bausch lived from 1805 to 1871. He studied violin making in Dresden, spent a short time in Russia, and had shops in different German cities. He finally settled in Leipzig in 1863[13]. Bausch was in touch with the outstanding violinist Louis Spohr. From his Violin School[14] we come to know that Spohr prefered Tourte's bows. So it is highly likely that Bausch was very familiar with the features of the Tourte bow. The firm Ludwig Bausch & Son existed until 1908, producing – after the master's death in 1871 – bows of considerably lower quality.

Carl Hermann Voigt, born in 1850, studied bow making with Bausch in Leipzig. From 1871 until his death in 1925 he worked in Vienna. First he was apprentice of Gabriel Lemböck and in 1876 he established his own workshop. The Sammlung Alter Musikinstrumente holds four violin bows stamped "C. H. VOIGT . WIEN" (SAM 588, 589, 590, and 886). My enthusiasm about having traced down the first Viennese bowmaker (even if he was German by birth)



illus. 11 **Bow inv.-no. SAM 590**

shrank when I learned that Voigt, although trained as a bowmaker, during his Viennese period never made a single bow[15]. He purchased the bows mainly from the Nürnberger workshop and branded them. In fact, the four bows are a little different from each other, not showing exactly the same hand. One item especially stands out from the others (SAM 590, illus. 11). The frog shows features typical of Jean Baptiste Vuillaume. The underslide is circular, and the edges of the heel, underside and ferrule are rounded. German bowmakers hardly ever followed the Vuillaume model. Only one member of the Pfretzschner family, namely Hermann Richard (1856–1921), worked for a short period with Vuillaume. He came to Paris in 1874, only one year before Vuillaume's death. Pfretzschner returned to Markneukirchen in 1880 where he established his own firm. As there is no other report about German bowmakers working in Paris, we can only assume that Voigt purchased his "Vuillaume-type" bows from Hermann Richard Pfretzschner.

A detailed discussion of all the other important names like Kittel, Knopf, Süss, et al., as well as the flourish of bowmaking in Bubenreuth after World War II, would exceed the compass of this paper.

In coming back to our initial question, "when is a bow worth collecting?" we first have to ask which facts determine the value of an item. The bowstick of larchwood can give an impression what sort of tool an average player of c. 1700 had at hand when making music. In contrast the ivory bow is simply a precious piece of art. Certainly it represents a much higher monetary value, but since we are not antique dealers this fact should not be overestimated. Fortunately, our profession includes many different facets. As a musicologist I would prefer the larchwood stick, while as a museum professional who has to organize a nice exhibition, the ivory bow would surely be my favorite.

During recent decades the criteria for judging an item have changed dramatically. Our collection holds some of the earliest viol bows in existence. There is also a bow for a small stringed instrument which was first mentioned in an inventory of 1596. Therefore it is - after the bow of Katarina de Vigri in Bologna – the second oldest dateable bow. It is nearly unbelievable that these items are not even mentioned in the inventories of the late 19th and early 20th century. In 1916 the Catajo collection was incorporated into the Kunsthistorisches Museum. Therefore a complete inventory had to be written. This report has an annex from a different hand, stating: "ferner fanden sich 12 Bogen ... als überzählig vor" (furthermore there were 12 supernumerary bows). We have to concede that these items are neither an eye-catcher nor did they represent monetary value in those days. It is not my intention to blame our predecessors for doing wrong. The example is only to show how different values can be defined and how premises can change over time.

When giving a similar lecture to an audience consisting mainly of instrument makers, in the course of the discussion a young bowmaker stated: "In my opinion it does not make sense to look at bows of mean or low quality.

We have to orientate on the outstanding items." And he is right – from his point of view. But the standpoint of museum professionals has to be different. As musicologists we have a responsibility to reveal a comprehensive picture of the past. We must not, like it or not, exclude 90% of the output of our bowmakers. That of course does not mean that I want to encourage anybody to collect junk. It simply means that we sometimes have to shift our attention to topics lying outside the mainstream. Not only Stradivaris, Tourtes, Denners and Ruckers are worth collecting and studying.

1 Rudolf Hopfner: *Streichbogen. Katalog. Sammlung alter Musikinstrumente und Sammlungen der Gesellschaft der Musikfreunde in Wien.* Tutzing: Hans Schneider 1998.
2 Walter Senn and Karl Roy: *Jakob Stainer. Leben und Werk des Tiroler Meisters.* Frankfurt/Main 1986, p. 78: "Jacoben Strimer [sic] geigenmacher, per ain von zipreßholz gemachtes violin mit helfenpain und ebenholz geziert, item von ainen indianischen pogen und fueteral darzue laut zetl ... 30 fl."
3 Joseph Roda: *Bows for musical instruments of the violin family.* Chicago, IL 1959, p. 120.
4 *Die Klangwelt Mozarts.* [Catalogue of an exhibition of the Kunsthistorisches Museum, Wien] Wien: Kunsthistorisches Museum 1991, p. 262.
5 Leopold Mozart: *Versuch einer gründlichen Violinschule.* Augsburg 1756, p. 55.
6 David D. Boyden: The violin bow in the 18th century. In: *Early music.* April 1980, p. 206.
7 Michel Woldemar: *Grande Méthode de Violon.* Paris 1798.
8 Johann Samuel Petri: *Anleitung zur praktischen Musik.* Leipzig 1782, p. 382: "Der ganze Bogen muß gegen 1 1/4 Ellen Leipziger Maß halten, und das freie Haar am Bogen, vom Frosche bis zur Bogenspitze, muß durch den Frosch nur ein halb Viertel verlieren."
9 *Zeitschrift für Instrumentenbau.* Jg. 1882, 15/207.
10 Willibald Leo Freiherr von Lütgendorff: *Die Geigen- und Lautenmacher vom Mittelalter bis zur Gegenwart,* 6th ed., vol. 2, Frankfurt/Main: Frankfurter Verlags-Anstalt 1922, p. 500 (Reprint Tutzing: Hans Schneider 1975).
11 *Zeitschrift für Instrumentenbau.* Jg. 1882, 15/207.
12 *Julius Heinrich Zimmermann. Musikinstrumente.* Reprint of the catalogue, Frankfurt/Main 1984, p. 7.
13 Roda: *Bows,* op. cit., p. 125.
14 Louis Spohr: *Violin-Schule.* Cassel 1832, p. 17.
15 Information by Prof. Ludwig Tröstler, Vienna.

Martin Elste

Violin-Making in Berlin – Artists, Craftsmen, Scholars, and Businessmen

In the course of history, instrument making has not always been a profession strictly separated from other musical professions. In Berlin[1], one of the earliest instrument makers known by name was also a harp-player. As such he was listed in the death register. Jacob Meinertzen, the first Berlin violin maker, flourished around 1700 as Royal "Hoff, Violdegam- und Lautenmacher", i. e. viol and lute-maker. Unfortunately, his viol once in the possession of the Berlin Musikinstrumenten-Museum is among the losses of World War II.

Only one Berlin violin maker of the 18th century is known to us. His name is Anton Bachmann (1716–1800), who, according to Johann Nikolaus Forkel, was considered a distinguished violin maker[2], although his surviving instruments do not show particularly outstanding craftsmanship. The Berlin Musikinstrumenten-Museum owns a violin (cat.-no. 5167), a viola (cat.-no. 4178), two 'cellos (cat.-nos. 5131 and 5161), and a 5-course mandore (or mandola; cat.-no. 4492) by him. The violin is after Stainer. The viola by Bachmann is of the small, slim type. For his 'cellos, Bachmann built after Stradivari.

Actually, Bachmann not only made and sold his own instruments, but he seems to have made his living also by selling instruments made by other craftsmen. That his labels are found in several violins of different designs indicates such a supposition. The violin cat.-no. 4237 of the Musik-instrumenten-Museum originally had such a Bachmann label, although it is clearly an instrument of the Mittenwald school, based on the Stainer model. Out of the Bachmann workshop also came a typical novelty instrument, a keyed guitar ("Tastengitarre") with little hammers hitting each string from below. This instrument was one of several similar experiments of Bachmann's time.

Bachmann had two sons, both of whom devoted themselves to music making. Carl Ludwig Bachmann started off as a viola player, but turned more and more towards violin making. His instruments are more carefully made than his father's. His name is associated with a clever device still known and used today in double basses: in 1778 he invented a screw mechanism for tuning the strings of the double bass.

Due to the fact that in the woods around Berlin there was hardly any spruce or maple, the cost for transport of these woods hindered violin making on a larger scale. Thus the Berlin violin makers primarily did repairs. With the

advent of cheaper means of transportation, in other words, with the flourishing of the railways, this situation changed. There was also a higher demand for violins owing to the fact that Joseph Joachim, the leading violinist of his period, moved in 1866 to Berlin and became two years later, in 1868, director of the newly founded Academy of Music. This changed the situation of music making in a town which, until then, had been dominated by military bands. The Hanoverian violin maker August Riechers (1836–1893) came to Berlin at the suggestion of Joachim to settle there and establish a workshop which quickly became well known in the city. Riechers made almost all of his some 600 violins after Stradivari. His daily routine, however, was repair work. The violin cat.-no. 5022, labelled "August Riechers fecit Berlin 1876", imitates the classical north Italian school. Riechers is said to have had in his hands some 300 instruments by Stradivari. No doubt: Berlin had become a capital with a strong concert life and many travelling soloists.

A violin maker in such a big city could easily develop into an expert. August Herrmann, one of the major dealers at the turn of the century, even claimed to have seen in his lifetime approximately 20,000 instruments. In such a climate, fakers could also easily develop their skills. The best known Berlin imitator of old violins was Michael Dötsch (1874–1939). Dötsch worked for twenty years in various workshops, where he aquinted himself with classical Italian violin-making. In 1914, Dötsch opened his own workshop and imitated primarily instruments by Giambattista Guadagnini and by the Gagliano dynasty. He even added signs of wear to his violins in order to make them appear real. However, his fakes are, strictly speaking, imitations, as usually he labelled the inside of his instruments with tiny brand stamps.

The violin cat.-no. 5117 is such an imitation after the Stradivari model of Nicola Gagliano. The red-golden yellow varnish cleverly imitates the old varnish. The corners are darkened in order to suggest signs of wear. Dötsch even added what is called in German a "Halsanschäfter", i. e. a joint grafted on between neck and pegbox in order to suggest a re-design typical for instruments before 1800 (illus. 12).

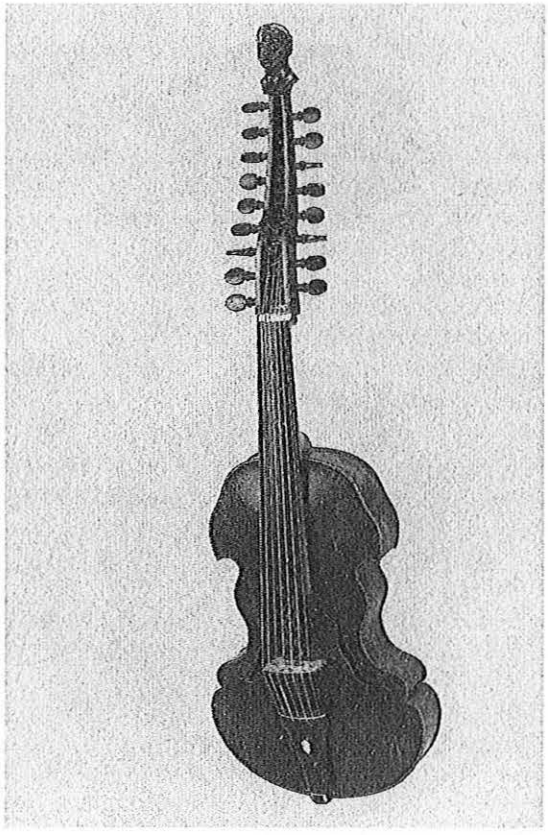
Another well-known name associated with Berlin violin making is Möckel, although the family derives from Saxony. There were three violin-makers in this family. Oswald Möckel (1843–1912) came to Berlin and opened his own workshop in 1869. His sons Otto and Max were to raise the fame of this dynasty. Both showed interest in the scholarly side of violin making, but in different ways. Max Möckel (1873–1937) had the idea that the Italian violins are constructed according to the golden section, a somewhat over-rational view with only limited relevance to violin construction. He published his theories in *Das Konstruktionsgeheimnis der alten italienischen Meister. Der goldene Schnitt im Geigenbau* (The secrets of Construction by the Old Italian Masters. The Golden Mean in Violin Making)[3] and, later, in *Die Kunst der Messung im Geigenbau* (The Art of Measurements in Violin Making)[4].

illus. 12 **Violin by Michael Dötsch, Berlin, after 1914**

Max's older brother Otto (1869–1937) combined craftsmanship and scholarship in an ideal manner. He studied hundreds of the classical Italian violins and drafted curves of their vaults, sound-holes, scrolls, and outlines. He took down measurements and took many photographs. In other words he tried to analyze as many details as possible. Unfortunately, his documentation was lost in World War II. In 1920, Otto Möckel made a revision of the standard book on violin construction, the "Apian-Bennewitz", as it is known by the name of its author[5]. During the second half of the 1920s he published a small but useful periodical on violin matters[6] and also revised the "Fuchs-Taxe", the authoritative guide to prices of old violins[7]. In 1930 his writings were crowned by his comprehensive book on violin making, titled *Die Kunst des Geigenbaues* (The Art of Violin Making)[8]. This manual deals in 14 chapters with all aspects of the craft, starting with the tools and ending with repair. This book has had several editions and is still available as one of the major books on this subject. Otto Möckel also made many distinguished violins. Georg Kulenkampff, for example, played a Möckel violin in his concerts, although he owned a Stradivari, too.

The search for a global recipe for acoustically perfect violins brought about new theories over and over again. Some people in Berlin devoted all of their efforts to this question. One of them was Max Großmann (1856 or 57 – 1940), a trained practitioner. His theory was that the perfect sound depends on the ideal tuning of the resonating tones of the boards. He claimed to be able to make violins with a sound as good as that of the classical Italian violins. His intention was, in other words, to destroy the aura of old violins by being guided by the very aura of their sound! This approach has been typical for more than two centuries now and has always resulted in imitations, copies, and fakes. Großmann became technical director of the Neu-Cremona Kunstinstrumentenbau-GmbH in Berlin, a company which sold instruments that were made, as they claimed, according to the principles of Großmann. These instruments were made by various violin makers including at one time Michael Dötsch. When it became known that many of the company's violins were not made at all according to the Großmann principle, the scandal was completed. In the end, the company had to cease business.

Interest in historical instruments was then, as it is today, strongly connected with the Berlin Musikinstrumenten-Museum. When in 1888 the Berlin collection was formed, the many historical instruments needed careful conservation and restoration. Arthur Voss (1886 – 1944 or 45)was one of the



illus. 13

Viola d'amore by Michael Strobl, Berlin, 1906

first violin makers who integrated this job into their routine work. He worked for Oswald Möckel and came through Möckel's workshop into contact with the Museum. More and more he developed into a specialist in the restoration of ancient instruments. Apparently, he was specially gifted in carving the heads of viols and – who knows? – perhaps we have more of his heads in our collection than we imagine. He also reconstructed a medieval fidel according to the instructions of Curt Sachs. This fidel is, unfortunately, lost.

Otto Möckel, too, copied a historical instrument, namely a viola d'amore with seven playing strings and 14 resonating strings. His model, in this case, was an instrument by Udalricus Eberle owned by the Carl Claudius Samling in Copenhagen. A much more freely made viola d'amore (illus. 13) comes from the Berlin violin maker Michael Strobl (1867–1957). The carved head of this instrument is the golden laurel-crowned head of Emperor Wilhelm II instead of blind love – certainly a period piece of historicism!

With the splitting-up of Berlin into two politically and commercially independent cities after World War II, the impact of violin makers in the region became negligible. Still, there have always been dealers and workshops for repair, but they were of only local importance during the years of the Berlin Wall. In East Berlin, in fact, there were only a couple of violin makers, many fewer than in West Berlin[9]. Certainly this situation was a result of the socialist infrastructure which did not foster individual craftsmanship. The situation has changed, however, since 1989. Many young violin makers have come into the city. Now there are almost 30 workshops in the region of Berlin, as opposed to not even ten before 1989.

1 This contribution summarizes the author's article "Berlin als ein Zentrum des Großstadtgeigenbaus". In: Dagmar Droysen-Reber; Martin Elste, and Gesine Haase: *Handwerk im Dienste der Musik. 300 Jahre Berliner Musikinstrumentenbau.* Berlin: Staatliches Institut für Musikforschung Preußischer Kulturbesitz 1987, pp. 11–27.

2 Johann Nikolaus Forkel: *Musikalischer Almanach für Deutschland auf das Jahr 1782.* Leipzig 1781, p. 203: "Er verfertigt nicht nur sehr gute neue Violinen, das Stück zu 6 Dukaten, sondern reparirt auch alte Instrumente mit dem besten Erfolg."

3 Max Möckel: *Das Konstruktionsgeheimnis der alten italienischen Meister. Der goldene Schnitt im Geigenbau.* Berlin: Verlag der Musik-Instrumenten-Zeitung 1925.

4 Max Möckel: *Die Kunst der Mesung im Geigenbau.* Berlin: by the author [1935].

5 P. O. Apian-Bennewitz: *Die Geige. Umfassend: Die Grundzüge der Akustik, die Geschichte der Bogeninstrumente und eine ausführliche, beschreibende und bildliche Darstellung der Anfertigung der Geige. Herausgegeben von Otto Möckel. 2., völlig neu bearbeitete und erweiterte Auflage.* Leipzig: Verlag von Bernh. Friedr. Voigt 1920.

6 *Die Geige und verwandte Instrumente.* Berlin 1925–1929.

7 Albert Fuchs: *Taxe der Streichinstrumente. Anleitung zur Einschätzung der Geigen, Violen, Violoncelli, Kontrabässe usw. nach Herkunft und Wert. Neu bearbeitet von Otto Möckel.* Leipzig: Merseburger 4/1929.

8 Otto Möckel: *Die Kunst des Geigenbaues. Ein umfassendes praktisches Handbuch des Kunstgeigenbaues.* Leipzig: Verlag von Bernh. Friedr. Voigt 1930.

9 For a listing of violin makers active in Berlin before 1988 cf. also Martin Elste: Berliner Geigenbauer. Ein biographisches Verzeichnis. In: Dagmar Droysen-Reber, Martin Elste, and Gesine Haase, op. cit., pp. 28–36.

Florence Gétreau

Regional Schools of Instrument-making in France: Their Representation in Public Collections

If we take a rapid look at the publications existing on French musical instrument-making, they essentially concern Paris. This has been the case since the last century. Indeed, the administrative organisation of this country, its centralism for about a thousand years, and the high quality of its musical life can explain that the capital gave rise to the most structured organization of instrument makers[1] because of their great number and prospects. The supremacy of its production in number and quality, its crossroad position, its instruments with well-defined features, its high-class manufacturers, its inventions, sometimes internationally diffused, and finally its historical collections can provide an explanation for this prominent situation. For this last point also, Paris played an avant-garde role as early as 1793, being the first city to found a public collection.

The unique museum in France, with a national character since the beginning, fully specialized in musical instruments, the former Musée du Conservatoire and today Musée de la Musique, preserves an overwhelming majority of French items. A systematic analysis of the registers[2] gives the following proportions: 65% for France, the rest for other countries. For France, we find that 70% are Parisian items. Did the curators of that Museum neglect regional centres of instrument making during 150 years of acquisitions? Is there a sort of low level of inventiveness in French provinces? Was the procedure to create a public heritage smaller elsewhere than in Paris? These are the questions I will try to answer in this paper.

What do we know, first, about the organization and practical aspects of this profession in different regions of France? Until recently, we had at our disposal some biographical articles published in local historical periodicals and studies on some centres with a more developed and internationally famous production. Research by Henry Coutagne, for example about Gaspard Duiffoproucart in Lyon[3], two generations later by Léon Vallas[4] about the same city, by Albert Jacquot about Lorraine[5], by Thoinan and Mauger about the Hotteterre in La Couture-Boussey and Paris[6], are symptomatic of a new interest born at the end of the 19th century for regional production centres having generated famous dynasties of makers at the service of aristocratic music. But for the rest of France data were almost non-existent.

In the middle of the 20th century, the work done by French ethnomusicologists like Claudie Marcel-Dubois pays attention to regional organology, mainly anonymous. She studied particular instruments[7] and

special ensembles[8] from certain French regions, trying to outline pertinent typological characteristics. But nobody seems to take into account the status of the maker. Is he above all a musician? Or a craftsman only occasionally active as a maker? For the past 30 years, many studies have enabled us to consider the existence of regional schools of instrument making, sometimes of a very high level in some urban centres and disseminated throughout the country, while the context of production and regional features of folk instruments gave rise to a real interest, then to academic and scholarly works supported by regionalistic and folk-music movements.

THE SOCIAL AND INSTITUTIONAL STRUCTURE OF THE PROFESSION DURING THE ANCIEN RÉGIME

The organization in Paris is unique in France. At the end of the Renaissance, the establishment of a special guild of instrument makers of all sorts has no equivalent elsewhere in France, even if some cities were influenced by it. The Parisian by-laws are well known and were published several times (Pontécoulant, 1861; Pierre, 1893; Loubet de Sceaury, 1949), and their prescriptions are very similar to those in other countries.

Recent research has confirmed that only Mirecourt established, quite late, a specialized profession of instrument makers ("luthiers"), other regional centres having too small a development to need it. In **Rouen** in the 18th century, for instance, Louis-Jean-Baptiste Fortier, "maker of flutes, oboes, bassoons and other wind instruments", along with four other makers came into conflict beetween 1708 and 1726, with the new by-laws introduced by the dance masters and fiddlers. Fortier and his colleagues lost their lawsuit, and Fortier is afterwards called "instrument player" in official documents[9].

In **Lyon**, the situation is quite different. As an established crossroad, this city attracted a great number of skilled makers because of its prosperity, its international fame, and mainly because of its special status as a free city, open to the free exercise of trade for natives as well as foreigners. These dispositions were confirmed in 1486 by King Charles VIII and once more by Louis XII in 1511, long before the establishment of the Parisian by-laws. As Claude de Rubys noted in his booklet about the rights of the inhabitants of Lyon, this freedom allowed a real endeavor to bring local skills to a very high level, even to perfection[10]. This freedom gave rise, for example, to a brilliant production in the field of harpsichords[11].

In **Toulouse** there was no special guild for makers. According to their speciality, makers were part of a different trade. Flute makers were, for example, members of the turners' guild, which registered their by-laws in 1464. Modified in 1581, these include not only all turned domestic objects but also recorders, flutes, fifes etc.[12]. Shortly afterwards, Toulouse set up a guild for string instrument makers, which after 1690 was stimulated by two Italian

specialists who settled there and created a sort of dynastic monopoly until the end of the 18th century[13]. It is interesting to note that Vincent Tibaut, from whom we know three remarkable harpsichords demonstrating a great understanding of sound production and remarkable technical skill, was accepted into the guild of cabinet makers of Toulouse in January 1673. Throughout the course of his professional life, in official documents he bears the title of cabinet maker, which probably indicates that he could hardly live from building only instruments[14].

Several other big cities like Marseille[15], Montpellier, Le Havre, Rouen[16], Orléans[17], and Rennes[18] had string instrument makers during the 17th and 18th centuries, without, however, any guild. In **Strasbourg**, it seems that string instrument makers were part of the carpenters' guild until the Revolution[19].

Mirecourt is a special case. In fact, as demonstrated recently by Noëlle Gouillard[20], it was only belatedly, in May 1732, that a guild for violin makers was established there. We know of only eight active makers before these by-laws, 30 between 1741 and 1750, and then about 70 in the last quarter of the century. In tax registers the word "luthier" appears only in 1736, and "archetier" (bow maker) only in 1758.

THE DEVELOPMENT OF PRODUCTION IN THE 19TH CENTURY

Big production centres are those which are capable of mass production. First of all, **Mirecourt**. A recent sociological research by David Charasse[21] shows how ancestral training by family tradition or from master to apprentice has declined during the 19th century, when the rigid structure of the guild no longer existed and industrial production took over. Indeed, new technologies were used, for instance, by the firms Thibouville (1860–1968), Laberte (1780–1969) and Couesnon (1919–1967). Even where instruments were hand-made by the same craftsmen, these firms divided the labour among them, and produced instruments in very large quantities, the soundboard being arched with steam and necks mass-produced. The training was very brief and therefore fragmented. Even if the factories produced "white" violins to be varnished at home by specialized craftmen, many workers from the factories were also real makers working privately during their free time. On the other hand, the top hierarchy of the firms stemmed from the great dynasties of makers. But some firms also had "artistic workshops", where instruments were built completely by the same craftsmen, left unvarnished and neckless for Parisian dealers to complete the work before adding their signatures. Violin makers in Mirecourt, even if there were some exceptions, remained at the bottom of the hierarchy: they were only workers.

In **La Couture-Boussey**, the situation was quite similar. While three of the major makers born and trained there later settled in Paris, where they brought their experience[22], makers working in this large village of Normandy

during the 19th century produced a great number of second-class instruments for widely expanding military music and bands.

Other regional centres also increased their fame during this century. **Marseille**, for example, with pianos. The firm Boisselot[23], inventive and dynamic in trade (doing a lot of business with Spain) was quite competitive compared with the most famous Parisian firms, and captured the attention of virtuosos such as Liszt during their stays in the south of France. In **Nice**, the regional production of guitars and violins met the demand of numerous amateurs[24]. In **Lille**, the Hel dynasty for a long time held first place in the field of string-quartet instruments.

In the 19th century, we have also to take into account a special traditional production for dance musicians, developed as a sign of regional identification at the time of large-scale migrations of workers. Hurdy-gurdy making was predominant in three main centres, each with very specific characteristics. In the centre of France, in the village of **Jenzat** (Allier), there was a revival of instrument making after 1820, with many makers (the dynasty of Pajot and Pimpard, Angioux, Decante, the Cailhe, Tixier, and the Nigout), perfecting a lute-shaped model with large proportions and gay decoration, very easily identified and widely disseminated[25]. In **Bourg-en-Bresse**, in the mid-19th century, another centre appears with makers such as Bas, Convers, Clerc, and Blanc et Desmaris, some of them imitating with real refinement the style of baroque Parisian makers[26]. In **Mirecourt**, people like Colson produced more diversified hurdy-gurdies.

In addition, very distinctive types of bagpipes were developed in the centre of France (Allier, Puy-de-Dôme), producing instruments not only for various areas of France, but also for Parisian dance parties held by the numerous provincial immigrants. At least seven major makers, with very personal styles, often living on the proceeds of another profession (Joseph Béchonnet, Jean Dechaud, Félix Débardat, Jean-Baptiste Pajot called Pajot fils, Joseph Pajot called Pajot jeune, being the most famous), were active throughout the 19th century long up to the 1930s[27]. In a similar way, the production of the tambourin/galoubet was notable in Marseille, Aix, and Arles during the 19th century[28].

CREATING A HERITAGE WITH THIS REGIONAL PRODUCTION

As early as 1861, a museum of musical instruments was founded in the *Conservatoire de Paris*. Because at first it reflected the eclectic taste of Louis Clapisson, an enthusiast for precious and decorative baroque instruments from all countries, without consideration of the makers, the collection only began to show the development of musical instrument-making under the directorate of Gustave Chouquet. Even so, the predominant interest was for Paris and other foreign capitals.

One generation later, in **La Couture-Boussey**, a very original project was set up. Here, a modest society of woodwind-instrument turners reacted in 1885 to a brutal reduction in prices: the workers who specialized in finishing the instruments founded a syndicate in October 1887. Three months later, they decided to create a "Professional Museum for Training". Its aims were to "preserve all woodwind instruments, spare parts, raw material, to re-establish (or restore) the history of instrument making in La Couture and other places, in a way to facilitate the study of theory and practical professional training for workers and employers"[29].

This museum was intended to collect and preserve models (originals or replicas) of the 17th and 18th centuries to establish the historical basis of making in La Couture; modern instruments from the 19th century were to serve to establish improvements and "stimulate solutions to modern difficulties". The founding board planned that "objects could be made accessible to professionals wishing to copy or study them; instruments should be in playing or testing order; it could be also possible to have a systematic registration of copyright for technical drawings, models, and improvements".

Symptomatically created after the first real economic depression in this profession, this small museum collected about 200 pieces, including several replicas of baroque models (no originals being available) and mainly instruments from the selling-off of the famous Lot firm, as well as pieces from the production of other firms whose proprietors, as members of the board, offered them in a sort of final burst of energy to preserve this fragile heritage.

On the other hand, at the end of the century, several provincial string quartetists' collections preserved elements of this provincial production. An example is that of Antoine Gautier (1825–1904), a lawyer working in **Nice**[30] since 1856, then in Naples up to 1866, who was a violin player and a friend of the violin maker François Bovis. Among the instruments he collected we find four guitars by François Bastien (c. 1819–1826); one guitar by Pierre Pacherel; a violin by Pacherel, 1840; and a viola by the same, 1858. In addition to many Italian instruments, he had an *arpiguitar* by Pacquet in Marseille, 1875; a cornet A. Guérin, Marseille, 19th century; and a violin by Richelme, Marseille, 1869. Today, more than 200 instruments from his collection are preserved in the *Musée Massémo* in Nice.

In a similar way in **Marseille**, Louis Grobet, an amateur violinist and collector of art objects, had interest in the old production of Marseille and its surroundings. In 1919, his widow gave to the city of Marseille the complete collection and the hôtel where it is still housed. Among some 60 instruments there are several *galoubets* by A. Guérin, Long and Grasset; a *pardessus* by Barthélémy Vaillan, made in Marseille in 1704; and a bass viol by Valler in Aix, 1679. But none of the violin makers working in Marseille at the end of the 19th century and beginning of the 20th century is represented.

Several regional ethnographic museums collected also traditional or historical instruments, for example, those in **Marseille** (*Musée du Vieux Marseille*), **Aix-en-Provence** (*Musée du Vieil Aix* and *Musée Granet*), and **Arles** (*Musée Arlaten*), all of them with a lot of *tambourins* and *galoubets*; **Bayonne** (*Musée basque*) and **Tarbes** (*Musée Massey*), each preserving 38 regional instruments; **Lourdes** (*Musée Pyrénéen*) and **Perpignan** (*Musée de la Casa Païral*) with Catalan instruments and instruments of the *cobla*, an ensemble consisting of a *flageolet*, a *tenora* (oboe), and a *fiscorn* (brass instrument); **Brive** (*Musée Ernest Rubin*), having a section on accordions; and **Nancy** (*Musée Lorrain*) with serinettes, monocords, zithers, and a precious violin by Nicolas Médard, 1665.

Among decorative arts museum, some have important items of a very high level. **Lyon**, with the harpsichord by Pierre Donzelague (1711) and **Bordeaux**, with a spinet by "Basse à Marseille 1791", have thereby a quite typical representation of the brilliant harpsichord making in these cities. Among 30 instruments preserved in the *Musée Paul Dupuy* in **Toulouse**, we can mention a piano by Uferman in Toulouse, 1840; regals made in the south of France; a mechanical organ by Jeandel in Toulouse; an ottavino by Gautier in Toulouse, c. 1800; a clarinet by Boisselot in Montpellier; a lyre-guitar by Mast in Toulouse, 1803, and another one by Mast, 1805; among the folk instruments, a bagpipe from Gascogne and a "chabrette" from Périgord.

In the same way, in **Colmar**, aside from precious instruments of a high level of international or national origin, we find a piano by Tritsch in Colmar, c. 1815; a square piano by Frost in Strasbourg, 1837; and a bassoon by Buhner & Keller. **Strasbourg** has certainly the richest collection among decorative art museums, with about 60 items. It very accurately reflects the local production: a Hans Gaspar Wolff bass viol,1607; a Hans Gaspar Wolff lute, 1651; a theorbo (1661) and a tenor viol (1669) by Matteus Epp; a hurdy gurdy (1702) and a cello (1728) by Johann Christoph Vetter called Cousin; a viola by Johann Friedrich Storck, 1767; a harp (1782), violin and viola by Johann Reinhart Storck, end of the 18th century; an arch-cittern (1791) and guitar by Dietrich Storck; viola by Bernhardt Schwarz, 1796; a lyre-guitar, guitar and violin (1840) by Schwarz frères; a clarinet by Keller frères, c. 1800; a horn and a flute by Buhner & Keller, c. 1800; a bassoon by Lindemann, c. 1810; a flute, violin and saxhorn by Charles Roth; a fragment of a soundboard made by Johann Heinrich Silbermann, 1757; a square piano by Philipp H. Jauch, c. 1790; one by Philipp Schott, c. 1810; another one by Chrétien Loegel, 1812; and an upright piano by Bauer, c. 1860.

Finally, we must not forget collections initiated by violin makers themselves. In the *Musée de l'Hospice Comtesse* in **Lille**[31], a selection of the Hel collection (76 items) acquired by the municipality in 1957 has been exhibited since 1989. Pierre-Joseph Hel (1842–1902) opened his workshop in 1865 in Lille. He exhibited instruments in 1882 in Lille (International Exhibition) and in 1889 and 1900 in Paris. His son Pierre (1884–1937) succeeded him. It is quite difficult to know when the collection was initiated. It shows an interest in the violin

family and the production of citizens of the region: citterns by Gilbson, London (1768) and by G. Le Blond, Dunkerque,1777; a guitar by L. Delannoy, Lille, 1833; a clarinet by Jacques Printemps, Lille, c. 1800; an ophicleide by Carpentier, Hondschoote, c. 1820; a violin with an experimental shape by Joseph Pouille, Lille, 1889; a mandolin by Pouille, 1890; and a viola d'amore by Georges Mougenot.

In **Mirecourt**, thanks to the action of violin makers and the national association called "Groupement des luthiers et archetiers de France", about 200 instruments and documents have gradually been collected recently. This collection has been officially supported by public authorities since 1989. It is developing today according to an acquisition policy devoted not only to the production of Mirecourt but also to makers working elsewhere but native of Mirecourt, and also trying to show the important trade of this place and its specific role in the training of makers.

The *Musée des Musiques populaires* in **Montluçon**, in a very different way, first collected, under the initiative of Georges Henri Rivière and Jean Favière, Curator in Bourges, several dozens of hurdy-gurdies since the 1960s. In 1991 it had the opportunity to acquire about 90 European and many French bagpipes also with several other instruments and workshops. But the importance of this collection, twice as big in this field as other major collections in the world (for example, in Paris, Brussels, New York, and Edinburgh) remains in the very good representation of the production of central France (70 items)[32]. A recent temporary exhibition devoted to the maker Sautivet allows us to appreciate its high level[33]. It is the nucleus of a much larger project devoted to all types of traditional and popular music, including contemporary practices, and far exceeding the presentation of regional schools in instrument making. It concerns more the different forms and social uses of music.

In view of all these regional collections, the *Musée national des Arts et Traditions populaires*, in **Paris**, has had, since its origins, a synthetic purpose. Devoted to French ethnology, its aims are to give a general view of French traditions. The musical section was initiated by Claudie Marcel-Dubois in 1939 and Marguerite Pichonnet-Andral. They collected field recordings, information and instruments[34]. Apart from a special interest in the production of Jenzat (several makers were interviewed and prepared for the Museum sequences to demonstrate their production process[35]), it seems that the general conception of these scholars was to establish a typology, incorporating regional variations and typical musical ensembles. Choices seem to have been made without attention to instrument making *per se*, in that it does not show the nature of the workshop, or the relationship between master and followers. But visiting the two galleries of this national museum, the visitor can discover the main instruments and musical ensembles considered as emblems of different French regions: for the Vosges, the *épinette*; for Bretagne, *bombarde* and *biniou koz*; for Provence, *tambourin* and *galoubet*; for the centre of France, hurdy-

gurdies and several types of bagpipes; for Occitany in Roussillon, the *cobla*; and for the Pyrénées, the *tambourin à cordes* and *chirula* or the drum and *txistu*.

Even if much work still has to be done to determine the great diversity of regional circumstances and to study their characteristics, after the initial research and collecting done by pioneers, many people in recent years have been engaged in making the public aware of this heritage through many publications[36], general articles[37], and thematic exhibitions[38]. Finally, thanks to the Direction du Patrimoine, Ministère de la Culture, a systematic pre-inventory of all the regional museums preserving instruments was initiated fifteen years ago. Even if the results are not known to many, it certainly prepares the way for further collective work to extend this precious database[39].

1 Cf. Constant Pierre: La communauté des maîtres faiseurs d'instruments de musique. In: *Les facteurs d'instruments de musique.* Paris: Sagot 1893 (Reprint Minkoff 1971), pp. 7–60. By-laws, dated 1599.

2 Tableau des acquisitions. In: Florence Gétreau: *Aux origines du musée de la Musique. Les collections instrumentales du Conservatoire de musique de Paris. 1793–1993.* Paris: Klincksieck 1996, pp. 642–753.

3 Henry Coutagne: *Gaspard Duiffoproucart et les luthiers lyonnais du XVIe siècle.* Paris: Fischbacher 1893.

4 Léon Vallas: *Un siècle de musique et de théâtre à Lyon (1688–1789).* Lyon 1932, (Reprint Minkoff 1971).

5 Albert Jacquot: *Les Médard.* Paris: Fischbacher 1896; *La lutherie lorraine et française.* Paris: Fischbacher 1912 (Reprint Minkoff 1985).

6 Ernest Thoinan: *Les Hotteterre et les Chédeville: célèbres joueurs et facteurs de flûtes, hautbois, bassons et musettes des XVIIe et XVIIIe siècles.* Paris: Edmond Sagot 1894; Nicolas Mauger: *Les Hotteterre: célèbres joueurs et facteurs de flûtes, hautbois, bassons et musettes des XVIIe & XVIIIe siècles. Nouvelles recherches.* Paris: Fischbacher 1912.

7 Claudie Marcel-Dubois: Instrument musical populaire en France. In: *Travaux du Premier Congrès international de folklore. Paris 1937.* Tours: Arrault 1938, pp. 377–381; *Bombardes et binious. Bretagne, art populaire, ethnographie régionale.* (Exhibition catalouge). Paris, Musée des Arts et Traditions Populaires 1951, pp. 101–113; articles "Cornemuse", "Alboka", "Bedon", "Cabrette", "Crécelle", "Mirliton", "Tambourin de Gascogne", "Vielle à roue" in: *Larousse de la Musique.* Paris: Larousse 1957–1958; L'ethnomusicologie. In: Jacques Chailley: *Précis de musicologie.* Paris: Presses Universitaires de France 1958, pp. 30–40; article "Musique populaire française" et article „Instrument de musique". In: *Encyclopédie de la musique.* Paris: Fasquelle 1959.

8 Claudie Marcel-Dubois, The type and nature of French instrumental ensembles. In: *Studia instrumentorum musicae popularis. II. Bericht über die 3. Internationale Arbeitstagung der Study Group on Folk Musical Instruments des International Folk Music Council in Stockholm 1969 herausgegeben von Erich Stockmann.* Stockhholm: Musikhistoriska Museet 1972, pp. 173–183.

9 Archives de la Seine-Maritime. Cf. *Petit journal de l'exposition Musée Instrumental du Conservatoire. Acquisitions récentes. 1982–1984.* Paris 1984–1985, p. 2.

10 Claude de Rubys: *Privilèges des habitans de Lyon.* Lyon: A. Grypphe 1574, p. 48.

11 Colombe Verlet: Jalons pour une recherche sur la facture de clavecins en province. In: *Recherches sur la musique classique en France.* 4 (1964), pp. 101–104; Laurent Puissiau: Gilbert Desruisseaux, facteur de clavecins lyonnais. In: *Musique–Images–Instruments.* N° 2 (1996), pp. 142–169.

12 *Statuts du corps et communauté des Maîtres tourneurs de Toulouse, Archives municipales de Toulouse, HH 67.* Luc Charles-Dominique: Facteurs et marchands d'instruments de musique à Toulouse du XVIe au XVIIIe siècle. In: *Pastel. Musiques et danses traditionnelles en Midi-Pyrénées.* N° 28 (1996), pp. 28–36.

13 *Archives municipales de Toulouse, HH 73.* Luc Charles-Dominique: op. cit., pp. 28–30. See also Norbert Dufourcq: Documents sur les Maîtres faiseurs de cordes à Toulouse à la fin du XVIIe siècle. In: *Revue de musicologie.* 41 (1958), pp.88–95.

14 *Archives municipales de Toulouse, BB 234.* Florence Gétreau: Vincent Tibaut de Toulouse, ébéniste et facteur de clavecins : données biographiques. In: *Musique–Images–Instruments.* No. 2 (1996), pp. 190–196.

15 Maurice Requier: Les luthiers marseillais du XVIIe siècle à nos jours. In: *Bulletin officiel. Musée du Vieux Marseille.* N° 40 (1935), pp. 211–226.

16 E.M. Blandin: *Les luthiers en Normandie.* Le Havre 1951.

17 François-Henri Houbart: Une famille de luthiers à Orléans dans la seconde moitié du XVIIIe siècle. In: *Bulletin de la Société Archéologique et Historique de l'Orléanais.* N° 52 (1958).

18 Marie-Claire Le Moigne-Mussat: *Musique et société à Rennes aux XVIIIe et XIXe siècles.* Genève: Minkoff 1988, pp. 92–94, 260–262.

19 Maurice Mutterer: Les luthiers alsaciens jusqu'au milieu du XIXe siècle. In: *Bulletin de la Société industrielle de Mulhouse.* 102 (1936), N° 1, pp. 1–7.

20 Noëlle Gouillart: *Les luthiers de Mirecourt aux XVIIème et XVIIIème siècles. Thèse pour le diplôme d'archiviste paléographe.* Paris 1983. Ecole nationale des chartes. Vol. II, pp. 101–107 ; 165–194.

21 David Charrasse: Savoir-faire & conditions. Les luthiers [de Mirecourt] de l'ouvrier à l'artiste. In: Noël Barbe: *Arts. Métiers. Culture technique et développement local. Actes du colloque d'Arc-et-Senans. 19–20 octobre 1994.* Salins-les-Bains 1995, pp. 79–87.

22 Tula Giannini: *Great flute makers of France. The Lot & Godfroy families. 1650–1900.* London: Tony Bingham 1993.

23 Patricia Faivre: *Jean-Baptiste Louis et Louis Constantin Boisselot. Marchands de musique et d'instruments. Facteurs de fortepianos à Montpellier et à Marseille au XIXe siècle.* Université de Paris IV-Sorbonne, Mémoire dactylographié de Maîtrise 1994.

24 *Musique bourgeoise au dix-neuvième siècle (Collection d'instruments de musique anciens des musées de Nice).* [Exhibition catalogue] Nice: Musée des Beaux-Arts 1995.

25 Jean-François Chassaing: *La vielle et les luthiers de Jenzat.* Combronde: Aux amoureux de Science 1987.

26 *La vielle en Bresse.* [Exhibition catalogue] Bourg-en-Bresse: Musée de Brou 1985.

27 Jean-François Chaissaing: *La tradition de cornemuse en Basse-Auvergne et Sud-Bourbonnais.* Moulins: Editions Ipomée 1983.

28 Maurice Guis, Thierry Lefrançois & Rémi Venture: *Le galoubet-tambourin, instrument traditionnel de Provence.* Aix-en-Provence: Edisud 1993.

29 Florence Abondance-Gétreau: Le musée instrumental de La Couture-Boussey. In: *Bulletin du Centre normand d'Histoire musicale.* N° 6 (1981), pp. 5–7.

30 Michel Foussard: Antoine Gautier. In: *Guitares. Chefs-d'oeuvre des collections de France.* Paris: La Flûte de Pan 1980, pp. 277–289; Josiane Bran-Ricci: Guitares, luths et mandolines. Une exposition d'instruments de musique de la Ville de Nice. In: *Nice historique. Un siècle de musique à Nice.* N° 2/3 (1994), pp. 129–163.

31 *La collection Hel. Instruments de musique anciens réunis par deux luthiers lillois.* [Exhibition catalogue] Lille: Musée de l'Hospice Comtesse 1989–1990.

32 See specially 10 bagpipes: 2 Sautivet; 11 Béchonnet; 30 parisian *cabrettes;* 2 Gaillard; 6 *chabrettes limousines* or from Périgord; 1 from landes; 1 *veuze,* 3 *binious;* 1 from bresse.

33 *Les cornemuses de George Sand. Autour de Jean Sautivet, fabricant et joueur de musette dans le Berry (1796–1867).* [Exhibition catalogue] Montluçon: Musée des musiques populaires 1996.

34 Claudie Marcel-Dubois and Maguy Pichonnet-Andral: *L'instrument de musique populaire. Usages et symboles. (Exhibition catalouge).* Paris: Musée national des Arts et Traditions Populaires 1980; Claudie Marcel-Dubois: Exemple de relation entre recherche et muséographie: une visite au Département d'ethnomusicologie du Musée des Arts et Traditions Populaires. In: *La muséologie selon Georges Henri Rivière.* Paris: Dunod 1989, pp. 183–184.

35 For instance Daniel Fabre, tambourin de Provence's maker in Barjols (Var); or H. Poussier, Epinette des Vosges's maker in Remiremont (Vosges).

36 Roland Becker and Laure Le Gurun: *La musique bretonne.* Spezet: Coop Breizh 1994; *La musique bretonne.* Dourarnenez: Le Chasse-Marée/Armen 1996; Alain Fougerit: Fabrication de vielles en Normandie au XVIIIe siècle. In: *Modal.* N° 3 (1983), pp. 41–56; Denis Ducastel: *La vielle en Normandie.* Numéro spécial de la revue *Le pucheux.* N° 56 (1995); Enric Frances: *Andreu Toron i la tenora. 1815–1886.* Collioure 1986; Alain Ribardière: Hautbois et cornemuses (de?) en Poitou. In: *Modal.*N° 3 (1983), pp. 4–11; *Quelques éléments sur la tradition populaire de la veuze dans le pays nantais.* Nantes: Sonneurs de Veuze 1979/1989; Jean-Claude & Bernard Blanc: Meillet père et fils, fabricants de cornemuses à Varennes. In: *Modal.* N° 3 (1983), pp. 57–65 ; Bernard Blanc et André Ricros: *La cabrette. Histoire et technique.* Rioms: Mission du patrimoine ethnologie 1987 (mimeographed); S. Ducaroy: La musette bressane. Quelques éléments de recherche sur une cornemuse régionale. In *Modal,* N° 2 (1982); Thierry Boisvert: Chabrette. Mon dieu quelle histoire! In: *Actes du Symposium international sur la Cornemuse, La Haye, 1988.* Utrecht: Stichting Volsmuziek Nederland 1989, pp. 7–22; Michel Esbelin: La cabrette: musette des villes, musette des champs? In: *Actes du Symposium international sur la Cornemuse, La Haye, 1988.* Utrecht: Stichting Volsmuziek Nederland 1989, pp. 95–104; Eric Montbel: La chabrette limousine. In: *Ethnologia* N° 10 (1979), pp. 109–134 ; Eric Montbel: *Cornemuses en Limousin. Essai d'un corpus d'instruments de musique.* Lyon: Centre des Musiques Traditionnelles Rhône-Alpes 1990; Lothaire Mabru: *La cornemuse des Landes de Gascogne.* Belin-Beliet: Centre Lapios 1990; J. Grossier: L'épinette dans la vallée des lacs In: *Arts et traditions de la vallée des lacs.* Colmar, Ingersheim: SAEP 1978. T. 1, pp. 97–105; G. J. Michel: La bûche à musique: épinette des Vosges. In: *Arts et traditions de la vallée des lacs.* Colmar, Ingersheim: SAEP 1978. T. 1, pp. 141–158; Claudie Marcel-Dubois: Le tambour-bourdon. Son signal, sa tradition. In: *Arts et Traditions populaires/ Paris, Maisonneuve et Larose.* 14 (1966), N° 1–2; Geneviève Marsan: Le tambourin à cordes. In: *Pyrénées.* N° 188, (1996), pp. 397–412.

37 Florence Gétreau: Les instruments de musique dans les collections publiques françaises non spécialisées. In: *La vie musicale au temps des Puys.* [Exhibition catalogue] Amiens: Musée des Beaux-Arts 1983, pp. 71–74; Florence Gétreau: La liuteria nelle collezioni pubbliche francesi non specializzate. In: *Liuteria.* N° 11 (1984), pp. 28–37.

38 *Le roseau et la musique.* [Exhibition catalogue] Aix-en-Provence: Arcam-Edisud 1988,155 p.

39 Frédéric de La Grandville: *Recensement des instruments de musique anciens.* Mémoire dactylographié pour la Direction du Patrimoine: Ministère de la Culture, T. 1 (1988); T. 2 (1990); T. 3 in the press.

LAURENCE LIBIN

Preserving Pennsylvania German Instruments

In 1681, England's King Charles II gave to William Penn, a prominent Quaker dissident, a large grant of American land that was named Pennsylvania after its new proprietor. Penn established his territory as a "holy experiment" in religious tolerance and personal liberty; his liberal ideals found expression in the name of Pennsylvania's major city, Philadelphia, which means "brotherly love". Advantageously located on the East Coast and rich in natural resources, the colony prospered, and Pennsylvania soon became a refuge for Europeans seeking religious freedom and economic opportunity in the New World.

Beginning in the early 1700s and continuing through the 19th century, many enterprising German Protestants immigrated through Philadelphia to rural Pennsylvania. These Germans, many of them from the Rhineland and the Palatinate, brought with them distinctive traditions, crafts, and trades that flourished as the region's German-speaking population rapidly increased. Today the so-called Pennsylvania Dutch (a corruption of *Deutsch*) preserve a strong Germanic heritage, expressed for example, in their dialect, cuisine, and love of music.

One German missionary group, the *Unitas Fratrum* or "Moravians" headquartered at Herrnhut, near Dresden, arrived in Philadelphia beginning in the 1740s and quickly established frontier outposts at Bethlehem, Nazareth, Lititz, and other villages in south-eastern Pennsylvania. Here as elsewhere in the New World, these industrious evangelists cultivated music in much the same manner as they had done in Germany. Instrumental performance was routinely taught in the Moravians' schools and formed an essential element of their daily life and worship. Familiar German music and instruments reinforced the Moravian brethren's sense of community and connection to their homeland; their performances also attracted potential converts, including Native Americans, who had few other opportunities to hear concerted instrumental music.

Except during the Revolutionary War when commerce slowed, America's Moravians imported many instruments, especially those of better quality, from Germany, where they maintained strong commercial ties. But when possible, the Pennsylvania Germans bought or made instruments locally in order to save money and promote self-sufficiency. Brasses would have been most difficult for provincial artisans to make without access to the necessary sheet metal and specialized skills, but instruments constructed mainly of wood, which was abundant, posed fewer problems to craftsmen accustomed to cabinetmaking and well provided with appropriate tools.

When good models were at hand, the German colonists copied them as well as they could. The clavier and organ builder Johann Clemm (a contemporary of Gottfried Silbermann, born near Dresden), who joined the *Unitas Fratrum* in Pennsylvania, might have had a Saxon pattern in mind when he built the oldest known American spinet (illus. 14), dated 1739 and now in The Metropolitan Museum of Art, New York City. Clemm's contemporaries and followers also relied on written instructions sent from Germany: for example, Georg Sorge's *Die geheime gehaltene Kunst der Mensuration der Orgelpfeiffen* circulated in manuscript among Pennsylvania's Moravians in the 1760s, and Sorge's methods evidently guided Clemm's one-time assistant, the organ builder David Tannenberg, in scaling organ pipes. A rare technical drawing of a clavichord arrived from Germany about the same time and was certainly meant as a plan for new construction, though no matching instrument has been preserved. Central European designs also no doubt inspired the unknown builder of an undated upright piano with divided hammer heads, now in the Moravian Historical Society at Nazareth (illus. 15).

illus. 14 **Spinet by Johann Clemm, Philadelphia, 1739**

Practically free of restrictive guild regulation but constrained by the harsh conditions of frontier life, pioneer Pennsylvania German instrument makers improvised as opportunity or necessity arose. For example, an anonymous, eighteenth-century German-American square piano of simple, plain construction, now in the Metropolitan Museum, possibly employs recycled wood for its bottom and displays unusual proportions that seem to have no Continental antecedent; the soundbox occupies fully half the instrument's width. But innovation was not the makers' goal; instead, they adapted their work to local conditions, as by using native American materials and by occasionally copying English designs favored by the predominantly British social elite. For example, in 1741 Clemm built an important organ in the English style for New York's Trinity Church, but for German Protestant

illus. 15 **Upright piano by an anonymous German maker, probably Pennsylvania, mid-18th century**

churches Clemm and Tannenberg retained traditional German specifications, adapted for Lutheran or Moravian liturgies. About 1800, the Pennsylvania clavier maker John Huber built square pianos with German actions for German-speaking customers but for an Anglophone buyer he made an English-style piano. Incidentally, Huber advertised as a harpsichord and spinet maker as late as 1808, showing the persistence of old habits in the New World.

John Antes, a Moravian musician born near Bethlehem in 1740, produced a number of bowed string instruments that survive in Moravian collections, but his attempts at clavier making brought him into conflict with Tannenberg. Consequently, Antes was sent to Neuwied, Germany, to study watch-making (Neuwied, an important source of trade for the Moravians, was home to the Kinzing family of clock and clavier makers). Antes remained abroad for the rest of his life but gained recognition in Pennsylvania for his musical compositions – he was the first native-born American to write chamber music – and for inventions such as improved piano hammers and violin tuners.

Examination of extant Pennsylvania German instruments from before about 1800 shows that their makers do not form a unified "school" except in a vague sense; instead, despite some obvious mutual borrowings, they generally followed independent paths. With some exceptions, their surviving work is not of high professional quality, judged by urban European standards; instrument making was a sideline for almost all of these men, most of whom had other primary occupations and never served formal apprenticeships. Their stylistic diversity and provincialism characterize Pennsylvania's handcrafts in an era before national unity was achieved and before a middle-class market arose that led to product standardization and mass production, developments of the 19th century.

The Moravian immigrants devoted most of their meager resources to missionary activity. Frugal and owning most property communally rather than privately (at least until the communal economy collapsed), they did not regard musical instruments as personal status symbols but rather as necessary utensils. Like most utilitarian furnishings, their domestic instruments were normally plain and simple. Every effort was made to keep them in use as long as possible, but despite their vital functions no special importance was attached to them as positional goods indicating social status or as historically meaningful artifacts.

These attitudes, as well as accidents of time, resulted in the loss of most instruments used by Pennsylvania's early Moravians. Some survive only by chance or because repair and modernization kept them useful during the 19th century. Until recently, the idea of stewardship did not extend to conservation of instruments in the museum sense; as elsewhere, old instruments were simply played until they became obsolete or irreparable, then discarded. One result is the disproportionate survival of brasses due to their durability, and of organs due to their size and replacement cost. Very few old woodwinds and

stringed instruments remain, and virtually no unaltered organs. This situation constrasts strikingly with the great quantity of late eighteenth-century sheet music preserved at the Moravian Music Foundation and Moravian church archives; these are among the richest repositories of original musical scores in the United States today.

Because Pennsylvania's German instrumental heritage, exemplified by Moravian holdings, was for so long taken for granted, cultivating awareness of the need for conservation and documentation has been a challenge. Especially among religious institutions that own much of the material, money for these purposes is scarce, especially in the face of more urgent social needs. Lack of space and of trained staff further endangers old instruments that, unlike the written music, were long perceived as expendable because they do not conform to some conventional image of 'museum quality'.

In order to win support for instrument conservation it is necessary to demonstrate its importance in terms of practical benefits, much as the purchase of instruments was originally justified by their role in gaining converts and in maintaining religious solidarity. Today, enhancement of worship, profits from tourism, performances and recordings, appeals to patriotism and family values, and similar rationales can be effective means of generating enthusiasm for costly projects such as organ restorations.

However, convincing demonstration of these benefits often depends on the *use* of historic instruments in less than ideal situations, outside normal museum controls. Leaving aside the controversy over whether any musical use or restoration of a rare antique instrument is ethical, we can consider whether it is appropriate to advocate restrictive museum policies to owners who have other justifiable objectives and possibly higher priorities. Can reasonable compromises be achieved that will in the long run promote greater awareness of the historical and musical significance of old Pennsylvania German instruments? Can museum professionals effectively guide and educate private owners and institutional custodians, or must we (mindlessly, I believe) condemn all activities that involve risk to the instruments?

In countries where government agencies supervise and protect the nation's cultural heritage, more or less stringent policies regarding the preservation of historic organs and bells have been adopted, although lapses and scandals have recently been reported, notably concerning church organs in France. In the United States of America, especially in its current anti-regulatory political climate, the tradition of personal liberty and private property rights fostered by William Penn's experiment makes governmental supervision, especially of church property, unthinkable. The main issue for CIMCIM is, in the face of conflicting legitimate interests, how can museum professionals best act to protect instruments of (hitherto) relatively minor, local significance, now owned by churches, schools, and similar non-museum institutions?

CARMELLE BÉGIN

Traditions and Individualism in Canadian Instrument Making

There is no such thing in Canada as a regional tradition in instrument making, with the exception of musical instruments made by native peoples. The history of 'European' orchestral and band musical instrument making in Canada has developed slowly since mid-18th century with a particular interest in period-instrument reproduction in the early 1970s. All the makers were influenced by the European traditions and many were trained in Europe.

Traditional instruments have also been made in Canada, a country of immigrants who brought skills and traditions from their mother country, using traditional patterns. These can be seen in the making of different types of Scandinavian dulcimers and other string instruments. The styles which developed were individual rather than regional, the only regional peculiarities involving the use of indigenous materials. There was no 'school', so to speak, even if we can trace the influences of a particular maker on his apprentices. There are also 'curiosities' which, being the result of the fertile imagination of individuals (such as a fiddle in the shape of the province of Quebec), cannot be generalized to regions.

HISTORICAL BACKGROUND

The magnitude of Canada, its slow development from East to West, and the relatively small population are a few factors that can explain the absence of regional styles in the development of instrument making in Canada. An overview of the history of instrument building after the arrival of European settlers in Canada at the end of the 16th century will introduce the subject of this contribution, which presents instrument making as an individual practice rather than a regional tradition.

With a surface area of approximatively 10 million square kilometers and a population of 29 million, Canada is underpopulated. For two centuries Canada was a French colony: it became English territory in 1759. In 1867, the Canada Act gave Canada the status of an independant country within the British Commonwealth. Today, twenty-five percent of the population is of French origin concentrated mainly in the province of Quebec, thirty-four percent is of British descent distributed in the rest of the country but with a majority in Ontario, and thirty-eight percent is of various ethnic backgrounds. Only three percent of the population of Canada is native Indian and Inuit. Amongst the thirty-eight percent of the population whose ethnic origin is other than French or British, the German, Italian, Ukrainian, Dutch, Polish, Scandinavian, and Chinese represent more than half a million in population. It

is interesting to see that in the last fifteen years immigrants from Vietnam, the United Kingdom, India, Hong Kong, China, Poland, the United States, and the Philippines came to Canada in large numbers, more than sixty thousand from each of these countries.

The Canadian history of instrument making developed significantly during the 19th century in two urban centres, Montréal and Toronto. This period is marked by an important increase in the organ and piano building industries, which expanded until 1950. In Montréal, Joseph Casavant, the first Canadian-born organ builder delivered his first instrument in 1840. He transmitted his skill as a builder to his sons, who played an influential role in organ building in Canada and who launched the family enterprise La Maison Casavant Frères, which is still in business. Many organ builders of British origin established their workshop in Woodstock, Ontario and were largely responsible for the English style, which was the hallmark of all this organ building. The best known builders were Warren, Webb, and Potter.

Piano building grew into a major industry during the period from 1890 to 1925. Imported pianos, made primarily in Germany and Great Britain, were found to react unfavourably to the Canadian climate. Piano manufacturers were established in southern Ontario and in Montréal. Some of the most important names at the turn of the century were Heintzman, Mason & Risch, Bell, Dominion, Willis, and Lesage. In the 1920s, several factors conspired to cause a gradual decline of the piano industry, and in 1930 only the strongest companies survived the depression. By the 1950s foreign manufacturers started moving into the Canadian market, and the three surviving companies were bought by large corporations, mainly from Japan and the United States.

As for stringed-instrument making, only in the late 18th century is there evidence of the first artisans and restorers. Around 1820, a self-taught luthier, Pierre-Olivier Lyonnais, became the first of four generations to make instruments of the violin family. The Bayeur brothers of Montréal, followed by Camille Couture, also of Montréal, were during the 1920s the first luthiers to establish an international reputation. In Toronto, the firm R. S. Williams & Sons, established in 1880, hired many European makers to work on various instruments. Among the best known string-instrument makers were George Heinl, George Kindness, Auguste Delivet, and Otto Erdesz, the last of whom was known mainly for his violas.

Instrument making underwent a revival in the late 1950s in the wake of renewed interest in early music. The movement led to the establishment of musical associations and ensembles, which further encouraged luthiers and other instrument makers. The 1970s were marked by the vitality and know-how of several luthiers. With the exception of a group of makers who were very influential in period instrument building in British Columbia, among whom was Edward Turner, and a few whose entrepreneurship was remarkable in the development of small businesses, musical-instrument making remained an

individual affair, with makers preferring to work alone, and each maker competing for a share of the market, which is small in Canada.

CONTEMPORARY MAKERS

The only tradition which was handed down from generation to generation was organ and piano building. Rather than presenting this well-known Canadian industry, I will introduce a few makers of fine-crafted instruments, with a few details on their individual styles, and also makers of traditional instruments in remote regions where groups of immigrants established settlements.

The musical instrument collection of the Canadian Museum of Civilization (CMC) numbers approximately 2,000 instruments. Half of this collection is of native origin and includes mostly rattles, frame drums, and whistles. The other half includes Canadian instruments, reproductions of period instruments, and folk and popular instruments made in Canada and in other countries. An exhibition on Canadian instrument making presented in the Fine Craft Gallery of the Museum was an opportunity to develop the collection of contemporary instruments made by Canadian makers, such as, among others, Yves Beaupré, harpsichord maker from Montréal, who uses indigenous woods to build his instruments. He favors woods such as black cherry, a hardwood used for making the body of the instrument, and Sitka spruce to make the soundboard. Sitka has good acoustic properties, it gives a larger volume and more high harmonics which can be balanced and controlled by the thickness of the board. The use of Canadian woods is less costly and the end product more sellable on Canadian market. This instrument was designed by combining two drawings of historical instruments: one by Hubert Bédard of the Couchet harpsichord in the Smithsonian collection, Washington, DC, and his own of the Ruckers harpsichord in the Yale University collection, New Haven, CT. What differentiates the two plans is mainly the length of the strings. Without going into technical details, we can say that the maker's choice is relative to the sound he was seeking, shorter strings in the Ruckers giving too much of an explosive sound which he could correct by using the dimensions of the Couchet body. The soundboard is decorated in the Flemish style of the period, although one could observe some Canadianization of the decorative elements, such as insects and flowers that are indigenous to North America.

A second example in this category of contemporary instrument would be a double bass made by Peter Mach in the manner of George Panormo (1776–1852). Because of the large size of the double bass, the back is normally in two parts. When it is built of a single piece, as it is in this double bass, the wood must come from a tree whose diameter is at least twice the width of the instrument. The back of this instrument is made of British Columbia maple and the soundboard of Sitka spruce. Mach made this instrument in the late fall and

early winter of 1991–92, when the humidity in his workshop was relatively low. Under such conditions, wood releases the moisture that it normally tends to retain; it can reabsorb moisture without harming the instrument. This instrument was commissioned from Peter Mach by the museum, and conservators were consulted to prevent any problem which could occur with such a large board. During the making of the instrument, a hygrometer was installed in the maker's shop to keep a record of the current humidity level in order to avoid major environmental change while moving the instrument to the Museum's humidity controlled storage area.

The collecting of contemporary instruments was made in association with the exhibition shown at the Museum in 1993. After this exhibition was dismantled, I examined the possibility of starting a loan programme after I was approached by musicians who coveted some of the instruments in the exhibition. The resistance that I had encountered during the exhibition itself for having some of the instruments played and the discussions which followed with a number of conservators, including Robert Barclay from the Canadian Conservation Institute, had been very fruitful. The Museum's conservation staff finally admitted that musical instruments are the kind of objects which are better preserved if they remain in the hands of careful musicians.

illus. 16 **Arched top jazz guitar by Linda Manzer, Toronto, Ontario, 1991**

A musical instrument loan policy was developed and musicians could apply for the loan of an instrument under certain conditions as long as they agreed to sign a contract which specified their responsibilities. Some of the conditions enumerated in the contract are:

The musician shall be responsible for the annual repair, maintenance and evaluation of the instrument and shall submit an annual report on the physical condition of the instrument written by the maker of the instrument or by a maker recommended by the maker of the instrument; shall use the maker of the instrument for any repair of the instrument; shall send a copy of the details of the repair work to the CMC each time such repair occurs.

The making of folk instruments in regions is considered on an individual basis only. The example of the Italian *zampogna* made by Toronto maker Michele Trozzolo illustrates very well the need of individuals to build familiar objects just to live with and be comforted by them, this activity remaining an isolated phenomena.

illus. 17 **Fiddle in the shape of Québec by Leo Boudrias, Mont-Laurier, Québec, 1982**

The following instruments are two examples of guitars made of Canadian woods: Linda Manzer's arched top jazz guitar (illus. 16) is made of Canadian maple and spruce. Its fingerboard decoration illustrates nine Canadian endangered species. As a comment related to the theme of this anthology, the decorative motifs on the fingerboard very much reflect the influence of one maker, Jean-Claude Larrivée, who, in Toronto in the 1970s, had several apprentices who continued this tradition of decorating the finger board as a trade mark. The decorative motifs in the work of William Laskin of Toronto, who is known as much for his artistic qualities as for the acoustic qualities of his guitars, were also developed after his apprenticeship with J. C. Larrivée.

Finally, rock star Randy Bachman's electric guitar, made from his apartment closet door in the 1970s when he wasn't rich and famous, adds a new dimension to the collection of musical instruments which now includes factory-made instruments, which were the property of musicians such as jazz pianist Oscar Peterson and pianist Glenn Gould, as well as rock musicians. It also shows the completion and implementation of an agreement between the National Library of Canada and the Museum, which was in preparation in 1996.

The violin made by a nationalist fiddler of Quebec is a curiosity and one of a kind (illus. 17). It is typical of the humour and fantasy of folk and popular instrument makers and it also symbolically represents the symbiosis between the much loved fiddle music and political identity. Such an instrument may be considered as an individualistic achievement with no relationship with any known violin making tradition, but, as in many other expressive cultures, its significance goes far beyond the physical bounderies of the instrument. Every Canadian will identify with the fiddle music being played on this instrument if not with the patriotic opinion expressed in its shape, and a strong regional dance and music tradition would, in this case, play the same role a musical instrument would play as national symbol.

SUMI GUNJI

Regional Traditions in the Making of Short-necked Lutes

Most musical instruments of the world originated in certain ancient civilizations, such as those in Mesopotamia and the Nile valley. Because of migrations of people, some of those ancient instruments travelled very far from their places of origin and spread widely. These dispersals formed areal and linear-and-dotted distributions of musical instruments throughout the world. Areal distribution resulted from the spread of instruments in all directions from one source. Instruments passed from hand to hand, from village to village, and thus from country to country over the course of time. They were naturalized by the culture of each region through which they passed with respect to their materials and processes of construction. As a result, instruments changed their form as well as their character. Linear and dotted distribution of instruments results from long distance travel for political, economic, or religious reasons. Here, in contrast to areal distribution, instruments were carried by people moving directly from their country to a destination in a short time. As a consequence, instruments reached their new place unchanged. These instruments, despite thorough naturalization occurring during thousands of years in a different culture, still show some traces of their original shape.

The short-necked lute and its offsprings are a most obvious case of such linear distributon. This instrument, presumably, originated in the *Sogdian*- and/or *Bactrian* culture of Central Asia. In the first century B.C.E. the instrument spread to the east and in China became the *P'i-pa*. After the sixth century it spread to West Asia and became the *'Ūd*. In the beginning of the 8th century the *'Ūd* spread along the northern coast of Africa to the Iberian peninsula, thus entering Europe. By the 15th century it had became naturalized in Europe as the lute.

The three types of short-necked lute originate from one spring, yet each culture developed its own tradition of construction and playing.

The basic constructive features of the short-necked lute are as follows:

1) The length of the neck is remarkably shorter than the length of the body.
2) It has a pear or drop-like frontal shape.
3) The peg-box is placed backwards, away from the frontal plane of the instrument and attached to the neck at an angle very close to 90 degrees.
4) There are lateral pegs.
5) There is a frontal string-holder ("Querriegel" in German).

ORIGIN AND HISTORY OF THE SHORT-NECKED LUTE

The oldest evidence of the short-necked lute is shown on the terracotta figures of *Sogdian* and *Bactrian* cultures of Central Asia between the 4th century B.C.E. and 1st century C.E. Though many organologists assume that in the latter half of the 2nd century B.C.E. the short-necked lute was introduced into East Asia, there is neither pictorical nor archaeological evidence of the instrument in the area. From the 4th century C.E. onward, the short-necked lute began to appear in Buddhist fine arts of East Asia. The wall painting of the 299th cave at *Mo gao ku*, in *Dun huang*, West China, painted in second half of the 6th century, illustrates an example of an early stage of the instrument[1]. After the downfall of the *Sassanids* state in 651 C.E. many artists and artisans of the Persian region settled in East Asia and some of them crossed over to Japan with the Buddhist mission of the *Tang* state in the late 7th century. Thus, West Asian handicraft and various folkloristic entertainments with musical accompaniment such as dance, comical skit, pantomime, magic, and acrobatics were introduced into China and Japan. The combination of these entertainments was called *sàn yuè* in China and the name was also introduced into Japan (*san gaku*). The Japanese emperor's treasure house *Shôsôin* in Nara possesses more than seventy musical instruments of this period including five short-necked lutes which clearly show the characteristic features of Persian fine arts[2].

Some pictorial evidence of the short-necked lute in the west region of the *Am Darya* valley, where the terracottas of the *Sogdian* culture[3] have been excavated, show that the instrument spread not only toward the East but also into West Asia and became the most important musical instrument of Arabic countries. The oldest evidence of the short-necked lute in Arabic culture can be found on the floor fresco of the *Qaṣr al-Ḥayr al-Ġarbi* palace in Syria, which was built in 730 C.E.[4]

The extension of the Islamic state, founded in 662 C.E., towards the West along the Northern coast of Africa into the Iberian peninsula in the 8th century caused the introduction of Arabic culture into Europe. From the end of 8th century onwards, the short-necked lute began to appear in European fine arts and after the 13th century the pictorial and sculptural evidence increased rapidly.

REGIONAL CHARACTERS OF THE SHORT-NECKED LUTE

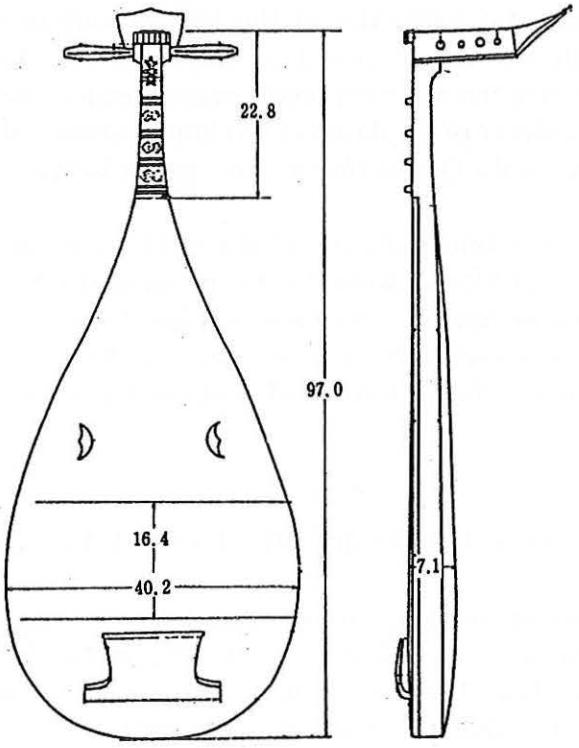
The short-necked lutes of today can be divided into three regional types. The most obvious differences in their construction are in the shape and the fabrication of the body. While the body of the East Asian lute is carved out of one piece of wood for a shallow body, the body of the West Asian and

European lute is made of narrow, thin wooden strips which are glued together to form a nearly hemispherical shape. The earliest form of the short-necked lute is unknown and some of the following descriptions of early forms of the instrument do not make any reference to the shape of the body.

The *P'i-pa* derives from the *Hu* people of West Asia. The instrument was played while riding on horseback. According to the *Yüeh fu tsa-lu* of *Tuan An-chieh*, an important Chinese music treatise of the 9th century, there were two types of this lute, one with a straight neck, the other with a bent neck[5]. According to the treatise mentioned, the length of the lute is 3 feet 5 inches. The instrument has four strings, a pear-form body, and a short neck with a peg-box placed backwards. Four pegs are inserted at the sides of the peg-box[6]. Another type of short-necked lute has a body with a circular frontal shape[7]. A third type of the short-necked lute has five strings and its peg-box is placed on a prolongation of the neck[8].

THE EAST ASIAN SHORT-NECKED LUTE

The tradition of short-necked lute making is well documented in Japan in comparison to China and Korea. The most traditional Japanese short-necked lute is *Gagaku Biwa*[9] (illus. 18), which is an instrument for court music, *Gagaku*. There has been very little change in the construction of the instrument since the 7th century. The Chinese short-necked lute *P'i-pa* has a narrower body and



illus. 18 Japanese *Gagaku Biwa* (measurements in cm)

more frets than the Japanese *Gagaku Biwa.* While the whole body of the Japanese *Gagaku Biwa* is made of massive hardwood, the body of the Chinese *P'i-pa* is made with a thin, light wooden soundboard and the body carved out a piece of wood.

THE MIDDLE AND WEST ASIAN SHORT-NECKED LUTE, *ʿŪD*

The construction of the *ʿŪd* well described in the Arabic literature of after the 9th century[10].

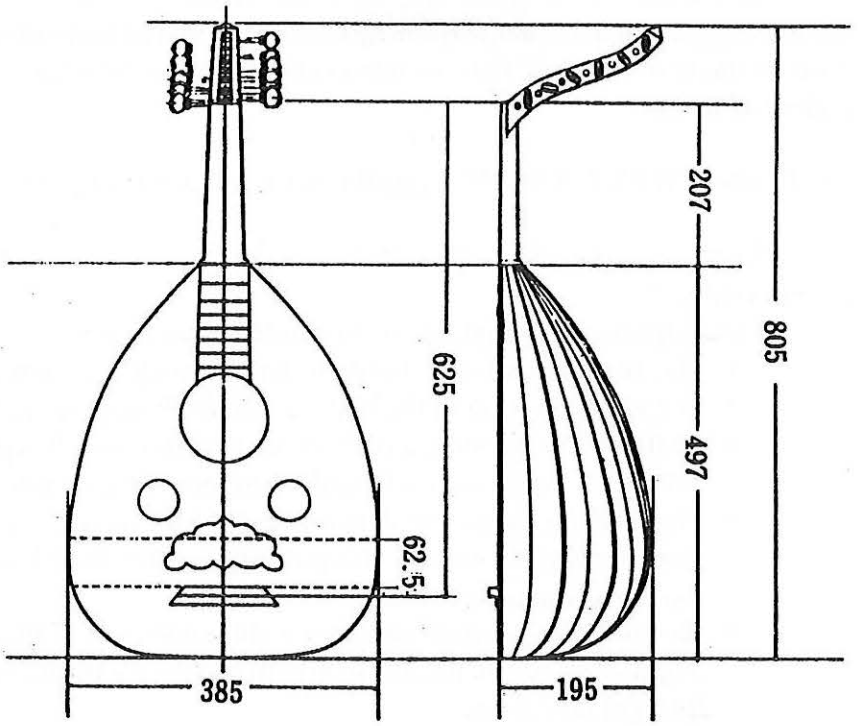
a) Description of *ʿŪd* making by Al-Kindi 874 (excerpt):

- The depth of the body should be half the widest section of the body.
- The widest section of the body is the plucking point of the strings.
- At the plucking point, a plate made of tortoise shell is glued to the surface of the thin soundboard to protect it from scratches.
- The position where the plate is glued should be set 3 *asābi* (6.75 cm) from the *mushṯ* (bridge). This part of the soundboard produces the maximal resonance.
- The plucking point of the string is chosen to be at 1/10 of the string length. As a result, the distance between the *anf* (nut) and the *mushṯ* (bridge) is 67.5 cm.
- The bridge is made of pistachio wood.
- The body is made of thin wood of constant thickness.
- Number and size of strings:

bamm	string for lowest register is made of four strands of twisted gut
mathlaṯh	3rd string, made of three strands of twisted gut
mathna	2nd string, made of silk with 2 twisted threads which should have the same diameter as a string made of two strands of twisted gut
zir	silk string for the treble register, made of thinner thread than that used for the *mathna*. The string should have the same diameter as a single-strand gut string.

b) Description by the Ikhwān al-Safā[11]:

- The *ʿŪd* is constructed with its dimensions in proper ratios.
- The length of the *ʿŪd* should be one and a half times its width.
- The depth of the body should be half of the greatest width.
- The length of the neck is a quarter of whole length of the *ʿŪd.*
- The *Alwāh* (boat shape strips) should be made of thin, light wood.
- The soundboard is made of especially thin, light, and sonorous wood.
- Number and size of the strings: All the strings are made of silk and the ratio of the diameter of adjacent strings is 3:4.



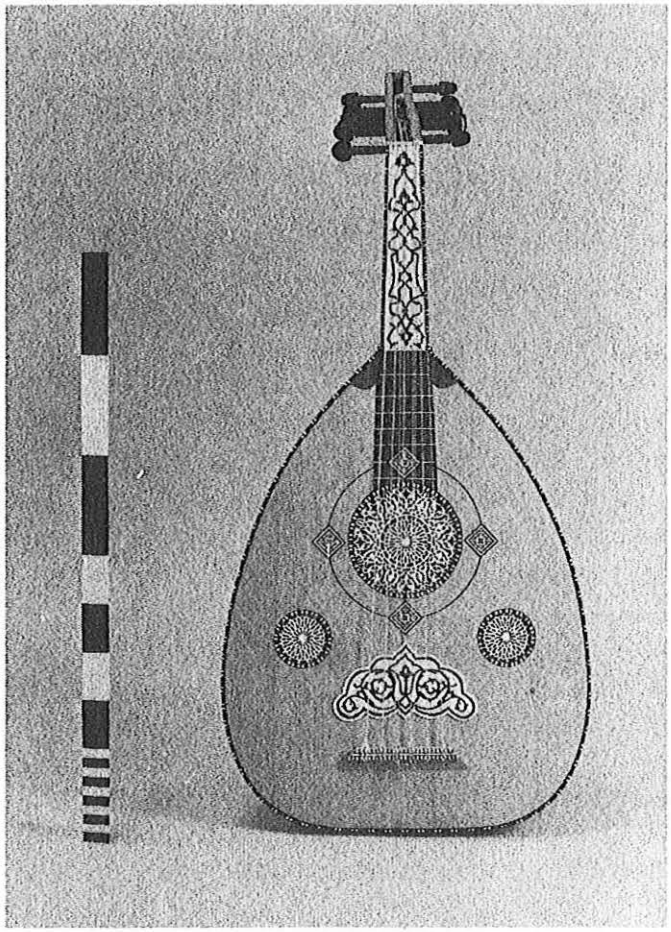
illus. 19 **Egyptian *Ūd*, made by Hamid, Alexandria, 1962 (measurements in cm)**

Bamm	64 *tagat* (fibers)
Mathlath	48 *tagat*
Mathna	36 *tagat*
Zir	27 *tagat*

An *Ūd* made by Hamid, acquired by the author in Alexandria in 1962, shows that the ancient theory of *Ūd* making is still valid except for the lengthened neck and added strings[12](illus. 19 and 20).

THE EUROPEAN LUTE

The oldest description of the lute with structural details is by Henri Arnault of Zwolle and can be dated about 1440 (F-Pn lat. 7295). The mould on which the lutes were built has some resemblance to the shape of the Arabian *Ūd*, and this shape remained in use until the first half of the 17th century. Although they originated from one spring, there is a clear distinction between Eastern and Western short-necked lutes in regard to the shape of their bodies. To ascertain the time and cause of this divergence still remains a subject for research.



illus. 20 Egyptian *Ūd*, made by Hamid, Alexandria, 1962

1 *Tonkou no Bijutu* [Wall paintings and sculptures of Mo gao ku in Dun Huans]. Edited by Taiyou sha. Tokyo: Dainippon Kaiga Kougei Bijutu Kabushikikiasha 1980, pl. 39.
2 *Musical Instruments of Shôsôin. Edited by Shôsôin office.* Tokyo: Nihon Keizai Shinbun Sha 1967, pl. 7–12.
3 F. M. Karomatov, V. A. Meskeris & T. S. Vyzgo: *Musikgeschichte in Bildern. Bd. II: Musik des Altertums, Lieferung 9: Mittelasien.* Leipzig: VEB Deutscher Verlag für Musik 1987, pl. 75, 93, 95, 99, 121; p. 94.
4 Henry George Farmer: *Musikgeschichte in Bildern. Bd. III: Musik des Mittelalters und der Renaissance, Lieferung 2: Islam.* Leipzig: Deutscher Verlag für Musik 1966, p. 35.
5 Martin Gimm: *Das Yüeh-fu tsa-lu des Tuan An-chieh. Studien zur Geschichte von Musik, Schauspiel und Tanz in der T'ang-Dynastie.* Wiesbaden: Otto Harrassowitz 1966, pp. 305 ff.
6 Gimm, op. cit.
7 Gimm, op. cit.
8 Gimm, op. cit.
9 Ūd, Biwa, Lute in *Gakki Shiryoushuu I.* Tokyo: Kunitachi Ongaku Daigaku Ongaku Kenkyuusho (Kunitachi College of Music Research Institute) 1980, pp. 3, 4, 15, 16
10 Henry George Farmer: *Studies in Oriental musical instruments.* London: Harold Reeves 1931, p. 92.
11 Farmer, op. cit., 1931.
12 *The Collection of Musical Instruments.* Tokyo: Kunitachi Ongaku Daigaku Gakkigaku Shiryoukan (Kunitachi College of Music, Collection for Organology) 1986/1996, p. 324

RAISA HUSAK

The Vessel Flute in Ukraine

In Ukraine today there exist several types of musical instruments whose history goes back many centuries. Several traditional schools of folk instruments and folk-music performers are found in the country. Among the instruments, which include violin, dulcimer (tsymbaly), jew's harp (vargan), whistle, end-blown flutes and others, the group of vessel flutes is worth mentioning.

The vessel flute with duct provides an interesting phenomenon of Ukrainian folk culture. Primary attention is focused on ceramic instruments, although wood and porcelain have been widely used as materials for folk instrument making. Such ceramic sculptures can be seen both as products of potters' applied art and as musical instruments classified as aerophones. According to the classification of Erich M. von Hornbostel and Curt Sachs, the instruments without side finger-holes are indexed 421.221.41, and with side finger-holes 421.221.42[1].

The topic of our discussion was facilitated by the author's personal collection of musical instruments, which includes 176 vessel flutes from different regions of Ukraine (eastern, central, western and southern).

Among the multiplicity of instrument types exemplifying folk art, pottery items seem to be the earliest ones, for the potter's craft is one of the oldest. Small-size products made of clay existed as early as the paleolithic period (40 to 14 thousand years B.C.E.). There are some archeological findings (sculptural images of women, sheep, oxen, horses) dated to the period of Tripoli civilization (4,000 to 3,000 years B.C.E.), to the early Slavic civilization (second century B.C.E. to second century C.E.) and to the Chernyakhovsk civilization (second to fourth centuries C.E.).

Written sources such as chronicles and other archival materials document the existence of similar ceramic products during Kievan Rus' in the twelfth century, when ceramic-making workshops started to be organized throughout the country. But it was not until the 19th century when sound-producing-ceramic toy sculptures, as the products of material culture, became a subject of much closer interest to ethnographers.

While being a product of material culture, sculpture embodied a spiritual dimension of the daily life of the folk, and therefore, in the earliest times served as a magical tool used in religious rituals. People believed, that if one blew into the hollow stem of a plant or into hollow bone of an animal in such a way as to reproduce the voices of birds and animals, this would make people nearer to holy spirits. (Such beliefs were widespread before Christianity[2].)

During the later half of the 19th century, such ceramic sculptures were used mainly as children's toys. Some children, ten to fifteen years old, made them, while others would go out to look for a potter coming into the village on a horse-drawn vehicle, who was expected to deliver ready-made goods, including toy sculptures. Such ceramic toys could also be found among gift items brought from the fair. A Ukrainian researcher into the field of folk arts in the later half of the 19th century describes the scene so: "Children from the villages stared at the roads all day long hoping eventually to see merchants coming up to their village. Some expected to get *medyanik* (a sort of cake with honey) from them; others expected to get a cap, still others - a toy horse made of clay; and some expected to get cotton cloth to make a skirt"[3].

Ceramic sound-producing toys have long been an integral part of socio-cultural life in Asia, America, Africa, Europe. They are deeply rooted in the cultural tradition of these regions. We should bear in mind that vessel flutes have existed in the territory of the former USSR under quite different names. They have served mostly as toys or as musical instruments for children, although at some times and in some places adults also used them as musical instruments.

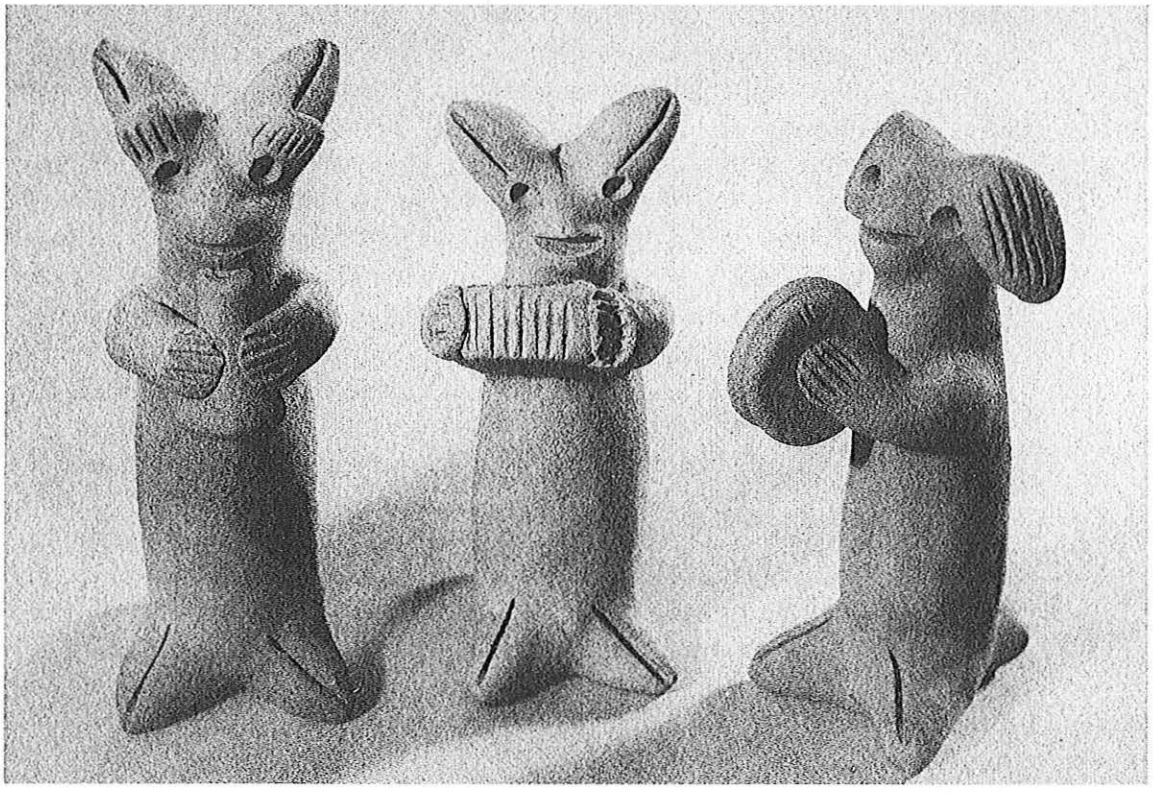
When we examine the origin of the many names denoting vessel flutes in Ukraine, we find a considerable variety. Some of them denote a zoomorphic image (a cuckoo, a cock, a duck, a ram). Others denote the method of producing sound, in that the root of the word for some instruments (*svistun, svistylya, svischik, svistik, svistunets*) is *svist* (i. e. "whistle").

Many publications on this subject highlight the ceramic-making process and report about individual craftsmen. Topics, unfortunately, still remaining to be investigated include the players of vessel flutes, the traditional ways of making the instrument in different regions of Ukraine, special features of their acoustics, and characteristics of the music in different localities. A wide spectrum of issues related to such questions still exists in today's culture. According to L. Saban, a researcher from Lvov (Ukraine), "When former attributes are seen differently, and, hence, they [i. e. the instruments concerned] start to serve as items for children's amusement, they nevertheless retain visual characteristics and musical features that have been associated with them for centuries"[4].

Among Ukrainian researchers of folk musical instruments it was G. Khotkevich[5] who looked closely at the vessel flute (folk name *svistik*), but a Russian researcher, N. Privalov, described works by Poltava craftsmen: an image of a *barynya* (a noble woman) has no finger-holes, so only one pitch can be produced; a ram has one finger-hole, by means of which the interval of a perfect fifth can be produced; an image of a cock has two finger-holes, so three different pitches can be produced. About half a century later, B. Yaremko, a Ukrainian researcher of Gutsul folk instruments, described "cuckoos"[6] with two or four finger-holes by which various scales can be produced by using different fingerings.

The present paper does not aim to answer the outstanding questions comprehensively. It is merely an effort to identify the regional dimension in ergonomics, design, and musical aspects. The features which are common or divergent at the regional level are outlined through a description of materials, instrument-making technologies, the musical scales that can be produced, and whether the instruments are left with the natural colour of clay, or are painted with enamel, glazed or decorated.

Since sound-producing ceramic tools have been made and used for centuries, each of them has its own tradition. The ancient traditional art of ceramic toys, which later included sound-producing items, was based on the tradition of symbolic zoomorphic and anthropomorphic images. Their design and manufacture involve the observance of certain rules concerning the hollow resonator, the whistle hole, and the finger holes. Among outer decorations, similar vegetational and geometrical motives can be found in almost all regions. Widespread are horizontal, vertical, diagonal, and curved lines, as well as images of a flower. According to semantic analysis, these are long-standing elements of Ukrainian ceramics. Thus, a straight horizontal line has long symbolized earth, a curved line means water, vertical lines with additional elements denote vegetation, going back to the ancient image of the "tree of life", and the image of a flower with petals, being of solar origin, has always symbolized the sun.



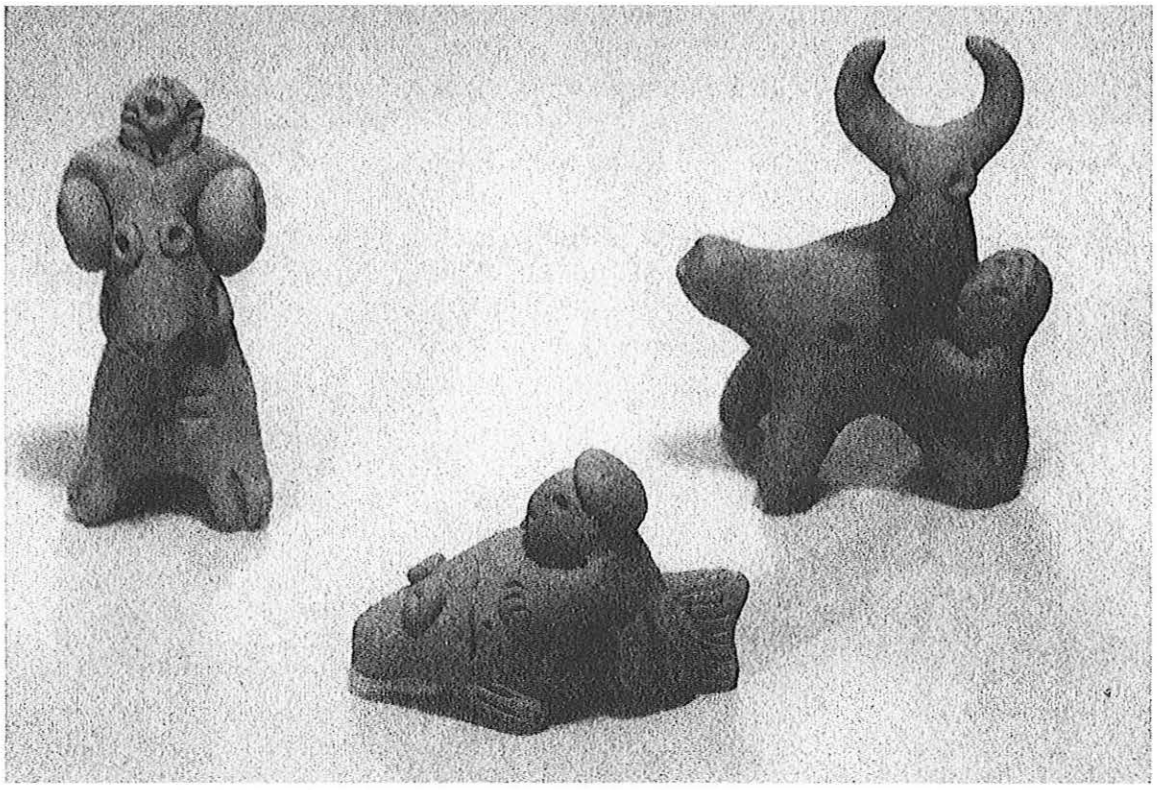
illus. 21 **Vessel flutes from the south of Ukraine, by O. Shiyan**

However, in the course of comparative analysis we discovered evident differences according to the geographic distribution and local resources. Craftsmen from almost all the regions have used local natural raw material (clay) with certain additives. Potter's clay has been used mostly for utensils, but for instruments only in Poltava (in the eastern part of Ukraine); kaolin clay in the Gutsul region (the west of the country); clay with a highly glazed surface in the central regions; and clay mixed with pebbles in the south. The colour of the clay depends on the source: it can be white or bright-coloured (eastern and central regions); red (eastern, central, and western regions); black (central and western regions); or grey (in the south).

Sound-producing toys can be classified in the following 3 groups, according to their size:

a) small	height: 2.3 – 7.5 cm	length: 2.5 – 11 cm
b) medium	5.5 – 11.5 cm	7.5 – 12 cm
c) large	8.0 – 15.5 cm	6.0 – 17.5 cm

The shape of ceramic products reflects both real and fairy worlds. The former includes human images such as a woman holding a baby, a horseman, a lad with *garmoshka* (an accordion), and a child; animals including cows, domestic and wild beasts, fishes, and images of items which are found



illus. 22 **Vessel flutes from the Podolie region, by F. Kurkchi**

in daily life, such as a house, a jug, and a *varenik* (a Ukrainian gastronomic speciality). Sculptures of the fairy world involve an abundance of fabulous characters: a three-headed horse, a three-headed serpent, a devil sitting on a pig's back, a fox with a cock, etc.

Almost all of the toys are modelled according to local regional traditions and can be subdivided into several groups:

A) Archaic, primitive small-size sculptures without finger-holes or with one or two of them. Most often they are made of white or bright-coloured clay, but sometimes they are made of red clay. Traditional engraving techniques without decorative painting or glaze are found within the group. Often the outer surface of monochrome sculptures is decorated with dotted lines, or dotted images of flowers (south). Some of the monochrome ones are covered with a transparent glaze (central and western regions). Some of the sculptures are coloured with crimson, dark green and bright green paints.

b) Sculptures with more sophisticated elements. Vegetation motifs are presented more vividly; symbols are better shaped. Outer surface of toys coloured with natural shades, covered with transparent glaze (eastern and central regions).

c) Large-size sculptures, sculptures shaped in a sophisticated way, sculptures representing sophisticated or unique images, with rather odd mixes of paints and ornaments (east) or decorated by means of glazing (west).

d) Sculptures shaped in a traditional way but with modern decorative elements. Their craftsmen are mostly young people, often married couples, who apply modern manufacturing techniques. When a sculpture is intended to be finished with bright colouring, its shape, first formed by casting, is adjusted by hand-modelling.

Each sound-producing toy has a whistling device (an internal duct), a variable number of finger-holes: 1, 2, 3, 4, 6, or 7. (In this paper we do not analyze improved chromatic instruments with 8 holes). A sculpture without holes, which can produce only one pitch, is a children's toy brought from the fair. Instruments with one finger hole can produce sounds of two different pitches. The author's collection includes the following items:

(to facilitate comparison, the notional bass note of all instruments is given as 'G')

Notes produced	**Number of examples (from various regions)**	**Number of different craftsmen**
G and A	15	9
G and B-flat	12	5
G and B-natural	4	4
G and C	3	2

Most of the instruments have two finger-holes enabling the production of three different pitches. The author's collection includes the following items:

Notes produced	Number of examples (from various regions)	Number of different craftsmen
G, A, and B-natural	30	9
G, B-flat, and C	13	5
G, B-flat, and D-flat	10	5
G, A and B flat	6	5
G, B-natural, and, D	4	2
G, C and E-flat	2	1
G, C-sharp, and E	1	1

It should be noted that individual performers can produce different pitches varying within the interval of a major third. Within the interval of one tone about four microtonal pitches can be produced. Other variations can be observed if the finger-hole is covered only partly (while producing sound) or if fingerings are altered.

The better the instrument, the lower the pitch. Sometimes its tone colour approaches that of the human voice. If a toy is small, its sound is high and harsh. Each craftsman applies his own secrets of toy design and sound production. Some of them focus mostly on the toys' outer forms, others on sound characteristics; still others tend to integrate the outer form with sound-producing factors in order to achieve excellence.

It should be noted that the functional applications of these toys also vary: In the Poltava region they have been used to serve as children's guardians, while in the Gutsul region craftsmen tend to make them sound similar to whistling or open Gutsul flutes, which have long been traditional in Gutsul music.

The thoughts of the Gutsul craftsman R. Mitskan about the design and manufacturing process of ceramic toys, and especially about their fresh, natural sound are notable: "There have been so many ideas, so much has been done, but the product would fail to become a genuine masterpiece, an idea would remain a mere idea, clay would remain mere clay, if your soul failed to cause the sound to come from within the depths of your heart, failed to revive the product made by you. Then it would be nothing but a shaped piece of clay, a mere form, and nobody could feel either freshness or life in it"[7].

There is no doubt that musical scales of ceramic sound-producing tools should be considered as an integrated whole. This is, a subject for future study.

In conclusion, we can summarize that sound-producing ceramic sculptures, which are the echoes of modelled images embodied by means of symbols, can be found as early as the period of old Slavic culture; but that in

our time they are perceived by most of their users among the people as nothing more than toys. Evolution has touched mostly the outer forms or shaping. The instruments' musical scales have been kept almost intact, and today they can provide valuable information on individual archaic instrumental scales. Since these tend to be similar to vocal scales, such information can become a framework for more thorough study that could provide better understanding about human perception of music in past centuries.

1 Erich M. von Hornbostel and Curt Sachs: 'Systematik der Musikinstrumente. Ein Versuch' In: *Zeitschrift für Ethnologie.* 46 (1914), pp. 554-590.
2 G. Marokhovsky: 'Magiya zvuka' In: *Narodnoye tvorchstvo.* (1990) No. 1, p. 32 (published in Russian).
3 Oles' Poshivailo: *Etnografiya ukrainskogo goncharstva.* Kiev 1993, pp. 102–103 (published in Ukrainian).
4 Larisa Saban: 'Tradytsiina zvukova igrashka' In: *Proceedings of the National Ukrainian Conference.* Kiev 1995, p. 69 (published in Ukrainian).
5 Gnat Khotkevich: *Musychni instrumenty ukrainskogo narodu.* Kharkov 1933, p. 172 (published in Ukrainian).
6 Bohdan Yaremko: 'Narodni musychni instrumenty' In: *Gutsulschina.* Kiev, p. 348 (published in Ukrainian).
7 Vladimir Kachkan: 'Tykh zvukiv dyvna taina...' In: *Sotsialistychna kultura.* (1990) No. 4–5, pp. 25, 27 (published in Ukrainian).

J. Richard Haefer

Field Documentation of Instrument Making in Traditional Cultures: Collecting interpretive data based on an example from the Guarijio Indians of Mexico

The museum of the last decade of the 20th century is a far cry from that of earlier times. When I first went to the Smithsonian Institution to work with the Native American instrument collection over twenty years ago, there were more than 250,000 catalogue cards in the Department of Anthropology alone and no way to determine what sound-producing instruments were in the collection except looking though all the cards as well as going through several hundred drawers of artifacts in the attic of the Museum of Natural History. Today there is a "computerized index", but one of limited value as it contains only minimal information taken from the same old catalogue cards.

What information is placed on these cards and in the computer? And who determines what information should be contained therein? And who provides the actual information? To answer the last question first, the days of the "travelling" collector, the missionary/amateur anthropologist, and, for the most part, that of the scientific expedition are over. Perhaps this is for the best, as the data often obtained via these sources were usually scant and frequently inaccurate. Today, at least in the area of traditional music instrument collecting, most artifacts and data are collected by anthropologists or ethnomusicologists spending long-term research sessions in the field.

The development of computerized databases has forced the museum specialist to spend more time and thought in the development of cataloguing information. Therefore, we now have highly developed, sophisticated schemes for museum catalogues, especially for such specialized artifacts as sound instruments. Progressing from the simple single card of Claudie Marcel-Dubois[1] to the more refined standards presented by Arnold Myers[2], the "catalogue" has progressed from a elementary record to a highly useful register of data.

However, while the computerized data sheet may provide documentation for the museum registrar and a clear description of the music instrument for the organology curator, it is of limited value to the curator in charge of mounting an exhibition, and, to a certain extent, to someone wishing to study the collection but with initial access to the collection only through the catalogue database. What further information might the collector want to obtain for each instrument, especially ethnographic data pertinent to future exhibitions? Again from the literature we find a basic chart presented by Arom and Dournon-Taurelle[3] in 1970 which, though more than twenty-five years old, presents some data fields still not normally a part of sound instrument

catalogues. And yet when compared with field documentation charts presented by anthropologists, especially that presented by Conklin and Sturtevant[4] in the 1950s and 60s – one especially directed to sound instruments – and those by ethnomusicologists[5], one finds that there is still much additional information that should be sought out when collecting sound instruments in traditional cultures.

Presented here are two charts designed to aid in collecting field data for sound instruments in traditional cultures. The "Documentation Chart" is a compilation of previous similar charts. While museologists, especially registrars, may feel the information is "overkill", the exhibition curators and organologists who in the future study specific instruments in a collection will be most grateful for the detail. The "photographic chart" provides suggestions for extended visual documentation to supplement linguistic data obtained while collecting sound instruments.

To illustrate aspects of the charts, I will draw on personal museum research with North American Indian sound instruments and fieldwork with the *Guarijio* Indians of Northern Mexico and the *Tohono O'odham* of Southern Arizona. Generic or common names for music instruments, though familiar in everyday usage, are often misnomers. For example, many articles identify "tambourine drums" or "hand drums" used by North American Indians. Neither term is accurate since these instruments normally do not have tambourine "jingles" nor are they played with the hand. Therefore, scientific nomenclature[6] for sound instruments is essential both for proper identification and for comparative purposes. Additional necessary nominal data (usually recorded in catalogues) includes the colloquial or native-language name with a literal English translation. However, many cultures have more than one name for an instrument (perhaps depending upon performance circumstance), and archaic designators or names no longer used may exist. In some instances multi–cultural (multi–lingual) names may exist. For the *Guarijio*, the violin is called the *yawera*. Since this instrument was introduced by the Spanish in the 17th century there is no archaic name, but as the *Guarijio* and their neighboring *Mayo* Indians often interact, the *Mayo* name *laaben* for violin is also found in common use.

If I might digress for a moment, even the concept of "music instrument" is foreign to many cultures. Among all of the North American Indian cultures (and there are over 300 different cultures with distinct norms and concepts related to sound) not only is the term "music instrument" not found, but neither is the term "music". However, nearly all of these peoples use the designator "song". Izikowitz, in his classic study of the instruments of the Indians of South America[7], used the English term "sound instruments", though as an extension of "music instruments". More recent studies have shown that most of the these Indian cultures have highly developed theories and concepts of "music" within their societies including terminology for their "music instruments". Two illustrations will suffice.

Conklin and Sturtevant in discussing the Seneca Indians of the American Northeast, describe a taxonomic system[8] developed from Senecan cultural concepts. What we would call "music instruments" are referred to by the Seneca as *yot˜enotáhkhwa?sho?o* or "singing tools". This term is used because to the Seneca sound instruments like the Great Turtle Shell rattle and the water drum are said to to be "those things used for propping up the songs".

A similar concept is found in the distance Southwestern United States among the *Tohono O'odham* peoples. Here sound instruments are called *ñe'icuda* or 'song makers'[9]. This is distinct from *ñe'ikud* or 'song things', an invalid lexeme. The gourd rattle, basket drum, and scraping stick of the *O'odham* are items necessary to "make" or "produce" *ñe'i* or "song" in their culture. Without these "instruments" "song" could not exist, and furthermore, when one learns or "dreams" (*cu:kud*) a song he also learns what *ñe'icuda* to use and how to use it as well as when and where to sing the song.

One might wonder why I bothered to introduce an invalid lexeme *ñe'ikud* above. There also exists in *O'odham* culture somethings called *piastakud*. The root *piasta* is borrowed from the Spanish lexeme *fiesta*. The suffix *–kud* in the Piman language refers to a "thing of" something — in this case a thing of a fiesta. Instruments like the saxophone, guitar, bass, and drum set used to perform *waila* (Sp. *baila*) or "chicken scratch" music are literally "things of the fiesta". They are NOT *ñe'icuda* or "song makers" nor could they possible be so since the music played at these dances is not *ñe'i* or *O'odham* song, but rather polkas, schottisches, and two–steps borrowed from 19th–century Mexico[10]. Hence among the *O'odham* we find two very different categories of "music instruments": 'song makers' and 'fiesta things'.

Returning to the documentation chart and not to belabor all the data fields, further discussion will concentrate on those not included in Myers "Cataloguing Standards" or those with significant differences. Myers states (p. 6) that "if too many fields are used, the database software may not [be able to] cope". With early database management applications not only was that statement true but also many fields were limited to a specific number of characters. Advances in programming and in machine memory in the 1990s have eliminated both restrictions, thereby freeing the computer catalogue to become a vast storehouse of information enabling us to answer Myers call that as museum specialists

we are primarily in the information business and that our contribution to the making of music or to education is to a large extent dependent on our storage and transmission of information.[11]

In the area of "traditional" cultures, it is impossible for the museum curator to be acquainted with the instruments of numerous cultures, and therefore the role of the field researcher must combine with that of the museum expert. While the curator can provide basic information from observation and examination of a specimen, our chart requests detailed information available

only through field observation and interviews. For the rest of this presentation, let us look at this data from the viewpoint of the curator of exhibits who uses the "museum catalogue" as a starting point for exhibit design.

Exhibitions presenting only technical detail, while interesting to the specialist, are seldom more than mildly successful for the general public. Ethnographic information concerning "Use and Ownership" (by whom, when, where, how learned, for what ceremonies, to what end or function) and "Conditions of Use" (performance methods, techniques for playing, and additional socio–cultural associations such as the "sex" or feeding of an instrument) opens up a new perception of the "music instrument" for the museum visitor. Even "Historical Data" may be expanded beyond the time of "written" records to include pre–contact, mythological and "origin" information.

An area of interest not often displayed by museums is the "technology" or manufacture of instruments. Basic "Construction" data includes the materials and tools used, methods and techniques practiced, and information about the people who do the making. Documentation of the construction of instruments is a process which easily lends itself to photographic documentation.

For the *Guarijio* we begin with an introduction to their environment. They live in the Southeast region of the present state of Sonora, Mexico, among the *barrancas* and *cañons* of the Sierra Madre mountain range. Today most live in one or two room adobe houses with an adjoining *ramada* which serves as the basic "living area". For most *Guarijio* the local environment still serves as the source of nearly all of life's necessities (food, water, fuel for cooking and heating, furniture, etc.).

Our *yawero* or violin maker is one Ramon Hurtado. His shop consists of a second *ramada* some distance from the house which contains a table and a narrow workbench, with a number of tools stored in the palm frond ceiling. Raw materials are obtained by either scouring the *arroyos* and *cerras* or by purchasing wood from a local or very occasionally walking the 50+ miles to the nearest "lumber store". Ramon finds and cuts all of his own wood with two exceptions: 1) daily he buys a supply of a particular hardwood ("Brazil wood", called *huchachago*) for his wife to cook with, and 2) once a year or so he journeys to town to obtain large flat pieces to use for the face and back of the violins. When his fire wood is delivered, Ramon has "first choice" at the stack sorting through it to find long straight pieces to use for bows and pegs. Whatever is left his wife gets to use for cooking.

His tools of the trade are very sparse indeed. A few were purchased long ago (hammer, saw, rasp) and some were custom made for his trade (adz — made from an automobile spring, curved knife), while others are improvised (using a nail for a drill bit). Supplies such as sandpaper are expendable, but not until thoroughly used (a two inch square piece of sandpaper was used to polish an entire violin).

Examination of his use of tools in the manufacturing process reveals few differences in technique from what 17th–century Indians must have observed watching the *padres* and *conquistadors* making repairs to the instruments they brought from Europe. A detailed presentation of such techniques is beyond the scope of this presentation, though a large collection of notes, sketches, and photographs gathered in the field would easily provide the necessary information for an exhibit curator.

Completion of an instrument should not be the conclusion of documentation. Comparative data with other instruments by the same maker and those of others should be obtained. Also important is information concerning the use and function of the instrument in the culture and the social structure surrounding the instrument. For the *Guarijio*, the *yawera* is used only to accompany the *pascola* dancers. The *pascola*, however, is part of a larger ceremonial complex called the *túmari* which include traditional singing and dancing called *tubarada*. Within the culture, only very few people are skilled at playing yawera and are, therefore, considered specialists, if not professionals (in the sense of supporting their families by performing). Audio documentation, including tuning, scales, melodic/harmonic lines (alone and played together) help to form a well rounded completion of the confirmation of instrument construction. One might assume tuning, for example, to be a limited aspect of traditional cultures. Once again our *Guarijios* provide us with a lesson in exception. Throughout a night of playing for dances, *yaweros* ("violinists") will retune their instruments as many as a half dozen times. Each tuning is used for a specific portion of the ceremony and for specific tunes. Interestingly, each tuning is also named for specific animals, e. g., "turtle tuning". As many as two dozen different tunings are used by the *Guarijio* for a four-string violin. Much additional data is available concerning function and social structure, but the above should suffice to illustrate the vast amount of information that should be accessible for exhibit curators.

Field documentation of the construction process must include not only the tried and true documentation processes noted above, but also audio and video documentation as more and more museums begin to utilize not only artifacts and photographs but also sound and video within their exhibits. By the turn of the century, if not before, the "virtual museum" will be "on–line". Already on–line catalogues, such as that of the Edinburgh University Collection of Historic Musical Instruments[12] are appearing, so it will be one small step to the virtual museum. It is no longer enough to simply provide catalogue descriptions of our collections. As organologists, ethnomusicologists, and even as museum curators, we must prepare to provide the necessary level of information that researchers of the future as well as the general public will expect.

1 Identification and cataloguing. In: Jean Jenkins, ed.: *Ethnic musical instruments.* ICOM 1970.
2 Arnold Myers: Cataloguing standards for instrument collections. CIMCIM web site [http://www.icom.org/cimcim]. One might also note that the same site contains the text for "Uniform procedures for data element description in CIMCIM database systems, v.1.11 [CIMENT]" which though full of technical information, does not add additional descriptive data fields.
3 Simha Arom and Geneviève Dournon–Taurelle: Notes for Field Collectors. In: Jean Jenkins, ed.: *Ethnic musical instruments.* ICOM 1970.
4 Harold C. Conklin and William C. Sturtevant: Seneca Indian singing tools at Coldspring Longhouse. In: *Proceedings of the American Philosophical Society.* 97 (1953), pp. 262–290, and revised by Sturtevant in *Guide to field collection of ethnological specimens* . Washington 1969.
5 J. Richard Haefer: North American Indian Musical Instruments: Some organological distribution problems. In: *Journal of the American Musical Instrument Society.* 1 (1975) pp. 56–85; revised in: Studies of North American Indian sound instruments. In: *Liberal and fine arts review.* 3 (1980) pp. 22–42; and for this paper.
6 The most common scientific classification system for sound-producing instruments is that by von Hornbostel and Sachs: Systematik der Musikinstrumente. Ein Versuch. In: *Zeitschrift für Ethnologie.* 46 (1914), H. 4/5; translated by Anthony Baines and Klaus P. Wachsman as "Classification of musical instruments" in: *The Galpin Society journal.* 14 (1961), pp. 3–29, which is based on the work of Mahillon (Victor Mahillon, *Catalogue descriptif et analytique du Musée instrumental du Conservatoire de Bruxelles,* 5 vols., 1892–1922). Several more detailed systems have been proposed in recent years, Mantle Hood: *The ethnomusicologist.* New York 1971; Jeremy Montague and John Burton: A proposed new classification system for musical instruments. In: *Ethnomusicology.* 15 (1971), pp. 49–70; William P. Malm: A computer aid in musical instrument research. In: *Festschrift to Ernst Emsheimer* [...]. Stockholm: Nordiska Musikförlaget 1974; Hugo Zemp: Are'are Classification of musical types and instruments. In: *Ethnomusicology.* (1978) pp. 37 ff.; René T. A. Lysloff and Jim Matson: A new approach to the classification of sound producing instruments. In: *Ethnomusicology.* (1985) pp. 213 ff., to name a few examples.
7 Karl Gustav Izikowitz: *Musical and other sound instruments of the South American Indians. A comparative ethnographical study.* Göteborg: Kungl. Vetenskaps- och Vitterhets-Samhälles Handlingar 1935.
8 Conklin and Sturtevant, op. cit., 1953.
9 J. Richard Haefer: *Musical thought in Papago culture.* Ph. D. dissertation, University of Illinois, 1982, and *Making the song: North American Indian sound instruments,* in press.
10 However, it is extremely important to point out that *waila* music is "owned" by the *O'odham* and as such is considered to be a part of *O'odham himdag,* "ways" or lifestyle. The reasoning for this ownership is the way in which *waila* music has been incorporated into *O'odham* culture. Such music is treated just as *ñeñe'i* "songs" are – in cycles with spatial and temporal relations and specific conceptual usage.
11 Myers, n. d. (see footnote 2), p. 1
12 http://www.music.ed.ac.uk/euchmi/

MUSIC INSTRUMENT DOCUMENTATION CHART*

Music Instrument (generic/common name):
Scientific name:
Culture of origin: Culture of user:
Location: Date:
Names: Native; [Plural] Alternate;
English; Archaic;

Physical description: (general description of the physical appearance, dimensions, external and internal shape, decorations, etceteras-drawings and photographs are most helpful, general measurements, accessories).
Technical description: (Precise measurements for standart parts, scientific and vernacular names for parts of the instrument, keys systems, fingerings)
Use and ownership: (specific markings, individual vs. group, etc.)
Performers; (age, sex, specializations, where & how learned)
Specific usages; (names of ceremonies, genres of songs)
Function; (specific results obtained, obligatory or optional)
Conditions of use; (time of day, place, frequency, total number of instruments and time played; same or variable)
Performance methods;(body and instrument placement, method of sound production)
Performance techniques; (idiomatic patterns, effects, timbres)
Storage and preservation; (between usages)
Additional socio-cultural associations; („sex" of instrument, values, „baptism" or „feeding", placement of sacred materials within)
Construction:
Materials used; (colloquial, local, cultural and scientific terminology)
Tools; (types, how obtained, (document if home made) how used, colloquial names)
Methods/Techniques; (source of material, treatment and preparation of materials, tools used, etc. with photographic documentation)
Manufacturey; (maker: specialists/non-specialists, age, sex, where and how learned, name if known)
History:
Specific instrument; (place and date of origin, where, when, how from whom obtained; modifications)
Generic data; (use in specific periods: the last fifty years, 100 years ago, at time of contact, pre-contact, mythical use, origin)
Modifications and substitutes; (date/provision/acceptance of substitutes; other similar instruments you like, why)
Occurence: (number of instruments presenly avaiable or in use)
Repair: (what, how, when, what materials, what methods)
Manner of discharge:
Average length of service;
Actual disposal; (when no longer used, at death of owner; how)
Acoustical properties: (nominal pitch, volume and pich variation, quality, density; record samples in varying circumstances)
Additional ethnosemantic data:
Myths;
Descriptive narrative texts;
Aesthetics: (as an object, of the sound produced)
Audio documentation: (tuning, scales, individual and ensemble parts)

* Based on Conklin and Sturtevant *'Seneca Indian Singing Tools at Coldpsrings Longhouse'*, Proceedings of the American Philosophical Society 97 (1953): 262-90 as modified by Haefer in *'North American Indian Musical Instruments: Some organological distribution problems'*, Journal of the American Musical Instrument society 1 (1975): 56-85 and *'Studies of North American Indian Sound Instruments'*, Liberal and Fine Arts Rewview 3 (1980): 22-42 with additional matter for this presentation.

SUGGESTIONS FOR PHOTOGRAPHIC DOCUMENTATION OF TRADITIONAL SOUND INSTRUMENTS**

Types of [Antropological] Photographic Uses
1) Overview studies
    a) Mapping
    b) Community design
    c) Photo survey (see below)
2) Cultural inventory
3) Photographing technology of culture
4) Photographing Society
    a) social relations
    b) social interactions
5) Interviewing with photos

Shooting Guide for a Photographic Survey
1) Location
2) Appearence
3) Organization
4) Functions
5) People
6) Transportation
7) Residential areas
8) Daily cycles
9) History
19) Change

Observation Scheme for Photographing the Technology of Culture
1) Environmental location of the technology
2) Raw materials in the field and in the shop
3) Tools of the trade
4) How tools are used
5) How a craft process
7) Survey of final products
8) The function of the instrument within the culture
9) Social structure of the instrument within the culture

**Based on John Collier Jr. and Malcolm Collier, Visual Antropology. (Albuquerque, NM: University of New Mexico Press, rev. ed., 1986).

Hélène La Rue

Wood, bronze and bamboo: Among instrument makers in Guichow Province, China 1989

In the January of 1989 I was sent to Guichow Province in China to do field work for the Pitt Rivers Museum. We already had links with colleagues there, and material from this area has been in our collections since the 1890s. My task was to be the observation of the use of musical instruments during the spring (or New Year) festival, and to try to make contact with some makers of traditional instruments.

Guichow is an area of China rich in minority peoples. The largest group is the *Miao* but I was also to meet *Dong*, *Buyi* and *Yao* as well as, of course, the majority *Han*. Poor agricultural soil is the reason for this richness of minority peoples: most of these peoples are known to have inhabited richer agricultural lands further north in China and to have been progressively pushed southwards by the *Han* people as they became more powerful and claimed the richer lands for themselves. This area is a difficult land to farm – fields of very poor stony soil set among those dream-like karst limestone formations immortalized in Chinese paintings but a landscape that spells poverty to those more familiar with it.

The instruments about which I was to learn most were the bronze drum and *lusheng* of the *Miao* and the *niubatui* or the *fiddle* of the Dong. All of these instruments play a part in festival or ritual. The *Miao* instruments are those used to accompany the girls' dancing during the festival competitions and the *niubatui* is still used as one of the main instruments in courtship. In the long period between the making of The Pitt Rivers Museum's earliest collections from this area until the time of my visit the most dramatic event has been that of the Cultural Revolution. During my visit I was to discover how this had touched on the lives of the instrument makers as well as the use of the instruments themselves. Some of the instruments remained unchanged, while in other cases it had led to new designs and inventions. During the Cultural Revolution those who suffered most were those who had had greatest contact with the West or western art forms. Minority peoples were not at risk in the same way. After an initial period of the greatest severity, festivals which could be seen as in keeping with the ideal of the 'happy workers' were allowed to be revived, but any occasion with connections to religious practice of any form were punished severely and customs which could be linked to religious beliefs were frowned upon. The bronze drum of the *Miao* people has been an object of great cultural and religious significance for many thousands of years. Drums of this type and design are found through an area which ranges from central China to Indonesia. Traditionally the drum was regarded as a possession of

status. A *Miao* chief's two greatest possessions were the drum and the large metal cooking pot. The drum was and is used in all the major feasts and festivals of the year. During the intervening periods, when it was not being played it was used as a container in which to brew rice spirit. The best skirt of the mistress of the house was placed on top of its open mouth to stop the drum walking away with the contents. The *Miao* people were one of the minorities that the *Han* found most difficult to subdue. During their wars on the *Miao*, the *Han* found that the *Miao* were very astute enemies who always seemed to be one step ahead of the *Han* army. *Han* generals could not understand how the *Miao* could have this ability to know the *Han* army's movements. Of course the *Miao* were signalling to each other with the drums, the sound of which carries well through the Guichow countryside, and as a result any move made by the *Han* armies was reported to all the rebel groups. When the *Han* generals realised this they confiscated the drums and were able to subdue the *Miao*.

At the beginning of the Cultural Revolution these drums were considered to be religious objects and many were destroyed. Those found hiding them were executed. When in Guichow I saw several of them in use at the festivals, and it was explained to me that they were newly made in a foundry in Shanghai. In each festival the bronze drum was played by the old men and was always placed in the centre of the dancing ground, suspended by the loops on the drum's side from a bamboo tripod so that the head of the drum is in the vertical plane. The drum is struck by one man who marks the beats on the upper side of the drum with a short stick as well as beating the rhythm on the head of the drum. A second player moves a wooden bucket in and out of the open end, causing the note to be modified. From my observations it also seemed probable that the religious content of the festival was still present although no one would admit to this. During the playing obvious things were observed, such as the covering of the beater with red cloth for good fortune. But in one site where there were two bronze drums (played face to face) a number of rituals were observed.

At the beginning of the festival a quantity of rice spirit was poured into both drums. A new headdress was suspended pointing downwards from the top of the drum stand. Throughout the performance the players drank heavily – and so did the drum. At the end, ghost money and cigarettes were burnt under each drum, the cigarettes being arranged in groups of three and set alight. It seemed to me that, as far as the participants were concerned, the festival continued with the same offerings made to the ghosts and spirits and with the same rituals observed to ensure good fortune. The instruments, although replaced, are unchanged in type or in technique of performance, and the meaning and significance of the other actions are understood only by the few insiders.

During the festival the young men played the *lusheng*. These are the long free-reed mouth organs with which the young men dance as they play. The

young men play in groups and in a site with multiple dance areas they go from dance floor to dance floor competing for the girls' attention and trying to drive out the *lusheng* players already there who are in command of the dance steps. At the end of the dancing a young man may chase a young lady who catches his eye and he plays while racing after her.

This instrument was never forbidden during the Cultural Revolution. In fact new dances, heavily influenced by Russian ballet, were invented, and the National Dance troupes were an important international export. However, as a result of the destruction and confiscation of the bronze drums, several of the festivals could not take place, and fewer of the boys played. So, some of the makers found that time hung on their hands. During my visit I met two *lusheng* makers. The first, Mr Wu Ping-Xian, lived in a village up in the hills surrounding Kaili in a village that must have been quite difficult to reach at the time of the Revolution. Mr Wu Ping-Xian's father was also a *lusheng* maker and both he and his brother knew how make instruments. Only Mr Wu, the older brother, is still a maker. As he is both farmer and famous maker, he was called upon to make instruments throughout this difficult period. He is now much visited by foreign scholars and collectors, and his description of the making of his instrument was well rehearsed. He described that there were forty-two processes in the making of the instrument. The reed is filed top and bottom. The metal for the reed is a mixture of copper and tin which has been refined in a furnace. This is then beaten and proved. They actually prove and blend their own metal, although I saw him taking the metal from an old gong which he then melted in a small "smithy". The reed metal is filed down with a thin file. A knife is used to rub down the metal to adjust the thickness. Thin metal makes the best tone. These reeds are called *xiang tong* – "copper making voice". The reeds for the biggest *lusheng* can be up to 9 cm long. The best *lusheng* are made in the autumn at the time of the harvest when the bamboo is cut, although the bamboo can be kept through the year. The places where the holes are to be made made are marked with a measure which is a piece of bamboo. To seal around the reed where it is set in the bamboo, a mixture of lime and oil is prepared in a mortar.

The second maker whom I visited, Mr Yu Fu Weng, lived in the centre of Kaili. Mr Yu Fu Weng started as a traditional *lusheng* maker following in the tradition of his father and grandfather. During the Cultural Revolution, all the festivals in his area were forbidden and there was no call to make *lusheng*. In this fallow period, influenced by what he had heard of the concertina, he experimented and developed the *mongtong* (big pipe). In the *lusheng* the reeds were traditionally made from brass. He showed me two instruments with the traditional six pipes. The reed used is longer than the hole prepared for it and it is forced into the hole and set in a mixture of lime and tung oil. The node of the bamboo is burnt to straighten the length of cane. The holes are burnt in. The large *lusheng* has to have the space below the reed stuffed with cloth or papers, but there is no need to do this on the small ones. The positions of the holes

depend on the size of the player's hands. Mr Yu makes his own reeds. The note will be tuned to the same note as the upper note of the reed. The tuning of the instruments is different in many areas. The wood of the resonator is Chinese fir. He also puts on a plastic mouthpiece, as it is smooth and much easier to use when they play as they dance.

The second *lusheng*, because it has a larger bent wood resonator, has a different sound. It is used to accompany dance together with the *mongtong*.

The *mongtong* has eleven reeds on each side (instead of three). The idea came to him from his understanding of the concertina principle but as the reed only works one way he cannot get repeating notes.

Lastly I visited a stringed-instrument maker, Mr Cheng. He is one of the group of *Han* Chinese who suffered during the Revolution because of their training in Western skills. Mr Cheng was in training as a maker of Cremonese style violins when the Cultural Revolution took place. He was sent to Guichow, to Li Ping County as a punishment for his decadence. There he was to work in the fields as an agricultural labourer. He was sent to a *Dong* area in which the bowed instrument, the *niubatui*, was played by all the young boys and was traditionally made by the players. However, there was one maker, an old man who had the reputation of making the finest instruments. This old man became his teacher, who told him that the shape of the instrument was not important, that what was vital was for the instrument to have a particular voice when accompanying songs. If it had the correct voice, the instrument would not need to be given a sound post, but if it did not sound right it would be given one, which was adjusted until the desired sound was acquired.

In 1972, when Mr Cheng was 22 years old, the government authorities found out what he was doing. Rather than punishing him, they encouraged him to find out more about the instrument and collect them for the county archives. However, by this time he was working mainly making furniture. Others had tried to collect *Dong p'i-pa* and *niubatui* before. He did make a collection which he gave to a Miss Chen who lives in Paris, as he was afraid that the collection would be dispersed if it remained in China. He is now unhappy about this gift as he finds that the instruments have remained her private possessions rather than being given to a public collection.

Mr Cheng earns his main livelihood now as a manager of a furniture factory in Guichow. There he is in a position of authority, having twenty-three members of staff, with nineteen workers and two white-collar employees. Two of the workers are women who work part-time. They do two jobs, the main one of which is painting the furniture while the other is looking after the storage. It is in his spare time from this very busy occupation that he makes violins. He also remembers all that he was taught about the making of the *niubatui* and as a result of my interest he made one whilst I was in the area. He described the materials and processes: the wood for the pegs comes from a tree he called the "pipa" tree. The pegs are cut square with a squared finish at the top. All this

work is done by hand. None of the parts are turned on a lathe; the old man never used one. The traditional type of *niubatui* has a resonator all made in one piece. Inside there is a pattern of chiselled lines. This pattern must not be smooth as this would keep the sound quite steady. The back must be quite thick, a little less than one inch (seven or eight tenth of an inch) or 8/7 *fen*.

The resonator wood must be quite hard, so that it is possible to make the resonator quite thin. If the wood is soft, the resonator will have to be thicker to be strong enough. The best wood is taken from the end of a lower branch at the point closest to the trunk. The length is then cut in half and hollowed out. In the countryside this operation is carried out with an axe and chisel. The wood is made smooth and then scraped out. To make the holes for the pegs and the sound holes they use a hot poker. Originally the strings were not of metal since the *Dong* did not know how to draw wire. Mr Cheng thought that the earliest were probably made of gut, horse hair, or vegetable fibre.

In the traditional design of the instrument it did not have a separate fingerboard. The resonator was simply gouged out of a single piece, the top of which was left solid so that its upper surface was used as a fingerboard. Another thin single piece which formed the table was added to it. Later it became the custom to add a fingerboard and a table made from two separate pieces of wood. The fingerboard had to be of a very hard wood, but in earlier times it was very difficult to find such hard wood in the area. They used a white wood, *Jing Ji*, "golden cock", the juice of which is used to make quinine (willow?). If the resonator wood is hard and strong enough, a separate fingerboard is not necessary, but then the thickness of the back must be less.

Ideally the table would be of fir as this is less likely to warp. Mr Cheng made a hole in the board used for the resonator with an iron tool. Next he drew a line around the resonator and glued the table down. In the countryside they would use a glue made from tree resin. The tree that was used was the *Qi su*. Bone glue was considered the best, but this had to be traded and was very expensive. The pegs are set in sideways, and the strings pass through the board on top of the peg box. At the end a "top bridge" was stuck on separately. This was usually made from hard wood or bone. In some of the simplest instruments there was no separate bridge. The earliest instruments had only one sound hole in the table. This sound hole did not have a standard location but was most generally made about two thirds of the way down the instrument.

When the instrument was finished, the maker would try to see whether it had as good a sound as he had hoped. If not good enough, he would make a sound post to go through the sound hole to decrease the vibration of the table. Mr Chen showed me a picture of an instrument one hundred years old. By the time the photo was taken, the wood colour had mellowed to become quite dark.

These instruments were made by the singers for their own use. The shape and general looks were not important. It was most important that the instrument was able to make a suitable sound for song accompaniment. The player's feeling in the song should not be overcome by the sound of the instrument. The strings run parallel to each other and are stopped simultaneously.

The story of these three instruments covers the range of effect of the Revolution. In the case of the bronze drum the instrument was replaced by a new one and the festivals continue as they did before. They may even still centre around religious observance, but as long as the outward show does not offend they can continue to take place. In the case of the *lusheng*, not only is there today a very flourishing tradition which has lost none of its interest to the young, but also the tradition was enriched as a result of the Revolutionary period. The *mongtong* is a new instrument, although derived from the *lusheng*. So far it is only used by this maker when he plays. I repeatedly observed in China that many makers spent their time during the fallow period of the Revolution in redesigning their instruments and often applied Western tuning methods to the traditional instruments that they made.

It is the case of the last maker, Mr Cheng, which is perhaps the most interesting. Mr Cheng's skill was in the making of fine western style violins, so he was sent into the underdeveloped countryside and into a region in which the tradition is that of a simple instrument which anyone could make. One might be tempted to think that this correction period was a refined piece of cruelty. Instead of being humbled by the process, however, Mr Cheng developed a great respect for his old *Dong* teacher and a fascination for the instrument. In his attempts to collect instruments he tried to preserve a record of what he saw as a rapidly disappearing tradition. He would, perhaps because of his early training, be the maker who would most long to be here today and to explain the history of the *Dong* fiddle for himself.

So how successful was my visit in terms of collecting for the Museum? Having already several bronze drums in the collection from different areas I did not need to duplicate the collection, nor would it have been proper to offer to buy any of the instruments in use at the festivals. Neither of the *lusheng* makers offered me an example of one of their instruments, nor did they seem to wish to sell me one. But they were both content to tell me about them and their process of manufacture. I was most tempted to ask whether I might purchase the *niubatui* that I saw Mr Cheng making and which he used to explain the instrument to me. But, spending some time in his company, it became almost impertinent to ask whether I might buy the example that he was making, although it did not appear that it was being made for anyone in particular. As he was a man of substance it might have been considered rude of me to offer him money for the instrument. However, at the end of my last interview with him, Mr Cheng smiled and explained that by the time I left Kaili, the instrument would be finished and he wished me to take it back with me for the Pitt Rivers Museum.

Illustrations