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FOMRHI Quarterly

BULLETIN 19
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HELP WANTED FOR FoMRHI: As some of you will know, Djilda now has young Henry to look after as well as running NRI and the house. As a result, she is finding it more difficult to cope with the rush of work that FoMRHI demands once every three months. She can cope with getting each issue together and getting it to the printer and back, but she would be grateful for help in getting it out to the post. It would help if there were one or more volunteers who would come in and stuff it into envelopes. It would be even more help if someone would volunteer to be responsible for all the mailing side, in which case Djilda would collect the stock of copies from the printer and deliver them anywhere in the North West within a reasonable car run of Manchester. What the job entails is: bringing the mailing list up to date (I send up the address changes with the Bulletin, so there is about ten days to do that in while the issue is being printed); checking that all the address labels are right (we usually get them xeroxed on to self-adhesive labels, but that part of the job can be run to suit whoever is doing it); seeing that they are on the right sort of envelopes (plain for UK, PRINTED MATTER AIR MAIL for overseas airmail, AIRMAIL for Europe by air, PRINTED MATTER REDUCED RATE for Europe and overseas by surface) and making sure they are right; stuffing the Q into the envelopes; taking them to the post office and sending them off; sending me the bill for the postage (which means paying for it yourself and waiting about a week, as the letter has to come to me and I have to send the cheque to Djilda for countersigning and she has to send it on to you) before you get the money back - it can come to between £125 and £150, but if this makes for difficulties we can arrange an advance float. As you'll see it's a responsible job and it does have to be done properly if members are to get the service they pay for and are entitled to. It would be a great help if someone would be willing to take it over. If so, please give Djilda a ring. PS: it also has to be done reasonably quickly once the stock of Qs arrives, otherwise there is little point in many of the overseas members paying for airmail nor in our boast of FoMRHI providing a quick interchange of information. In fact, one of our problems of late has been that because Djilda is over-occupied with Henry and NRI, there have been delays that there should not have been, and this is why we are asking your help.

LIST OF MEMBERS: Herewith the annual main list. There are a lot of address changes from the old list, so use it and don't rely on your memory. Use it, too, when you travel. I have had several letters from our more isolated members saying how much they enjoyed a visit from various fellow members, so as well as meeting a new friend in a strange country or city you are helping them feel in touch. And of course members who are not isolated also like to meet colleagues and make more friends. One advantage of a Fellowship like ours is the worldwide network of friendship; I'm sometimes asked if I know a certain city or country, and I say "No, but I've a friend there that I've never met".

GUEST-FRIENDS: Talking of which, now that hotels everywhere cost so much, isn't it time that we revived the old Greek custom of guest-friendship? When the children are away at University, we've usually got a bedroom free, and when no there is always space for air-mattress and sleeping bag on the sitting-room floor. I suspect that many of us could say the same (I know that Eph and Djilda say this). In return, we may come and clobber up your floor one day, or somebody else will. So if you are travelling, it could be worth getting in touch with a fellow member at your destination; even if they can't offer you hospitality they may well know of a cheaper hotel than you can find from wherever you live.

LOST MEMBER: Anyone know where Laurence Marshall, late of 84 Ayres Road, Manchester, is? And Philip Lord is still missing.
COMPLAINT: I've had a letter from Hans den Brok: "Dear Jeremy, I want to finish my membership of FoMRHT. I am not satisfied with your magazine. The drawings are too simple and careless, and the list of members is badly arranged." I haven't replied, because there didn't seem a lot of point, and at least he told me he was finishing instead of just dropping out as a number do every year. But he may not be the only one who feels like this, and there may be some of you who agree with him but who are going on putting up with us because there is useful information. If you do have complaints, do please tell us and we will do something about them if we can. We can't always (I can't afford a new typewriter such as an IBM golfball, for instance), but if we can we will. He is the first person to comment on the List of Members; I know last year's was a bit crowded, but I was trying to keep it into 20 pages, and this year I'll space it better if I can (that's the next job to do). I cooked up the arrangement and, as a result, I find it OK, but if you can think of a better arrangement, for heaven's sake say so.

OUT-OF-PRINT COMMS: Geoff Kime tells me that as well as getting orders for ordinary back issues, he also gets requests for individual Comms and for groups of Comms on certain subjects. As a result he has been wondering whether to prepare anthologies on certain subjects, a set of Comms on plucked string instruments, for example. It would be quite useful if we had an idea of what the demand for such an anthology would be. How many of you who have not got complete runs of FoMRHTQ, or even who have, would be likely to buy such anthologies? A reply will not commit you to anything, and replies on the lines that you would have bought such an anthology had it been available, would be equally useful. We also need to know whether any contributor wants to withdraw a Comm from circulation for any reason. If we don't hear, we assume that you are still willing for people to read it.

FURTHER TO: Comm.225: Someone (I'm ashamed to say that I didn't note who) has sent me the standard RIdM (Repertoire International d'iconographie Musicale) catalogue card and indexer's guide, saying "Not only the IMS, the IAML and the ICM have accepted this format (just as US and UK libraries all use the so-called Anglo-American filing rules for cataloguing books), but individual institutions here are joining the bandwagon. Shouldn't the FoMRHT and its members follow suit? In the eventuality of computerization, this will become absolutely necessary!" I haven't included the card and instructions here, partly because it is already half size and I'm not sure if it will be legible if it is reduced again by half, and partly because there are four pages of it. If anybody wants it, I'll send them a xerox; if anyone in the Americas wants one, it would be easier to write to RIdM at Center for Musical Iconography, City University Graduate School, 33 West 42nd Street, New York, NY 10036.

Bulls.17 & 18, p.4 in both: Book prices: Brian Jordan very rightly points out that when I said "the book trade" I should have said "the publishers" since it is they who fix the prices; the expression "book trade" is usually taken to mean the retailers. My one justification is that in the Australian instance cited in Bull.18, it is the retailers who fix the price, for they do not allow the publishers to fix the price as they do here and in America. Apart from that he is right, of course. He tells me, too, that my Med & Ren has gone up a pound to £8.50, which I suppose reflects the higher cost of paper and printing for a new printing. He also has some good news for FoMRHT members - he does not charge us postage on orders, and when you consider that postage in this country for even a small book can now cost over £1, that is generous indeed. His address is in the List of Members.
(Further to: continued)

Bull.17 p.11: Guild of Luthiers and Pipemakers. Djilda added a note about this Guild to that Bulletin. I had also heard from them, and from one of our members who had tried to get information from them, and I deliberately did not say anything about them. From what little information I had, I was not going to publicise them, but on the other hand I did not think that I had enough information to warn you off them. I have now heard from another member who did join them. He sent them a cheque and received an acknowledgement but not the promised certificate. He wrote and asked why not, and received a long letter in reply promising that the certificate would follow. When it did not do so, he wrote again (in November) asking for his money back. Despite four more letters and a telephone call (also in November, which elicited a promise of the return of the money) by the end of February he had received nothing. So he thought it worth telling me, and I think it worth telling you, because I think that I now have got enough information, combining this history with what I had already been told by another member, to warn you off them.

Comm.240: Ann and Peter Mactaggart write:

We were interested to read Peter Forrester's communication 240 in the October issue on varnishes, and thought he and others might like to know that Raymond White of the National Gallery gave a paper at the 5th Triennial Meeting of the ICOM Committee for Conservation at Zagreb in 1978 entitled An Examination of Varnish from Three Eighteenth Century Musical Instruments in which the components of the varnish from a Seraffin violin, a Zanetto viola and a Tononi cello were identified by gas chromatography. According to the last issue of Art and Archaeology Technical Abstracts which gave details of how to obtain copies of ICOM reports, anyone interested should write to: The Librarian, International Centre for Conservation, 15 Via di San Michele, 00153 Roma, Italy, giving the title of the report, its number (78/16/1), and enclosing the copying charge which was (in 1977) 60 Italian lire per page plus postage. The report in this case is five pages long.

Bull.18 p.2: Don Barney, who asked whether anyone ever gets answers to Queries, has asked me to include his thanks to James Kimbel for answering his query about the orpharion. So he at least did get an answer, but I know from previous correspondence that not everybody does. Of course, sometimes there is nobody who knows the answer, but if you can answer a question please do (and referring back to p.2 of this bulletin, surely someone has seen or heard of Philip Lord in the past six months?).

Bull.18 p.7: I have had a very nice letter from Peter Thornton of the Victoria and Albert Museum, welcoming any response he may receive from you. He also sent me a copy of the Early Music Gazette from the January 1980 issue of Early Music, in which he describes the work and history of the V&A collection and describes a number of the problems. I am sure that you have all read this (I trust that you all subscribe to Early Music) since by now OUP's new computer must have sorted out all its mailing problems. He also sent me a list of all the plans at present available from the V&A, and these you will find elsewhere in this issue. Michael Stevens, whom I met while I was in Stockholm before Christmas, told me that he was building a harpsichord from one of the plans and was very enthusiastic about its clarity and helpfulness; unfortunately I can't remember which one, and he hasn't yet sent the write-up about it that I asked him for.

Bull.18 p.9: Chris Isbell says that he has written to Paul Gretton about my idea of taking a cast of a cornett mouthpiece, recommending the use of silicone grease as a mould release agent. He has been able to get small quantities from some hi-fi dealers who use it as a damping
fluid in the cueing device of a record player. It can also be obtained in 100 gram tubes from R.S. Components Ltd for £2.12 plus VAT, but he hasn't given me their address - you may be able to find it by asking an electronics firm, if they can't supply you themselves, or they may be able to order it from them for you.

Comm.251: John Rawson writes:

I think it is a good idea that you have raised the problems of pricing and dealers markups in FOWMK.

I myself sell a lot through dealers and find it very useful to have such reliable and useful customers. I do not judge them their markups - I know they have to live too. You might ask those people who attack dealers mark-ups whether their work is of a standard that the dealers will accept.

One question that you could well ask is: "How many makers actually live on instrument making?" And if they are subsidised and can consequently sell at lower prices, what does this do to people who are not subsidised? How many makers teach part-time? have a wife who works? have a free workshop free perhaps a development corporation? have a grant? have a borrowed vehicle? or even live in a squat?

If the incomes of workshops are low and precarious what does this do to the taking on of students and apprentices in order to pass on knowledge and build a tradition? particularly when there is security in employment?

And what happens to all the new makers who pour out of the colleges each year? What effect do they have on people already making?

And who pays for the grants and the courses? If the money is available what would happen if it was used to buy instruments instead?

We could think hard about this.

The one problem that John hasn't touched on is the question of what price the maker charges to the public - does he charge the same price as the dealer charges, or the price at which he sells to the dealer? I don't think that there is any argument about a dealer's mark-up; obviously the dealer has to make a profit on what he pays. The problem comes when the dealer makes it a condition of the deal that the maker charges the same mark-up on direct sales. Some makers feel that it is immoral on their part to charge so much more than they need, but also don't want to take the obvious alternative option of refusing to sell direct. This is a difficult problem and we would welcome further discussion.

Steven Clark writes in response to the other subject of that Comm that he "wishes that some makers would give us consumers the option of cutting the price we have to pay by producing instruments with optional german silver etc keys and mounts. I have not yet run across an instrument that sounded superior due to the amount of precious materials used". It would be interesting to have comments on this from makers, though I suspect that in the case of a one key flute, which is what interests Steve, the price difference between silver and brass, for instance, for keys and mounts would only be a pound or two, since one pays for time and work rather than for materials. It could make quite a difference on some other instruments, though.

Review herewith: by Chris Isbell:

As an addendum to my review of M. Leguy's book, I have calculated that the gouge diameter \( D \) is related to the cane diameter \( d \) and the maximum cane thickness required \( e \) by the following expression:
I have attempted to verify this expression by two different mathematical means and by a construction. It has however not been checked by anyone else. According to this formula, a tenor crumhorn reed of cane diameter 25mm. and maximum thickness 1.2mm. theoretically requires a 28.5mm. diameter gouge. Since my present attempts at gouging cane have not been very successful I would be interested to know how other reed-makers compensate for the difference between the gouge and cane diameters.

Review herewith of Toon Moonen's drawings.

Toon tells me that all his drawings are available from the Museum (see below under BRUSSELS MUSEUM for more information), including the drawing of the Rottenburg oboe from the Vleeshuis Museum in Antwerp. So write to the museum, not to Toon please. He adds, incidentally, that the drawing of the Rafi flute is extended by the electronic measuring of the bore by Rod Cameron. I mentioned Rod's machine briefly in Bull.13, at the top of p.8; briefly it is an extremely accurate electronic probe which is drawn through the instrument and which prints out its result on chart paper, giving a 10:1 (and other settings are possible) magnification of diameters on a 1:1 length. Rod used it on my Stanesby to give two diameters at 90° to each other, but of course one can do as many as one likes. Rod said that he was intending to manufacture these probes for sale - I don't know whether he has done so, but it could be worth writing to him; if he isn't going to make them himself, I hope that he might write them up for us so that others could make them for themselves, if necessary on a royalty basis, for a machine that will give an absolutely accurate plan in two minutes or less is something that many of us need. Toon warns that you must have a bore from which the air can escape (ie there can be problems with head joints and with one-piece instruments) as otherwise the air will be compressed and this could distort the behaviour of the probe, which is very sensitive. It is sprung so that it will react to the slightest change in the dimensions of the bore and so that it will not dig little grooves into the instrument's bore; as a result it could be affected by changes in the air pressure.

GLUES: Sean Rawnsley says: "Fish glue. Isinglass from any home brew/ make your own wine shop. Used for clearing."

Ann Mactaggart writes:

With regard to Martyn Hodgson's request for a source of sheet glue, a. Ploton and sons, 273 Archway Road, London N6 5AA, have rabbit skin glue either in sheets or powder form. It is expensive, but an extremely good, strong glue and quite pale in colour. A.R. plan glue is very sensitive to damp conditions and nothing like as strong as skin glue.

Luis Pereira writes:

Martin Hodgson asked for animal glue. I know that in this country there are, still, several firms producing such an old fashioned glue (which I use), but I believe that the product they manufacture is based on animal bones, from slaughterhouses and probably not on fish natatory bladders as the tame fish glue. Anyway, I can make some enquiries on his behalf if he wants me to do so.

There are still, thank God, a few countries that haven't gone over to plastics for all purposes and where craftsmen and crafts techniques are still normal instead of exceptional. We have members in several of them, and if you need such materials it could be worth writing on chance. I remember some time ago including an offer from Ricardo Brand to find people...
John Hill writes:

I found Mr. Brown's Comm. #247 on adhesives very interesting and most useful. However, there were some inaccuracies in the article. On p. 18, 4th paragraph, Mr. Brown erroneously commented on the capacity of air to hold moisture. Cool air, of course, cannot hold more water than warm air. The vapor pressure of water varies with temperature and pressure in accordance with the equations of state that can be obtained from a physics textbook. The vapor pressure of water governs the amount of water in air. The mass of water vapor per unit volume is referred to as absolute humidity. But this measurement is less useful to us than the measurement of relative humidity. Relative humidity, which we measure in our workshops, is the percentage ratio of the partial pressure of water vapor (amount of water actually in the air) and the vapor pressure at that particular temperature (the greatest amount of water that can be in a given volume of air, also called saturation level). As an example, air at 50% relative humidity and 50°F (which is 4.47 mm Hg) would become 25% relative humidity when warmed to 68°F as the capacity of air to hold water increases to 17.5 mm Hg pressure. When air is cooled, the relative humidity percentage increases if absolute humidity in the given volume of air doesn't change. If this air is cooled enough, the amount of water vapor exceeds the vapor pressure at that temperature and precipitates (fog, rain, etc.). The most accurate method of measuring relative humidity in your workshop is to measure the temperature of the dew point usually with a bright, polished metal container observing the surface temperature when it becomes clouded with condensation. A much simpler, but less accurate method is the wet-dry bulb method Mr. Brown described.

CONSERVATION GRANTS: I have received three pages of information about the availability of grants and awards from the Crafts Council. I'll send them to Djilda because it sounds as though we have room to include them; if not, she'll paraphrase them briefly. It looks as though any one who is doing work on conservation of instruments might be eligible for help, either in their own work or in the employment of apprentices.

BRUSSELS MUSEUM: Toon Moonen tells me that Mrs. Mia van Vaerenbergh has been kind enough to offer to act as an intermediary and to provide information about drawings etc from the Brussels Conservatory Museum, and she might also be able and willing to take orders for drawings. Her address is Van der Vekenstraat 115, B-1810 Wemmel, Belgium.

QUESTIONS: Kevin Mercer asks: "What do people put down recorders to maintain, form an even (not globular) moisture film?" He was advised to use washing-up liquid, but he's a bit dubious about putting that down the bore, especially the ordinary domestic varieties which have all sorts of additives. The same source recommended almond oil. Can we have some answers please? Copies to me, as well as to Kevin, for this is a perennial problem. He does add, by the way, that with most of his instruments the problem goes away after two or three minutes playing, and perhaps the answer is to warm the instrument up properly, but this may not apply to a bass.

Carl Willetts asks: "What proprietary brand of paint is recommended for painting the casework of keyboard instruments? (I use Dulux Gloss on my doors and Crown emulsion on my ceilings but perish the thought etc....)"
I do not want to become involved in stewing up mixtures of soot and egg white either!" JM adds: Carl is obviously more authentic than I am in this. When I was making some of my 'early' drums, I just went in to Woolworths and bought a tin of paint; I did mix some dirt into the green to get that rather mucky looking green that one often sees on old side drums! Seriously, if there is a decent paint commercially available, a number of our members would probably be glad to know of it. We could do with replies from several countries to this one.

Graham Cooper says that "In Early Music some time back there was an article on multi-piece tops to viols. Has anyone any idea of time to build a viol using this and false mould method? Is it any quicker? Is it any worse?"

Toon Woonen asks about oiling catgut strings. He says that some lute players do it, using almond or citron oil, and that his friend Herman Dewit has done it with a hurdy-gurdy and that the sound was better. The strings are more flexible, perhaps more durable, and the sound is richer with more harmonics. The question is, was this done with viols and other instruments in earlier times? Does anyone know? If it was done originally, then it would help us to get a more historical sound, but if it wasn't then, presumably, we should not do it either.

REQUESTS: Geoff Kime says that a friend is looking for a small, quarter pint glue-pot. This should be cast iron jacket with copper or cast iron inner. He would be grateful if anyone can tell him of a source of supply. And if they are so difficult to find, other members might be grateful, too, so copies to me please.

George Bowden says he badly needs a source of supply of genuine Copal varnish, as what he buys in Mallorca is not what he used to use and he is getting bad results. I suggested he try Thew, Arnott & Co (Flooden Works, London Road, Wallington, Surrey SM6 7DJ) whose list I included in Bull.9 (October 1977). If anyone can suggest anywhere else, drop him a line. There is another suggestion below.

Neil Brook says that he would be interested in an "oil varnishing for beginners" Comm, and I imagine others would be also. Assuming that the process is different from what one would find in any do-it-yourself furniture making book, can anyone oblige?

Andrew Fairfax asks if anyone can tell him where he can buy poplar veneer of standard English thickness, and also about 1mm thick for use in making purfling. He would also like to know where he can get Ahorn maple for bridges.

Sean Rawnsley says that he has had great difficulty cutting the arcades for key fronts, and he asks "How can it be done cleanly and can it be done without a centering point on the bit?" Can anyone write us a mini-Comm on this?

Albert Delva has been looking in books on harpsichord making for several years for an extended and complete article on solid bentside making with one and with two bends, but in vain. What he would like is a Comm with all the necessary information to get a solid bentside that, when it has sprung back, would have the exact curve of the drawing, including such information as how long the wood must be steamed, how much one needs to increase the curve of the jig for 20mm thick sides (Taskin) or 16mm thick (Huizenga, etc). This needs a rather larger Comm than the previous request; could somebody write it?

Steven Clark asks for sources of drawings of one key flutes similar to the V&A Bressan. I have told him that there is a drawing of that instrument available, and have sent him a copy of my Stanesby; can anyone put him onto further sources?
Don Barney says that he and Steve Clark would be interested in information on woodwind tuning and recorder windway construction, such as Bryan Poynton asked for in the last Bulletin (p.9); they tried a three-hole pipe, using dimensions published in a folk music journal, and came out with some very good-looking non-functional replicas. Their maths is better than mine and they would brush up their calculus if necessary! I presume that they have read Alec Loretto’s article in *Early Music* and need more information than there was in that. With requests from three people, it looks as though we could do with a Comm on that, too.

Robert Bramley asks for a source of *racket plans*, preferably pitched in D or G.

George Bowden has a customer looking for a good and faithful reproduction of the 16th century vihuela, with which to play music of that period, preferably six course with the first single, but if this is not typical of the period, perhaps a seven course. Any offers to him.

Neil Buckland has been trying to get hold of some books which are not available in Australia (*Trevor Robinson’s Amateur Wind Instrument Maker* and *Bryan Tolley’s Making Musical Instruments*). I have told him of some sources, but since he may not be the only one, I thought it worth repeating here that Brian Jordan is a member and runs an excellent book shop for both books and music, especially facsimiles (he is also the publisher of the English Consort Series of viol consorts 1600-1650 and also of a good deal of lute music) and, as noted on p.3 of this Bulletin, he does not charge postage to FoMRHI members, so point out that you are a member when ordering. Tony Bingham is also a member, and as well as selling instruments he keeps a good stock of books about instruments, often including books from abroad that are hard to find elsewhere. I also told him of a couple of non-member sources which I’ve found useful over the years: *Blackwell’s Music Shop*, Holywell Street, Oxford, and *Theodore Front*, 155 W San Vicente Blvd, Beverly Hills, Calif 90211. Both usually have good international stocks. Perhaps others can also recommend good sources; if so please let me know.

The last request is rather a depressing one. I was asked (it would be kinder not to say who by) for a source of binders for FoMRHIQ. The answer will be found on p.9 of Bull. 15 of a year ago. I always hope that members read the Bulletin, but we sometimes find that they don’t!


**EXHIBITIONS:** Geoff Kime says that he will be building lutes at the *Craftsmen’s Fair*, Abbeydale Industrial Hamlet, Abbeydale Road South, Sheffield, from 14th to 22nd June, and would be very pleased to meet any FoMRHI members there.

The Guild of American Luthiers 7th Annual Convention/Exhibition will be held July 18th to 20th at the Palace of Fine Arts, San Francisco. There are all sorts of conditions attached to display, and anyone interested should write to the Guild at 8222 South Park Avenue, Tacoma, Washington 98408, tel: (206) 472-5439. You have to be a member, for one thing, but membership is open to all (at $10), including non-residents of the USA. Events will include lectures, seminars and concerts as well as the exhibition.

**COURSES:** Paul Mosby is running another of his Woodwind Holidays, at West Dean College, Chichester, August 25th-29th. For players, rather than makers (though he teaches reed-making). Tutors include Paul (oboe and reeds), Jeremy Barlow (flute, recorder, 18th C ensemble), Philip Pickett (recorder etc), Wilfred Goddard (clarinet), Cecil James (bassoon; one of the last professionals who still plays the French instrument).
Norman Barker (saxophone) and David Norris (piano). If you're interested, write to Paul or ring him up.

Walter Sallagar is running his courses at Schloss Breiteneich again, in three sections: 13th to 27th July, Medieval and Renaissance ensembles, Renaissance dances, making renaissance traversi, cornamuse, curtal, alto shawm, renaissance recorders. 27th July to 10th August, wind chamber music with modern instruments, classical Harmonie-Musik on original instruments, clavichord, making renaissance traversi, cornamuse, curtal, Renaissance and baroque recorders. 10th to 24th August, opera and cantata studies, instrumental classes for baroque violin, traverso, oboe, recorders and orchestra, and harpsichord and continuo course and chamber music groups, and making baroque recorders and oboes. Instructors include David Klausner, Garry Crighton, Alison Mackay (ensembles), Helga Hill (dance), John Hanchet, Graham Lyndon Jones, Barbara Stanley, Alec Loretto, Douglas Steinke (instrument making), Gerhard Stradner (Harmonie-Musik), Bernard Brauchli (Clavichord), Gertraud Gamerith (baroque violin), Nicholas McGegan (bar.traverso), Douglas Steinke (bar.oboe), Robert Woolley (harpsichord). Judging by what Walter has sent me, there are also lectures by the instructors and others, as well as the pleasures of living in the Schloss and touring the countryside. Further information from him.

The Centre de Musique Ancienne (8 rue Charles-Bonnet, CH-1206 Genève, Switzerland) runs a regular series of weekend courses on playing various instruments (cornett, lute, viol, recorder, etc). The list they have sent me runs from February to May, but I seem to remember from last year that there are usually more than this. If you want a playing weekend in Switzerland, drop them a line.

There are far more weekends, weeks and other courses available through BouwersKontakt (in the Members List), for players and makers of all ages, including some camping-playing weeks in the summer. There are far too many to list here, but the makers courses are: Fiddles, 26th June to 12th July (Wim Kok, Gerhard Landwehr, Dieuwke Berkelaar, instructors); Recorders, 5th to 11th July (Alec Loretto); Recorder blocks, 26th-28th September (Guido Klemisch, Wouter van Rijn; Bouwerskontakt Day, 13th September. If you'd like a working holiday in Holland, write to them. You will probably meet a number of fellow members as a number of their members also belong to FoMRHI. I have the list of the courses here, incidentally, if anyone wants to see it.

ENVOI: I should be here through the summer, trying to get some books written, and will be happy to see any of you who pass this way.

Deadline for the next issue will be 2nd July.

PS: A letter arrived yesterday from Luis Pereira about plans. He says that he received a plan of a harpsichord from America which arrived damaged at Kennedy airport, was repaired there by the American post office, and arrived damaged again in Lisbon. Now this plan was more than two metres long and was sent in a cardboard tube. As he says "Moral of the story: it doesn't work to send drawings by post in such a packing." He suggests (see his Comm. in this issue) that half or quarter size plans are more useful. What do others think of this? Incidentally, has anyone thought of using either polythene tubing (available from plumbers and building merchants as water and drain pipes), very heavy cardboard (also available from builders' merchants for casting concrete inside) or aluminium tubing for mailing? It would be stronger than ordinary mailing tubes, though something over two metres is asking for trouble when the packers are shoving it into and out of aeroplanes and mail vans.
PLANS available from ROYAL COLLEGE OF MUSIC, Prince Consort Road, South Kensington, London SW7 2BS.

Technical drawings of the following instruments are now available. These dyeline prints are detailed full-scale plans on stout paper for the benefit of those wishing to carry out organological research or build copies.

The prices shown below do not include packing (in cardboard mailing tubes) and postage. VAT at 15% has to be added for U.K. orders. Please do not send money with your order, but wait until you receive our notification. On receipt of your remittance, we will send you the drawings.

For orders from abroad, please send a cheque or bank draft in sterling, payable by a bank in London. If, however, you wish to pay in your own currency, please add the equivalent of £1 to your remittance to cover the bank costs which will be payable by us. Please do not send a Post Office money order.

<table>
<thead>
<tr>
<th>RCM No.</th>
<th>Instrument</th>
<th>Maker, Location, Date</th>
<th>Price</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>Cittern</td>
<td>Gieronimo Campi, Italy, late 16th century</td>
<td>£4.20p.</td>
<td>Lacks rose and bridge. Overall length 728 mm. Original string length 433 mm. approx. (1 sheet, 850 mm. x 600 mm.) Drawn by Ian Harwood, 1974.</td>
</tr>
<tr>
<td>26</td>
<td>Chitarrone</td>
<td>Magnus Tieffenbrucker, Venice, 1608</td>
<td>£7.70p.</td>
<td>Stringing 6 x 2, 8 x 1. Body length 679.5 mm. String lengths 933 mm. approx. and 1700 mm. approx. (2 sheets, 850 mm. x 600 mm.) Drawn by Ian Harwood, 1974; revised, 1977.</td>
</tr>
<tr>
<td>171</td>
<td>Guitar</td>
<td>Belchior Dias, Lisbon, 1581</td>
<td>£7.70p.</td>
<td>Vaulted back, body length 365 mm., belly not original. (2 sheets, 1120 mm. x 770 mm., with additional notes.) Drawn by Stephen Barber, 1976.</td>
</tr>
<tr>
<td>32</td>
<td>Guitar, attributed to Jean Voboam, Paris, c. 1680</td>
<td>£11.00p.</td>
<td>Length of back 456 mm. Bridge not original. (2 sheets, 1280 mm. x 950 mm. and 950 mm. x 810 mm., with additional notes.) Drawn by Stephen Barber, 1979.</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Division viol</td>
<td>Barak Norman, London, 1692</td>
<td>£9.50p.</td>
<td>Length of belly 634 mm. Present string length 658 mm. (2 sheets, 1370 mm. x 1040 mm.) Drawn by Stephen Barber, 1976.</td>
</tr>
<tr>
<td>1</td>
<td>Clavicytherium</td>
<td>? German, c. 1480</td>
<td>£12.00p.</td>
<td>The working drawing from which the RCM's replica was built, showing less detail than the other drawings. 1 x 8. Present compass E-g²; original compass thought to have been E 'E' F G-g². Overall height 1415 mm. (1 sheet, 2110 mm. x 1030 mm., with additional notes and sketches.) Measured and drawn by Derek Adlam and William.</td>
</tr>
</tbody>
</table>
Debenham, 1976.

NB. A more detailed drawing of the clavicytherium by William Debenham is now in preparation, and should be available by late 1980.

2 Harpsichord by Alessandro Trasuntino, Venice, 1531. £21.50p.

Formerly 1 x 8, 1 x 4, now 2 x 8. Present compass BB/CC-c³; original compass thought to have been C/E-f³. Overall length 2250 mm. Outer case not drawn.

(1 sheet, 3480 mm. x 1030 mm., with additional notes.)


175 Harpsichord, ? Italian, c. 1575. £13.00p.

Originally 1 x 8, now 2 x 8. Original compass C/E-c³; present compass C-d³ without C#. Overall length 1860 mm. Lacks original outer case.

(1 sheet, 2130 mm. x 1030 mm., with additional notes.)

Drawn by Grant O'Brien, 1974.

3 Bentside spinet, English, 1708. £8.50p.

Compass BB/CC-d³, the lowest two sharps being divided to give both the short octave and the sharps. Overall length 1680 mm.

(1 sheet, 1930 mm. x 1030 mm., with additional notes.)


11 Regal, German, 1629. £13.00p.

Compass: C/E-c³. Metal resonators. Overall length 1165 mm.

(1 sheet, 1875 mm. x 1025 mm.) Drawn by Christopher Clarke, 1979.

A series of photographs of each of the above instruments is also obtainable. Details will be sent on request. (There is a large number for some of the keyboard instruments, so it is unlikely that a complete series would be desired.)

Prices: 4" x 6" prints each £1.00p., 6" x 8" prints £1.20p., 8" x 10" prints £1.35p., plus postage, and VAT for U.K. orders.

MEASURED DRAWINGS AVAILABLE FROM THE VICTORIA & ALBERT MUSEUM

1 : Keyboard instruments. Drawings are full-size, printed on paper and, together with explanatory notes and photographs, cost £34.50 for each set. See below for postage charges.

1. "Queen Elizabeth's VIRGINALS". Late 16th century.


5. CLAVICHORD by Barthold Fritz, Brunswick, 1751.


II: Non-Keyboard instruments. Also full-size and on paper and with explanatory notes and photographs. Each set costs £17.25 plus postage.

1. THEORBO by Christofolo Choc, Venice, 1637 (reviewed in FoMRHTQ 18, Comm.259).
2. OBOE by Anciuti, Milan, first half 18th century.
6. IVORY LUTE, anon, Italian, early 17th century.

Orders, with payment, should be addressed to: Mr.N.Bird, Publications Department, Victoria & Albert Museum, South Kensington, London SW7 2RL.

Postage costs: U.K.: First class £1.08; Parcel post 76p.
Europe: Airmail £5.05; Surface £3.50
America & Africa: Airmail £6.15; Surface £3.60
Australia, Japan, Far East: Airmail £6.10; Surface £4.00
(nothing stated for Middle East, North Africa, etc, but European rate would probably do).

CRAFTS COUNCIL: NEW CONSERVATION GRANT SCHEMES

The Conservation Section of the Crafts Council has recently reviewed its policy and three new conservation grant schemes have been introduced replacing the previous ones. These grants will continue to assist and encourage the development and training of skilled conservators in England and Wales (Scotland administers its own funds through the Scottish Development Agency). The Conservation Committee, which considers all grant applications, meets quarterly.

The three new schemes are outlined below:

Major Conservation Projects Grant

Grants are available to help major conservation projects such as the establishment, improvement or extension of activities within a conservation centre or large workshops involved in specialist work. Priority will be given to those projects operating within areas of conservation work which are in particular need of support for training and research. Assistance may be given, for instance, to purchase equipment, employ staff/trainees or to enable conservation courses to become established.

Specialist Conservation Training Awards

This scheme replaces the Conservation Workshop Training grant and the Short-Term In-Workshop Training grant. The scheme is advertised every six months in professional journals and is open to conservators and trainees working within private workshops, museums or institutions. Applications will be judged competitively and awards will be given for
a wide variety of practical training projects, for instance, attending short courses, or working for periods in other conservation units or workshops either in the U.K. or abroad.

**Conservation Conference/Publication Grant**

This grant is available to organisations needing extra funds for lecturers' expenses at conferences, seminars, etc., conference papers or other conservation publications.

FOR FURTHER INFORMATION AND APPLICATION FORMS, PLEASE CONTACT THE CONSERVATION SECTION, CRAFTS COUNCIL, 12 WATERLOO PLACE, LONDON SW1Y 4AU. Telephone: 01 839 6306

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SPECIALIST CONSERVATION TRAINING AWARDS 1980/81

The Crafts Council has a fund of approximately £10,000 for the Specialist Conservation Training Award scheme for the financial year 1980/81. There will be two application dates for these awards: Monday 28 April 1980 and Monday 20 October 1980. Applications are now invited for the April awards from conservators and trainees working within private workshops, museums and institutions.

The awards will be given for a wide variety of practical training projects, for instance, attending short courses, or working for periods in other conservation workshops either in the U.K. or abroad. Projects involving overseas travel will only be supported if the information or expertise is not available in this country. The Crafts Council will require a report at the end of the period for which the grant is awarded and expects, when possible, that the applicant will make available to others the experience gained from the project by lectures, published material, etc.

All applications will be judged competitively and applicants will be interviewed by a Panel representing the Crafts Council’s Conservation Committee. This Panel will be made up of practising conservators and others professionally involved in conservation. It will assess both the standard of the applicant's work and the value of the proposed training project to the applicant's situation and its value to conservation generally.

Where an applicant is employed by an institution or workshop which may benefit from the award made to the conservator or trainee, it is expected that the institution or workshop will make some form of contribution to the project, e.g. by continuing to pay the salary during the conservator’s absence.

All application forms for the first Panel must reach the Crafts Council by Monday 28 April 1980

FOR FURTHER INFORMATION AND APPLICATION FORMS, PLEASE CONTACT THE CONSERVATION SECTION, CRAFTS COUNCIL, 12 WATERLOO PLACE, LONDON SW1Y 4AU. Telephone: 01 839 6306
The Conservation Section of the Crafts Council has now been operating a Conservation Register for some time. It has become increasingly known to the public and those professionally concerned with conservation as a means of obtaining information on skilled conservators and craftsmen in a wide variety of subjects. (These vary from the decorative features in buildings through to furniture, musical instruments, ceramics, glass, sculpture, metalwork, etc.) Enquiries are received by telephone, letter and in person, and the information is held on index cards which can be photostated and sent to the enquirer if required. Although it is non-selective, it provides detailed information on the type of work undertaken by conservation workshops and conservators, and lists details of work carried out recently as a reference for anyone using the Register.

The Crafts Council's Conservation Section is currently updating this information and is mailing all conservation workshops included on the Register asking them to complete a new questionnaire. Also, as part of this operation, the Conservation Section would be very pleased to hear of or from any other workshops or individuals working in any aspect of conservation, who would like to be included on this Register.

As an adjunct to the Conservation Register, the Crafts Council is also to co-ordinate the establishment of regional registers covering the craft skills necessary for the conservation of historic buildings. This will ensure that the more general, but essential, conservation building skills are held on regional registers, while the Crafts Council continues to provide information on the more specialist conservation workshops, which are generally fewer in number and whose skills are not always available locally.

As a result of these activities, the Crafts Council expects that the Conservation Register will expand considerably during the next year. The Crafts Council will be publicising the existence of the Conservation Register more extensively than in the past, in the hope that this will assist people to locate and use those best qualified and trained to undertake skilled conservation work.

Anyone interested in obtaining a Conservation Register form should ring or write to the Conservation Section of the Crafts Council, 12 Waterloo Place, London SW1Y 4AU. Telephone: 01 839 6306

Bulletin Supplement on back page.
BouwersKontakt: Bouwbrief no.XVI has arrived. It includes a long (nine pages) and detailed article, with plenty of line drawings, on the construction, design and adjustment of the trompette bridge of the hurdy-gurdy, by Leopold Sappel and Peter v.Rijen. It looks as though it could be very useful to anyone who is building such instruments and who has any trouble with the bridge. Also a three page article by Toon Moonen on variations in the recorder bores and the effect of small variations at different points. A one page note on guitar restoration by Wim Klein-Breteler and, on the same page, a very short note by Henk van Dijk on filling the pores (I think) of wood. Toon Moonen also contributes a detailed and very well illustrated article on viol construction, which includes not just information on how to make the viol, but also on how to make a number of the tools that are needed.

With this issue there was a catalogue of all the courses run by the Vereniging voor Huismuziek. See this Bulletin under COURSES for a note on some of these. It seems worth pointing out that a number of members of Bouwerskontakt have joined FoMRHI and that any FoMRHI members who are capable of reading Dutch would probably find it worth while joining them. Their address is in the List of Members herewith. If any of you do so, it might help all of us if someone took over the job of reporting what is in each of their issues; I don’t read Dutch to any great effect, and sometimes essential words are not in the small dictionary which is all I have. I’ve sent this issue on to Djilda as usual, and if you want a xerox of any of it, let her know (with payment at usual xerox per page prices plus postage).

Galpin Society: GSJ XXXIII has also arrived. I have in the past assumed that anybody sufficiently interested in musical instruments to belong to FoMRHI must surely be a member of the Galpin Society, but some letters that I get suggest that this is not so. All that I can say is that if you do not belong to the Galpin Society, you should do; all the most important research material on instruments appears there. You may get a good deal of technical information in FoMRHTQ, but without the basic information which is in GSJ, it won’t get you very far. This issue includes several important articles, among them Martin Edmunds on 16th century Venetian viols, John Koster on early English harpsichords, Chris Page on a 14th century treatise on instruments and their tunings, Bernard Brauchli on clavichords in the Lisbon collection, and Mary Kirkpatrick on the restoration of a Bradbury oboe. The Hon.Secretary of the Galpin Society is Margaret Cranmer and her address is in the List of Members herewith.

American Musical Instrument Society: AMISJ IV (1978!) has at last appeared. As usual it is more historically inclined than technologically. There are only four articles in this issue and of those only one by Sheridan Germann on regional schools of harpsichord decoration, and one by William Dowd on a classification system for Ruckers and Couchet harpsichords are likely to be of immediate relevance to our members. Their secretary, Margaret Downie, will also be found in our List of Members.
From Martin Jones

In FOMRHI, January 1980, information on the Brussels Conservatoire Catalogue was requested: here it is. The catalogue has been reprinted without more recent commentary. Its full title is:-

Catalogue Descriptif et Analytique
Musée Instrumental
Conservatoire Royal de Musique de Bruxelles
par Victor-Charles Mahillon

It is in five volumes, each containing a brief description in French of each of the 3,300 instruments in the collection established by Mahillon. The classification is according to Mahillon’s scheme of strings, wind etc and merely groups instruments together roughly by period and geography. It is necessary to use all five volumes to cover all instrumental types of one period. The new reprint does not add to Mahillon’s work which terminated early this century and more recent additions (which bring the total to 4,600 instruments) are not included. With so many items, descriptions are very brief.

I translate a typical entry:-

"1439. Viola da Spalla (German: Tenor-Geige, French: alto) from the former collection of Count Pietro Correr of Venice. Label: Isepo Merfeotto di Rovigo (?). Egg-white varnish. Ordinary construction, but the instrument is interesting because of the perfect preservation of original details (mid 17th century). Same tuning as the modern viola. Total length 0m700, max. width 0m245."

1439 is the accession number of the instrument.

The problem is the price: 6,800 Belgian Francs + 200 for post and packing (= about £105). So if you want to know what is in it for your particular interest, send me a brief search request (e.g. "bassoons up to 1830" and I’ll let you know what they have in the catalogue. Then spend the money on a visit. If you really want the set, order from:-

ASBL "Les Amis du Musée Instrumental"
17, Place du Petit Sablon
B 1000 Bruxelles

and ask your bank to credit them with 7,000 FB at their Post Office Account CCP 000-0070846-36.
Jeremy Montagu adds:

I hope that Martin won't mind me adding the following note. Some members, if they only know the various exhibition catalogues and Bragard & de Hen's book (see below), may not be aware that Mahillon was the first since Bonanni to treat all instruments as equal, and therefore may not realize that the non-European instruments in the Brussels Collection are given as much space, and regarded as equally important as the European instruments. The result is that this is the most important of all the museum catalogues for the general organologist, but of course it also means that, for the specialist in old European art-music instruments, there is a good deal of material that is of no interest, and this is a consideration when one is thinking of spending over £100. The catalogue also includes some very important articles on classification of instruments and, if I remember rightly (I have only an incomplete set), on acoustics. Some of the volumes are illustrated, but the photographs are small and rather muddy in the original, and it is unlikely that they will have improved in the reprint. One particularly good point, by the way, is that whenever Mahillon is discussing the range or the tuning of an instrument, he always gives the notes in staff notation, thus avoiding all the worries about which 'conventional' system of letter notation he might be using. Martin has sent a xerox of the passage that he translated, and if there is room, we will include it so that you see what I mean.

Returning to the subject of illustrations of this Collection, they have a large range of postcards, which are excellent, and I have the following exhibition catalogues and books, which also include excellent photographs:

René de Maeyer, Instruments de Musique 16e et 17e siècles; Exposition à Paris, 1969
Nicolas Meëus, Images de l'Univers - Catalogue of Unesco Exhibition, 1974 (includes non-European as well as European)
Nicolas Meëus, Château de Belœil, 1972 (catalogue of a small exhibition of some of the instruments)
Roger Bragard & F.J.de Hen, Les Instruments de Musique dans l'art et l'histoire, Visscher, 1967 (a big picture book with many beautiful photographs drawn from the collection. Bragard was curator and de Hen an assistant at that time. There is also an English version, but treat the text with great caution; it was translated by a professional translator who was not a musicologist).

The London Royal Military Exhibition (Catalogue C.R.Day, 1891) included a number of instruments from Brussels, and all the photographs in Kappay's Military Music (Boosey & Co, nd but much the same period) are also of Brussels instruments. So too are many of the exhibits in the Gulbenkian Exposição Internacional de Instrumentos Antigos in Lisbon in 1961.

One other point; Martin didn't say why instruments are scattered through all five volumes. The Collection grew over the years, and the various volumes appeared also over the years. The first was published in 1880 and the last in 1922.
John Downing

The following briefly describes a method of building lute bodies arrived at by trial and error over the last six years. It requires the absolute minimum of special jigs and moulds and gives complete freedom to produce any shape of body required.

I am convinced, having examined the limited contemporary information on lute construction and the methods used by lute makers today in the East, that this was the way lute bodies were made during the Renaissance.

THE MOULD

This type of mould was in use during the 15th Century and is still used today in the East.

Mark out the required belly profile onto a flat piece of 18mm thick plywood or blockboard and cut out to form the mould base. Mark out centreline and bulkhead positions on the base. Note that spacing of bulkheads should be closer where curvature is greatest.

Using compasses, scribe semicircular bulkheads onto 12mm plywood, measuring the radius of each bulkhead directly from the mould base. Divide each bulkhead into equal portions according to the number of ribs required (see sketch 3). Mark out any flattening required on each bulkhead, file to the correct profile and glue into position on the mould base (see sketch 1 and 2). The front bulkhead should be cut from 25mm softwood, carved/filed to the correct profile, and glued into position. Wax polish the mould on completion to facilitate release of the body after construction.

Carve the neck block from spruce or pine and screw into position on the baseboard with two screws inserted through the underside of the base.

THE RIBS

The required number of rib blanks are cut, on the quarter, from a single block. Plane each blank to the required thickness (about 2mm), lay out edge to edge in sequence and reference mark and number each rib (see sketch 4). This will ensure correct alignment of the rib figuring as construction proceeds.

Select the first rib of the set and bend with a hot iron at a temperature almost sufficient to scorch the wood. Slight dampening of the wood with a wet cloth helps the bending process. The blank should fit the mould curvature without forcing into position. Bend all the ribs and leave to one side for at least 24 hours until required.

Select the central rib of the set and mark the bulkhead positions and rib width at each position - measurement being taken from the mould. Roughly mark out the rib profile and cut to shape with a knife or chisel (see sketches 5 and 8).

If using brittle wood, e.g., flamed sycamore, particular care must be taken when roughly cutting out the rib profile to avoid splitting the wood.
Check the rib curvature against the mould and bend to fit if necessary. Using an inverted jointer plane (see sketch 6), slide the rough shaped rib over the plane sole to form the correct joint profile. Check joint surface by placing the rib on a plane surface (see sketch 7). When satisfied that the rib joint surface is flat and sits on the mould correctly, glue (with hot animal glue) the rib to the neck block and hold in position with self-adhesive tape and fine nailing pins (see sketch 9). Pins may be driven through the rib at the extreme end of the neck block (which will eventually be cut away) and at the opposite end of the mould that will be covered by the capping strip. Note that each pin should be passed through a thin piece of wood or card before driving into a rib to facilitate removal later.

Take the next rib in sequence and bend to fit the mould if required. Roughly shape the edge adjacent to the centre rib with a chisel (see sketch 5) and plane to the correct profile as before. Ensure that the rib fits the mould closely without forcing and that the joint is close fitting. Mark the bulkhead positions on the rib and mark the rib widths measured from the mould. Rough shape the other edge of the rib (see sketch 8) and plane as before.

Using animal glue, glue the rib to the neck block and centre rib. Hold the rib in position with strips of adhesive tape and pins at the extreme ends. Originally, strips of glued paper scorched into place with a hot iron were used. Whatever method is used, the tape or paper must remain in position until the lute body is completed.

Repeat the operations above on the remaining ribs alternating about the centre rib and allowing each joint to dry before moving to the next rib. Be careful to maintain correct rib curvature at the front end of the mould during construction otherwise difficulty will be encountered in achieving the correct belly profile.

At this stage it is helpful to lightly mark the edge of the body, using a marking gauge run around the mould base, as a reference for levelling this edge before fitting the belly.

Remove the pins at the bottom end of the mould, the screws retaining the neck block and carefully release the body from the mould. Bend and shape the capping strip and matching internal reinforcing strip. Clean up, glue and clamp these components into position.

Finally, reinforce each rib joint by gluing paper or thin linen strips over each joint inside the body. This operation must be undertaken with the tape/paper used to hold the ribs together during construction still in position otherwise the rib joints may open up due to the hot glue softening the rib joint glue. When all glue is dry the body may be cleaned up with a cabinet scraper. Great care must be exercised when removing self-adhesive tape to avoid tearing out the grain of the wood. Strips of tape should be "rolled" off using the ball of a thumb.

References

2. Thos Mace — Musick's Monument 1676.
3. Folk Instruments of Turkey — Laurence JickenOU 1975
4. Method also used by coopers in jointing barrel staves.
bulkheads fixed to baseboard.

neck block screwed to baseboard.

1. cut away
   rib support critical here

2. file to correct profile
   elevation of mould.

3. marking out bulkhead.

4. reference marks on rib blanks

5. cut away
inverted jointer plane
held in vice

movement of rib
over plane sole

mark rib width measured
at bulkhead positions

cut away

method of fixing
ribs during gluing
John Barnes has discussed the problems of restoration clearly and cogently in Early Music April 1979. From what he says it is clear that there are, in a nutshell, five courses of action:

1. Throwing the instrument away and keeping no record.
2. Replacing major parts of the instrument (jacks, soundboard), and keeping no record.
3. Removing minor parts (fabrics, finishes, quills) of an instrument, replacing them, and keeping or not keeping a record.
4. Removing major loose parts (jacks, keyboards) replacing with a replica and keeping the old parts.
5. Making a replica instrument and keeping the old one untouched.

Item (1) involves a total loss of information, and total irreversibility. Item (5) gives total retention of information, and total reversibility. The others are in between.

Collectors and restorers are moving along the line somewhere between (1) and (5) and each one will argue for his position. Logic leads to position (5) and the replacement of the restorer by the replica-maker.

But where does this leave people who want to know what the original instruments sounded like?

FoMRHI Comm. 268.

IS RESTORATION DOOMED? John Rawson

FoMRHI Comm. 269.

VIOL DIMENSIONS. Peter Tourin

Editor's note.

After Eph came out with Comms. 158 and 187, using his data put into graphs, Peter Tourin talked nicely to his computer and got it to print the following graphs. He typed in some more information and sent the lot to us, indicating that he will write a Comm, on them which would follow. He has since written saying that he is too busy to do it, and suggested that we print the graphs, with or without Eph's further comments. Eph says he'll refrain this time, giving others a chance to get into the act first.
ITALIAN VIOLS PRE-1600 -- BODY LENGTH VS. STRING LENGTH

V. Linarol 1585 Δ
A. Ciciliano X
Bertolotti 1570 +

A. Ciciliano X
△ V. Linarol 1604
G. B. Ciciliano

F. Linarol
A. Ciciliano + Bertolotti

Ebert

Maria ★

BODY LENGTH

PETER TURPIN
1614 MAR 20, '79
ITALIAN VIOLS PRE-1600 -- GRAPH OF BODY LENGTH VS. WIDTH
ITALIAN VIOLS 1600-1700 -- BODY LENGTH VS. STRING LENGTH

- Amati 1611
- Maggini
- Rechardini
- Gofriller
- Zenatto
- Others

Chart showing the relationship between body length and string length for various Italian viol makers from 1600 to 1700.
GERMAN VIOLS PRE-1660 -- GRAPH OF BODY LENGTH VS. WIDTH

- Vogel 1563
- Pergette 1599
- Epp-Hiltz 1639
- Bossart 1623
- Hiltz 1636
- Harkendorf 1652
- Hiltz 1656
- Würffel
- Busch 1638
- Busch 1641
- Busch 1644
- Busch 1638
- Busch 1641
- Busch 1644

BODY LENGTH

MAX. BODY WIDTH

20.00 30.00 40.00 50.00 60.00 70.00

20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00

PETER TOURIN
16:55 MAR 20, '78
GERMAN VIOLS POST-1660 -- BODY LENGTH VS. STRING LENGTH

---

+ Tielke
K Karp
★ Others

PETER TOURIN
17·25 MAR 20, '78
GERMAN VIOLS POST-1660 -- GRAPH OF BODY LENGTH VS. WIDTH

- Tielke
- Karp
- Others

BODY LENGTH

MAX. BODY WIDTH

PETER TOURIN
17+08 MAR 20, '79
FRENCH VIOLS -- BODY LENGTH VS. STRING LENGTH

Body Length vs. String Length plot showing various markers for artists such as Guersan, Bertrand, Pieray, Barbey, Collichon, and Others.
FRENCH VIOLS -- GRAPH OF BODY LENGTH VS. WIDTH

BODY LENGTH

MAX. BODY WIDTH

10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00

Perou

+ Guersan
Bertrand
+ Perou
- Barbey
O Collichon
★ Others

PETER TOURIN
MAR 20, '79
ENGLISH VIOLS -- BODY LENGTH VS. STRING LENGTH
ENGLISH VIOLS -- GRAPH OF BODY LENGTH VS. WIDTH
ENGLISH VIOLS PRE-1678 -- GRAPH OF BODY LENGTH VS. WIDTH

Addison? 1631
Jaye 1611
Blunt 1605
Ross 1598

Jaye 1629
Smith 1629
Miller 1669
Jaye 1624

+ Jaye
X Ross
★ Others

BODY LENGTH

MAX. BODY WIDTH

50.00 60.00 70.00 80.00 90.00

20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00

Peter Tourin
36440 Mar 21, '79
ENGLISH VIOLS POST-1670 -- GRAPH OF BODY LENGTH VS. WIDTH
ENGLISH VIOLS POST-1670 -- BODY LENGTH VS. STRING LENGTH

- F. Baker 1696
- Lewis 1687
- Norman 1713, 1718
- Meares 1683
- Betts 1694
- Norman 1692, 1697
- Norman 1696, 1698
- Norman 1700
- J. Baker 1689
- Duke 1786
- Norman 1690
- Meares
- Others
There are two Hurdy-Gurdies in the National Museum, Dublin, one made by a French maker, Thouvenen Henry, Mirecourt, and the other made by an Irish maker, J. Quig, of Coleraine. The French instrument is typical of 18th century guitar shaped instruments but the Irish Hurdy-Gurdy has many features which differ from the norm. The outline is similar to a baroque guitar. The pegbox is shaped in a viola scroll with four ebony pegs. The rib depth at the neck is 70 mm. and 86 mm. at the tailpiece. The keybox is only 65 mm. high which limits the wheel diameter to 105 mm. The soundboard and back overhang the ribs as in the violin family and are each 3 mm. thick.

One strange feature is the placing of the keys, with naturals on the top row and accidentals on the bottom. The chanterelles string length is 380 mm. and because it is longer than the average instrument, six extra keys are quite comfortably placed on the keybox giving approximately two and a half octaves. There are two rows of tangents for the two chanterelles with a matchstick-like tangent in the middle as if it were to operate a third chanterelle, but there is no slot in the bridge that appears to be original, and no room on the pegbox for another peg. (There are four pegs in all). However, there is a peg in the tailpiece (which usually operates the trompette tension) but no trompette bridge. The bridge which takes the place of the trompette is identical to the other drone bridge. One can only guess as to what the original method of stringing might have been. The tailpiece itself is ebony and viola shaped.

On the soundboard there are two circular soundholes made up of a central heart, surrounded by four large teardrops with four small teardrops in between them. All the holes are surrounded by a purfling circle. There are nine separate holes, 6 mm. and 9 mm. (one oval) on each side of the soundboard at the keybox end and, unlike the two round soundholes, are rather crudely cut and do not line up on plan, which would suggest that they may not be original. The holes have been cut half-way into the soundboard and a smaller hole then cut through leaving a small ledge. The soundboard purfling is 3 mm in from the outer edge.

The wheel cover is not original and has been glued to the instrument, possibly by the museum. The knob is missing but an ivory washer remains. The keybox cover which is inlaid with a boxwood line does not appear to be original and has no visible means of being secured to the pegbox. No bars were visible and there were no wooden pins on the soundboard to indicate a rough position.

The date of manufacture was not indicated on the instrument and the museum records were not very reliable. I should be interested to hear if anyone knows of another instrument by this maker or any similar instrument.
AN EARLY GEMSHORN

Michael Muskett

Commercially made gemshorns have been available for a number of years now, bringing a new sound to delight the ears. However, all the makers seem to have taken the Virdung drawing (1511) as their model which shows the block of the whistle cut off at a right angle with no cut-away for the chin, making the instrument singularly uncomfortable to hold.

By the courtesy of Dr. D. Krickeberg I have been able to examine a gemshorn of considerable antiquity (16th. century?) at the Music Instrument Museum in Berlin. This instrument is much better balanced than the modern ones, and has a wooden block cut away at a sharp angle. There are six finger holes and a thumb hole. The horn is strongly ridged and must be from a sheep or goat.

"STILL SHAWMS"

Neil Buckland

There is an illustration from the Cantigas en loor de Santa Maria (c. 1270) which seems to me to have an important place in woodwind history and whose significance has previously, as far as I know, been overlooked. This is the picture of two shawm players which Jeremy Montagu reproduces in The World of Medieval and Renaissance Musical Instruments. These shawms are very unusual instruments, both in shape and in playing technique.

Firstly, their technique: most of the instruments in the Cantigas illustrations are of an oriental (more precisely, Moorish) appearance and these shawms each have the disc on the staple which is characteristic of most oriental shawms—the player normally places his lips against the disc, taking the reed wholly inside his mouth. In this case, however, the players are clearly holding their lips a considerable distance away from the disc (approximately 30-45mm, taking the distance from mouth to centre of eyes as 63mm.). Also (although this is not quite clear in the small black and white reproduction), there appears to be a discontinuity in each staple just before it enters the player's mouth—presumably the beginning of the reed. This implies that the reeds are being held between the players' lips, rather than inside their mouths. The distance between their lips and the discs supports this implication—in fact, if the instruments have discs, what other reason could the players have for not placing their lips against them than a desire to lip the reeds? (If one assumes that, for some reason not apparent, these instruments have exceptionally long staples projecting beyond the discs and the players' lips are on the staples, it seems to me one assumes that the players are engaged in a peculiar and rather dangerous practice: one small bump to the instrument would cause the player’s lips to slip along the staple and send the reed halfway down his throat.)

Although one can make a loud, raucous sound with one's lips on the reed (depending on one's embouchure), if the instrument has a disc, suggesting the potential of loud playing with the reed wholly inside the mouth, then the only conceivable reason for lipping the reed would be to achieve the softness and sweetness of tone only possible with lip control. (The use of a temporary slight embouchure for pitch control on some notes, as suggested by Carl Willetts, is hardly practicable when the reed is an inch or more from the disc.)

So it would seem that these shawms are being played with a technique resembling that of the oboe. This conclusion is, perhaps, supported by the players' faces: admittedly their expressions are not unequivocal, but they do not seem to have the fully distended cheeks commonly seen in illustrations of shawmists. This applies especially to the player on
the left—his expression, in fact, seems to me distinctly suggestive of an oboist's grimace. (The common inflated cheeks are probably indicative of the use of the continuous blowing technique. This can apparently be used with an oboist's embouchure; but it would seem to me to be less appropriate and convenient in soft, expressive playing than in ceremonial, dance or outdoors music, and so its absence suggests to me soft playing.)

The other obviously unusual feature of these shawms is their shape. Not only do they have exceptionally elaborate profiles for medieval wind instruments, but also they have distinctly bulbous bells, rather than the usual flared shape. This strongly suggests that the instruments were intended to have a relatively soft, intimate, "enclosed" type of sound—like the much later oboe d'amore, cor anglais and clarinetto d'amour, which all have bulbous bells—rather than the louder, more projected sound suggested by a flared bell.

Opinions on the actual effect of bulbous bells differ. Sachs states that they were intended to soften an instrument's timbre and Rainer Weber says that such bells play an important part. But Baines, on the other hand, do not seem to think that they have much effect. Baines does mention that the point of a "d'amore" instrument was its deeper tone quality rather than deeper pitch and the appellation obviously suggests that people of the time considered these instruments to have, in some sense of the word, a "lovelier" sound. And even if the acoustic effect of a bulbous bell is small or subtle, the symbolic effect of the design (an aspect of instrumental form whose importance is sometimes overlooked) is strong and distinct: the suggestion of reticence and "roundness" of the sound, and of its enclosure. Nor can one assume that a small or subtle acoustic effect was unimportant to the ears of medieval listeners, who may well have given more attention to such fine points than we usually do. (There must certainly have been less sense-dulling ambient noise in their environment!) Sachs assumes that slim "oboes" with "pear-shaped" bells, which he says appear in 12th and 13th century art-works of the Mediterranean border, are soft "oboes". Once again, it is hard to imagine why this feature would be present if not for this purpose.

Although none of these points alone may be conclusive, all of them taken together—the positions of the lips, reeds and discs, the appearance of the face(s) and the shape of the instruments—seem to me to be very strong evidence that the Cantigas illustration depicts two players of soft shawms. There is another Cantigas picture which I feel makes this conclusion almost certain: it shows another shawm, also with a bulbous bell, playing together with soft instruments (fiddle and psalters). This would hardly be a workable combination with anything like
a modern Arab shawm, and considering the general care obviously taken by the Cantigas artist(s) and the Arabs' strict distinction between loud and soft music, it hardly seems likely that the two would have been carelessly mixed.

In David Munrow's *Instruments of the Middle Ages and Renaissance* there is a photograph of an instrument quite similar to the pair first discussed: the dulzaina. Although this is a "folk" instrument, a loud, outdoors one and about 700 years more recent, there are some interesting points of comparison. Firstly, the more recent instrument, a loud shawm, bears a strong physical resemblance to what, as I have pointed out, appears to be a mediaeval soft shawm: the two instruments are approximately the same size, both have very wide staples and the only really significant difference between the shapes of their bodies is in just that feature which reflects the fact that the present-day dulzaina is a loud instrument: it has a flared bell where the presumably soft instrument has a bulbous one. Secondly, a pirouette is not used on either instrument. Thirdly, both come from the same geographical area. Fourthly, the dulzaina is reputed to be of Moorish descent and most of the Cantigas instruments are obviously Moorish in origin (and it is known that King Alfonso X, for whom the Cantigas were collected, kept Moorish musicians). And fifthly, the same name is used for this present-day traditional shawm with a history going back to the renaissance as was used in the middle ages for what is thought by some to have been a kind of shawm: the unidentified soft reed instrument called doucaine/douchaine/doucelaine/dulcine/dulçaina (etc. Variations from language to language and the relatively free attitude to spelling at that time account for the range of forms of the name). Most of what we know about the nature of the doucaine comes from Tinctoris' ambiguous description (c.1487) of the "dulcina" (the Latin form of the name). The dulcina, Tinctoris said, was a "tibia" (translated by Baines as "shawm" and by Munrow as "reed instrument") which, since not every kind of piece could be played on it, was considered to be "im imperfect". This "imperfection" is assumed by both Baines and Munrow to mean that it had a limited compass and therefore a cylindrical bore — i.e., it was not a shawm after all. However, there is nothing to specifically suggest this interpretation. The instrument had, in fact, the same configuration of finger-holes as the recorder and was widely used, often in company with instruments with a wide compass — these facts at least suggest that it may have been capable of being overblown to achieve a reasonably wide range. Also, there do not seem to be any contemporary representations of suitable cylindrical-bore reed instru-
ments, whereas there are quite a few of shawms with unusual features and/or in unexplained combination with known soft instruments. And an English record of 1509 which refers to “styll shalms” (“styll”=“quiet”) provides specific evidence that shawms intended for soft playing existed then. (It is quite conceivable that this was an English term for the same instrument for which the Continentals used the various forms of “doucaine”.)

Tinctoris contrasts the “dulcina” with the “celimela” (= “shawm”) and his statements seem most naturally to suggest that the doucaine was a kind of shawm. If so, could it not have been considered “imperfect” because of some other factor than range, such as, e.g., difficulty in obtaining certain accidentals, limiting its use to music in only a few keys?

There is, I believe, a much more likely alternative. Tinctoris said that the celimela (shawm), as opposed to the dulcina, was considered to be a “perfect” instrument, because it could play every “cantus”. Perhaps the situation (at least c.1487, but most likely for a very long period) was that, depending on the player’s technique and perhaps the reed, an ordinary shawm could play both loudly and softly, whereas the doucaine was a variety of shawm specifically intended to sound soft and sweet, and was therefore limited to suitable music and “imperfect” because it could not also play louder, outdoor or more extroverted music. (An analogous situation existed then, or soon afterwards, with the cornett: the ordinary one could play both loudly and softly and the mute cornett only softly.)

The shawm may have been fundamentally a loud, outdoor instrument, but there is nothing in its design which restricts it to this function. The evidence for its use as a soft instrument is, in fact, quite extensive – e.g., (i) the painting Mary, Queen of Heaven, by the Master of the St Lucy Legend, Bruges (c.1485), in which three shawms are playing in duets with, respectively, a harp, a fiddle and a lute, and are being held pointing downwards like oboes (There also appear to be three more such shawms in a background ensemble with lute, dulcimer and harp),

(ii) the 1568 Munich account of an ensemble of shawm, mute cornett, “dolzaina” and “cornamuse”

(iii) the 16th century Leckingfield proverb XVIII (“A shawme makithe a swete sound...”)26, which suggests that both loud and soft shawm playing were familiar to the writer,

(iv), quite specifically, Praetorius’ (1619) indication that a soft shawm (“stilfen Pombard”) could be used to accompany flutes, and (v) (contemporary with Praetorius) the ivory carving by Angermair from the coin cabinet of Elisabeth of Lorraine, which shows a shawm held at a sharp downwards angle, with a clearly lipped reed, in consort with a flute and a crumhorn. (The allegorical nature of some of the foreground does not detract from the realism and detail of
this background trio and the consistency of this apparent representation of a "stillen Pom bard" suggests that one should not dismiss it on such grounds. Similar comments apply to (1) above.) The evidence for the use of shawms in polyphonic music is also, one would think, more credible if they were not exclusively loud. And shawms were commonly associated with sackbuts, which could play both loudly and softly. Finally, there is evidence from surviving folk instruments, the Catalan shawms called "tiple" and "tenora" which (according to Munrow) have a continuous playing tradition since the 16th century. (They also retain renaissance shawm features and names - "treble" and "tenor" in Spanish.) These are, like the early shawms, basically loud, outdoors instruments, but they play the full dynamic range from p to ff. They are played with the lips both on the reed and against a pirouette - and not by ex-oboeists or bassoonists.

The question of what playing technique was used for medieval and renaissance shawms is crucial here; however it is still controversial; Baines says Europeans have always lipped the reed, Munrow that the reed was controlled by the lips in the late middle ages and renaissance only, Bate argues persuasively for lip-control in the renaissance, Montagu says it was not used in the time of the Crusades nor, he apparently implies, later, and the Diagram Group indicate for renaissance shawms a reed fully enclosed in the mouth. The latter technique was certainly known in the West from the time that oriental shawms were introduced, but if the technique of the tiple and tenora does, in fact, have a continuous tradition since the 16th century then lip-control must have been in use by them (at least in Spain). The fact that renaissance shawms had no thumb-hole and the relative positions of reeds and pirouettes in some illustrations certainly suggest this. And the existence, from around 1577, of the bassanello, whose reed must necessarily have been lipped, indicates that the technique was at least known in other parts of Europe. Memlinc's musician angels (c.1480) include a shawmist who is apparently lipping his reed, and the Angermair ivory carving mentioned above shows that this technique was used on shawms at least 30 or 40 years before the development of the oboe.

Baines follows his statements on lip-control with a suggestion which at first sight appears to further cloud the issue: that there were two "strains" of shawms, the "band shawms", Arabic in origin (but, he assumes, with lipped reeds and pirouettes in Europe), and the "folk shawms", surviving examples of which are the Italian ciaramella and Breton bombarde, and which originated as detached bagpipe chanters (having neither pirouette nor disc), were and are played with the lips on the reed and could have been used in Europe for as long as, or perhaps even longer than, the other variety.

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It seems to me that all these apparently conflicting theories, including Baines' concept of two strains of shawms and also Sachs' assumption that there were distinct types of loud and soft shawms, can be reconciled. Lipping the reed seems to me a much more natural (i.e., unconstrained) technique than engulfing it and I feel that it is unlikely that such a simple and obvious possibility was not, in fact, discovered very early on, even earlier than the time of its apparent depiction in the Cantigas — especially given the ready availability of detached bagpipe chanters (which lack a disc or pirouette) and the example of rustic instruments such as "squeakers". It may even be a question of rediscovery rather than discovery, since it appears that the reeds of the ancient Greek aulos and the later monaulos were lipped. If lipping was used in the 13th century or earlier, then surely the two different techniques could have existed simultaneously, even sometimes have been used by the same player, throughout the middle ages and renaissance. (Their relative popularity could, of course, have changed over a period of time and/or from one region to another.) Certainly earlier musicians were nowhere near as rigid or convention-bound in their approach to instrumental technique (and construction) as we are. (And consider, even in this age of standardization, the differences between the ways in which "classical" and jazz or pop musicians play, e.g., the trumpet, flute, double bass or piano, or the way an Indian folk musician uses a Western violin.) As well as reconciling the various theories, the simultaneous existence of the two techniques makes complete sense of Tinctoris' statements: the shawm could thus have been played purely as a loud, outdoor instrument, with the reed wholly inside the mouth, and, with the technique used on the tiple and tenore, the lips controlling the reed, as both a loud and soft instrument (lip-control being essential for this). This would have given it the versatility which made it a "perfect" instrument; what else, in fact, could Tinctoris have meant when he said it could play any kind of composition?

The doucaines, then, could have been shawms designed expressly for soft playing, as the "styll shalmen" would seem to have been, and/or normal shawms played consistently softly, with a distinctive technique and perhaps reed (most often, I would suggest, without a pirouette, the pirouette being, as Munrow says, an aid to controlled playing but, I believe from experiment, something of a hindrance to expressive playing). Doucaines seem to have existed over a period of more than 300 years, considering Albrecht von Halberstadt's reference (c.1200), mentioned by Sachs, to a "sweet" shawm. It is unlikely that there were no changes in the instruments, or their nomenclature, over this period; at particular times and places they could have been either especially designed soft shawms or adapted normal shawms. But I feel it
is most likely, for reasons I will go into later, that the name referred to both simultaneously (probably with regional variations) for much of this period.

No early writers appear to refer to the existence of such a variety of shawms and techniques but then, one presumes, none would have been in a position to observe them all. The evidence from literary and iconographical sources, some of which has already been listed, indicates considerable variety in both form and technique. Indeed, considering the freer attitude to technique taken by musicians generally at that time (strings plucked by fingers or plectra, winds played right or left-handed, fiddles held in various positions, etc.), can we justify assuming the uniformity which is so often taken for granted?

In any case, by 1577 there definitely existed a distinct family of especially-designed soft shawms, the bassanelli. The two smallest of these, in fact, bear some resemblance to the Cantigas shawms, especially in that they also have a remarkably elaborate profile for their time. They too were played with a lipped reed, without pirouette, set on the end of a long staple — here bent into a crook. Considering the evidence for earlier soft shawms, it would seem reasonable to suggest that the bassanello was not so much a new invention as either a continuation or revival, with a new name, of a principle which previously went under the name "doucaine".

There is one more argument against identifying the doucaine as a shawm. This arises from Zacconi's (1592) reference to the "dolsaina", an instrument which, from his description of its range, seems likely to have been something similar, if not identical, to a cornamuse — i.e., an instrument with cylindrical bore and (?)capped reed. Zacconi describes only its range, however, and no illustrations of it survive. But even if it was similar to a cornamuse, this does not negate the argument that earlier instruments with similar names were soft shawms, because the soft shawm principle had by this time been realised under a new name — bassanello. Considering the radical changes in the musical climate in the 100 years since Tinctoris, the profusion of late renaissance reed instruments, and their not-always-consistent terminology (Praetorius, e.g., uses "Kortholt" for two quite different instruments and "cornamusa" for three), such migration of instrument names is not surprising. To make any retrospective assumptions about the situation a century (let alone three centuries) earlier — especially from this uncertain premise — seems unwarranted. The fact that the name "cornamusa" is now sometimes used for the small Italian folk shawm, the clarinella, seems to bring such a name-change full circle, and at least suggests caution.
about the consistency of instrument terminology over long periods of time.

Against the doubtful argument from Zacconi can be weighed what seems to be an anachronistic piece of information from a Spanish dictionary of 1726, which defines the "dulcayna" as a "soft oboe"... (This also, perhaps, lends weight to my comparison of the present-day dulzaina with a medieval soft shawm.)

Nevertheless, the theory that the mediaeval/early renaissance douçaine was an instrument with cylindrical bore seems to have generally had greater support than the soft shawm theory. But I have never been convinced by the former theory, for one final, rather subjective, reason. "Douçaine" and its variants derive from the Latin word for "sweet", "dulcis". The word "sweet", when describing a sound, has, I think, quite specific connotations. It seems to me impossible to describe the timbre of any cylinder-bore reed instrument as "sweet", let alone so outstandingly sweet as to cause the instrument to be named for that attribute. Praetorius, e.g., who describes the cornamuse as "very soft" and "lovely" nevertheless does not use the word "sweet". The only reed instruments whose timbre I would describe as sweet are the softer ones with conical bores, such as the baroque oboe, which is certainly sweet-toned - and the dulcian, which was actually named, like the douçaine, for its sweetness.

Having consideration for all these arguments, I believe it is much more logical to assume that the douçaine mentioned by Machaut and others was a soft shawm rather than any other kind of instrument. I would also suggest that the shawms in the Cantigas pictures are - because of their shape, their playing technique, the fact that one of them is playing with soft instruments, their resemblance to (and other points in common with) the present-day dulzaina, their resemblance to the smaller of the bassanelli, and the fact that they appear to fit Tinctoris' description of the instrument - also douçaines. This theory rests on some uncertain points, but seems to me a reasonable one. (In using the word "douçaine" for these instruments, I am extrapolating from later references, but I do not think it entirely unlikely that a similar term was actually used for them (see below). In any case, I would suggest that, since we know of no other distinctive name for soft shawms prior to 1577, we should be consistent in calling all earlier ones "douçaines", in order to avoid confusion. It is unlikely that the term was universally used then, but then, the same applies to many other instrument names which we now use with logical consistency.)
Some speculation about the history of dougaines may make these theories seem more tenable.

If the shawm began as an Arab instrument, entering Europe at least partly via the Moorish occupation of Spain, then it is quite possible that the history of the dougaine (or "dulçema" - an early Spanish spelling - or whatever it was Christened) could have begun in Spain, perhaps in a form not unlike that in the Cantigas pictures. The Cantigas dougaines do not have the appearance of being new or rudimentary instruments. They could well have been an adaptation or transformation of a Moorish instrument; softer traditional double-reed instruments, such as the Turkish mey, are known in the Arab world, and seem to have a very long history - in fact, as Picken says, the mey seems to be related to the monaulos of late antiquity. One can speculate that an instrument of the monaulos/mey type, with its lipped reed and bulb at the top end, inspired the application of these features to a more-or-less normal shawm (or surna), resulting, with one or two other modifications, in instruments like the Cantigas ones. But whatever their genesis, I would suggest, in this context, that the word "dulçema"/"dulzaina" originated as a contraction of "dulce surna" (or the appropriate early Spanish spellings) - "surna" being the older Arab shawm name and "dulce" meaning, at least in modern Spanish, "soft, mild", as well as "sweet".

The concept of a soft shawm and the name "douquine" (in various local translations) then, over a period of time, presumably spread over western and central Europe. The original instruments would, one supposes, not have travelled very far (and surviving references to the dougaine seem to come most frequently from nearby France). In some cases copies of them would have been made from memory - often only partial copies, especially as time went on. (Baines points out that there are quite a few late 14th and 15th century pictures showing shawm-like instruments with alim tubes, globular bales etc.) The concept would also have travelled independently of any description of the original instruments, and in many cases ordinary shawms would have been adapted to fit it and the name "douquine" applied, quite appropriately, to them - or they may have been given no distinctive name. (In the former case one makes the assumption that instruments of identical or near-identical appearance could be given different names when played in different ways. This assumption is borne out by the examples of the psaltery and dulcizer and the fiddle and citole (or gittern...). It seems that, throughout the middle ages and renaissance, the sound, musical function and/or playing technique of an instrument were generally more important in determining its name or classification than were its shape or structure. Praetorius' Kortholts and cornamusas, mentioned above, also seem to reflect this.) A situation would thus eventually have arisen where in some places the
term doucaine (etc.) referred to shawms specifically designed to produce a soft sound, and resembling to varying extents the Cantigas ones, in other places, perhaps most or even all, a softly played shawm of any shape was called a doucaine, and in still others no special name was given to soft shawms, which were simply described as "styll shalmes" etc. This would explain the lack of obvious pictorial representations of doucaines: they must often have appeared to differ little from normal shawms (See page 13, below.).

This situation probably prevailed until about the mid-16th century. During that century there were many changes in woodwind usage: the shawm proper declined in favour, as far as more refined music was concerned, the cornett rose to take its place, and new double-reed instruments came into being: curtals (about 1540), racketts (by 1576), bassanelli (by 1577) - all of these soft-voiced. What appears to be a new name arose as an alternative term for the smaller sizes (according to Montagu) of the curtal: dulcian/dolcian/Dulzian/Dulzen/dulcin/dolcan/dolzane/ (etc.). The meanings of some renaissance instrument terms are not always clear: Sachs considered these to be further forms of the name "doucaine"; Baines, by contrast, warns against confusing "Dulzian" with "dulzaina". There does appear to have been (at least eventually) a consistent distinction between the two families of names, but the similarity is obvious, and it seems reasonable to suggest that the name "dulcian" came into being by association with the original and paradigmatic soft double-reed instrument, the doucaine, the differences being only the relatively unimportant ones (to the renaissance way of thinking) of the doubled-back bore and the outward appearance. By the 1560's, however, the name "doucaine" itself, at least in Italy and Germany, and in the form "dulzaina", appears to have migrated to the (?)cylindrical-bore reed instrument described by Zacconi (1592) - while the original doucaine concept of a shawm specifically designed for soft playing was, not long after and in the same two countries, retitled or revived in the form of a "new" instrument family, the bassanelli. (The resemblance of these to the Cantigas doucaines of 300 years earlier suggests that their shape is likely to at least have been copied and disseminated, as suggested above, to some extent. In fact, according to Sachs, shawms which preserve the form exemplified by the Cantigas doucaines, including the "pear-shaped" bell, have survived even to the present in certain provinces of France - where, one notes again, the medieval doucaine was most often referred to - as folk instruments called "musettes".) By this time, presumably because shawms which were designed to be soft now had a specific and non-transferable name (i.e. bassanelli) and because variations on the name "doucaine" were in use for other instruments, an ordinary shawm played as a soft instrument apparently remained simply a
"shawm", as in the ensemble of dolzaina, cornamuse, shawm and mute cornett previously mentioned (page 4).

Meanwhile, back in the south-west, with the rise in importance for more "refined" music of the cornett and the social changes of the time, the (?)original Spanish dougaine apparently became, like the ordinary shawm, more of a "folk" instrument. It retained in the process its name and most of its characteristic shape, but, in order presumably to suit the purposes and circumstances of peasant or "folk" musicians, it was made into a loud, outdoors instrument and that one significant change in its profile was made: the bulbous bell became a flared one. The resulting instrument, it seems, has remained unaltered (apart from optional key mechanisms) until the present day, as the dulsaina. (Baines says this name referred to the same instrument in the past - he implies the late renaissance - and Munrow says that Mersenne (1636) illustrated an instrument of this kind.) Indeed, if this loud, piercing modern dulsaina did not descend from the dougaine in some such fashion, how did it acquire such a totally inappropriate name?

The last known reference to the bassanello is that of Praetorius (1619). But the dougaine principle was realised once again, in France in the late 1650's, with (?)Jean Hotteterre I's "new invention", the oboe. The name given to this soft shawm, "hautbois", had been in use for smaller double-reed instruments since the late 16th century which would appear to imply that the oboe was not regarded as anything radically new. It was, in fact, probably more a refinement than an invention, and considering its proximity to the bassanello in time and space and, even more strikingly, the physical resemblance of the two instruments (see diagram below), it seems much more natural to point to the treble bassanello as the oboe's immediate ancestor, rather than (as has been assumed on grounds of equally pure speculation) the treble shawm, which is quite dissimilar. The bell of the oboe may well have been influenced by the shawm (although it is closer in structure and function to the bulbous bell of the original dougaine than to the bells of either the shawm or bassanello), but in most other respects the oboe resembled the bassanello: in its predominant softness, its overall shape (note in particular the (?)non-functional bulb at the top of each), its key, its lack of a pirouette, its long staple (which may sometimes have been made, as in the bassanello, into a crook), and the fact that both were used for "art" music. The shape is particularly significant, because the bassanello's elaborate wood-turning was unique for its time. Although there do not seem to be any references to bassanelli in France, it is not impossible that Hotteterre or one of his associates had seen a bassanello during a journey to Germany or Italy, or played in their own country by an itinerant musician, and not entirely unlikely that a copy
of the relevant part of Praetorius' *Syntagma Musicum* could have reached the French court during the thirty years or so after it was written and before the oboe was introduced. (Ganassi's *Regola Rubertina* of 1542 managed to travel from Venice to France and possibly England.70) Either possibility could have provided the inspiration for the oboe and would make its sudden sophistication less surprising.

The following diagram (instruments not to scale) illustrates the resemblances (and non-resemblance) discussed above:

![Diagram of music instruments](image-url)
If, as I have suggested, the Cantigas shawms are douganines, and the mediaeval/early renaissance douganine varied in appearance (often looking much like a normal shawm), then in order to find other possible representations of douganines there are a number of characteristics we should be looking for in illustrations of shawms. I would suggest that any shawm having one or (preferably) more of the following characteristics should be considered as a possible douganine:

(i) the profile resembles to some extent that of the Cantigas douganines and/or that of the smaller bassamelli, with or without

(ii) a bulbous or "pear-shaped" bell (or possibly a "bottle" or "cup" bell, as in, e.g., the illustrations in Early Music, July, 1978, on pages 349, 413 and the cover),

(iii) there is a clear absence, or non-use, of a disc or pirouette (e.g. Memlinc's Musician angel), especially when there is also

(iv) some detail suggesting that the base of the reed is outside the player's mouth,

(v) (perhaps) the player's cheeks are not puffed out,

(vi) the instrument is being held pointing downwards, like an oboe (e.g. Memlin's angel again) — this decreases the projection of the sound, makes enclosing the reed in the mouth more inconvenient, and greatly aids the control of an oboe-style embouchure,

and (vii) the instrument is being played in consort with known soft instruments (where the artist's approach does not seem to be compendious or generally unrealistic). Baines also suggests that such shawms must be douganines and Montagu provides an illustration, which he goes so far as to index under "douganine", of shawms in consort with crumhorns.

Of the above characteristics, Montagu's (i.e. Burgkmair's) "douganines" show (iii),(vi) and (vii), Memlin's angel (iii), *(iv), (vi)* and *(vii)*, the shawms in the painting by the Master of the St Lucy Legend (see p.4) (iii) (non-use of pirouettes), *(iv), *(v), (vi) and (vii)*, the Anwerpier carving (iii)(non-use), *(iv), *(v), (vi) and (vii)* and the illustration to Cantiga 120 (Montagu's pl.9) (i), (ii), *(iii)*, *(iv)*, *(v)*, *(vi)* and *(vii)*. Some instruments showing some of these features may have been normal shawms only temporarily played softly, but (i), (ii), (iii) and (vii) would seem to be particularly strong arguments that the shawms in question are douganines.

There are, of course, many difficulties involved in identifying douganines by this approach. Whereas one can clearly see, for example, whether a psaltery is being plucked or dulcimer hammered, and whether or not a bow is being applied to an instrument of the lute family, it is often very difficult to tell what sort of technique (and of course reed) a shawmist in a painting or sculpture (etc.) is using.
For such reasons, and because of the lack of clear historical descriptions of the instrument, it may always be impossible to resolve completely the dougaine question. However I feel that, if my arguments are valid, the Cantigas pictures and the other matters I have discussed go a considerable way towards doing so.

Principal References:
Munrow, David, Instruments of the Middle Ages and Renaissance, Oxford University Press, 1976.
Picken, Laurence, Folk Musical Instruments of Turkey, Oxford University Press, 1975.

Footnotes:
(1) Cantigas (f. 350) Escorial J.b. 2. – Montagu’s plate 31 (p. 40).
(2) One of the Turkish shawmists Picken spoke to (see p. 507) actually suggested that this physical protection was the primary function of the disc. On the other hand, some Turkish shawmists do play with their lips on the staple without a disc or pirouette (risking their gullets for the sake of art?) – see the photos in Picken opposite p. 512. Their instruments, however, have no disc at all; the Cantigas ones have discs, so the question remains: why are they not being used?
(3) Willetta p. 349–351. Also see his letter in Early Music, October, 1975 (p. 419), re zurla players etc.
(4) Cf. esp. the line drawing of an oboist on p. 48 of the Diagram Group.
(5) See Baines (1), p. 92.
(6) Sachs p. 383.
(7) Weber’s comments on this taste for “enclosure” of the vibrating air, in early instruments generally, are very interesting and relevant here. See his “Recorder Finds from the Middle Ages...” in the Galpin Society Journal, 1976, p. 40–41.
(8) Bate p. 149–151; Baines (1) p. 283. This issue deserves further discussion and experimentation.
(9) (1) p. 304.
(10) See the brief but very interesting discussion of the sexual symbolism of classical vs electric guitars in *The Human Zoo* by Desmond Morris, Corgi, London, 1971 (p.97).

(11) p.286.

(12) Cantigas de Santa Maria (Cantiga 120), Escorial T.1.- Montagu p.22.

(13) Munrow p.40. Baines has also pointed out this similarity ((1)p.235, (2)p.750) but without going into detail.

(14) The more bulbous top end of the Cantiga instrument is curious—could this also have been hollowed out and have had some further effect on the instrument's tone? (15) Baines(1) p.235.


(17) According to Munrow (p.40).


(19) The spelling of the present-day instrument also seems to be variable—Pickem calls it "dulcaine" (p.502). (20)(1)p.234.

(21) Munrow goes so far as to suggest, on the basis of this assumption, that its compass, pitch and volume would have made it ideal for medieval tenor parts. But he does not say on what grounds he assumes such parts should be soft; nor does Machaut's reference to a "demi-doussaine" (i.e. a small one) suggest that it was exclusively a low-pitched instr'.

(22) See Munrow p.42. Cf. the use of the word "still" in the quote which heads Bartlett and Holman's article on G.Gabrieli in *Early Music*, January, 1975 (p.25).

(23) Montagu p.106.


(25) See Munrow p.50. (26) Quoted by Willetts, p.349.


(28) Reproduced in Munrow, p.39.


(32) Baines(1)p.230. However, with the reed and pirouette he illustrates in pl.XXI the technique he suggests does not work. (He believes they are not a matching pair.) (33)p's 8-9, 40. (34)p.37-8.

(35)p.40. (36)p.46.

(37) e.g. Jan Breughel's *Hearing* (reproduced on the cover of Munrow's book and in Montagu, p.96) and Praetorius's drawings (see Baines(1),p.270 or Munrow p.39). (38) See Munrow p.42. (39) Reproduced in Montagu p.76.

(40) Baines(1) p.230. Bate is convinced that double reeds were used in Europe before the Arab shawm was introduced (p.12). (41)p.286.
This issue is discussed at some length in correspondence in Early Music, January, 1976, p.75-77. Also Willetts, p.345.

(45) Cf. Willetts' suggestion (p.351) that one should use no pirouette (or an extra long one) for permanent soft playing of the alphorn.


(47) Munrow p.49-50. The dolzaina and "Cornamuse" could very well have been the same instrument — see Munrow, or Baines(1) p.258 or (2) p.749-750.

(48) See the reproductions of Praetorius' illustrations in Baines(1)p.264 and p.266 and (2) p.750.

(49) Baines(1)p.230.

(50) See MacMillan's article on the cornamuse in Early Music, Jan., 1978, p.75.

(51) This argument as it stands is subjective, but its validity could to some extent be tested, by surveying the terms used by randomly-chosen musicians to describe various instrumental timbres and electronically analysing those timbres for correlations between wave characteristics and the descriptive words used. It could also be instructive to collate as many mediaeval and renaissance (and, I think, baroque) references to instrumental timbres as possible and determine if there was any degree of consistency then between words used and the sounds or instruments they described (the problem here being, of course, our uncertainty about exactly how some of the instruments did sound). I would not be surprised if there were considerable (i.e. statistically significant) consistency, especially in pre-19th century usage. We do, after all, hear most of what an oscilloscope makes visible; we simply lack precise terminology for it and have to resort to metaphors like "sweet", "sour", "sharp", "clear", "dark", "fruity", "hard", etc., or onomatopoeia like "honky" etc. (52) See Picken p.477-480.

(53) Re the surname, see Baines(1) p.229, Picken p.485. A derivation of "dolzaina" from "al surna" has previously been suggested (see Baines(2) p.750 and Picken p.502 footnote), but this ignores the meaningfulness of the "dula-


(57) Baines(2) p.748.

(58) Baines(1) p.263. (59) Munrow p.46. (60) p.102. (61) p.317

(62) Baines(1) p.263 footnote. (63) See Baines(2) p.749.

(64) See Sachs p.384. (Can anyone refer me to any illustrations of these?)

The tendency of instrumental shapes to persist even through functional changes can still be seen at work today, in the electric guitar's non-functional retention (notwithstanding its symbolic sex-change) of a semblance of the body shape of the classical guitar. (65) (2) p.750.

(66) p.40. (67) See Baines(1) p.278; Bate p.40. (68) See Bate p.9.

MORE ON DRAWINGS OF KEYBOARD INSTRUMENTS

The notes below have been written after reading and thinking about several communications on the same subject.

It seems to me (and I may be wrong) that the above heading already dealt with by people devoted to drawings of musical instruments, either keyboard or woodwinds, have overlooked some technical concepts as far as engineering drawings are concerned. Let me explain my views about the same subject:

Engineering drawings must comply with the following prerequisites:

a) - to be easy to read
b) - to be easy to handle
c) - to be easy to be sent from here to there
d) - to be complete, i.e., to supply all the data necessary to build or fabricate the equipment or part of it.

Let us analyse the above headings, one each at a time:

a) - A readable engineering drawing must be drawn according the orthogonal method of projection, therefore, showing, for each part, at least, three of the six possible orthogonal projections. These six projections are, as everybody knows, four elevations (front, right, rear, left) and two plans (from above and from below).

It is usual to draw, only, three of them, viz, the plan from above and two side elevations (if different) or any other combination of the six projections, depending of the draftman or, better, of the projectist. If we apply these principles to the drawing of a clavichord (for instance), we must have:

1 - Plan of the instrument, seen from above
2 - One side elevation, not forgetting the lids
3 - Front elevation

I think that for the instrument taken as an example, it will be enough these three projections. But for an harpsichord it would be better to have two side elevations (view to the spine and view to the bentside), instead of one only.

Apart from the need of use orthogonal projections, we must consider the problem of scale. It doesn't seems to me absolutely necessary to draw in full scale to become, the drawing, readable and clear. The projections may be drawn, quite easily, in a 1/4 or, if possible, 1/2 scale, without prejudice. Let us reserve the full scale only for the separate parts or details of construction which need such a scale.

b) - To be easy to handle, the drawing must be not too big, in order to enable the user to pin it up on a board hang on the wall of the workshop or have it on a side bench for easy and frequent consultation. These requisites perclude, in the most part of the situations, the use of full scale drawings (more than 2 meter long for an harpsichord). Therefore, the 1/2 or 1/4 scale is much more useful.
To have enough information to fabricate parts of an instrument we must rely upon full scale individual drawings for each part, also and again drawn according the orthogonal projections. Of these full-scale drawings we will have as much as necessary.

c) - To be easily filed, easily sent by post, the drawing, regardless of its size, must not exceed the DIN A4 size (210 x 297 mm, when folded). To attain such a goal, the drawing must be dimensioned with a certain number of DIN A4 modules and the copies (never the transparent master) folded according rules:

Example - 2 x 4 drawing (two modules high, four modules long):

The first module low is within the A4 dimensions, including the filing strip; therefore, the first module high is smaller in width, because we need to cut it at the left rim to enable the whole sheet to be filed after folding.

With this system, we may have the sheet as big as necessary, but be cautious, otherwise it will become not easily handled.

The first module low is the first to be seen when the sheet is folded and/or filed. Therefore, the legend (title) of the drawing is always drawn on it. This legend must show the title of the drawing, the scale(s) on which it is drawn, the date, signature of the draftman and the name of the owner (builder, museum).

d) - With this system of drawing, there is no problem with the posting of any number of sheets, all of them of the same size (DIN A4). The only problem with the P.O. will be the weight, thus, the postage.

e) - To be complete, the drawing, apart the orthogonal projections mentioned above, may consider necessary to show one or more sections of the instrument. Here, it depends of the criterion of the draftman or projectist to chose where to cut and how.

It is very important that all drawings show the measurements necessary to fabricate all the parts that are included in the instrument. The measurements, when necessary, must include the margin of tolerance to be allowed. The drawing of any part of the
instrument in full size does not invalidates the need of the mention of the dimensions (preferably in milimeters and decimals). Taking dimensions of a part to be constructed, measuring directly from the drawing copy (heliographic or xerox) is bad engineering practice and must be avoided by all means. Even the odd shaped parts as the "3" bridge of a clavichord, may be decomposed in several segments of a circle and dimensioned and drawn with precision.

Drawings must not be used as patterns, because all the qualities of paper and specially those used in heliographic copies are very hygroscopic and the real dimensions of the drawings vary with the moisture percentage of the air, as much as 1 or 2 mm, according the size.

The drawing of each part must include the precise indication of the material(s) used and alternatives, if any. Also, the quantity of parts to be made (wrest pins, jacks, keys, etc.). It is convenient to include instructions for the finishing of the part (natural, waxed, varnished, painted in which colour and paint quality, etc.).

It seems to me bad engineering practice to draw information in separate sheets (dimensional drawing in one sheet and finishing in another). One of them may get lost or damaged beyond utilization. To be on the safe side, it is better to have a workshop copy and another on file. But, this practice, although very safe, may become expensive if the drawings are bought.

f) Some last words about codes:

It seems to me not very good practice to use code for drawings, other than those already in use. Let us resume:

1 - Strong continuos lines for the outline of the part
2 - Interrupted strong lines for hidden outlines
3 - Dash/dot for lines—of-center or lines—of-section
4 - The sections of parts (made of wood) must be coded with ondulous lines according the grain of the wood.
5 - Thin continuos lines for limits of measures (lines of reference)
6 - Thin continuos lines with arrows an the ends, for the measurements of the part.

Other, specially created codes may be confusing and always need a decoding list which may not be available at the site and moment of construction.
MANDORE AND CALACHON,

Donald Gill.

Some information gleaned during recent study of the mandore and calachon may be worth reporting, as a follow up to Martyn Hodgson's Comm. 175 and 194.

1. 'New' 18th Century 'mandorlutes' keep turning up. GSI XXXII, (1979) reports one in the Musical Instrument Collection at Meran (S.Tyrol), with a rear view photograph but no dimensional or structural details. JSMA XI, (1978), in an article on the lutes in the Bavarian National Museum in Munich by Douglas Alton Smith gives minimal dimensional information on two 6-course instruments, one by Jacob Weiss (1741), the other by Gregory Wenger (1757). An exploded (literally) view of the Wenger shows late lute type soundboard barring with seven transverse bars and six radial bars below the bridge.

2. Rudolf Lück, in his 'Zur Geschichte der Basslauten-Instrumente Colascione und Calichon' (Deutsches Jarbuch der Musikwissenschaft, 1960, pp67-75) quotes a passage on the 'Galizora or Colachon' from T.B. Tarnowska's music dictionary Clavis ad Thesaurum magnae artis musicae (Prague, 1701). After the customary reference to the Turkish background of the colascione the passage continues: 'The Galizosa is found everywhere in two forms: the one with six string groups, commonly known as courses, the other with eight. Each of these two types are again found in two forms: one has all the strings in pairs except the first or highest string, the other has all single...'. It goes on to say that these instruments are especially suitable for Generalbass, and the following tuning is given: 6-course C D G e e a, 8-course A B C D G e e a. Seven frets are said to be fitted, and the range of the 6-course instrument is given as C to f'.

This range in fact requires eight frets, but one recalls that the Talbot calachon had seven frets, on a neck long enough for twelve.

3. Lück's article states that the following instruments exist:-

- Calichon with five double courses and a single string. Helsingborg, Fryklund Collection.
- Calichon with six double strings. New York, Metropolitan Museum of Art.
- Two calichons with five double strings. Stockholm, Musikhistoriska Museum.
- Calichon with six strings. Munich, Deutsches Museum.

No details, sizes, pictures etc. are given. Can any member come up with any information about these or other similar instruments?

4. Karl Geiringer, 'Der Instrumentenname "Quinterne" und die mittelalterlichen Bezeichnungen der Gitarre, Mandola und das Colascione', Archiv für Musikwissenschaft VI (1924), pp. 57-65, quotes Roth's Wörerbuch (1571) as saying the Quintern is 'a lute with nine strings, without the gross bumbart and it's octave'. About fifty years later the Skine Mandore MS gives instructions for tuning the 5-course mandore 'to the old tune of the Lutt', as well as the usual tuning in fifths and fourths. Talbot (c.1690) also gives this as one tuning for the 5-course mandore (c f a d'g'), and the Genoese mandolin was similarly tuned in the 18th Century. So we need to be careful about passing off 5-course lute type instruments as 'guitarised' lutes, unless there is clear evidence of alteration to 5-courses from some other configuration. No doubt old lutes were converted to 'mandorlutes' in the 18th Century, and the Sixtus Rauwolf instrument that used to belong to Canon Galpin looks to me to be such an instrument, in the common 6-course form.

5. Tunings. Here follow tunings that I have come across so far:-
<table>
<thead>
<tr>
<th>Source</th>
<th>Tuning in intervals or pitch</th>
<th>Pitch of treble where known</th>
<th>Comments</th>
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</thead>
<tbody>
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<td>Bermudo, 1555.</td>
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<td></td>
<td></td>
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<tr>
<td>Praetorius, 1619.</td>
<td>5-4-5</td>
<td></td>
<td></td>
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<tr>
<td>Mersenne 1636</td>
<td>5-4-3,4,5</td>
<td>e&quot;,f&quot; or g&quot;</td>
<td></td>
</tr>
<tr>
<td>Kircher 1650</td>
<td>ditto</td>
<td></td>
<td>ditto</td>
</tr>
<tr>
<td>Skine Ms. c.1620-30</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>Ms.HE.I6.013, 1626. Ulm.</td>
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<td>Amat, 1639.</td>
<td>4-4-3-4-4</td>
<td>d&quot;</td>
<td></td>
</tr>
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<td>Talbot Ms. c.1690</td>
<td>5-4-3,4,5</td>
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<td>from Mersenne.</td>
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<tr>
<td>Albrechtsberger, 1790. (Marcuse)</td>
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<td>'a small lute'</td>
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<td>Colascione and Calachon</td>
<td></td>
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<tr>
<td>Mersenne 1636</td>
<td>c'c&quot;g&quot;</td>
<td></td>
<td>pitch a puzzle.</td>
</tr>
<tr>
<td>Kircher 1650</td>
<td>ditto</td>
<td></td>
<td>ditto</td>
</tr>
<tr>
<td>Diderot, 1751.</td>
<td>d a d'</td>
<td></td>
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<tr>
<td>Location</td>
<td>Tuning</td>
<td>Notes</td>
<td></td>
</tr>
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<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Talbot Ms. c.1690.</td>
<td>A or C D G c e a</td>
<td>the bandora tuning</td>
<td></td>
</tr>
<tr>
<td>Janowska, Prague, 1701.</td>
<td>(A)(b) C D G c e a</td>
<td>'Sonate a due Gallichano' Ms. tablature.</td>
<td></td>
</tr>
<tr>
<td>Dresden Ms. Mus.2/4/6</td>
<td>d-4-4-3-4</td>
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<td></td>
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<td>Schiffelholz, attr. early 18th C.</td>
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<td>'18 Partiten für Gallichono solo' Pitch assumed. Ms. tablature.</td>
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<tr>
<td>Mattheson, 1713.</td>
<td>D G C e a d'</td>
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<td>Eisel, 1738.</td>
<td>D G C E a d'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brescianello, c.1730.</td>
<td>D G C f a d'</td>
<td></td>
<td></td>
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</tbody>
</table>

I have photocopies of two other duets for two gallichonas in Ms. tablature which require an interval tuning of 2-4-4-3-4, i.e. the 'bandora' tuning again. This Ms. and the Dresden Ms. above both indicate the tuning for the 6th course at the start of the tablature but of course give no indication of pitch. It looks like Talbot's optional tunings demonstrated in practice, and I regret the injustice I did him years ago in GSJ XV.

Finally, although it certainly seems that the German Calachon shrunk from a pitch size to d' pitch size, I don't see it in terms of a line of development from the Italian Colascione. Rather I envisage a bandora/lute hybrid being made, like the Talbot instrument, which was probably given the derogatory name of colachon by theorbo players, and the name stuck, as such names so often do. Subsequent developments were due to matters of string technology, as Martyn Hodgson has suggested.
In England no instrument can be more maligned by the public and some musicians than the hurdy-gurdy; it is far too often portrayed as an object of comedy, intended to provoke a bit of fun and laughter. In a recent article the comment was made: "it is only a street instrument and little attention is paid to its tonal quality." The same author even suggested that it can be made of ply-wood! (Practical Woodworker, Dec. 79). It is a great pity that this statement was made by somebody who claims to be knowledgeable, with an interest in promoting the research of traditional and historical instruments.

These statements cannot be further from the truth, as anybody knows who has handled and heard a properly made hurdy-gurdy and been to collections where numerous exquisitely made hurdy-gurdies are on display, as for instance the Victoria and Albert Museum and the museum in Montluçon, France, which is entirely devoted only to this instrument. The crux of the whole problem is that too many makers and players have never sincerely studied the instrument and rely entirely for their information on a few medieval or early Renaissance illustrations (often showing considerable artistic licence) or on the completely erroneous statements of past authors that the instrument was only played by beggars. They have no idea of the more refined characteristics of the hurdy-gurdy, which makes it a very difficult instrument to make and play correctly according to the best traditions. Only a correctly made hurdy-gurdy can be correctly played.

At present the most traditional shape of the hurdy-gurdy is either guitar-shaped or lute-shaped and is known in France as the 'vielle-en-guitar' and the 'vielle-en-luth' respectively. It can be described as a bowed string instrument but a circular bow (the wheel) takes the place of the ordinary arched bow and, in order to produce the melody, the melody strings (chanterelles) are shortened or stopped by pressing keys which have small flag-shaped tangents on their stems. As the bow is circular and is turned by a handle, it allows scope for drone strings, an important characteristic which distinguishes the hurdy-gurdy from, for instance, the violin and which to a large extent determines the tonal qualities of this amazing instrument. The number of strings have varied greatly throughout the centuries but since the eighteenth century at least, it has been usual to have two melody strings and four drones (the big and small bourdon, the mouche and trompette). It is the trompette which presents the most problems to makers and players; at a recent exhibition in London, only one maker had hurdy-gurdies with good tonal qualities and with trompettes which played well.

The bridge for the trompette (known in France by various names, e.g. chien, cigalou or zinzin) is diminutive and slots into the base of the larger bridge for the mouche; it is movable and adjusted by a string tied to a peg on the tail-piece. When the wheel is turned with a slight flick of the wrist so that the sound is interrupted according to the value of the notes being played (détaché or coup-de-poignet method),
friction on the trompette is varied and the little bridge is rapidly lifted off the sound-board and lowered again with a smart tap, causing a most unusual sound, referred to as trumpeting, buzzing or, in central Europe, crackling.

It must be stressed that the trompette is a vital feature of the hurdy-gurdy and definite evidence for this string exists from at least the fifteenth century. It adds a unique quality of accentuated rhythm when precisely played and takes a long time to learn properly. When people make derogatory comments about the hurdy-gurdy, it is usually as an excuse for their own inability to cope satisfactorily with the trompette and its playing technique. The French have a saying: "a hurdy-gurdy without a trompette is just not the same," and indeed, a hurdy-gurdy without this string or with one which cannot play satisfactorily, is simply just not worth spending time on unless, of course, one only wishes to play the fool or use the instrument for a little insincere entertainment. It would, however, be totally wrong to judge the hurdy-gurdy as a musical instrument from these inadequate examples (as unfortunately so often happens, particularly in England).

It is also completely inaccurate to say that the hurdy-gurdy is only a 'street instrument' and neither is it only a folk-instrument. It should be kept in mind that during the past two centuries some authors confused the hurdy-gurdy with the street-piano and barrel-organ. We do not know exactly when the hurdy-gurdy first developed, but there is ample evidence for its larger ancestor, the organistrum, from the twelfth century. Its close association with religious buildings, suggests very strongly that the organistrum and, later, the smaller hurdy-gurdy was regularly played in church or in church festivals. The small variety, capable of being carried and played by one person, was made from at least the middle of the twelfth century as playing it was an obligatory part of the activities of troubadours and trouvères. These people were poets and musicians of the highest calibre and frequently included members of royal families, e.g. the King of Navarre and Guilhem Count of Poitou.

Throughout the subsequent centuries we find the hurdy-gurdy, in various developed forms, included in great religious paintings and sculptures and mentioned in numerous manuscripts from the continent and England. After the decline of the troubadours and trouvères in the fourteenth century, the peasants were forced to find their own amusement and poor farmers during the winter months tried to earn extra money by wandering round the countryside with their hurdy-gurdies. It is because of this situation that we are often told that the hurdy-gurdy was an instrument only for beggars, but these comments were, and still are, made out of ignorance or a lack of understanding of the social conditions of the time. Anybody who played, sang or danced in an inn, on the street or even in village meeting places, was promptly labelled as a beggar regardless of social background or musical talents. It should also be remembered that these musicians were much more in the public eye than the aristocrats and academics who entertained themselves in the privacy of their stately homes. However, there is more than adequate evidence that at no time was the hurdy-gurdy only played by street-people; it continued in favour in the
religious life and in upper-class social circles on the continent and also to some degree in England. Several churches have carvings or stained glass windows depicting hurdy-gurdies, e.g. Beverley Minster, where there are two.

During the eighteenth century the hurdy-gurdy was increasingly played by farmers and their families who took to the roads in the winter with their hurdy-gurdies and marmots (an alpine rodent). Many of these people came from the more rugged mountain areas of France and the Alps and therefore became known as Savoyards. They were picturesque, in a way, and the pathos of their lives attracted the attention of painters and writers, who frequently portrayed them, thus increasing the impression that the hurdy-gurdy was primarily an instrument for street-people. However, at the same time the hurdy-gurdy also became one of the most popular instruments in the great royal courts of Europe, in the newly-established opera houses, variety theatres and serious musical concerts. Madame Adelaide, Louis XV's daughter, and Marie Antoinette played hurdy-gurdies, it is said "with great passion". Some authors try to make out that this interest was superficial or a form of affectation, but the evidence quite consistently indicates that the instrument was genuinely loved. A number of extant hurdy-gurdies have royal crests painted on them, from the sixteenth century onwards.

A great number of well-known musical instrument makers (luthiers) excelled in making hurdy-gurdies during this and the following century; experimentation led to perfection both in appearance and tonal qualities and the present-day traditions of good hurdy-gurdy making were established. Jean and Pierre Louvet (known as the Stradivarius of hurdy-gurdies), Baton, Dulac, Delauney, Hurel, Lambert and many others bestowed a great deal of attention on the hurdy-gurdy and made superb specimens, of which many still survive. The Pajot family started working during the eighteenth century and carried on until the 1930's; they were associated with many famous makers during the nineteenth century, e.g. Pimpard (died approx. 1931), Décante and Réchonnet.

An equally large number of famous musicians and composers played the hurdy-gurdy and wrote music specially for it as well as books on how to play it correctly, for instance, Michelle Corette, Nicholas Chedeville and his brother Esprit Philippe, François Couperin, Jean Hotteterre, Joseph Boismortier, Batiste Dupuit, Charles Bordet, Charles Baton, Françoise Bouin, Charles Buterne, Antonio Vivaldi, Leopold Mozart, Wolfgang Mozart and Franz Joseph Haydn, the last at the request of King Ferdinand of Naples, who played an organised variety of the hurdy-gurdy. It is quite inconceivable that these people would have bothered with the hurdy-gurdy unless they admired its tonal qualities.

Even in the earlier centuries the hurdy-gurdy was usually made with great care and attention, judging from a few detailed paintings and, from the sixteenth century, extant instruments. From the eighteenth century only the very finest materials were used: mahogany, walnut, maple, spruce and ebony and the instruments were usually exquisitely and quite lavishly decorated with ivory, ebony, mother-of-pearl and, in a few examples, even semi-precious stones; hurdy-gurdies are often beautifully painted, particularly those from Berry and Bourbonne. Even in central Europe where so-called rustic varieties are still being made, beautifully carved designs are common. A well-made
hurdy-gurdy, according to these traditions, is a real work of art. Under no circumstances will just any old wood, such as ply-wood, be acceptable. Good hurdy-gurdies cannot be produced by factory-style techniques or do-it-yourself kits - they need the hand of a skilled and knowledgeable luthier, even more so than a good violin. It takes at least two to three months to make a good hurdy-gurdy and the materials are very expensive, so that makers may be tempted to produce cheaper hurdy-gurdies of poor quality which are more viable commercially. Even so, it is difficult to escape the conclusion that more frequently the basic problem behind poor instruments can be an absence of research and knowledge as to the true interest and nature of the hurdy-gurdy.

The present century has seen a terrific increase in interest in the hurdy-gurdy, particularly on the continent, but also as far away as America. We are also beginning to find this interest in England, although here there are still far too many misconceptions and not enough good hurdy-gurdies; this results in people judging it from the poor examples which they may encounter. On the continent there are a very large number of traditional folk-groups with hurdy-gurdies, either antique or well-made present-day examples. In some parts of the Auvergne, Berry, Bourbonne and the Limousine you cannot go very far without coming across a hurdy-gurdy. It is also becoming very popular in Germany, Holland and Belgium. One can now obtain a large number of good records with hurdy-gurdy music (some at Cecil Sharpe House, London). Many well-known musicians, e.g. Claude Flagelle and Michelle Fromenteau, also play early and traditional music on the hurdy-gurdy and have made records.

Every year a festival is held in Berry, France, which is devoted to the hurdy-gurdy and the chabrette and musette, two types of bagpipes frequently played with the hurdy-gurdy. Anybody who has heard the hurdy-gurdy played here by brilliant musicians will never again describe it as an instrument which does not require a great deal of attention.

Bibliography:

The bulk of this book is by the first author; there is a short section at the back by her son, Samuel, on Playing the Hurdy-gurdy. However, it is clear that he has also helped with some of the descriptive and technical information in the first part, hence the rather unusual use of 'with' rather than 'and'. The book begins with a chapter 'Introducing the Hurdy-gurdy', with detailed descriptions to which we shall return shortly, followed by nine chapters, each on a separate century, from the 12th and earlier to the 20th. Of these, those on the 18th, 19th and 20th centuries are the most reliable (save that the accompaniment to Schubert's Leiermann is for piano, not for orchestra) and the best.

The other chapters suffer from some lack of knowledge of other instruments and from the fairly common attitude of monograph writers, that any instrument that might just possibly be the instrument that they are studying must be that instrument. As a result, any mention of a vielle in a text must refer to a vielle à roue, whereas it is fairly obvious that a good many of them refer to fiddles, and Pepys's Arched Viall (5th Oct. 1664) is much too closely identified with a hurdy-gurdy: "The instrument obviously embodied adaptations of the principles of this instrument".

There is a description of the carved panel of the Temple of the Muses at Hockliffe Grange where "Apollo is seated with his lyre, surrounded by the nine muses playing on a viol, gittern, triangle, mediaeval guitar, flageolet, theorbo and hurdy-gurdy". Of this list, only triangle, guitar (not medieval - the date is c.1600) and hurdy-gurdy are apparent. The illustration shows a recorder, a second lyre, a bowed instrument that might be a lyra da braccio, a lute and what seems to be an oboe. When describing the instrument and the trompette bridge, it seems fairly clear that Mrs. Palmer has never encountered a tromba marina and, when referring to allied instruments, she takes Strohfiedl in the caption to Praetorius's plate XXII to refer to the wheeled instrument with a plain fingerboard. It is obvious that she does not know that Strohfiedl (in any spelling) is German for xylophone and that Allerley Bauren Lyren refers to both the wheeled instruments, the hurdy-gurdy with tangents and the one with a fiddle neck.

Perhaps rather more seriously, for most of the above errors and others are fairly obvious and often not very important, there are problems with the iconography of the earlier periods and with references to the written sources. For example, she translates vihuela de arco as violin with a wheel; arco means bow, not wheel, and vihuela does not mean violin; the assumption that vielles always means hurdy-gurdy has already been mentioned. At least one carving has been misinterpreted; plate 7 shows a harp-playing donkey from Chartres which, presumably because the guide-books refer to it as l'ane qui vielle, she takes to be a hurdy-gurdy. She also accepts uncritically the Peterborough Cathedral roof, Beverley Minster, Hamand's drawings of Great Malvern windows and the Manchester angel roof. Unfortunately, the Manchester roof was extensively remodelled when it was down for repair a century ago and the drawings, one of which she reproduces, are not reliable; nor are Hamand's drawings; the Beverley carving she illustrates (fig.18 in my and Gwen's article in Early Music 6/3, July 1976) is by the Bakers, and the Peterborough roof is thought to have been repainted. Nor are these the only problems with iconographic material. T. 1.1 and j. b. 2 are not "the two volumes of the Cantigas de Santa Maria". They are separate and distinct manuscripts, and they are not the only manuscripts of the Cantigas. There is no reason to assume that Urs Graf was any more careful in his woodcut for Virdung's Musica Getutscht (it was not Virdung who illustrated the work) of the hurdy-gurdy than he was.
for some of the other instruments; it is a rash author who tries to count strings or keys in any of these pictures. A few illustrations have been redrawn, and these should be treated with great care; compare, for instance, her plate 17 with the photograph of the manuscript on plate II of my Med & Ren; the shape of the instrument is different, the construction of the crank is different, the wheel is different, and the shape and placing of the keys is different, and yet she captions her illustration "Drawing of a lira from" this manuscript. She comments that the instrument has too few keys, but does not mention that the harp shown beside it in the original has too few strings and that one of the two violas on the same page has four strings and three pegs; in other words that, as usual with such sources, one cannot rely on it for detail. Nor are these the only such points I could pick up.

With these examples listed, it will not come as a surprise that there are many questionable statements in the first chapter, the description of the instrument. I would refer to our Comm.96, for example, as a more likely hypothesis for the symphony; I would suggest that for some of her typological forms she leans rather too heavily on the assumption of accuracy in the iconography; it is a pity that she has not looked at Vertkov, Blagodatov & Yazovistkaya's Atlas of Musical Instruments of the Peoples Inhabiting the USSR; ditto any of the volumes of the Studia instrumentorum musicae popularis (Comm.111 in FoM RF 10 but not listed on the front); she has not realised that 'magada' on Gerbert's drawing of the hurdy-gurdy (her plate 3) is the name of the instrument, referring to the use by various Church Fathers of the Greek magadis as a translation of the Hebrew nevel, and that it also refers to playing in octaves (cf Sendrey, Music in Ancient Israel, pp.279ff); she refers to the Nurnberg Geigenwerk and to Flenius's lyricord but does not seem to have heard of the Truchado instrument surviving in Brussels; it is not very accurate to say that "the thirteen lower keys are for the full-tones and the ten upper keys are for the semitones" - it is always difficult to put this into words, but there are both whole-tones ("full-tones" is an unpleasant neologism) and semitones among the lower keys; the keyboard does not "operate in much the same way as that of a harpeichord" - if one has to make such comparisons between one instrument and another, the clavicord is the nearer; G is not "five half-tones higher" than C.

With all these and more (Talbot's manuscript was not confined to two issues of GSJ, nor were both of the two she knows of transcribed by A.C.Baines; the large organ illustrated in the Belvoir Psalter cannot by any stretch of the imagination be described as "a portative organ"); this book can never be regarded as a definitive or authoritative source on the instrument. There are, however, many useful references and descriptions, and it is well worth reading for anybody who has any interest in the hurdy-gurdy. Almost everything will have to be checked if it is to be used for research, and the very incomplete and rather inaccurate bibliography (some authors' names, some titles and some dates are wrong) will be of only limited help. There is a useful list of French 18th and 19th century makers, and a list also of Museums and other collections which include hurdy-gurdies. In some cases catalogue numbers are given, but treat them very carefully; the V&A list, for example, refers to Baines's numbers not to the Museum's catalogue (ie accession) numbers, and other museums either don't have numbers at all or only have some numbers given for some of their instruments. The Carel (not "Carl") van Leeuwen Boomkamp (not "Boonkamp") collection never was in Amsterdam - he lived in Brussels - and it is now in the Hague at the Gemeente Museum (and the date on that instrument is 1759, not 1757).
There are two editions of this work which was first published in 1783 by Michel Corrette with the title "La Belle Vielleuse", in good clear manuscript and with 37 pages of music including solos, duets, songs and pieces with figured bass. The New Edition with a different title, "Méthode pour apprendre à jouer de la vielle", was published in the 19th. century and is typeset, thus clearly distinguishing it from the first edition. I suspect that it was re-edited by someone other than Corrette, probably after his death, because his name is spelled differently and most chapters have been revised slightly, mostly for the worse, with many errors and omissions. The musical section suffered by having all the figured bass parts and the songs omitted, reducing it to 15 pages.

It is unfortunately this 19th. century "New Edition" which the translator has used, although she does not state this, nor does she make any mention of the first edition. Its mistakes are translated and passed over without comment. The translator concludes with the phrase "Here follow fifteen pages of music" which, as Jeremy Montagne has commented (FoMRHI Comm. 263), must be rather frustrating, since the chief value of the Method lies in its musical examples.

The vielle player who wishes to play in a historically accurate style has five 18th. century French methods at his disposal. Corrette's was the latest and one of the most superficial, as he borrowed and abridged many passages from the earlier methods of Bouin, Ballard and Dupuis. He wrote methods for the harpsichord, flute, violin, violoncello, voice, harp, etc., etc.

There is one section of Corrette's Method, however which is very interesting and which is not dealt with by any of the other writers and that is the section on temperament, which one finds on the first page of "La Belle Vielleuse". As the vielle is a keyboard instrument without the flexibility of the violin, the vielle player, like the organist or harpsichord player has to temper his scale according to the music he plays. What Corrette gives us is a modified meantone temperament suitable for playing in the vielle's keys of C and G with their dominant and tonic minors, i.e. C, G and D majors, and C and G minor. He shows you how to achieve this by narrowing the series of 5ths upwards from C until you reach C♯ in order to make the perfect thirds, and then making three perfect 5ths downwards from C. This involves adjusting the tangents. The New Edition places this section in the middle of the chapter on tuning the strings, where it does not belong, and where it must be very puzzling to a beginner. The translator does not comment on this anomaly or give any help other than the misleading title, "Another Method of Tuning", which it is not.

Corrette also gives useful information on the 18th. century style of playing the notes of the smallest value unequal (inégal), but the translator omits these important indications in the section on music in 2/4 and 3/8 time.

The first six chapters of the Method are (with the exception of some small but not unimportant errors) well and clearly translated, but with chapter 7 we come to that area where confusion already exists in the minds of beginners wishing to take up the vielle without the aid of a teacher, and here the translator adds to the confusion. At this point I am going to suggest that we use three different names for the instrument: 'symphony' for the pre-16th. century period, 'vielle' for the 16th. century and onwards in France, and 'hurdy-gurdy' for the folk or peasant instrument without a trompette.
Now if one wants to be a symphony player or a hurdy-gurdy player one would not need to study Corrette's Method. If however, one wants to play the vielle and recreate the "historically accurate style of playing" which the translator has in mind, one must thoroughly understand the principles on which it works and the very specialised terminology used to describe the instrument. I am sorry to say that the translator clearly demonstrates that she does not understand the working of the vielle, or this terminology.

Chapter VII is headed "Du Coup de Poignet", and is translated by Miss Durichen as "The Right Hand Grip". "Coup de Poignet" literally means the blow of the wrist, but like French ballet terms is best left untranslated. It means the employment of the 'trompette', a device which enables the player to articulate or accent some or all of the notes of the melody by means of a buzzing tone which is produced by the special loose bridge or 'chien' over which the 'trompette' string passes, and which comes into play when the wheel momentarily accelerates as it receives the blow or strike of the wrist at any point during the revolution. It is the mastery of this technique which Corrette refers to in Ch. III when he writes, "The most difficult part of playing the vielle is the Turning of the wheel" (my translation). Miss Durichen seems to have had difficulty in believing this, (as most players do who have not got a properly set-up vielle or have not seen and spoken to a good vielle player) because she has inserted a phrase of her own here about the difficulty being in co-ordinating the left hand with the right hand turning the wheel. In the first place Corrette deals with this important subject rather sketchily and in the second place the translator is unhelpful, as she translates the phrases "coup de poignet" or "marquer du poignet" as "the right hand turns the wheel" - a useless instruction since this is what the right hand does all the time. e.g. "Dans les airs gracieux, comme musettes, les coups de poignet sont moit frequent." "In slower, more dignified pieces the right hand will turn the wheel less frequently." (translator). The correct meaning is as follows: "In graceful pieces, such as musettes, the coup-de-poignet is used less frequently." (Note: the turns of the wheel are dependent on the note values and independent of the coup-de-poignet, which provide the rhythm.)

And again: "Dans les airs vifs on ne fait qu'un tour en marquant du poignet la premiere note de chaque mesure." This is translated as: "In quicker pieces...make a single revolution per measure, marking the beginning of each bar by a turn of the handle." The true meaning of the above sentence is: "In quicker pieces...make a single revolution per bar, accenting only the first note with the coup-de-poignet."

To the student of 18th. century music the subject of ornamentation is also very important, but in Section 8 Corrette deals only with the trill and the mordent. Miss Durichen excuses him in her preface with the false assumption that (I quote) "the subtler nuances of many (ornaments) then in vogue are not readily accessible to the mechanics of the instrument, anyway." In fact most of the ornaments that can be performed on the harpsichord can also be performed on the keyboard of the vielle. Francois Bouin in his Methode deals with nine different ornaments and gives 15 musical examples.

This Chapter is a disaster because the New Edition revised Corrette's original text (which has one error) and wrongly labelled the musical examples. In her attempts to make the text fit the music the translator has got into a thorough muddle, and then omits the words "bémol" (flat) and "dièse" (sharp) altogether, just to make it worse.

The final section of the Method, on maintaining the instrument in playing order contains many small careless mistakes and omissions in the translation, which is serious considering the vital importance of each piece of information, scanty as it is.
In order to get the sweetest tone from the strings and to protect them from the friction of the wheel, one must wind some very fine long-filament cotton wool (free of impurities) round each string where it touches the wheel. To do this you select a small piece, exactly the width of the wheel and insert it between the string and the wheel, then while turning the wheel, pinch the string between the thumb and forefinger of the left hand and skilfully twist or roll the string so that the cotton wool winds itself on evenly.

M. Corrette does not go into such detail, but what he does say is reduced to nonsense by the translator: "To soften the sound of the strings wrap a strip of thin cotton (sic) securely around the string concerned", which makes one envisage cutting up a handkerchief as if to bind a cut finger, and must be very confusing to one who has no other source of information.

The instruction for the use of resin is also inaccurate, as are those for adjusting the pairs of tangents which are fixed to one key to produce a unison from the two chanterelles or melody strings. The word 'sauteraux' (tangents) has been translated as 'keys' in one place and 'string' in another.

Now in Chapter 5 Corrette makes a curious error which the translator does not mention, but which I must mention in case the diagram of the keyboard which he gives is compared with that on page 5 of my own method. He shows 14 black keys, but in fact we know of no vielle which is made like this. At the top end of the scale the tangents are so close together that there is no room for the black F key and so the 10th. white key has to serve for both F and F#, and the tangent is adjusted accordingly. Corrette wrongly shows a black F key.

None of the 18th century vielle methods provides such detailed information about the instrument itself and the playing techniques as do the modern methods. But there is undoubtedly a need, among some players, for a facsimile edition of Corrette's "La Belle Vielleuse" (i.e. the 1st. edition, and not the 19th. century edition) with a reliable translation and commentary in English. Having studied and translated the 18th. century methods myself during the preparation of my own vielle method I am now in the course of preparing a comparative study of these works. But for the comfort of those who can read French there is already a facsimile edition of 'La Belle Vielleuse' with a very valuable introduction and commentary by one of the leading vielle virtuoso players, Claude Flagel.* His commentary covers not only the text of the method but also the research which he has done on comparing the music with that published by other contemporary composers such as Hotteterre, Chedeville, Bouin and Rameau.

Review of: Jacques Leguy *Précis de Facture d'Anches Renaissance* (Handbook of Renaissance Reedmaking), Paris 1979
Aug. ZURFLUH, 73, bd Raspail, 75006, Paris
English price about £6.00

M. Leguy's handbook is the first to be written entirely about Renaissance reedmaking. As such, it is a welcome addition to the meagre literature already available.

Makers of reeds for early instruments benefit from the live tradition of modern reedmaking, but they are especially dependent on their own experiments and research. The present publication is a product of such effort and enthusiastically sets out to describe the construction, adjustment and operation of a variety of dissimilar reeds.

After an excellent preface by Mme. Bran-Ricci, Curator of the Paris Conservatoire Museum, the author begins with a brief account of reed acoustics, and prepares the way with a description of the appropriate tools and advice about the selection of the cane. There are further sections on gouging and shaping the cane, mounting it on the staple, and working on the assembled reed right up to the final scraping and adjustment. The text concludes with a brief general discussion of the differences between the reed types, and is followed by a table of dimensions for eight kinds of reed in each consort size. The book is completed with a collection of forty-two photographs.

The first requirement of such a book is that it should provide sufficient information for a beginner to attempt to make a working reed for his instrument. I think it succeeds in this, though there is much to inhibit the beginner. It should be made clear that the collection of tools shown is the basis of a professional kit, and that successful reeds can be made with the minimum of equipment. For example the "Arkansas" stone with the "hollow gutter" is a very extravagant item; anyone attempting the initial sharpening of a gouge with an "Arkansas" stone will find it a frustrating process. Experienced reedmakers will discover many other points of disagreement (there being as many different methods as there are reedmakers), but the common techniques, applied to a variety of renaissance reed shapes are all to be found in this book.

If more is demanded from the book, it may appear less satisfactory. Although our present knowledge of early reeds is far from complete, the book does little to encourage further experiment. The assertion that "no Renaissance reed can be properly made from a cane tube of less than 20 mm." is dogmatic and very questionable; so is the table of pseudo-specifications of renaissance reed dimensions. As a guide these might provide a useful starting point for constructing a reed, but no indication is given of the make of instrument on which such a reed has been found to work - one from the author's workshop, or one from the Conservatoire Museum, or a plastic-lined variety from a factory? Furthermore, the potentially valuable cane dimensions are unlikely to be of much use in the absence of information about the staples with which they are intended to be used. Just how long is the "adequate length" suggested for a cylindrical staple? No guidance is given about how to balance this dimension with the tip length and adjustment of the wires, to achieve accurate tuning. Worse still, no instructions or advice are given for making and experimenting with different shapes of conical staples, which may radically alter the co-operation of the reed and the instrument. This is a serious omission.
This is a French publication, and a parallel text is given in English. The basic text in each language (excluding Preface and Foreword) amounts to only fifteen pages of instructions, and this for eight kinds of reed. English readers may be distracted by the quality of the translation which is continually careless and often misleading. The illustrations are generous; a page of diagrams and eleven pages displaying forty-two photographs. These are very variable in quality and in several cases simple line-drawings integrated with the text would have been greatly preferable. The choice of photographs, too, is sometimes curious. Two are used to illustrate the use of a file, on the left side and on the right side of a reed. Only one is used to illustrate the scrape on two contrasting reeds. Other examples of this crucial feature are not shown, where the use of a photo might have conveyed much information.

Despite the very uneven presentation of its material the book undoubtedly contains a lot of advice and information that is useful, mixed with some that is not. The best sections are the basic ones on gouging the cane and assembling the reed. These are described and illustrated thoroughly. The book is expensive, but so are off-the-peg reeds. If it results in the emergence of one good reed from the inevitable pile of shavings and cracked cane, it may be worth having.

A.F. Wood

P.S. Praetorius published his work in 1619, not 1921 as the Foreword has it.

I've just been looking at Evelyn Rothwell's The Oboist's Companion Volume 5, Reeds (O.U.P. 1977). A very different kind of book, and not a fair comparison, perhaps, but it contains excellent advice on how to handle cane sensitively, and a very good section on the correct way to sharpen a scraping knife, an important topic neglected in the "Handbook".

PoMRHI Comm. 279

Jeremy Montagu

Review of: Tibia 1/80, Moeck Verlag, Celle.

There are several interesting articles in this issue, all of them in German of course. Petra Leonards writes on articulation on wind instruments in the 16th and 17th centuries; Heinz Becker on single beating reeds from antiquity onwards to the early 19th century, which links with Colin Lawson's article on the chalumeau repertoire. There is also a brief article by Laurence Libin on the woodwind instruments in the Metropolitan Museum of Art, New York, where he is the curator. William Waterhouse contributes a portrait of Lyndesay Langwill who, as you may know, has recently sent round a prospectus for the 6th edition of his Index of Wind Instrument Makers. I fear that it will be a reprint of the 5th edition plus a second addendum (ie the 4th edition with two up-dating appendices), but if you are a wind player/maker/collector/restorer/etc and have not got a copy of the Index, now is your chance - the address is 7 Dick Place, Edinburgh EH9 2JS, Scotland and the cost £15.50 or £27, plus postage. Meanwhile, if any of these subjects mentioned above interest you, get a copy of Tibia; all the articles are interesting and all seem good.
Review of: Malou Haine, Adolphe Sax, éditions de l'Université de Bruxelles, 1980, 283pp, illus. PB 480 (about £7.00 or a bit under).

This is a biography plus description of Sax's inventions. There is a good deal of useful information of archival type and, as one would expect with a study that derives from a thesis, good bibliographical information and explicit references to sources, both manuscript and printed. Unfortunately, it is a difficult book to handle because there is no index at all and no way that I have discovered of referring back to any detail, invention or event. There are two other problems: one is that Miss Haine is convinced that Sax was a parergon, that everything he did or invented was wonderful and that little or nothing done by anyone else was up to much (there were, after all, a few other makers and inventors of this period who produced some worthwhile instruments); the other that she seems to know or understand very little about instruments and about how they work, with the result that the description of many of the patents and instruments is incomplete and uninformative, as well as being uncritical. There is a complete list of all Sax's patents, and also of all the patents taken out by other members of the family, but while it gives the number, date, period and patentee, it gives very little information about what the patent covered, much less than in the British Patent Office Abridgements. For example, no.3226 of 1846, a fifteen year patent, is merely described as "Système d'instruments à vent, dits saxophones."

Sometimes there is a one line parenthetical description, eg "(Principe des 6 pistons et 7 tubes indépendants et système de pistons ascendants)" for no.14608 of 1852. The list is certainly useful, but less useful than it might be because in several cases it will still leave one uncertain as to which patent it is that one needs a copy of to check a certain detail. There is also a list of court cases, in one of which Raoux, Halary, Gautrot, Buffet and Cambaro sued Sax and in all the rest of which Sax is suing others. I had a vague memory of reading somewhere that others, such as Wieprecht, had sued Sax for breach of patents, but either I am wrong or such cases have not been listed. This will, I think, be a useful source book for further research, but a lot of concrete information which should be here is missing. There a number of good pictures of Sax instruments (and also a number of illustrations drawn from Kastner, Musique Militaire and other contemporary sources), but as there is no list of plates, one has to search through the book to find each one.

I have also had a letter from Miss Haine saying that she and Ignace De Keyser are producing a Catalogue of Sax instruments, not only of those in the Brussels Conservatoire but also in other collections, both public and private. She would be very grateful if anyone who possesses any Sax instruments would write to her as soon as possible as they hope to publish this Catalogue this summer. She would also be grateful for information about any other collectors she may not know of. The information she wants for each instrument is: type and description of the instrument; serial number; name and address; any other marks such as monogram, prize medals, and so on. Her address is Conservatoire Royal de Musique de Bruxelles, Musée Instrumental, 37 Place du Grand Sablon, 1000 BRUXELLES, Belgium.
Part V has now appeared. Its subjects include the care and maintenance of bassoons and contras, their reeds, medical aspects of playing them, learning to play them, and their life in the orchestra, opera and operette. On the whole, this section is just as repetitive as ever, the order is just as chaotic, there are the usual frequent contradictions and a fair number of misprints. Mr. Jansen has acted for many years as an adviser and as a contact between the firm of Heckel (hence his many encomiums for their instruments) and Dutch bassoonists, and much of his advice and information on maintenance and on minor repair jobs is very useful, based as it is on a lifetime's experience of helping the incompetent and the ham-handed cope with minor jobs instead of sending the instrument off to Biebrich. He also has some quite interesting (and occasionally contradictory) opinions on blowing-in new instruments and on warming instruments up before rehearsals and concerts. The information on reeds is also interesting, despite repetitions and contradictions (I suspect, incidentally, that many of both of these arise because whenever Mr. Jansen gets a bit of information, it goes into his files. When he prepared this book, I think he simply got out the files and typed the lot out without re-reading, re-ordering, reconsidering anything. Thus on one page we have one bit of information, and a page or more later, or even further down the same page, we have a slightly different bit of information on the same subject which may either repeat or contradict the first bit). He is very much against the single reed for the bassoon, the miniature saxophone mouthpiece, though I remember in my student days a colleague who used such a mouthpiece and neither he nor anyone else could hear any difference between his results with it and the chap next to him who used a conventional bassoon reed. Comparatively little of the rest of this fascicle concerns us, but one remark should be inscribed in letters of fire in every instrument workshop and retail establishment: "There is no bassoon 'good enough' for a student and not so for a prof player. A pupil learns to play the bassoon because after completing his studies he wants to become a professional player, performing, of course, on a good instrument. This good instrument he should have from the very beginning; if one wants to buy a car to drive in, he has to learn to drive and to do this, he does not go to the car-junkyard, to be taught there to drive in a wreck. The same applies to the study of bassoon playing." For 'bassoon' read any instrument. Whatever I said in Comm. 251, I had no intention of encouraging the production of anything other than good instruments. A problem with bassoons has been the number of makers who have just taken a Heckel apart, measured it up and produced something that looked like a bassoon and sounded like something from the junkyard. There has been a tendency towards this in the early instrument field also; there are makers who have taken, not an original but a modern maker's reconstruction, taken it apart and measured it up and, like so many bassoon makers, produced a heap of junk because neither they nor the bassoon makers have taken the trouble to learn anything about the instrument nor about what they thought they were copying.
Review of drawings of four woodwind instruments by A.M. Uoonen for the Brussels instrument museum.

(i) Renaissance Flute by Claude Rafi, Roxwood, Pitch lowest note C-60\% B+40\%
(ii) Oboe by J. Lot, late 18th cent. Boxwood, 2 keys, pitch about A 435
(iii) Oboe by Grundmann, late 18th cent. Boxwood, 4 keys, pitch about A 455
(iv) Oboe by Bormann, c. 1850, Boxwood, 11 keys, pitch about 458

In producing drawings of woodwind instruments to meet the requirements of the maker, the most important measurements, and yet the most difficult to obtain, are those of the bore. The two methods used are (a) to X-ray the instrument and (b) to use some type of internal caliper. The first method has the big disadvantage that even after parallax distortion has been dealt with, it is quite impossible to take really accurate measurements off a radiograph because the outline is blurred by a shadowy type of penumbra caused by the thickening wall material where it curves down to a true diameter. Whereas the second method, while tedious and time consuming, has the advantage that not only can the measurements be used directly for the purpose of making reamers, but they can also be used to draw out (with the diemetric measurements multiplied) an outline which gives a visual impression of the vagaries of the bore. This latter is the method used in these three oboe drawings; a series of pre-set measurements of diameter plotted against depth down the bore of the joint.

The oboe by Lot, as with the other two, is beautifully drawn, well set-out and full of detail. The complete instrument and longitudinal cross sections through the tone holes are to full scale with details of sockets drawn 2:1. Angles and undercutting of finger holes are shown and the radius of every external curve is given. The bore measurements are given mostly in 0.1 mm, but in some places in 0.2 mm gradations and is drawn out in what is called in the plan "Lengthscale" 1:1 and "Widescale" 1:10. The accuracy at this magnification is sufficient to give an instant visual impression of the bore. My one criticism is that the "Widescale" dimensions are only given for one axis, which is (if the grain lines of the cross section are to be trusted) tangential or at right angles to the finger holes axis. The differential movement and shrinkage of the instrument surely requires measurements on two axes, namely tangential and radial. This may seem a small quibble to some but when an instrument has been measured as meticulously as these have, the lack seems the more regrettable.

The Grundmann has the added information of a cross section giving four external diameters of the tenon of the top joint. The Bormann has two internal cross sections, one for top joint and one for middle joint, also showing four diameters at 45° to each other, showing ovality at these points. The Grundmann is a four keyed instrument of which the d sharp and the f keys are later additions. The key work of all three instruments is drawn out in both side and top view showing all measurements and curve radii. The only omission being the saddle and spring pad of the b flat key on the Bormann which appears to be missing.

The Rafi Flute with its parallel bore is the simplest of the four instruments and this is reflected in the simple and uncluttered lines of this drawing, which nonetheless leaves nothing out. The considerable undercutting of the six fingerholes and of the embouchure are shown in a longitudinal section and seven lateral cross sections. The radiograph comes into its own in the measurement of a parallel bored instrument such as this where the movement and shrinkage caused by time etc. cannot be measured with calipers nor be reproduced in a copy, but are of interest to both theorist and maker alike. Here two longitudinal scans at right angles to each other are drawn out on a length scale of 1:1 and a lateral scale of 1:10.

I warmly recommend these excellent drawings and it is with some reluctance that I make the above mentioned adverse criticism.
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A bilingual publication; the left hand page is in Welsh and the right hand in English, thus keeping everyone happy and a very good idea. I had hoped, when I saw this book listed, that it might fill a bad gap and give us the history that we need of the Welsh harp. Unfortunately, there is very little information on the harp itself, and much of that, especially the early history, is inaccurate. The ethnographic and antique material is particularly poor, and the line drawings bear little resemblance to actual instruments (and fig.3 is a frame zither, not a harp). However, the information on harping, on harp-playing, is plentiful and fascinating. Also, anyone who has struggled with the Ap Huw manuscript (BM Add.ms.14905; published in facsimile under the title Musica by the University of Wales Press in 1936. See Thurston Dart in GSJ 21 and Arnold Dolmetsch in The Consort, 3, 1934) should certainly read Osian Ellis's study of it here. I could not begin to say whether Dart or Ellis is nearer the truth; the former was a musicologist and editor of renown, especially in the music of this period, and the latter is one of the most eminent harpists of our time and particularly well known for his penillion playing. The comparison between their interpretations is very interesting and I would say essential reading for anyone working on early harp playing.

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Record Review of: Paul Rans and Lieven Misschaert, Die Nachtgegelin int Wilde - lute music and Flemish songs from the Renaissance, Philips 6320054 (available from Early Music Record Services, the Early Music Shop (see Malcolm Greenhalgh in Members List) and Brian Jordan (also in Members List) and from anyone who imports Belgian Philips records).

If anyone is still not convinced of the value and quality of lutes with all gut strings and of NRI's high-twist and catlines, listen to this record. And if you know how well lutes strung in this way sound, you won't need me to tell you to listen to it. I'm a bit less certain about the singing, which seems to me to be on the folky side, but such opinions are very much a matter of taste. The lute playing is good and the sound-quality excellent. The repertoire is, for the vocal pieces, drawn from various Antwerp song books of the mid-16th century. The instrumental pieces include Wolff Heckel's version of Mille Regretz for two lutes, Spinacino's version of La Bernadina, one of Milano's Fantasias, La Rosignol from the Pickering lute book, an Almande and Courante by Emanuel Adriaenssen and a group of Ballard Bransles. The instruments are by Norman Myall (6 course), Paul Rans (7 course bass), Jacob van der Geest (10 course), David Rubio (10 course) and H. Minsberg (bass viol).
RECORD REVIEW


In this recording by Paul Rans and Lieren Misschaert two premiers have been achieved. The first and most obvious one is that this is their first recording as a duo. The second is the appearance on disc for the first time of a whole programme with the proper all-gut stringing of the lute.

People who know that I am associated with Northern Renaissance Instruments might believe that all-gut lute stringing is something which I have supported ever since NRI re-discovered Catline strings. This however, has not always been the case. 'Early' heavy modern lutes tend not to respond that well to the more subtle nuances of all-gut and even with the newer light lutes which are more direct copies of original instruments the sound of all-gut is an acquired taste. When one picks up an instrument and does the usual thing - i.e. plays a few notes on one or more strings the individual notes on the bass strings sound dull in comparison to the overspun strings which were the first strings developed in this century for lutes.

What this recording demonstrates is that these gut strings in the context of pieces have an even texture from treble through to bass which cannot be duplicated with the nylon and overspun strings. That annoying problem of the middle voices on the nylon/overspun stringing of crossing from overspun to nylon is eliminated. Each voice now has a character in its range which is much closer to the vocal model from which instrumental polyphony derived and there is no more unintended bass/treble conflict.

Whether or not the two performers intended this record to be discussed in this manner is another question. Paul Rans has said that he could never conceive of this music being played in any other fashion and one can see why. These performances are robust and full of character. There is none of the pseudo gentility or museum mistiness which often surrounds early music. Some of the songs are almost thrown at the listener. At times the vocal sounds are almost harsh but, then, so is some of the music. (It is not expected today that bawdy songs should be sung in a style suitable for church choristers, so why should music of the past often be over refined and emasculated?)

If there is any criticism of this record it is in the choice of programme. The pieces range from early 16th to early 17th century and include music from three countries. This is a way of achieving variety, but it can be disconcerting to the listener. However, the idea of using most of the permutations that two players can achieve with two voices, several lutes and one viol is most satisfying.

P.S. Rans and Misschaert recently gave a concert in Brussels. They tuned their lutes half an hour before the concert. The players then sat down and began playing without any need for retuning.

M. June Yakeley.
Multi-Piece Viol Tops: further to G. Cooper on p.8. We at NRI have been making viols for 1½ years now, using this method with a bent central stave. We find that it is no more trouble and takes no longer than the only other method we've used: the bent flat top with crossbars. We cannot compare it with the usual Italian 2-piece carved soundboard method, but would be surprised if there were significant differences in convenience and speed. But are these the real issues? Each construction method leads to its own type of tone quality. If one cares about trying to duplicate the sound of a 17th century English viol, one would want to use a multi-piece soundboard like those viols had.

Oiling Catgut Strings: T. Moonen's question, p.8. Mersenne in 1635 (p. 18 of Chapman's translation) wrote that strings were oiled to conserve them. Mary Burwell (late 17th c.) specified almond oil (GSJ, XI (1958) p.3). There are other sources, but these two came to mind.

Hurdy-Gurdy Meetings News
The International Gathering of Luthiers and Maitres-Sonneurs (Hurdy-Gurdy and Bagpipe makers and players) at St. Chartier (Indres) France on 12th-14th July. Enquiries: Mme. Michele Fromenteau, 60, Avenue Aristide Briand, 36400 La Chatre, France.
Course: Vielle, Cornemuse, Cabrette, Accordeon diatonique and Violin at Confolens, Limousin, France from 11th to 15th August. Enquiries: M. Jean-Louis Queriaud, 10, Rue des Buttes, 16500 Confolens.
Hurdy-Gurdy Courses with Doreen and Michael Muskett, from time to time.
(Address in Membership List.)

Eph's Contribution. I wouldn't let Eph write anything for this issue since I had him working full-time on the NRI Catalogue. It's remarkably like a FoMRHI Comm.! Available on request.

Announcement of FoMRHI Conference on Pitch and Transposition.
Original pitches and transposition practices on early instruments are topics of current lively interest. Following a suggestion from Nicolas Meeus, and Eph's agreement to organize it, a FoMRHI weekend conference on these topics is now scheduled for the 14th and 15th September in London. (The necessary and sufficient condition for any FoMRHI conference is a member willing to organize it.)
Various aspects of pitch can be included, such as absolute pitch (pitch standards used), nominal pitch (the pitch names they used for various fingered positions), pitch conceptions (how pitches and their relationships were thought of), and the scales and temperaments used. Transposition can involve changes in any of the first three of the above aspects of pitch, such as: change of instrument for the first, change of assumed tuning for the second, and change of clef for the third.
Participants who have already agreed to contribute are: Nicolas Meeus, Grant O'Brien, Andrew Parrott, Ian Harwood and Eph. Others are welcome.
Will those who intend to participate, whether or not they intend to offer a prepared contribution, please contact Eph Segerman (18 Moorfield Road, Manchester M20 8UY, phone 061-445 0525) reasonably soon. The reason for this is that if we know that the numbers are small enough it could be held in a private home at no cost, but if the numbers are over 25 or so we need to book a larger room, with the cost shared by those attending. The venue will be announced in the next issue.
FoMRHI membership is not required for participation.