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FELLOWSHIP OF MAKERS AND RESEARCHERS OF HISTORICAL INSTRUMENTS

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FELLOWSHIP of MAKERS and RESEARCHERS of HISTORICAL INSTRUMENTS

Bulletin 48

July, 1987

Maggie has sent in the accounts for last year which, as you will see below, show a thumping loss. This was to some extent deliberate; we had accumulated more reserves than we needed and we therefore held back from raising the subscriptions until this year. She thinks, and maybe she is right, that we held back too long and that we did not raise them by enough. Certainly we did not expect the size of printer's bill that we got for the April issue last year, which mopped up about half the year's subscription income. Nor does she think that we allow enough for postage. She says, in a letter to me that you're all welcome to read:

Looking at the accounts and doing the same sum as last year yields rather disturbing figures. If we look at total expenditure minus postage it works out at approx £7.95 per member (assuming approx 600 members) compared with £5 in 1985. The total amount spent on postage broke down as: Inland, 84p; Surface, £1.42; Air europe, £2.47; Air to America etc., £3.65; Air to Australia etc., £4.08.

This means that under our new 3 subscription rate system the rates should be £8.50 for inland and surface, £10 for Air to europe and £11.50 for Air to elsewhere, i.e. and extra £2 to each category above what the current sub. is. I know you are extremely unlikely to sanction such a big jump and FoMRHI could probably manage on less, but I suspect that if the subs don't go up at all for 1988 you could find yourselves in difficulties by the end of next year. Anyway, you have all the facts & figures so perhaps you could discuss it with Eph & Djilda. As I said on the phone, we have £1650 in the bank at the moment which has to cover all the expenses for the rest of 1987.

FoMRHI Accounts for 1986

Opening balance	£3834.41
Advances in 1985 for 1986	£2265.22
Income in 1986:	
1986 renewals	£1468.00
New members & sale of back issues	£ 623.00
Donations & over-subscriptions	£ 184.50
Advances in 1986 for 1987	£1764.00
	<u>£4540.72</u>
Total income in 1986	£4039.50
Expenditure and deductions:	
Printing	£4381.91
Postage	£1200.33
Stationery	£ 158.02
Bank deductions	£ 46.50
Sundry items	£ 198.20
	<u>£5984.96</u>
Total expenditure in 1986	£5984.96
Loss sustained in 1986	<u>£1444.24</u>
Closing balance	£1888.95

LOST MEMBER: Alessandra Fadel's April Q came back to me marked *Transferito*. If anyone knows where she went to from Meda, please let me know and I'll send her another copy.

FURTHER TO: Bull.46, p.4: John Wilson asks me to insert a note of thanks to all those who helped reduce his spruce mountain. He still has more than he can hope to use, so his offer is still open.

Bull.47, p.4: John again. He says that there was such a good response to his offer of back Qs that he ran off 20 sets, which he's willing to sell to anyone who asks on a first-come first-served basis at £16 (including postage) for Qs 1-11. He's not willing (he says) to print more after these have gone, so ask quick if you want a set. And as he's only got whatever's left of the 20 I shouldn't think he's likely to be willing to split sets.

Comm.787: Gerhard Stradner asks me to print the original title of his book on Virdung, reviewed by Roy Chiverton in the last Q:

Gerhard Stradner, Spielpraxis und Instrumentarium um 1500. Dargestellt an Sebastian Virdung's "Musica getutscht" (Basel 1511), Wien 1983 = Forschungen zur älteren Musikgeschichte = Veröffentlichungen des Institutes für Musikwissenschaft der Universität Wien Band 4/I und II, Verband der wissenschaftlichen Gesellschaften Österreichs.
DM 98 = ÖS 686

Comm.798: JM writes: I'd sooner keep this instrument as the English guitar or English guittar. As you'll know from previous notes of mine, I'm a morphologist. If it doesn't look like a cittern, then it isn't one. And it doesn't. The box is a different shape from front to back; the neck's a different shape; the stringing is different; the tuning is different. It may have been used for a similar purpose, but if you take that as a criterion, then the sousaphone is a serpent.

Comm.803: David Smith writes:

I have one query concerning the very interesting Comm 803 by Charlie Wells which might warrant comment or a follow-up for a future Q. In it, the author states "In describing the restoration work I shall omit the routine tasks such as cleaning, oiling and repadding and concentrate on the main repair work". Why omit these? There appears to have been very little of this sort of information in past Qs. While restoration may be a subject looked at somewhat askance by some members of PoMRHI, surely every part of an operation such as this, especially when done by a competent person under the watchful eye of JM should be described more fully, as a guide for others who may welcome being steered in the right direction. Can Charlie Wells be persuaded to write another Comm filling in the gaps?

A Comm. herewith by Peter Armitage: JM writes: I'd welcome reactions to this. How safe do you think this process might be (I'm not too happy about rubber on the varnish), and can anyone suggest possible improvements which might make safer, and tolerable to museums, what seems an excellently simple and inexpensive device?

QUILLS: Some years ago I gave you a reference to a fishing tackle firm in Kent that produced feathers of all sorts. John Bence asked me if I knew of any source of quills and I put him on to them. He wrote back to say that he got a response from Medway Feather Co., Brasenose Road, Gillingham, Kent ME7 4JR, tel: Medway (0634) 52841 who don't produce a catalogue any longer and don't have goose or raven quills, but who sent him a good qual-

ty delivery of black turkey primaries for £28.75 a hundred including VAT and postage. According to their business card, they deal in 'Raw and dyed fancy feathers, hair and fur'. If you want goose quills, it could be worth contacting a good butcher (in town) or farmer (in the country); goose seems to be coming back as an eating bird, and they'll be killing for the Christmas trade before too long. That's for tame birds, of course, whose wings may not be strong enough. What about a bird reserve, which there are more and more of every day, for wild ones? I'd have thought that there would be some casualties during the year.

TYPE SIZE: David Smith, who is brewing a Comm, asks whether we prefer 10 pitch (which I used to use on this machine and which looks like this) or 12 pitch, which I've used for the last couple of Bulls and which I am using now, and which nobody has complained about yet. 12 pitch is an economy; you get quite a lot more on a page, and personally I find it easier to read, though I think a proportional-spacing 10 pitch might be easier still because it would avoid the gaps between the letters; unfortunately it doesn't exist for this machine anyway; the only proportional spacing is about 12 pitch, which I switched to at the last semicolon, and I find it a little cramped. If you have any views, let's have them (to me, please; I can pass them on to him).

COURSES: I told you last time that there would be a Bate Collection Weekend on Baroque & Classical Oboes with David Reichenberg, Dick Earle and Lorraine Wood on November 7th and 8th. Now I have to tell you, with great sadness, that David, our best early oboist, an excellent teacher, and such a nice man, has died. We are still going ahead with the Weekend (assembling at 10.30 for coffee, starting at or before 11 on the Saturday and probably half an hour earlier on the Sunday), but with Paul Goodwin instead of David. I'm afraid that the time has come to raise the cost of these weekends slightly; they have been £15 (£10 to students) since 1984 and there have been a couple of occasions recently when this would have led to a loss had it not been for the generosity of the tutors who came at very low rates. From now on they will be £20 for the weekend, £15 for either day, and £15 to students (£10 for either day). I don't want to cut out the 'either day' rate because there are always some people who are free one day but not both, but all the same it is discouraging for a tutor when, as happened last time, the majority only came for one day; apart from anything else, it makes it very difficult to plan a coherent course.

Arnold Myers asks me to tell you that the Edinburgh University Collection of Historical Musical Instruments is having a late 19th century Wind Quintet Weekend, September 25th to 27th, starting on Friday evening and dispersing on Sunday afternoon. The cost will be £25 plus VAT, plus if you want accommodation £14.65 (including VAT) per person per night for bed and breakfast. Applications should be in by August 1st; you'll hear if there is a vacancy for your instrument by the 6th, and then payment must be in by September 1st. You can either play on the Collection's instruments or bring your own, but if you bring your own they must be English and must be high pitch (Old Philharmonic).

EXHIBITIONS: The first Taipei International Musical Instrument Show will be from 16-19 September next year, 1988. They ask for details of intending exhibitors by the end of May this year (it's a bit late to tell you now but they only wrote to me on 23rd April [which anyway would have been tight for the end of May], so it came too late for the last Bull). They expect to hold the show every two years (so you can get in touch and ask to be on their mailing list for next time) and they would like British and other foreign makers to participate; so far they have about 30 local firms and

about 40 Japanese. They charge 15,000 New Taiwan dollars (about \$480 US) for a 3m x 3m booth. If you are interested, write to or telephone Peter Chan, Managing Director, Taiwan Products Promotion Co Ltd, 4th Floor, Centric House, 391 The Strand, London WC2R 0LT, tel: 01-379 0765, quoting reference FL-76-1701/B120. In other countries, see if there is an equivalent firm locally in your capital cities, or else get in touch as above; their telex number is 919744 FETS LG. It would be nice to have early music represented there, but whether you'd sell enough to repay \$480 plus fares plus hotels, I'm dubious.

I shall hope to see many of you at the Horticultural Hall from October 30th to November 1st; there will be a FoMRHI stand somewhere, probably a small one tucked into a corner (Richard has been kind and offered us a corner cheap; this is because we don't make any money by gathering new members, so that to have a stand there costs us rather than profits us). I'll be surprised if we've got the October Q to you by then, but you'll still be able to renew there as usual; I'll make sure that I have a stack of renewal forms. It should be a good show, as always, and a good chance to see your friends, compare different makes of whatever instrument interests you, and maybe even pick up the odd bargain, whether you are exhibiting or visiting. I've not heard whether they still have spaces free; if you haven't booked one and want to, it might still be worth getting on to Richard Wood quick at the Early Music Shop, 28 Sunbridge Road, Bradford BD1 2AE.

PERIODICALS: There are a couple of interesting articles in the latest JAAMIM (our Australian equivalent), one on reproducing the Leipzig pedal clavichord, and the other on metal inserts for (modern) bridges to improve the sustaining quality of plucked string instruments.

The Harpsichord Magazine has now become the *The Harpsichord and Fortepiano Magazine*, reflecting the interests of the new editor and publisher, Warwick Cole, who has taken over from Edgar Hunt, and its address is now POBox 129, Cheltenham GL52 3BZ. Subscription rates are £5 (\$9 US), for which you will still get two issues a year. The current issue (April, 1987) includes an interesting article by Christopher Nobbs on the restoration of a big French harpsichord, and a long note from Charles Mould on the intentions of the third edition of Boalch.

MY MOVEMENTS: As I said in the last Bull., I shall be going to Russia with the Galpin Society in September, and hope to see members in Leningrad and Moscow. I hope, too, that we shall meet others who are interested in our fields and perhaps offer some more memberships - even if our finances are a bit rocky (see the first page of this Bulletin), I hope that we can afford to help a few more of our friends who cannot export money, wherever they may be. I won't be going to Liège in December; they've cancelled the conference, and I've heard nothing further from Poland, so maybe that's off too. Whether I'll be away at all in September, other than the USSR from 5th to 12th, I don't know, but it might be safer to telephone before coming here from any distance.

DEADLINE FOR NEXT Q: 1st October, please. If we can get it out before the Horticultural Hall, we will; we might even be able to hand it to you there, which would save postage.

Today's Thursday, 2nd July; I'll hold this open till Saturday morning, in case anything else comes in, and then hand it to Eph at the String Instrument Conference. Have a good summer.

Jeremy Montagu
Hon. Sec. FoMRHI

Review of: Uta Henning, *Musica Maximiliana*, Ekkehart Stegmiller, 1987. 171 pp., 172 plates plus 46 details. DM 48,-. [If you can't get it locally, the publisher's address is in our List of Members]

Uta has been telling us for a long time that this book was in preparation. Now that it has appeared, it must be very warmly welcomed. I assume that all of us who are interested in early 16th century instruments have a copy of the excellent Dover Press edition of *The Triumph of Maximilian*. What Uta has given us here is not only all the musical plates from that work, but every illustration associated with Maximilian which has any instruments in it. Even though it was only the *Triumphal Arch* and the *Theuerdank* that were completed in Maximilian's life time, there is a vast number of illustrations prepared for other works which, for various reasons (all detailed here by Uta) never reached fruition. Since these other works show many instruments not included in the *Triumph* nor in some of the more familiar and often reproduced plates of the *Weißkunig* (eg Maximilian visiting his musicians in their studio), this work of Uta's will be very valuable to many of us.

The text, which has a good English summary (though with a number of uncorrected misspellings; they should have got a English speaker to proof-read that section), describes Maximilian as an art patron; describes the techniques of book production in that period, with some interesting illustrations of its processes and of the typography of some of Maximilian's books (the page from the *Theuerdank* is a particularly beautiful example of typography) and one example of an original illustration for the *Freydal* and of the woodcut made from it; names and describes all the instruments encountered in the various works, gives the number of examples of each, and illustrates quite a few of them; gives a very short but adequate biography of Maximilian; and describes in detail each of the works, from *Die Genealogie*, which traces Maximilian's descent from King Priam and Hector of Troy, to *Das Gebetbuch*, the prayer book which Maximilian designed for a crusade against the Turks and which was never completed because the Pope would not approve the list of saints which Maximilian wished to include. This is followed by the English summary, and then by the plates which show all the musical illustrations from each book in turn. There is also one complete example of Maximilian's publications, the *Triumphal Arch* which, due to its size, is printed on a folded A-3 sheet loosely inserted at the back of the book; even at that size, little can be made out, so we must be grateful to Uta for the details printed in the appropriate place in the book.

There are a few things that I would argue about in the list of instruments. The example she has chosen to illustrate the recorder, the fox piping in the *Gebetbuch* (f. 34v), I don't think is a recorder; I think it may be the first illustration we have of the chalumeau, closely similar to the undated instrument by Stuehnwal in Munich (see my *Baroque & Classical*, plate 34, where I dated it to c. 1700, but this was purely guesswork), and quite different from folios 72 and 83 of the *Gebetbuch*, the latter of which certainly and the former probably show duct flutes or recorders. Different artists are involved, admittedly; the fox is by Dürer, whereas f. 72 is from Altdorfer's workshop and f. 83 is by Jörg Breu; nevertheless the differences look to me greater than could be explained in that way. The woodcut she has chosen to illustrate the fidel is unusual; it shows what looks like a bowed guitar but with a right-angled peg-box. The strings go to a bar fixed on the belly; there is a central rose; the ribs are lightly curved. It's quite different from all the other fiddles we have here. She suggests that there

is no example of the regal, though no.22 of the *Triumph* (plate 61 in my *Med & Ren*) is quite specific in its text (p.5 of the Dover edition) that there is a regal on that cart, and certainly I had always assumed that the flat-topped case behind Hofhaimer's back contained a regal and that the case with the sloping top was to cover the pipes of the positive that he is shown playing; Uta suggests that the latter contains a portative for which, it seems to me, it's far too big. Also she ignores the woodcut on the cover of her own book, of Maximilian attending mass, which show Hofhaimer playing on a regal (a left-handed one incidentally; he is the only keyboard player I know who can be identified playing both right-handed (in the *Triumph*) and left-handed). The one example of a *tromba marina* (in the well-known picture of Maximilian visiting the musicians from the *Weißkunig*) has three strings and, apparently, a fixed bridge, whereas she describes the normal *tromba marina* with its beating bridge and a single string. The instrument does seem to have differed at different periods and places, and the only evidence that we have of its form at Maximilian's court is at variance with her description.

The main illustrations, the 170 from Maximilian's books, vary in their interest. The *Genealogie* can almost be ignored; there are some horns, a heraldic harp, and three small bells hanging from an unnamed character's belt. The *Heiligen*, the saints, aren't much more informative. The *Triumphal Arch* (*Die Ehrenpforte*) shows a lot more, though some of it is heraldic and unrealistic. One interesting detail of two pairs of timpani is that the left-hand drum (usually the higher in Germany) has two snares in a V-shape, whereas the right-hand drum is unsnared; I shall have to look for corroborative evidence elsewhere to see whether timpani really were snared at this period (none of Maximilian's others are, though a pair of tambourines from the same source are; perhaps this was something that Dürer automatically put on a drum).

Der Freydag is much more interesting. This is an account, much of it imaginary, of Maximilian's life, with much dancing, jousting and so forth, and of his journey to fetch his bride, Mary of Burgundy. Little was ever cut in the wood, but a large number of pen and brush drawings (or should they be called paintings?) survive. Many of the musical illustrations show dances, both pair dances and round dances, mummuries and *Aufzuge*. The vast majority of these, both indoor and out, 30 out of 48, are accompanied by only a transverse flute and a side drum. Eight of the flautists are left-handed, and so are four of the drummers, two of these last with a left-handed flautist. There is one flautist solo, one pair of flautists (one left- and one right-handed), and one flute and sackbut. There are three pictures with pipe and tabor, one of them left-handed. There is one pair of bladder-pipes, and two showing a solo bladder-piper. There is one shawm and side drum, one shawm solo, one shawm with two trumpets, and one picture showing three shawm players. There is one shawm or cornett (with widely distended cheeks, which is why I'm doubtful about the cornett) with an S-shaped trumpet, perhaps a sackbut but not as clearly a sackbut as the one just mentioned with the flute. There is one picture with three trumpets. There is one crumhorn solo. There is one pipe and tabor with a large fiddle (the size of a tenor viola), and there is one bowed guitar solo (mentioned above in the discussion about the instruments). So, if these pictures can be taken as reflecting the normal accompaniment to such dances etcetera, the use of string instruments was very rare; miscellaneous wind were not uncommon, and the normal accompaniment was transverse flute and side drum — encouraging information for a percussion player!

The most informative picture in the *Weißkunig* is the well-known one, alre-

dy mentioned twice above. Most of the rest are hunting scenes (with a horn or two) or battle scenes (with side drum plus sometimes a trumpet or a transverse flute). The one other major indoor scene shows the players (two flautists and a side drummer) from the back, so that little detail is visible; there are other instruments on the table but only parts of these, the peg box of a lute, the bell of a crumhorn, the voicing of a duct flute, the top of a flute case, and the foot of an indeterminate woodwind, can be seen. The *Theuerdank* is almost exclusively hunting horns. There is one fool with bells on his cap, one tournament with flute and side drum, another with shawm and two trumpets, and a third with flute, side drum and S-shaped trumpet or sackbut. Then comes the *Triumph* which, I hope, needs no description or listing. Finally we have the *Gebetbuch*, which seems to be a printed text with manuscript (not woodcut) marginal drawings. Several of these are important for they show trophies of instruments, including some unseen elsewhere in the Maximilian series such as a gemshorn, a lira da braccio, bagpipes, and another possible chalumeau or anyway the same instrument that the fox is playing a few folios further on (these are all by Dürer), and a Turkish band with a shawm very similar to those in the famous Carpaccio paintings, though the drum is quite different (it's different from the drums we've already met, too).

I have gone into this much detail partly for the sake of the information (I think the analysis of the *Freydal* dance accompaniments important) and partly to give you an idea of the importance of this book. It is important; it will remain a standard text in the iconographical library, and it is worth having. It doesn't matter if you can't read German, for the English summary is adequate (sufficiently so to get the gist of any of the German text) and the pictures are what really matter.

BULLETIN SUPPLEMENT

E Segerman

The July 4 FoMRHI Conference on Medieval Bowed Instruments was devoted to issues raised by the new books on this subject by Page and Remnant. The morning session was devoted to questions of naming of instruments. A call for standardization was made but not universally accepted as practical or solving the problems. The best we probably can do would be to compile a dictionary comparing the names various authors have used. There also was a call to publish a reasonably comprehensive catalogue of surviving English medieval iconography including musical instruments along the lines of Howard Mayer Brown's 14th century Italian catalogue being published in *Imago Musicae*. A committee was formed to pursue this issue.

The afternoon session was dominated by a dazzling slide show given by Mary Remnant. The topic was bridges and the themes were bridges combined with tailpieces, spike or string-post bridges, curved bridges and doubled bridges. The discussion on these and other topics touched on should lead to Comms in this O.

Though opinions varied considerably, the atmosphere was surprisingly constructive and affable, with the differences not pressed. A good day was had by all. No further conferences on the topic were planned, probably because we all felt that we needed more time to contemplate the new information presented in the two books, and to bring the issues they raise more into focus.

A Non-Review that turns into a Review [of Phillip T. Young's *2500 Historical Woodwind Instruments*, Pendragon Press, New York, 1982]

This is a non-review to draw your attention to an interesting article by our member Alfredo Bernardini in the April-October 1986 issue of *Il Flauto Dolce* on the work of Andrea Fornari. Two interesting photographs are an X-radiograph of a cor anglais and a normal photo of a quite extraordinary baritone oboe with, as is usual in Fornari's work, ivory keys of a most unusual quantity and complexity; the instrument anticipates Triébert's *haut-bois baryton* of which we have two examples in the Bate Collection, with its bassoon-like butt and upward-facing bell. More importantly, there is a list of all known Fornari instruments which expands considerably on that in Phillip Young's *2500 Woodwind Instruments*.

Incidentally, someone asked me recently where they could get a copy of that book. As far as I know, it is still available from the publisher, Pendragon Press, New York (in the UK, if you find it awkward to send dollars to America, it is always worth trying Tony Bingham and Brian Jordan [both in our List of Members], May & May [Arundell House, Tisbury, nr Salisbury] and Blackwell's Music Shop [39 Holywell Street, Oxford], probably best in that order, for books on instruments).

It's very odd, I could have sworn that I'd reviewed that book in FoMRHIQ, but I was looking back for my review (and I've checked the Book News as well) to see whether I had a better address for Pendragon than New York, which is all that there is in the book, and I can't find it. So perhaps I didn't and I only reviewed it elsewhere. In that case, I'd better say here that this one of the very few books that I've had for review that I've found so invaluable that I've gone out and bought a second copy so that I can keep one copy at home and one in the Bate. It is a location list, and very brief but adequate (eg, type, material, pattern, number of keys, etc) of all the known examples of instruments by many of the most important makers. It thus supplements and complements Lyndesay Langwill's Index, which tells us who lived and worked where and when but only gives a few examples of what has survived and where they are, and includes no details about them. For anybody who is looking for examples of instruments, it is absolutely indispensable; the same applies to anyone who needs to know how many instruments survive by any of the listed makers (120 of them); the same applies too, though more laboriously, for anyone who is travelling and intends to visit museums of which there is no up-to-date catalogue (blush, JM, but I'm working on it) or no catalogue at all. My copy is seldom far from my hand, whether I'm at home or in the museum, and there are few days when I don't reach for it. We have, many of us, been feeding Phil with further information, and we are looking forward to 4,500 or maybe 10,000, but that won't be yet a while. So if it's still available, don't wait for the next edition; if you ever need to know what's where, this is the one book that'll tell you. And to go back to where we came in, if you want an up-date on Fornari, it's in this issue of *Il Flauto Dolce*.

Review of: Mary Remnant, *English Bowed Instruments from Anglo-Saxon to Tudor Times*, Clarendon Press, Oxford, 1986. xxv + 182pp, 155 plates. £40.00.

There is no denying that this book is fairly heavy going, but in some respects this is its virtue. It is packed so solidly with information, all of it of very high quality, that it takes a good deal of concentration to read it and to take it all in. Indeed, I can see myself, and many of you, coming back to it again and again, to check this, to look that up, and to remind ourselves of many of the details which, inevitably, slipped past at first or even second reading.

To start at the wrong end, the least valuable sections are those on the use of the instruments. Not that they are valueless, for many of the statements in them are most illuminating, coming as they do from an experienced player of many of these instruments. Inevitably, however, they must be full of speculation: this could have been done, that may have been done, there is no reason why the other should not have been done, and so forth. It is our, and the author's, great regret that there is so little solid evidence as to the use of instruments of any sort. At least she is able to back up many of her hypotheses and possibilities with the statement that this and that work in performance (and occasionally that the other does not).

The more valuable sections and aspects of this book are manifold. For one thing almost all her citations from written material are direct quotes, and if you are not experienced in reading such characters as p and b and several others which the brand-new Locoscript 2 (which arrived the day before yesterday at long last) can't cope with, then you'll have to learn them or guess their sound. We are not dealing with modernisations or translations; this is what the text says, a very welcome change from so many other books on the subject. For another, and here we must be equally grateful to this University, the Clarendon Press (which one might, probably inaccurately, describe as the scholarly branch of Oxford University Press, probably inaccurately because the ordinary OUP publications are, many of them, also scholarly) have allowed a far greater number of plates than is normal today, and because they are on art paper, they are reproduced with excellent clarity; none of the murk on murk to which we are usually subjected. The price for the book is on the high side, but I know a good many as or more expensive with fewer plates much less clearly printed; to my mind the price is justified by the quality. Even more valuable than the plates themselves is the detailed commentary on them which makes up the major part of the book. As I said in my brief note in the last Q, Mary Remnant has an eagle eye. Where many of us see an instrument, she spots tiny details which I, for one, have missed, details of construction, of use, of playing technique, sometimes the tiniest sign which is significant of important factors which one would otherwise have missed.

Occasionally I argue with her in the identification of other instruments in the same plate (I would not presume to argue on the bowed strings). For example, the monkey (plate 48) holding what looks like an inverted soup-plate on a stick and touching it with another stick is not playing a gong but is spinning a plate as acrobats still do today. I do wish that she could bring herself to accept Laurie Wright's work, like Chris and the rest of us have done. Every single reference to the two plucked strings concerned appears as *gittern* (*citole*) and as *mandora* (*gittern*); this is just silly. The other usage which I dislike (and which I know that Eph hates) is *mediaeval vial*. I can see that there is a problem here; this is a

distinct instrument in the English iconography, always held downwards and quite clearly distinct from the normal fiddle, and there is no known name for it. Since it is as distinct from the true viol as it is from the fiddle, it should not have been impossible to coin a name for it, even if it had to be as clumsy as *large waisted fiddle* or something of that sort (it is not sufficiently invariably figure-of-eight shape to use *octoform fiddle* unfortunately); mediaeval viol jars just as much as mediaeval oboe would for a shawm (and that's just as accurate a term).

But these are small details. We have here (I wrote something to this effect yesterday, too) two books which are essential for any of us working on string instruments, and indeed on any aspects of mediæval music which touch on the use of instruments. There is no possibility of choosing between them; even if it breaks the bank, both are essential.

In conclusion, I want to go outside the normal brief of a reviewer. We all know that Mary Remnant has the biggest archive of mediæval musical iconography of any of us. Can we persuade her, and her publishers, to publish it? Howard Mayer Brown, who has provided an enthusiastic quote on the back of the wrapper of this book, is himself publishing, in the quite new annual periodical *Imago Musicae* (ed. Tilman Seebass, Bärenreiter, 1984 & 1985), all the Italian trecento paintings he knows with musical subjects. The pictures are quite small and the descriptions are brief, but they are adequate as a resource and a mine of information for future research. If Mary Remnant would do the same with the material which she has amassed, and if the Clarendon Press would publish it to the same standard as this book, which is infinitely better than that of *Imago Musicae*, we and future generations of scholars, musicologists and musicians should all be immeasurably in her debt.

FoMRH1 Comm. 808

Jeremy Montagu

Review of: Christopher Page, *Voces & Instruments of the Middle Ages – Instrumental practice and songs in France 1100-1300*, J.M.Dent, 1987. 316 pp. 14 illus. £20.

I described this masterly study very briefly last quarter. Now is the time to consider it carefully. The book is divided into two sections, the first entitled *Songs and instruments*, the second *Performance practice*. These are followed by four appendices, on terminology of musical instruments, on a selective typology of musical references in French narrative fiction in this period, on literary references relating to string instruments, and on string materials. It is, of course, all a highly technical subject, and where Chris's skill really shows through is that the whole book is so readable, even to the non-string specialist such as myself.

Chris starts by discussing the types of music involved, dividing them into a high and a low style, and he then goes on to consider whether either of these were accompanied instrumentally and if so by what instrument or instruments. Some of the evidence is implicit in the music, and some is internal in the text, for many of the texts are descriptive of the manner of their own performance or of the performance of the other style, whether

high or low. He does not lump all together, as I'm doing here, but describes the 12th century in the south, the 13th in the north, later southern genres, Paris, and then some of the musical forms such as the *carole*, the *conductus*, the *laï*, and so forth. He produces overwhelming evidence for the fact that all these musics were performed monophonically, by a singer accompanying himself on a single instrument, almost invariably a fiddle. He then, in Part 2, goes on to the instruments themselves and how they may have been played, not only the fiddle, but also the other main mediæval string instruments, the harp, the psaltery and the rota. This last he identifies without doubt as being, in this period, the triangular, harp-shaped zither which normally, as in his illustration from *Surgères*, had strings on both faces of its body or soundbox. This is followed by a discussion of Jerome of Morevia's evidence on the tuning and playing of fiddles, mentioning, in the following Conclusions, how Jerome's tunings, with their suggestions of drones, add to the evidence for the use of a single fiddle as the accompanying instrument to the voice.

In the first Appendix (on terminology) his whole discussion of the names of instruments is exemplary, and he does not fall into some of the confusion between the various languages, especially French and English, which besets the author of the other book on early strings reviewed in this Q. He recognises that quite simply English has a bigger vocabulary than French (still true today — one of the benefits of a language which started as British, was conquered by Latin, invaded by the various Teutonic tribes, and was then subjected to Norman-French, combined with our pastime of importing foreign words and making them English, is that we have wound up with an enormous vocabulary, none of which is exactly synonymous). As a result, Anglo-French dictionaries are liable to translate a string of English instrument names into one French name, not because there was confusion between them in England (as Mary Remnant suggests) but because in England we had and used the different names of *croude*, *fyddell* and *rebecke* (to use his quote from *Palsgrave*), whereas the French called them all *rebecq*, just as a jazz player calls many instruments *horn*.

In the third Appendix he cites all the French literary references of this period to the use of string instruments, in the original languages and in translation, thus presenting all the surviving textual evidence. The fourth Appendix is a very detailed discussion of the materials used for making strings in the mediæval period, not only in France, again with full citation of all the sources. My memory is that there are Arabic texts of this period which go into detail on silk as a string material, citing the number of strands of silk for each string of the lute. While I have failed to track these down so far, I must do so for one of our students; if I succeed, I will report in these pages.

In conclusion, I hope that I have shown the importance of this book, not only for those working on early French vocal music and wondering how to accompany it, but to all concerned with mediæval string instruments. There is, certainly, less detail here on the minutiae of what can be discerned from the surviving iconographical material than in the other string book reviewed here, but far more on the textual evidence and on the connotations of the texts which are being accompanied. Essentially, the two books are complementary (which is why both are being discussed at the FoMRRI String Conference next weekend, and why both were briefly reviewed together in the last Q), for each approaches the matter from a different angle. If you can only afford one and have to choose between them for financial reasons, this is half the price of the other, but the other has the advantage of an enormous corpus of plates. On the other hand, this is far more elegantly written, and the greater pleasure to read. It will depend on your priorities; for me, I think both are essential.

Review: Voices and Instruments of the Middle Ages - Instrumental practice and songs in France 1100 - 1300 by Christopher Page, Dent, 1987, £20.

It is rare that a new book appears which comprehensively collects the evidence and greatly clarifies our picture of performances practices in an important sector of the history of music. This is such a book. The new picture is that in French courtly circles at the time of the troubadours, unaccompanied singing was the common practice in monophonic music (as well as in polyphony). When there is evidence for vocal and instrumental association in the performance of a song, a fiddle is usually involved, or occasionally a harp. Early in the period that evidence exists when the form of the poem is in the 'low' style and not if it is of the 'high' style, while later this distinction gets blurred. The sources are mostly literary. Page carefully discusses their limitations as evidence for performance practice. Yet it is difficult to escape from his general conclusions.

Besides when instruments played in performance of the surviving repertoire (which is almost all vocal), Page addresses himself to how they played. Here the evidence is much scarcer. Harps were diatonic but used various scordaturas. The process of tuning was important, either as a special ritual or part of the performance. Often more than just the melody was played at the same time. Page suggests that the added notes were organum, neglecting other possibilities such as drones. The evidence on the fiddle is mainly from Jerome of Moravia. Here Page's speculations go quite wild and we will need an exchange of Comms to sort this one out.

The Four Appendices cover over 100 pages. The first is an excellent summary of the evidence on what string-instrument names referred to. The second analyses the structures of the stories in Old French fiction. The third is a history and discussion of the sources providing the information on the relationship between voices and instruments. The fourth is an authoritative listing of information on string materials in medieval texts.

The book is exceedingly well written. The writing is so seductive that when the occasional ridiculous idea is expressed, it is made to sound so good that extra effort is needed to keep one's critical senses operative. In a field such as this one, there is little that one can write that does not have a strong speculative component. Page is not reticent about speculation. It is much preferable to have such a liberal supply of such outpourings of his fertile mind, and argue with the few that go over the top, than to try to stick to the barren dry facts.

A large fraction of the book deals with Old French literature. To me that would generally be a very boring topic. I actually enjoyed reading about it here. It is a marvelous book and is to be highly recommended.

The next section of this review is objections to some contents of the book. I'm separating it this way to emphasize that these objections do not reduce my enthusiasm for the book.

* * *

Page defines the term 'heterophony' as "auxiliary noises clustering around" a tune, including improvised polyphony, "fifthing" (organum) and drones. Modern usage of that term confines it to mean the simultaneous performance of a melody and a variation of it (usually an embellished version). This definition is given in every music dictionary I've looked at (New Grove, Collins and Harvard). The true meaning of the term is a very important specific type of performance practice widely employed in monophonic music all over the world (especially in the Far East) and there is sporadic evidence for it in

Europe from the Greek aulos to Christopher Simpson's "The Division Violist". Page does not include it in his speculations on the musical relationship between voice and instrument in medieval monophony, but it is at least as probable a performance practice as any of his suggestions.

At the 4 July Oxford FoMRHI Conference, Jeremy claimed that Page's wider meaning of the term 'heterophony' was the standard usage in ethnomusicology. Obviously Page and Montagu each initially assumed a meaning for the word, based on its linguistic roots, and subsequent encounters didn't create enough mental dissonance to drive them to look it up. If the assumed meaning includes the real meaning as a special case, the occasions when that mental dissonance would arise can be quite rare, ie the passage can make sense even though the meaning read is not identical to the meaning written. I therefore question Jeremy's claim and suspect that only a fraction of ethnomusicologists are making the same mistake that he is. I cannot imagine that the ethnomusicologists could so degrade the meaning of 'heterophony' when they so much need a word with its true meaning to describe a specific performance practice that is so important in their subject of study.

Historical scholars need to respect all of their sources of information, assuming truthfulness and competence unless there is contrary evidence. Page seems to have taken a dislike to Pierre de Limoges, the glossator of the surviving copy of Jerome of Moravia's treatise. Page disagrees with Pierre's gloss explaining Jerome's description of the use of the 'borduni' in advanced technique, and omits two other important glosses by Pierre that Page also apparently disagrees with. These indicated that Jerome was discussing 4- and 5-string instruments (Jerome apparently discussed 2 and 5) and that the 5th string in Jerome's 3rd tuning was an off-fingerboard bordonus. Pierre (who Page has identified and shown to have written the glosses before 1306), was a contemporary of Jerome's, and Page gives no information that would point to Pierre being a less competent observer of practices on the vielle than Jerome. Why does not Page consider interpretation which are consistent with both Jerome and Pierre? The one he offers for Jerome's use of 'borduni' in advanced technique ('fifthing' between two instruments) violates all the information he offers and conclusions he reaches on the use of the word 'bordonus' on fiddles. The distaste (or at least disrespect) for Pierre must be great indeed to lead him into such inconsistency as well as such a lapse in scholarly objectivity.

When interpreting a passage, Page often assumes simultaneous performance when alternatim performance could just as well fit the evidence. He also assumes that terms translated as 'singing' imply vocal involvement when, as he acknowledges, these terms could just as well mean playing a tune on an instrument. Sometimes the context offers a clear vocal meaning, but in many cases, Page assumes this meaning from an apparently quite ambiguous context. In these cases we are asked to trust his judgement. Page's attitude to Pierre de Limoges makes me hesitate in offering that trust.

* * *

Now that I've got this off my chest, I'll repeat that this book is heartily recommended for anyone interested in medieval music.

Review: *Syntagma Musicum II, De Organographia, Parts I and II*, by Michael Praetorius, translated and edited by D Z Crookes, Clarendon Press, Oxford, 1986, £25.

Syntagma Musicum II is the volume on musical instruments in Praetorius's three-volume musical encyclopaedia. It has six parts, of which the first includes the dedication, a summary of the contents of the other parts, plus a discussion of instrument names and classification. The second covers instruments other than organs in detail, including a table of tunings or ranges. The third and fourth cover old organs and contemporary organs respectively. The fifth includes stop specifications of famous German organs, dimensions for making a chromatic octave of round metal and square wooden pitch pipes at the proper Chorthon pitch standard, and an index for the whole volume. The sixth part includes the instrument wood-engravings (usually with dimension scales) plus an index to the plates. The book has just over 300 pages.

This translation is of the first two parts only. On average there is one page of commentary to four pages of translation. In addition there is facsimile reproduction of the instrument engravings of the sixth part. The title page of this part, which shows many instruments being played, is omitted. English titles are provided for the plates, giving the types of instruments depicted. It is a pity that there is no proper translation of the German that appears on the plates. Just half of the original book is either translated or reproduced.

For the £25 one gets 11 pages of prefatory material, 78 pages of translation, 18 of commentary on specific points in the translated text, 2 of bibliography (general books - no articles), and 43 of reproduced plates. For the casual reader this is expensive. The more concerned reader who wants tunings, design details and dimensions can get them from either this book or the facsimile edition of the original, but the related text and conversion to modern units of measurement given in this translation makes it more useful. If the scholar can read German, he should stick to the original, but he needs both if his German is poor.

My first reaction was disappointment about what the translation covered. It was only those parts that I've already thoroughly explored with a German-English dictionary, and not the third and fourth parts on organs which I would love to browse in for those nuggets of information for which Praetorius is so valuable. And when will someone translate *Syntagma Musicum III*, which is so full of useful details on performance practices? But one should not criticise an author for not writing the book one would have liked him to write.

Crookes's approach is to translate Praetorius's 17th century style German into 20th century style English. By leaving out Praetorius's florid and redundant style, the translation has three-quarters the number of pages as the original parts translated (the word content of each page is about the same in both). Translation into easily-read modern English is obviously most appropriate for a popular book but it reduces the usefulness of the translation to the scholar. Praetorius's style of expression is obliterated by Crookes. We are only left with what Praetorius wrote as Crookes understands it. There is no point between Crookes's interpretation and the German original in which the reader can sense an ambiguity that could admit to a somewhat different interpretation. The more a translator appears to be a machine, the more I am inclined to trust that he is not introducing distortions into the text. The more he shows himself as an artist in his own right, the more I feel I need to refer to the original. Crookes makes no effort to hide his strong artistic personality.

Concerning previous translations, Crookes writes "most of those that I have read are clumsy beyond belief, quaint to the point of absurdity, and riddled with elementary errors." This is all we read of other translations. As for errors, Crookes must be

referring to English style. The density of errors of understanding in his translation is no lower than in the others I know. If the reader likes strong fighting words, he will enjoy this book. I, for one, would prefer such expression to be reserved for much weightier matters. (It is disappointing that when Praetorius used strong language to describe the player's feeling when a top string broke in the middle of a performance: "lying in the sh-t", Crookes limply translates it as "hamstrung".)

Crookes is clearly a stylist and more sure of himself than most scholars would agree with. On the other hand, his approach leads to a book that is particularly easy to read, and, for the most part, it faithfully represents what Praetorius wrote.

The Commentary is the place where the translator displays his knowledge of the subject matter, and Crookes is not reticent here. Most of what he writes is competent enough, but the errors and poor judgements occur often enough for the unwary to be warned to treat this section of the book with caution. If requested, I will write a detailed Comm in the style of the DoMI reviews.

Praetorius's *Syntagma Musicum II* is a mine of important information for the study of the history of musical instruments. If one is not fluent in German, this translation will be most useful indeed.

FoMRHI Comm 811

E Segerman

Review: Bate Collection of Historical Instruments - Supplement to the Printed Catalogue of 1976; End, Notch and Duet Flutes, by J Montagu, 1987, £1.

This Supplement has 12 pages and includes 13 entries under the heading of end-blown flutes, 9 entries of notch flutes, 26 of duct-blown whistles and vessel flutes, 71 of duct flutes, 12 of French and English flageolets, 46 of recorders, 5 of double duct flutes, 6 of external-duct flutes and 2 of miscellaneous entries that do not fit into the other categories. While the original catalogue covered only Western instruments made primarily for playing written music, the vast majority of entries in this supplement are of folk instruments from all over the world. The information provided includes country of origin, overall length, sounding length from block, number of finger holes and occasional descriptive details.

Modern 'reproductions' of Western art instruments not in the Collection are well represented. There is no indication of why they have been collected: ie as typical examples of good modern 'reproductions' preserved for the future, playing instruments for students to use, or for display - showing casual visitors what such instruments could look like. In each case the criterion would very much affect the interest of the reader.

This Supplement is more of a checklist than a catalogue. The original Catalogue gives more descriptive details, but not much more. One may argue that the Bate Collection is important enough to deserve a more comprehensive catalogue. Perhaps it would be better if all the details on each instrument were available on separate sheets which can be updated more readily than a published catalogue and can include more information. If these are already available there is no indication of this in the Catalogue or Supplement. One may argue that since access to the instruments and files of information on them is excellent at the Bate, compilation sheets of information for distribution would be unnecessary. This is certainly true for researchers in Britain, but researchers farther afield are not so well served by this access. In spite of its brevity, this Supplement is very welcome.

New Grove DOMI: JM 8; Further Detailed Comments: The Is.

(See Comms 604, 646, 671, 697, 727, 749 & 768 for previous comments)

Ibiturani: These are described as *Percussion bells* — How else can a bell be played? Are there any blown bells, plucked bells or rubbed bells? (yes I know we can and do play a bell with a violin bow in the studios, but that's not how bells are normally played, including those that we make in this way). To forestall comment, I'll add that shaking is, in the Hornbostel/Sachs *Systematik*, to which DOMI claims to adhere, described as indirect percussion.

Iconography of Music: fig.2, the *triangular harp or psaltery*, which the text suggests is imaginary or inaccurate, is surely a quite tolerable representation in two-dimensional art of the rota; the two rows of tuning pegs are on the same side of the instrument, but how else to show, in this period, that there were two rows? (For the identification of the rota, see Chris Page's admirable book, reviewed elsewhere in this Q, NOT the entry under that name in DOMI).

More useful for information about the forces involved and their disposition in Westminster Abbey than fig.3 [the engraving of the chorus and orchestra from Burney's account of the Handel Commemoration of 1784 (plate VII)] is the seating plan (headed No.VIII and facing page 25 of Burney's book). Not that one would wish to decry the value of Burney's engraving, but because there is better information in the same book, it was not the best choice to illustrate this point in the text. Burney does, also, cover pretty well all the matters mentioned here in his text.

This is, however, a very valuable article well worth reading by anyone (ie all of us FoMHI members) who depends on iconographical evidence for details of instruments.

Imborivungu: Described as a *Traditional cult pipe of the Tiv people* but we are not told how it was played, whether as a flute, a reed instrument, or, I suspect from the description, a mirliton or kazoo; it would have been useful to have been told, especially if my supposition should be correct, since mirlitons are so often disregarded.

Imfengwane — Impempe: These two names, on facing pages, are both given as the Zulu term for a police whistle (among other things). Are both correct?

Impalemphole: I think that I am right in saying that this side blown horn of a sable antelope used by the Swazi people of South Africa is immediately recognisable by being blown on the flat side of the horn, something that it would be useful to be told. It is, I think, only the Zulu and their neighbours who have the embouchure of a horn in this position, just as it is only the Ibo (and perhaps, judging from their bronze statuettes and plaques, the people of Benin) of Nigeria who, in Africa, blow their horns from the convex side of the curve; everyone else seems to blow into the concave side of the curved horn or tusk.

Inanga: You may be interested to know that this technique of running one long string to and fro across a trough zither, with the string held only by its own friction in a loop round a point and in a series of notches at each end of the instrument, does in fact work. I have had one of these instruments for about ten years (it wasn't new then), and it still retains different pitches from each length of string.

Invention: The description of the inventionshorn is odd in places. Its

value, that of crooks in the tuning slide and thus a fixed mouthpipe, is that the body of the horn, and especially the bell, is always at the same distance from the mouthpiece; it is this, not *keeping the instrument close to the body*, that makes hand-stopping easier (not that makes hand-stopping possible — hand-stopping is possible with all sorts of positions; it just gets more and more awkward, especially if one is using a master crook and several couplers, as was the custom in England well into the hand-horn period).

Unless one takes the *Invention* to include the tuning slide, it is not true to say that the *shape and general design ... proved ideal when valves came to be fitted ... and was almost universally adopted* — in Germany certainly, but both in Austria and in France (and thus in England where we were still using the French pattern instrument into the 1930s and after) the use of a terminal crook between horn and mouthpiece was universal, and it was this use of a terminal crook that the *Invention* was invented to replace, as this article makes plain.

Ipu hula: This entry badly needs editing. The instrument is constructed of two gourds, one of which is described as being *large, long and globular* and the other as being *short and squat*. If one takes globular to mean globe-shaped (ie that of this planet for example), it is the latter and not the former which is globular; if one takes the word, as is usual, rather more loosely, then both are globular. Later we are told that *a hole is centred above the resonating chamber*, but this is the only indication that there is any resonating chamber.

Iyup-iyup: *The instrument is placed in the player's mouth while blowing...* Would you not agree that this is true of all wind instruments (we are told initially that this is an idioglot clarinet), and therefore hardly needs saying? Unlike Eph, I do not usually name the authors of these articles (one reason is that so many of those on which I comment are nameless, though I must say that for some reason references to the source of information of anonymous entries is much better among the Is than previously in the alphabet), but this is by no means the first of Margaret Kartomi's articles that I have picked up for this sort of reason. In any reference work such as this there are bound to be some authors who need more editorial help than others. It is regrettable that some did not receive it.

What's wrong with early music? Christopher Page

With reference to some recent communications in which this question has been asked, I would like to suggest that nothing is wrong. Some marvellous things were done in the seventies by some marvellous people, but do we really want a return to all the hype that sometimes went with it --the ear-catching changes of colour, for example (crumhorns in one piece, recorders in the next, and so on)? Who wants to slip back into the days when we believed that anything which sounded odd or surprising was likely to be authentic? When we present concerts today, or talk to those in power (journalists, radio-producers, and the rest) there is no need for us to play the ring-master, skipping to and fro and bawling how good the show is at every turn; if what we are doing when we perform old music is any good then people who have it in them to like the results will like them and be enriched thereby. This is happening; there are groups performing medieval and renaissance music now whose records are selling better than the companies who made them ever dared hope.

Crumhorns? Shawms? Rebecs? Sorduns and the rest? I will not speak for renaissance music, but I am quite certain that no explicit and definitive evidence has ever been found for the use of these instruments in the surviving music of the period 1200-1400 (with the exception, that is, of a few dances). If any reader of these lines has found any such evidence, then I and some others who have written on medieval performance in recent years (David Fallows, for example, and Craig Wright), will be very pleased, and very grateful, to hear of it. (Yes, there is Machaut's famous reference to organs and the cornemuse, whatever that may be; anyone who thinks that this reference is an open-and-shut case is invited to go back to the original letter which bristles with problems -as does the whole *Voir Dit* in which the letter appears). Nonetheless there seems to be a widespread belief amongst some players that the 'grass roots' activity of amateur musicians using a wide range of instruments (especially reeds), and going all out for 'fun', somehow corresponds to the true spirit of medieval music -a spirit that has been lost, so the argument runs, during the course of the eighties. I venture to suggest that this is a false picture; indeed it is time that we put this sentimental notion of the Middle Ages behind us. It is obvious that anyone can sing and play medieval music today in whatever way he or she thinks fit; let us be clear, nonetheless, that most of the music which survives from the medieval centuries had nothing to do with amateurs; it was primarily the repertory of chapel singers who were required to sing plainchant, to sing liturgical polyphony and (on occasions) to perform secular polyphony as well. The chansons of Machaut and Dufay, for example, are often highly controlled and introspective works written for the delectation of a small company; most of them are not 'fun' any more than a Schubert song is 'fun'. If they have anything to offer us today it is their delicacy and, in most cases, their high seriousness (a quality which is self-evident in the poetry).

Recent Changes in Early Music

In Comm 755, Bill Sampson compared early music today unfavourably with the state of the movement a decade or two ago. Early music has changed since then, and whether it has become better or worse depends on what the criteria for judgement are. I want here to present my perceptions of what major changes have occurred, what expected major changes have not occurred, and a prediction of major change in the future.

The most obvious change is towards professionalism. There used to be a moderate number of amateurs who had no aspirations towards public performance, a large number of part-time semi-professionals who played recreationally and performed publicly whenever they could, and a small number of professionals who made a living out of performing and teaching. Today, the number of professionals has increased (mainly in the baroque part of the field) while the number of semi-professionals and amateurs has dropped (mainly in the medieval and Renaissance parts).

The professionalization of the field has been associated with a raising of performance "standards". These "standards" mainly involve precision in intonation and timing, and in "musical" phrasing and tempi, which in the early music field now all match that which is expected in professional performance in the "classical" or "serious" music tradition. This makes early music more acceptable to the discriminating "classical" music listener and especially to the broadcast and recording producers and the critics, all of which are obsessive about "standards", apparently aiming for "perfect" or "definitive" performances.

The increase in "standards" has led to more broadcasts of early music and more early music records in the catalogues of the large record producers. Nevertheless, it is not clear whether there has been any significant increase in the total number of early music records sold per year or in the number of different recordings in current catalogues.

The overall sales of early instruments and music has decreased. One factor here is that prices have increased much faster than inflation. So has the cost of booking an early music concert. Concerts are fewer and attendance has fallen.

All of these statements about relative numbers are my impressions and they really should be verified (or contradicted) by proper surveys. Research in the development of the modern early music movement is urgently needed while most of the information is not yet irretrievably lost.

Early music performances today are more historically accurate than they used to be. The change has almost exclusively been in using the types and numbers of voices and instruments historically indicated for each repertoire. Parallel with this, there has been a sharp decline of interest in pursuing historical accuracy in instrument details and in performance style. A general "early music" style of performance has been settled on by the professionals, in conformity with the "standards" mentioned above. It differs from modern style mainly in using less vibrato, a semitone-lower pitch standard and thinner sound leading to greater clarity.

The professional musicians, who are mainly responsible for the changes, are well satisfied. Their ambition of being fully accepted in the "classical" music world has been realized. They consider that going for more historical accuracy in detail concerning instruments, technique and performance style is impractical considering the wide range of repertoires they perform. This does not bother the musicologists since these aspects of music history are outside their research interests. The musicologists are well satisfied with the current state of early music since the musicians keep expanding repertoire using their research. Also quite satisfied are those, besides the musicians,

who are particularly sensitive to "standards", ie the "discriminating" fraction of the listening public, the producers of broadcasts and recordings, and the critics. They are getting more variety in musical performances of the type they can accept.

This "standards" lobby revels in the subtleties of modern performance practices, which they are very sensitive to. They are the ones in power, determining musical taste. "Romantic excesses" are abhorred, so performances of music of any period that exhibit more overt emotionality than is implied in the notation are taboo. This then excludes any serious attempt to recreate Italian baroque style. French baroque style and many other early styles back to the troubadours cannot be attempted because the subtleties of a true declamatory style are quite different from the subtleties of the modern cantabile style.

The amateur and semi-professional part-time early musicians have been discouraged by the rise in "standards". They were attracted originally by the relative freedom early music offered - a large part of the surviving music could be performed on a wide choice of musical resources, and it seemed not to demand a refined technique, apparently being originally intended for amateurs. But now with the highly polished lively-tempo performances the professionals are offering ringing in their ears, the part-timers have become dissatisfied with their own efforts. Adding to this discouragement, the historians of music and instruments have produced research indicating that much of the freedom that the part-timers enjoyed, especially in the use of instruments, is not historically justified.

Only suppliers of equipment and music to the field who are particularly strong in the baroque part can be satisfied with the changes that have occurred. Orders for instruments such as lutes and harpsichords are down, but this would result from a decrease in the rate of expansion of the field, and is not in itself evidence of decline.

Ultimately, the most important interested party in this question is the listening public. That section of the public that always enjoyed Bach, Handel, Haydn, Mozart, etc in modern performances finds some attractions in the newly available early-music versions of familiar music and the wider range of unfamiliar music offered. That (perhaps naive) section of the public that expects early music performances to be historically accurate could be quite disillusioned if they become aware that they are hearing only a "practical" compromise with modern taste and the convenience (and limitations) of the musicians. That section of the public that finds performances of "classical" music boring is generally not finding early music performances any more interesting.

An analogy with ecology may provide a useful measure of the health of the early-music field. Ecologists consider that the health of a particular environment depends on the number of different species it supports. Diversity leads to resilience. A pestilence that wreaks havoc with one species will then have minimal effect on the total environment. The "classical" music world in a sense was wise to accept early music into its fold since this added diversity in repertoire. But there is little danger of extensive parts of the repertoire going badly out of fashion. The danger - the pestilence that could make most "classical" musicians redundant - is developments in computer technology:

It will not be long before optical readers will be able to routinely transfer all of the information in a musical score into a computer. With digital sound the computer is able to produce any sound the ear can hear. The sound of each instrument soon will be readily reproduced very accurately and modified for whatever acoustic ambiance we want it to sound as if it was in. Initially, the musician at the computer console will control tempo dynamics and phrasing, just like a conductor does. Eventually, the computer will compare a score with a recording and deduce the characteristic performance style and be able to apply it to similar scores without a musician at the console. The slight variations in pitch and timing that give a "live" feeling to music are already being put

into pop recordings by computer. The coveted "perfect" performances will be easy and cheap to produce. How long will it then sustain interest?

What musicians are supposed to have (that a computer cannot) is imaginative spontaneity, so that every performance could be so different that non-experts can tell. A computer cannot share with the audience the excitement of taking risks while straining one's limits, as a human performer can. Modern attitudes towards professionalism in music emphasize apparent effortlessness, therefore minimizing the advantages of attending a live performance over a recording - or a computer performance. The current fashion in "classical" music is so obsessed with its view of the composer's intention, of standards of precision and its narrow definition of "musicality", that the freedom of individual expression and the scope for imaginative spontaneity and risk-taking on the part of the musician is probably less than at any time in the history of western music. (One of the attractions of being an early musician today is that one is often dealing with unfamiliar repertoire, and with less consensus on the composer's intention, there is a bit more scope for individual expression.) The lack of diversity in interpretation and performance style makes the whole "classical" music field very unhealthy in the ecological sense. Performances by musicians then become especially easy to replace by the computer. The "classical" musicians, with their early-music recruits, could well be an endangered species.

Memb. Suppl. 1, p.1

1987 FOMRHI List of Members - 1st Supplement as at 2nd July 1987

* in left-hand margin = change of address or other change

- * Giuseppe Alfonso, C.P.384, Pistoia, Italy.
- * Edward Ball, 8 Linden Road, Didsbury, Manchester M20 8QJ, UK.
Sand Dalton, 64 Hovey Street, Watertown, MA 02172, USA (oboe, M,P; trav, recrdr, fag, P).
- * Catherine Folkers & Ardal Powell, Red Mills, HCR Box 83, Cloverack, NY 12513, USA; (518) 851-3680.
Stuart G. Forbes, 2506 Huntington Lane, Apt.#1, Redondo Beach, CA 90278, USA; (213) 376-1753 (crtal, shawm; M).
- * Peter Foster, 105 Eastern Avenue, Lichfield, Staffs WS13 6RL, UK; 0543-263884.
- * Olov Gibson, Villagatan 118, S-621 47, Visby, Sweden.
Myles Gilmer, Gilmer Wood Co, 10425 N.W. Leidlaw Road, Portland, OR 97229, USA; (503) 292-4182 (woods; D).
- * Andrew Godfrey, Smithy Cottage, Reades Lane, Dane-in-Shaw, Congleton, Cheshire CW12 3PJ, UK.
Roberto Groppetti, Via Martinengo Cesaresco 20, I-2500 Brescia, Italy (str instrs, gtar, M,R; lute, M; fidl, R).
J. M. Hamber, 76 Selwyn Street, Onehunga, Auckland, New Zealand (early ww, esp gemshn, bagpp).
- * Dirk Jacob Hamoen, Wilhelminaweg 9, NL-3603 CR Maarssen, Netherlands; 03465-69790.
Lynette Hunter, Post Office Box 1025, Conifer, CO 80433, USA (hpschd; M).
- * Hubert Keller, Hengsbachstr.88, D-5900 Siegen, West Germany.
David Kerr, 1424 S.E.Oak, Portland, OR 97214, USA; (503) 239-9460 (bar vin, M,C,R,P; gut strings, M).
- * Tom Lerch, Pflügerstr.68, D-1000 Berlin 44, West Germany.
- * Arne Lindberg, Vargvägen 16, S-122 47 Enskede, Sweden; 08-81 18 01 (lute, gtar; M,P).
Mark Lindley, Music Department, The Chinese University of Hong Kong, Shatin, NT, Hong Kong (tuning, temprmnt; L,W).
- F Cajsa S.Lund, Kungl. Musikaliska Akademien, Blasieholmstorg 8, S-111 48 Stockholm, Sweden; 08-109399 / 115720 (prehist.intrs; coll,W,res).
- * Stratton & Caryl McAllister, POBox 337, Delafield, WI 53108, USA.
Thomas McGahey, POBox 2327, Station A, Champaign, IL 61820, USA (hpschd, virgnl, clavchd; M,R,hist).
Library, Museum Applied Arts & Sciences, POBox K 345, Haymarket, NSW 2000, Australia.
- * Ben Nieuwhof, Zocherstr.2, NL-3961 CK, Wijk bij Duurstede, Netherlands; 03435-71783.
- * John Rawson, 3 Downshire Hill, London NW3 1NR, UK; 01-794 4002.
Nicholas Shackleton, 12 Tenison Avenue, Cambridge CB1 2DY, UK; 0223-311938 & 334871 (clarinet; coll,C,R,P).
Paul Sheridan, 50 Ivanhoe St, Bessendean, WA 6054, Australia; 279-1964 (gtar, lute, thrbo, chit, harp, hpschd; M).
- Miriam Skidan, Yaski St.6, Beer-Sheva, Israel 84222; 057-77239 (recrdr; M,P).
Hugh Spencer, 267 Cordeaux Road, Mt.Kembla, NSW 2500, Australia (wind, bagpp, orgn, barrel-orgn; M,R).
- Edward E.Swenson, 11 Congress St, POBox 634, Trumansburg, NY 14886, USA; (607) 387-6650 (viennese frtepno; R,C).
- Max & Heinrich Thein, Stevenstraße 7, D-2800 Bremen 1, West Germany; 0421-325693 (brass; M,R,C,W).

- Mac J.Thorpe**, 375 London Road, Leftwich, Northwich, Cheshire CW9 8EG, UK; 0606-2406 (all instrs, esp ww, brass; C,R).
- F David J.Way**, Zuckermann Harpsichords Inc, 15 Williams St, POBox 121, Stonington, CT 06378, USA; (203) 535-1715 (keybds; M).
- Raphael Weisman**, Box 610, North Star Route, Questa, NM 87556, USA; (505) 586-1307 (band, orph, cittn, gtar, lyre, vih, lute, harp, hrdy-g; M).
- John Weston**, 10 Morkinshire Lane, Cotgrave, Notts NG12 3HJ, UK; 0602-893336 (recrdr, gamba, P; early keybd, M,P).
- Barbara Williams**, 11 Aird Street, Camberwell, Vic 3124, Australia
-

ORGANOLOGICAL INDEX

All Instruments:	Cajsa Lund	Mac Thorpe
String Instrs, gen:	Roberto Groppetti	
Strings:	David Kerr	
Keyboards, gen:	Dave Way	John Weston
Fortepiano:	Edward Swenson	
Harpsichord, etc:	Lynette Hunter, h	Thomas McGahey, hv Paul Sheridan, h
Clavichord:	Thomas McGahey	
Lute / Guitar:	Roberto Groppetti Arne Lindberg	Paul Sheridan Raphael Weisman
Vihuela:	Raphael Weisman	Cittern etc: Raphael Weisman, cob
Lyre:	Raphael Weisman	Fiddle: Roberto Groppetti
Violin family:	David Kerr	Viola da Gambe: John Weston
Hurdy-gurdy:	Raphael Weisman	
Harp:	Paul Sheridan	Raphael Weisman
Woodwind, gen:	J.M.Hamber	Mac Thorpe
Traverso:	Sand Dalton	
Recorder:	Sand Dalton	Miriam Skidan John Weston
Gemshorn:	J.M.Hamber	Organ: Hugh Spencer
Clarinet:	Nick Shackleton	Curtal / Dulcian: Stuart Forbes
Oboe & Bassoon:	Sand Dalton	Shawm: Stuart Forbes
Bagpipes:	J.M.Hamber	Hugh Spencer
Brass, gen:	Mac Thorpe	

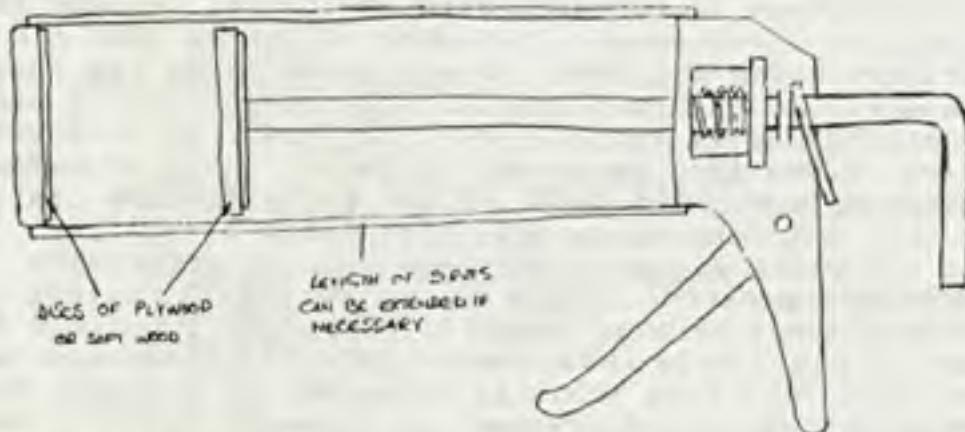
GEOGRAPHICAL INDEX

Australia:	Mus Appl.Arts/Sci, NSW Hugh Spencer, ---	Barbara Williams, Vic Paul Sheridan, WA	
West Germany:	Max & Heinrich Thein	Hong Kong: Mark Lindley	
Israel:	Miriam Skidan	New Zealand: J.M.Hamber	
Sweden:	Cajsa Lund		
UK:	Nick Shackleton, Camb	Mac Thorpe, Chesh	
London:	John Rawson, NW3	Manchester: Edward Ball, M20	
(UK c't'd):	John Weston, Notts		
USA:	Stuart Forbes, CA Dave Way, CT Lynette Hunter, CO Thomas McGahey, IL	Sand Dalton, MA Raphael Weisman, NM Cathy Folkers, NY Ardal Powell, --	Edward Swenson, NY Myles Gilmer, OR David Kerr, -- S.A.C. McAllister, WI

FoMRHI Comm no. 815

Charlie Wells.Clamps for woodwind parts.

When glueing mounts to the ends of woodwind instrument parts I have always found difficulty in finding enough suitable clamps, until recently that is, when I discovered the mastic gun. Both sash clamps and large G clamps are very expensive, not very convenient and I possess only one or two of each. The ordinary mastic gun, sold at DIY shops and builders' merchants for just over £1 each, will exert ample pressure in a controlled fashion and perfectly in-line. Without modification they can be used for diameters up to 50mm and lengths up to about 220mm and can be extended quite easily if necessary. All that is needed is a disc of 6mm plywood or a soft wood stuck to each end to provide soft "jaws".



I find they work so well that they could easily have been designed especially for the job.

FoHMRHI Comm. 816

Nicholas Shackleton

The Clinton System Clarinet

Your reviewer of the exhibition "The Historic Clarinet" asks whether there is a consensus view of what constitutes the Clinton System. This should not be a matter of the consensus view, but of what is correct. One place where the Clinton Model (of which there are plenty of examples extant) is illustrated and its fingering described by George Clinton himself is in "Eight Grand Studies for the Clarinet by J. Mohr, Revised fingered and exemplified by Geo. A. Clinton, Hon. R.A.M." This was published by Boosey & Co. ("... makers of the celebrated reed instruments, and brass instruments with the famous compensating pistons" in 1911. The distinctive feature of the instrument (misunderstood by your reviewer) is a vent for low Bb and clarinet register F natural operated by a covered plate (not a ring) for R2. It also has the Barret action on the upper joint, and the so-called "patent Csharp".

FOMRHI Comm. 817

Nicholas Shackleton

John Hale

In Jeremy's New Grove DOMI comment on John Hale he feels that Hale may have been comparatively unimportant as an instrument maker. I have often wondered whether he invented the idea of the separate mouthpiece with long tuning tenon for the clarinet, in which case he would deserve the epithet "important" (it was used almost universally in England for half a century). At least two of his clarinets survive complete with two original mouthpieces. In both cases, one mouthpiece is integral with its barrel (as was the case with earlier instruments, including all those that are known made by Collier) while the other is separated, with the long tenon characteristic of later English mouthpieces. Fully pushed in, the separated one is slightly shorter; there is no doubt that the intention of the long tenon was to permit pitch adjustment. In Eric Halfpenny's classic study of the early English clarinet he deduced that the long tenon originated when a repairer drilled out and replaced the mouthpiece from an originally combined mouthpiece/barrel. While he was certainly correct in deducing this history of some specific examples, I believe that had he known of these Hale instruments he would have come to my conclusion, that John Hale actually invented the concept. Since the clarinets that I have discussed are stamped "I.HALE / LONDON / LATE / COLLIER" with the name Collier in a different script (presumably using the inherited stamp), I assume that they were made very soon after Hale took over from Collier (by no means all Hale's instruments are so stamped), i.e. soon after 1785. In fact this is virtually the only new information on the early English clarinet that has come to light since Eric Halfpenny's article (GSJ XVIII, pp. 42-56) appeared (although this may be as good a place as any to state that the clarinet barrel stamped Stanesby Junior to which Halfpenny alludes was certainly not made by him; it has the typical waist of the early nineteenth century English barrel and the fact that it is stamped "JUNIOR" as opposed to "IUNIOR" is another give-away).

An interesting indication of Hale's interest in the intonation of his instruments is that several of his surviving clarinets (including the two mentioned) have three black dots punched in the base of each socket, and at the top end of each tenon, in such positions that it would be impossible to shorten the instrument at any joint without removing these dots. I see this as analogous to a modern equipment manufacturer who states that his guarantee is negated if any unauthorised changes are made, and incorporates some device so that he can detect any such changes.

I agree with Jeremy that we might do better in our attempts to judge who made some of the instruments bearing the stamps of wholesalers - but there seem to be few people who actually look at all carefully at the instruments that they see, list or catalogue.

FoMRHI Comm 818

Further to Comm. 804

Geoffrey Burgess

UPDATE TO

INTERNATIONAL CHECKLIST OF LOCATIONS AND CITATIONS OF EARLY OBOE REEDS AND
ACCESSORIES.

Austria

Vienna, Zuleger's Shop, Phorusgasse

Early oboe reeds were on display at International Double Reed Society Conference, 1985: catalogue forthcoming.

England

DELETE Broadway, Snowhill Manor. The reed was made by our own Mary Kirkpatrick!

Edgeware, Boosey and Hawkes Collection

oboe reeds dating back to at least mid 19th-century.

DELETE Hadden Hall, Derbyshire

only equipment vaguely relevant is a staple of c.5.5? from
33.9

end of 17th-century. Probably for a shawm. (Info. from P. Hendrick)

DELETE Twickenham, Sussex, Kneller Hall

no oboe reeds

Reeds and staples associated with the Galpin oboe: "No 205: Oboe in a [sic]. An old English watchman's waight or hoboy of the latter part of the 17th-century...length including crook 25.5 "...

Catalogue of the Royal Military Exhibition (1890)

The oboe is illustrated in F.W.Galpin, Old english Instruments of Music (1910) minus the crook but with a reed

In the same author's Textbook of European Musical

Instruments (1937) it is pictured with a short crook and no reed. (E.Halfpenny, GSJ, 2). Whether any of these reeds were original is, of course, unknown.

Eric Halfpenny Collection

a pre-1850 reed with a staple the same length as those in the Pitt-Rivers Collection.

OF INTEREST York Castle Museum

3 musette chanter reeds.

Italy

Padua, Conservatorio Pollini

Cor anglais reed without a staple with instrument by Fornari dated 1819. (Measurements from A.Bernardini)

Most of the corrections to the English listings are per favore Peter Hendreck.

I am also grateful to Maurice Byrne for bringing more complete documentation on the Ling family to my attention which will help to establish the date of the reeds with more accuracy.

The Musical Uses of the Word "Consort"

In his description of Lord Hayes' Maske published in 1607, Campian wrote that there were three groups of musicians placed in the stage set. One of ten musicians included two treble violins and a double sackbutt, with a bandora, a harpsichord and five lutes. Another had nine violins and three lutes. Campian introduced the third group as follows: "and to answer both the Consorts (as it were in a triangle) sixe Cornets and sixe Chappell voices were seated almost right against them ...". The last two groups each had twelve people. Campian later referred to "the consort of 10" and "the consort of 12", the latter clearly being the violins and lutes. Later yet, Campian wrote "the violins began the third new dance", apparently referring to the same group. If he had to distinguish between this consort and another that was also primarily composed of a particular type of instrument, he could easily have called it a "consort of violins", having already called it a "consort" and "violins". Let us call such a consort where all of the single-line parts are played by a set of one kind of instrument and the continuo played on one or more instruments of a different type, a "set-based" consort. The Consort of ten, like the Morley/Rosseter type had more than one type of instrument playing the single-line parts and more than one type of continuo instrument. Let us call this a "diverse" consort. Another aspect of such a consort seems to be that the number of plucked-string continuo instruments equalled or exceeded the number of instruments on single-line parts.

The "sixe Cornets and sixe Chappell voices" was an ensemble of different types of musical forces, but was not called a consort by Campian. It seems that in the first decade of the 17th century, the primary meaning of the word "consort" was an ensemble of different types of instrument including a plucked string continuo. This was probably the meaning when Charleton (1654) wrote of "consortative instruments such as the virginals and lute", and when Roger North wrote of "Corelli's consorts". Some time in the 17th century the organ became acceptable as a "consortative instrument" since Mace's consort (1676) included a set of viols with (apparently obligato) organ.

By the first decade of the 17th century, ensembles with plucked-string continuo were particularly popular. Morley's First Booke of Consort Lessons (1599) was so successful that it needed a reprint in 1611 and Rosseter published his set in 1609. Before this popularity, the word 'consort' seems to have meant an ensemble of different musical forces but without the plucked string continuo being necessary. So Spencer (The Countess of Pembroke's Arcadia Lib III, p 287, written 1580-1590) could write that after a cornet solo "an excellent consort straight followed of Five Violles and as many voices ...". This meaning continued as a secondary meaning of the term well into the 17th century, and it was probably in this sense that Francis Bacon (1627) listed pairs of instruments or instrument types as consorts that "agree well" (the Irish harp and bass viol, the recorder and stringed musicke, and the organ and the voice) and those that "Agree not so well" (the virginals and the lute, the Welsh harp and the Irish harp, and the voice and pipes alone).

It may be significant that Bacon wrote "voice and pipes alone" rather than "voice and pipe". "Pipes" were wind instruments and not an organ, and "alone" could imply that wind instruments often played with another type of instrument, perhaps as a set-based consort. The fact that this consort involved more than one pipe, and that the other combinations would usually play in three or more parts, could imply that it was expected that a consort would not play music in as few as two parts.

Another important characteristic of consorts is shown in Bacon's statement "... Musick which we call broken Music or Consort Musick ...". So one of the at least three parts was notorious for being extensively divided ("broken" meant "divided"). This was not a characteristic reported for consorts much later in the 17th century when set-based

consorts predominated. From as far back as 1578 (when entertainment for Queen Elizabeth's progress to Norwich included a "consonce of broken musicke", which apparently was of the Morley-Rosseter type), extensive division was characteristic of at least diverse consorts. I know of no evidence that extensive division was characteristic of set-based consorts, where the continuo was less prominent, but it could have been true (at least early in the 17th century) with members of the set playing the divisions rather than one of the continuo instruments (as seems to have been the case with diverse consorts).

In the early 17th century, when a single lute or keyboard instrument played all of the parts rather than a continuo, the ensemble seems not to have been called a consort. Dowland called his *Lachrimae* (1605) "Lute-lessons" and not "consort lessons".

And now to specific consideration of Peter Holman's points in his contribution entitled "The Meaning of 'Consort'" included in Bulletin 47, p 2. He gives three pieces of evidence supporting his point that the term sometimes referred to a set of instruments of only one type. The first shows that the terms "consort of viols" and "the consort of flutes" and "the consort of hoboys and cornetts" appear in a 1605 document. I contend that all ensembles (including these) that had the word "consort" associated with them at this time most probably included plucked-string continuo instruments. If Holman can demonstrate that these ensembles played without continuo when being described as 'consorts', his point is proven; if not, my contention is favoured since Campian's consort of twelve remains the most likely description of a consort of bowed instruments.

His second piece of evidence cites a document which indicates that for the court in progress in 1604 and 1605, one cart was required for the "Musicons" and three carts for "The Consorte". Holman assumes that the latter is in error and should have been plural, meaning "some or all of the wind groups and/or the violin band". But Woodfill (p 186) writes "Concert giving must have been the principal function of the group known from at least 1614 as 'the consort' ...". Poulton in her "John Dowland, his Life and Works" listed (p 87) the members of "The Consorte" that played for the funeral of James I in 1625, and it included 11 names. There were at least four lute players, three bowed string players, a harp and two singers (who doubled as instrumentalists). The carts document pushes the evidence for a particular ensemble that went by this name back at least to 1604, if Woodfill is correct. The 1614 evidence Woodfill refers to is a warrant of that date for maintenance of "his majesty's virginals for the consort". The size of "the Consorte" could easily have been as large in 1604 as it was in 1625, and three or four musicians per cart does not seem unreasonable. Then the "Musicons" who were not members of the Consorte would have numbered about four. There would have been no need for a large fraction of the Royal musicians to come along on these progresses since the hosts would have organized most of the entertainment for their Royal guests.

Holman's third piece of evidence is a 1629 document concerning food allowances for "The Consorts" and "the Voyces ...". I hope he is sure about the last letter being an "s" rather than and "e". If it is an "e", the above considerations apply. If it is plural, it could, as Holman supposes, refer to some or all of the groups which were primarily sets of instruments (I would assume that they also had continuo instruments). Alternatively, the consorts could have been diverse consorts; the original group called "The Consorte" (in which Philip Squire played harp) plus the consort of the harpist, le Fieille. Le Fieille was in the King's Musick from 1629-41 and evidence for his consort in 1635 (when a lute was payed for) is given on p 187 of Woodfill. In a diverse consort where greater loudness than that of the original group of six was required, it is likely that the harp did the divisions otherwise played on the treble lute.

Peter Holman's point is that the four instrumental groups in the Royal music that primarily played on sets of single types of instruments were sometimes called "consorts". There is no dispute here, but he concludes that this implies that the term

applied to "a group playing [on only] a set of instruments of one type." My first point is that it was rare for the four Royal instrumental groups to be called "consorts" with the preferred terminology being "the Violins", "the Flutes", etc (contrary to modern usage). Early in the 17th century, the word was much more often used to refer to what I call a "diverse consort", for which there was no other term than "consort". The term, when used with no qualification (and when the context does not insist otherwise) meant a diverse consort. This is clear from the Morley, Rosseter and Leighton prints. There should be no doubt that this also was the meaning when Adson continued the title of "Courtly Masquing Ayres" (1611) with "For Violins, Consorts and Cornets". The only ambiguity in this title is whether plucked string continuo played with the Violins or Cornets. My second point is that whenever "the Violins", "the Flutes", etc, were referred to as consorts (and probably at other times as well) they qualified for the term by including plucked-string continuo (ie they were what I call "set-based" consorts), and perhaps also by including extensive division in their style of playing. I know of no evidence that historical usage of the word "consort" included a set of one type of instrument playing with no other type of instrument, as is the primary modern usage.

FoMRHI Comm 820

E Segerman

Discussion of the physics of bowing - Response to Comm 795

Let us look at the basic physics of vibrating objects. Any object is capable of vibrating in an enormous number of ways depending on how vibration is stimulated. The amplitude at any point in any of these ways can be expressed as an appropriately weighted sum of the amplitudes (at that point) of a set of normal modes of vibration of that object. What is special about a set of normal modes is that one can pump energy in or out of any one of these modes without affecting any of the others. In one special set of normal modes, the displacement at all points in each mode is a sine-wave function of time. The frequency spectrum of any vibration is expressed in terms of this special set of modes. But this set of normal modes is not the only possible set. There are many possible sets of normal modes, each of which can be described as a particular sum of sine-wave normal modes.

A bow excites vibration in a solid object by a slip-stick mechanism. During the stick part of each cycle, the point of the object in contact with the bow moves with it at constant velocity. In the slip (or 'flyback') part of the cycle, that point of the object moves in the opposite direction at another velocity which is close to constant. So displacement of the object at the bowing position can be described as a saw-tooth vibration with time. The bow speed, bow pressure and frictional characteristics of the interface between the bow and vibrator determine a range of frequencies within which the bow can excite the solid. One can get a stable oscillation of the object being bowed when the frequency of a normal mode of the vibrator falls in that range and so can accept energy from the bow. It is not a sine-wave normal mode because it must be a sawtooth wave, at least at the bowing position. But it is a perfectly good normal mode nevertheless, and bowing builds up its amplitude. It has a particular frequency, but it includes a wide range (fundamental plus harmonics) of sine-wave normal modes.

The excited vibration mode has a stable frequency because the vibration of the object kicks the bow from slip to stick and from stick to slip. The bow just offers a continuous range of possible frequencies and the object picks the one that corresponds with its own normal mode that conforms to the saw-tooth displacement at the bowing position.

Some people imagine that the stick part of the cycle ends when the increased force due to increased displacement finally overcomes the frictional force. This view has been taken not only by laymen, but by respected acousticians as well. A. Wood, in his Acoustics (1940), wrote (p 382) "The string adheres to the bow and moves with it until the tension overcomes the static friction, when it slips past the bow ...". A. H. Benade, in his usually excellent book Fundamentals of Musical Acoustics (1976), made the same error (p 517). This model of the slip-stick process implies that the frequency of vibration is controlled by the bowing pressure and speed and the coefficient of friction. But we know that this is not true for the bowed string because the same bowing conditions lead to different frequencies when the vibrating string length is changed by fingering. It is the vibrating object which jerks the bow hair from stick to slip and from slip to stick. Greater vibration amplitude results from greater bowing speed, with frequency held constant by the constancy of frequency of the object's normal mode. [In all this we are assuming that the amplitude of vibration is very small relative to the effective wavelength of the vibration (ie the velocity of vibration propagation in the object divided by the frequency). If the amplitude is greater than this, non-linear effects complicate matters.]

In general, bowing an object will produce a single-pitch sound if there is a normal mode of the object's vibration which conforms to what the bow offers, ie saw-tooth motion in the direction the bow is moving. In the bowed string, this happens to be a mode in which a kink travels back and forth across the string, with the string always being straight between the kink and each of the stationary ends. In physics jargon, the mode has to conform to the 'boundary condition' of saw-tooth motion at the bowing position.

In the plucked string the boundary condition is that all points of the string have no velocity at one time in the cycle, and at that time the string has the shape it has when just released from the pluck. It just happens that this normal mode involves two kinks travelling in opposite directions with the boundary condition satisfied when the kinks meet. The fact that one of these kinks on the plucked string is similar to the kink in the bowed string is purely fortuitous.

The Helmholtz approximation is a highly idealized and simplified picture of what happens when a string is bowed. It neglects rounding at the kink (mainly affected by the width of bow hair in contact with the string) and an extra kink in the string's shape at the bow due to the bowing force. Also neglected is that the bridge end of the string is not a stationary end since it must move to set the instrument in vibration. This all gets to be rather complex, and it only deals with what happens in the middle of the bow stroke. At the beginning of the stroke we get the 'transient' sound, when many modes of vibration of the string as well as of the instrument are excited. These all rapidly die away as the particular resonant mode of the string builds up. But the transient sound is very important in the ear's evaluation of tone.

Phosphorous iron music wire

Martha Goodway has recently published an article (1) which promises to revolutionise our understanding of the history of iron music wire. In this article I'll summarize what she's said, and amplify the discussion with respect to harpsichord string scales in the late 16th century.

Martha Goodway's data on the composition and strength of samples of 18th century iron music wire are in line with those previously published (see eg (2)). What is revolutionary is that she has pointed out that the only significant alloying element is phosphorous (typically 0.15%), and she has adduced modern evidence that very-low-carbon high-phosphorous irons can be drawn to the high tensile strengths (1600 MPa) inferred for the longest scaled historical instruments (eg Praetorius's orpharion (3)).

She also gives historical evidence that iron for music wire was obtained as a byproduct of producing low-phosphorous iron for carbon-steel making. The high phosphorous iron has a lower melting point, and she gives a quote from Moxon (1677) which says that the first iron that runs from the stone when it is melting is only preserved for the making of wire. Hubbard also gave a quote that confirms this (10) "the first iron that runs from the ore when it is smelted, being the most ductile and strongest is saved for the making [of music wire]. The blister-steel process was discovered in the second half of the 16th century (the earliest date for a factory producing it is 1601), which ties in well with anomalously long scaled instruments of that period. This blister steel required low phosphorous iron to successfully introduce the carbon. Previously the speculation (3) was that the new high strength wire was carbon steel - now it appears that it was the phosphoritic iron alloy discarded from the melt when making carbon steel that turned out to have the right qualities for music wire. What's more, it seems that phosphoritic iron alloy only has the desirable ductile quality if it has a very low carbon content. In other words, you can make a strong wire either by alloying your iron with carbon or phosphorous, but not both at once, and that historically it proved too difficult to make a carbon steel with the requisite ductility until the 19th century. The burning off of the carbon was encouraged by the curious method of extracting the iron by twirling it round on a pole. (See also Gug's account of this technique (2)). Finally the article includes photomicrographs of the iron showing slag inclusions. These potentially limit the strength obtainable, and could be decreased by appropriate techniques that could have been used at the time,

It is curious that up to now no-one has tied in the anomalously long scales discussed by Abbot and Segerman (3) with what happened to harpsichords in the late 16th century. Martha Goodway refers to Praetorius's drawing of an Italian harpsichord as evidence of long scalings, but this is a non-example (12): Praetorius actually says that this is a fourth lower than Kammerthon (ie Fourth below $a' = 430$ Hz). These are the Baffo type instruments (4). However in Flanders, for instance, we have a jump from Ioes Karest's 11 1/2 inch scale to Rucker's 14. We also have the emergence of the rectangular Italian spinettal(?) at about the same time which had longer scales (typically 12 1/2 or 13 inches instead of 10 1/2). (The extra length of the treble strings made it physically easier to extend the treble compass to F'' on these instruments). The picture is complicated by the question of pitch of course (8): the Venetian pitch (a semitone high) the Ruckers & voet pitch (Catholic Kammerthon, a tone low), Ruckers 5 voet pitch (Catholic Kammerthon = Protestant Kammerthon) and Hans Bos's pitch (a minor third low) relative to Praetorius's Protestant Chor/Kammerthon, but generally the picture is consistent with the emergence of a much better iron wire.

In the past it has been argued that these changes reflected a switch from brass to iron, or the introduction of a low pitch ("transposing") model. The low pitch theory breaks down because the bass strings are too short (it only applies to instruments such as Praetorius's which are very long). The brass treble theory has a very satisfying

theoretical basis, but from surviving accounts and bits of wire it seems that the highest strings were always iron. (Harpsichords weren't invented until iron wire was being drawn). It is enough that the Pythagorean scalings of Italian instruments tie in with musical theory of the time without trying to link them with the idea that all the gauges of a single material should theoretically have a single scale.(11). In practice thinner gauges tend to have longer scales, but can prove difficult to make at all unless you have excellent control over the homogeneity of your initial bar (ie the inclusions). Where before the last quarter of the 16th century iron was good only where very thin brass proved inadequate now the possibility of lengthened treble scalings arose. (Incidentally were clavichords strung with thicker wire? It would explain how come they were strung in brass right into the treble.)

How does all this affect the question of why the very long scaled instruments (such as Praetorius's orpharion) died out within 50 years? It seems that the alloys as actually found on old instruments could have been drawn stronger than they were(1,7). Martha Goodway describes achieving the very strong stuff (6) in connection with drawing modern phosphoritic iron down to 0.27mm. Cary Karp's (admittedly non-professional) re-drawing of old wire failed to achieve this sort of strength. If for the moment we suppose that the extant samples could not have been drawn stronger there are a couple of reasons why earlier it had been possible to get stronger wire. Firstly perhaps over a period of 50 years a given ore can become worked out, new production may have had a different chemical composition. (Less phosphorous, more carbon (requiring longer burning off) or other elements). The crucial aspect here is that it is claimed that the phosphorous was entirely natural - the presence of phosphorous in iron being discovered in the late 18th century (1). So they didn't have the wit to add phosphorous to a fully decarburised iron. (In this connection the native Swedish ores are naturally low in phosphorous, which may be reflected in the qualities of Cary's samples.)

However one would not expect the ores themselves to be particular to a maker (this is an area for research - was the iron imported to Nuremberg in pigs?), so it may be that the "secret" skill of Mueller etc lay in techniques that avoided inclusions of slag, or removed even the minute traces of carbon that may still be present in the 16th century samples.

A second possibility for the decline in the use of very long scalings is taste. A long scaled instrument will have either a higher tension or thinner strings (other things being kept constant). So it sounds different. So when new strong ductile wire becomes available we can imagine the makers experimenting with it - some pushing it's capabilities others less so. Later things shake down. Unreliability of the sources and/or ignorance of the best techniques and/or a change of taste for a certain sound may have conspired to eliminate the more extreme experiments.

What we need now is for someone to make available high-phosphorous very-low-carbon iron so that we can confirm Martha Goodway's claims for this material and evaluate it musically; at the moment all that is available is a variety of wires of unknown and more or less dubious composition.

(1) Martha Goodway Science Vol 236 May 1987; Eph points out that Pendragon Press have a flyer out for book by Goodway and O'Dell, but it doesn't seem to have appeared yet.

(2) Remy Gug FomrhiO 31 pg 40

(3) Abbot and Segerman GSJ 1974 & 1975 and FomrhiO 30 Comm 440

(4) For the one in the V & A see John Barnes "Keyboard instruments..." Ed. Ripin (1971), The other Baffo I'm thinking of is in Paris though in 1975 when I saw it I didn't make any measurements - I just got the impression it was long.

(5) FomrhiO 29,30, Comms 438, 439,440 etc by Cary and Eph

(6) ie 1600MPa

(7) Cary Karp "Pitches of 18th century .." Musikmuseet Stockholm 1984, p34

(8) Eph Seegerman FomrhiQ 30 Comm 442

(9) I'm on shaky ground here as usual when I stray into Italy. The earliest short bass long treble instrument I know of is the 1569 Francesco da Brescia.

(10) Hubbard Three Centuries p284

(11) One practical advantage of adopting a Pythagorean scale is that it offers maximum pitch flexibility - you can tune up or down by a wider range with acceptable tone than you can with a non Pythagorean scale. Italian harpsichords were the workhorses of Europe and perhaps needed to cope with a wide range of pitches.

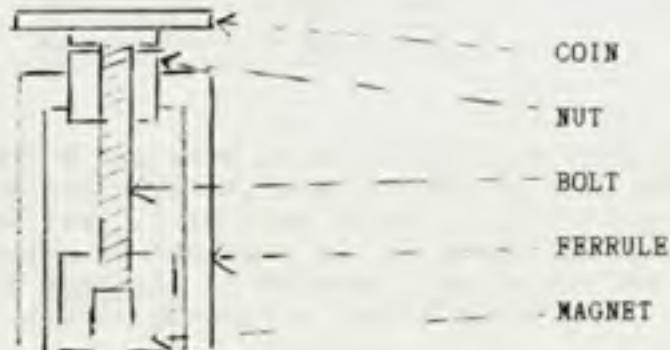
(12) The drawings of keyboard instruments can be used to confirm Eph's observation that Praetorius adopted an isometric-type approach to the perspective - the keyboard widths all give a normal 500 mm three octave stichmass except for a couple of cases where the keyboard doesn't reflect a major external measurement. No foreshortening is applied because this would defeat the object of showing the scale.

DETERMINING WOOD THICKNESS IN UNOPENED MUSICAL INSTRUMENTS

Comm.794 proposed a rather high-tech solution to this problem. I made a simple device which has been in successful but infrequent use for the last ten years. You need: for parts, a hard rubber walking-stick ferrule, a nut and bolt, a small flat magnet (supplied with 'keep'), a coin or other metal disc and a small ball-bearing; for calibration, some playing or visiting cards and a ruler; to stick it together, some epoxy glue; and one tool - a drill.

The bolt must have a small enough diameter to push into the hole in the magnet and it must be long enough to project through the ferrule in the final configuration illustrated. I had no difficulty in buying a magnet of the necessary shape and small size to fit into the ferrule, but it needs a very small ball-bearing to measure thicknesses over 5 mm.

Having checked the sizes to see that they fit, drill out the end of the ferrule so that the nut is a push fit. Thread the nut on the bolt and glue the bolt end into the hole in the magnet. Glue the nut into the ferrule, wedging the magnet centrally so that the bolt will ride up and down the central axis of the ferrule in later use. Glue the coin centrally on to the projecting head of the bolt. Mark a diameter on the coin, rotate the coin until the magnet is flush with the open end of the ferrule and mark the side of the ferrule where the diameter is pointing. This is the starting position for each thickness measurement.

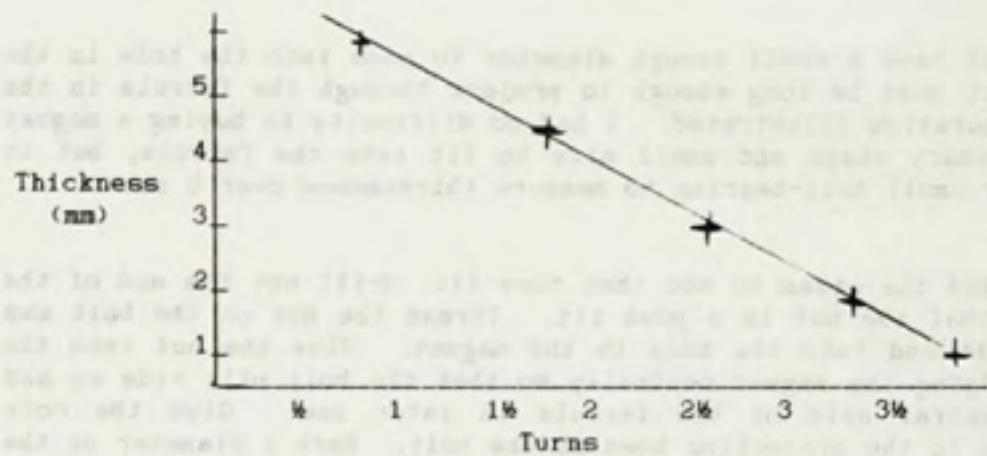


To use the meter, drop the ball-bearing into the instrument, place the flat end of the ferrule flat against the place where you need a reading, and move the instrument until the ball bearing inside is caught and held on the inside by the magnet outside. Turn the whole thing over so that the meter is vertically above the surface being measured. Slowly turn the coin, counting turns, until you hear the ball-bearing drop. Read the thickness off your calibration chart.

To calibrate, count how many cards there are in a stack exactly 1 cm. thick. Denote the answer n. Make a stack about 1 mm. thick with say $\frac{n}{10}$

cards and use the meter on the stack, counting the number of turns T_1 to the nearest quarter turn until the ball drops. Repeat with stacks about 2, 3, 4, and 5 mm. thickness, noting N_2 , N_3 , N_4 and N_5 against T_2 , T_3 , T_4 and T_5 respectively.

You can then make a chart which enables you to read off thicknesses in terms of turns of the coin, by plotting each calibration, eg T_1 , against its corresponding thickness calculated as eg $10 \times N_1$ divided by n , and joining up the points plotted with a ruler. My meter is accurate to better than $1/10$ mm.



Three cautions are necessary. Recalibrate if you change the ball-bearing. Interpose a thin tissue if there is any chance of scratching the surface of the instrument. Keep the 'keep' on the magnet when the meter is not in use.

Peter Armitage.



It is not really necessary for Stuart Walsh to be too concerned about the classification of the English guitar. Broadly speaking, 'late cittern' is plausible, but in 18th-century Britain such an instrument was seen as a development of the Playford/Tabley MS cittern, not the cittern, and it was thus called by the name guitar. Guitar rather than cittern became the usual word when the 'Spanish' guitar became popular after the Restoration. The qualification 'English' seems to derive from the French custom of referring to the English or German cistre/guitarre, the distinction between them being mainly the number of strings and their tuning.

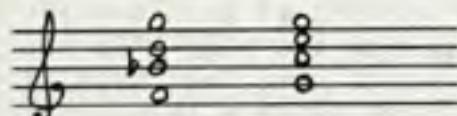
English guitar

Cistre, or guitarre Allemande



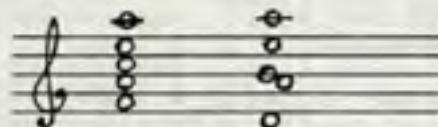
Playford's publications for cittern and gittern went through a fair number of editions and printings between 1652 and 1669. Their importance, in the present context, lies in the second tuning for the last few pieces in the 1652 gittern book, which has survived in one copy.

Playford gittern tunings (pitch not specified in source)



It is obviously not a big step from the gittern with the second tuning to the 'English' guitar, just a swollen body and two bass strings being required. It is also interesting to recall that this English guitar tuning is the same as one given for a vihuela, guitarra grande or discante by Bermudo (Capitu.lx) two hundred years previously, albeit pitched a fourth lower.

The triangubar or bell gittern/cithrinchen seems to have taken off on a slightly different path from the English and German guitars, although they all fall into the same broad functional category. Cithrinchen tunings for which there are surviving tablatures are the following:



There is a suspicion that the Britain-Northern Germany axis was

involved, and the tablatures contain some English music, as does the Elias Walther MS mentioned in Comm 797. But this particular variant on a theme did not apparently become widely established in the 18th-century.

To return to the main subject, English guitar seems to be the best name for us to continue to use. It is unambiguous and keeps the distinction from Continental versions clear. If genealogy were to become unduly important one would have to coin a name such as Georgian gittern, which Heaven forbid!

FOMRHI Comm 824 Vihuela/Jose Romanillos Donald Gill

I have been spurred by Harvey Hope's Comm 796 to look at Jose Romanillos' article in 'Classical Guitar', March 1987. The title is 'The Vihuela in Spain and the instrument in the Jacquemart-Andre Museum' and part of the article is given over to questioning whether the Paris instrument is a typical vihuela. I don't think anyone would disagree with that, if one is just considering what is required for the surviving repertoire, that is, a six-course right sized instrument for the tablatures.

What is new, as far as I know, is some contemporary evidence that Romanillos has uncovered of fluted as well as arched or vaulted backs on vihuelas and guitars, like the back of the Belchior Dias guitar in the RCM Museum. Before pursuing this there is another point to be considered. The Examen de Violeros in the Ordenanzas de Sevilla of 1502, with its stipulation that an oficial violero must be able to make, amongst other instruments, a 'large vihuela of pieces' has given rise to the view that the Paris instrument is an example of this form of construction. Romanillos suggests, however, that vihuela de piezas could mean a vihuela with the body made of separate pieces (i.e. back and sides) and 'not out of a solid chunk of wood scooped out to produce the body'. In support he quotes from Bachmann saying 'Many attempts have been made to distinguish, among the medieval fiddles, between those with sides (ribs) and those without; but to no purpose since there is no evidence to show that either the bellied lute as we know it today, or glued sides, ever existed', without making it clear that Bachmann was discussing eleventh and twelfth century construction techniques. Antonio Corona-Alcalde (Lute Society Journal, XXIV, Pt I, p. 12) showed that the Seville ordinance about the 'large vihuela of pieces' turns up almost verbatim in Granada in 1529 and 1552, and also in Mexico City in 1568. It seems to me to be rather unlikely that it refers merely to a built-up body, as far as this into the sixteenth century, and after all, there indubitably exists a large vihuela made of pieces in Paris at this present time.

Corona-Alcalde gives references in his article to a vihuela with soundboard, ribs and sides (Lapa, costillas and ceros) c. 1557, a Portuguese Examen de Violeros requirement to be able to make a six-course viola with ribs (costillas) dated 1572, and inventories in the 1570s listing 'vihuelas with ribs'. Romanillos takes these references to ribs (costillas) to imply a domed or arched back. That may well be so, but it is not really sufficient to make the claim without also considering how big the arching or bulging might have been. The bandore and orpharion had backs of staves or ribs with just a slight bulge. The cithrinchen had a slight bulge. The Dias guitar and Tielke's guitars have modest bulges. Many seventeenth century Italian guitars have pronounced bulges but guitars also

exist with plane backs made up of strips. (For dictionary purposes most such instruments would be described as flat when compared with a lute). So, accepting bulgy backs for vihuelas, we want to know how bulgy? Romanillos mentions two lecterns in Toledo Cathedral decorated with panels containing cast figures playing plucked vihuelas. Both instruments have 'vaulted backs as well as cercos-ribs'. He claims that the meticulous way in which other instruments in these panels are represented rules out inaccuracies in the vihuelas. Unfortunately this potentially important evidence is not illustrated in the article. (It is also unfortunate that Romanillos is inconsistent in his use of the word ribs, sometimes meaning the curved staves of a bulging back and at other times the sides of a vihuela or guitar).

The new references discovered by Romanillos date from the late 1580s and are concerned with craft guild conflicts with members who could only make a vihuela llana - a 'plain vihuela' - and could not repair or make 'harps nor vihuelas de arco nor fluted ones (acanaladas)'. In a second reference in the same context the term biguela aconvada occurs. Aconvada means arched. A third reference is to an inventory of guitars which includes one that was Tumbada (vaulted), but as this inventory was made in 1622 its relevance to what one might call the classical vihuela is not clear to me.

Accepting, as I think we must, that vihuelas could have bulgy as well as flat backs, I find it difficult to see how Romanillos can go so far as to claim that 'The surviving instrument by the Portuguese Belchior Dias is a typical example of the type of vihuela that was being made in Madrid by the members of the craft guild.', except in so far as the back probably reveals one method of construction. The soundboard is not original. The original bridge was probably lower down than the present one and this makes the neck on the short side for ten tied on frets. And, unless there was a major reconstruction at some time of the neck and pegplate it was always a five-course instrument, so not typical of the vihuela of the printed books. I have always thought of it as a fascinating transitional instrument, between the vihuela and the 'Spanish guitar', and it is so sad that its original soundboard and barring have not survived.

A very interesting outcome of all this is what happens if you draw a plan of an instrument with the Dias body, the bridge and sound-hole in typical vihuela positions, and a neck of six-course width and sufficient length to give the neck/body join at the mid point of the strings. This produces quite a convincing looking vihuela, just as a shrunken Jacquemart-Andre body with one rose and the right width and length of neck produces another. If these are acceptable vihuela prototypes, we are still left with such problems as the proper soundboard barring (two or three, or does it matter), what would be appropriate soundhole designs, and what were typical thicknesses of soundboards, backs and sides? I don't think there will be any rush to make more vihuelas of pieces, but it certainly seems that the options are now open for making plain Vihuelas with flat backs, vihuelas with striped or quartered backs, and vihuelas with, in addition, bulgy backs, with or without fluting. So we can be glad that Romanillos committed his findings and thoughts to paper and Harvey Hope drew attention to them.

17th c. Guitar Woodwork

This is a re-write of a paper originally given to NEMA at the London College of Furniture in October 1985. It seemed worthwhile to offer it to a wider audience. If any statements in it should cause disagreement and further comms. then that should be useful. Much of it will be familiar to baroque guitar makers, though some I hope will be new. The didactic tone is deliberate, partly to excuse the inclusion of familiar material, and also to incite controversy. Our knowledge of the baroque guitar seems to be roughly where knowledge of the lute was five or ten years ago, so that this comm. is merely a starting point to which alterations and addenda will, hopefully, be made.

The chief centres for guitar making were: 1st half of the century, Venice, with other towns in Italy and southern Germany; 2nd half, Paris; end of the century, Hamburg. There are many exceptions to this necessary simplification, of which the best known example must be the Ashmolean Stradivari. The Hamburg school seems to have had very little music for a thriving guitar industry.

Most Italian guitars have round backs, most French guitars are flat. Hamburg guitars follow the Italian both in shape and decoration, though with fewer ribs to the back.

The round (*bombe*) back produces a more extrovert sound, slightly freer and louder, but with less sustain than the flat back which produces a more introvert sound. The different sounds seem to match the nature of the music of the Italian and French composers. These characteristics are also echoed by the decoration. Italian decoration is bold and flashy. It seems to have been quickly done by a team of workers, perhaps using bought-in materials.(1) French decoration is more restrained and elegant suggesting smaller workshops and individual craftsmen. (2) Hamburg instruments are similar to Italian, but more robust, with slightly less exuberant and more carefully made decoration.

Our chief difficulty lies in evaluating the small remnant that we have - how representative is it? How many important instruments in public or private collections are not known or accessible? In what ways have those known to us been altered from their original state?

All alterations to an instrument are done with a purpose. In the case of the 17th c. guitar these seem to be two.

Firstly, conversion to a chitarra battente. These alterations were probably mostly made during the 18th c.. They are easy to recognise because the string length is around 57-58cm., usually with a mandolin-like angle on the sound-board and provision for end-fastened strings.cf. Mario Longo, Milan. The short string length is always (?) achieved by shortening the neck. The illustration in the new Grove DMI of a 'chitarra battente' by Stadtler is a typical conversion.

There are some exceptions which it is difficult to account for:

- 1) End fastening, but no angle on the sound-board and unshortened. cf. R.C.M. Vobora, Oxford Bellas.

2) Angled front, but no end fastening. cf. Brussels 549. If we posit that guitars converted to wire stringing preceded chitarra battentes proper, then 1) would be accounted for. (3)

Secondly, string length shortened to 63-66cm., probably done since the end of the 18th c. as a modernisation. This is usually coupled with 6 single strings and a pin bridge. (But note that a 'Voboam' appearance and 5 single strings is not necessarily a conversion, if such a guitar still exists. One is very clearly shown in Drouais' painting of Mme Clotilde, 1775)

This shortening could be achieved in four possible ways:

- 1) By shortening the neck. cf. Fitzwilliam (Sellars?).
- 2) Raising the bridge. cf. Kilmarnock Sellars.
- 3) Both.

4) By both, and also shortening the body to preserve the original appearance. cf. (?) Paris, Jean Voboam 1690. (4)

Conversions to chitarra battente can of course be re-converted.

With the sole exception of the Ashmolean Stradivari, all the 17th c. guitars that I have seen have or had the (imaginary) 12th fret about 1.5-2.5cm onto the sound-board.

Materials

We have extant now almost only instruments made for the top end of the market. Also as most of the portraits showing guitars are of upper-class patrons these also mostly show upper-class guitars with lots of ebony and ivory. Common usage peeps through in cf. the Ashmolean Strad., the double Alexandre Voboam in Vienna, an instrument in the Dolmetsch collection, the 1715 Costa from Cadiz in Leipzig. Some Sellars instruments use a dark red wood, though with ivory lines. Paintings include Puget, Louis XIV's Musicians; Daret, Guitarist; Coques, Le Duo. (5) Ebony, and to a lesser extent ivory, does seem to have been more freely available during the 17th c., and its capability of working thinly seems to have some acoustic significance (6), as well as freeing the maker from the necessity of varnishing.

String lengths

Because of the restricted compass of the guitar compared with cf. the lute (?), there can be more variation in string length for a given pitch. It is not necessary for the treble string(s) to be near breaking in order to get a reasonable bass. Hence some differences in string length, especially in France where the guitar became a social and amateur's instrument, can be attributable to convenience for small hands and to sex. There is one means of differentiation, at least in France, between guitars intended for male or female use. Guitarists who needed support for their instruments (.ost) could use either two buttons and a gut loop on the back (male), or a ribbon from an end pin to a spare peg hole (male or female). Two buttons but no end pin suggests a male guitarist. cf. R.C.M. Voboam, Paris ille de Ventes Voboam! It could not have been seriously played by a female because decolletage and a lack of jacket buttons would not have permitted its attachment. A painting by Boucher (see below) seems to show both methods. One seemingly inescapable conclusion is that the baroque guitar was longer than the modern one, and that the standard string length was around 68-69.5cm. (6) Barry Mason has kindly experimented with a guitar of s.l. 69.5cm., based on the Oxford

Voboam, for me, at a pitch approximately a tone below modern. He reports that he seems to find the sound warmer and more 'French', and that trills and other decorations are easier. Two paintings by Lely of female guitarists show instruments of different string lengths but probably, because of the social context, the same nominal pitch. (9).

Shape

There is quite a wide variety of outlines throughout the century in all countries, making it difficult to suggest guidelines, except that the later Jean Voboam instruments were wider and more rounded than those made earlier by the other members of the family.

Construction

The mould. Italian round backs were built on solid moulds. The occasional plugged or unplugged holes in the centre of the sides suggests a method of holding them against the mould while the back was constructed. These occur on eg. the chitarra battentes in Brussels, a chitarriglia in the Harvey Hope collection, the Ashmolean Stradivari, a c. 1790 6-string guitar in my own collection, modern chitarra battentes (10). French flat backs can be built on inside or outside moulds - I have made them both ways - and each has some advantages. However both the R.C.M. Voboam and the Paris 1687 do., do have fronts slightly larger than the back suggesting an inside mould also.

Peghead. Veneered on upper and lower surfaces. The sides of French pegheads were usually painted black. The sides of Italian pegheads were usually constructed of slabs of veneer (fig. 1). Hence they are usually of constant thickness, whilst French pegheads are usually slightly tapered. Pegheads are usually cut on the slab. There are usually 10 peg holes plus a hanging or strap hole, but often especially in France, only a single treble string was used. The extra hole was used for a strap or bunches of ornamental ribbon (painting by Portail). The Nice Tessler and the guitar in the portrait of Granata, opera quarta, have nine pegs only. The backward angle of the V-joint with the neck and reinforcement by the veneer glued to the upper surface provide sufficient strength with glue alone.

Pegs. Usually slotted for strings, although some of those with holes seem to be original also. Gut strings are easy to fasten with slots, nylon can be more difficult. French pegs seem to mostly adhere to one particular pattern. Italian show much more variety. The guitar by G.C. in Paris has spherical ivory knobs, and an extra smaller one for attaching a strap.

Neck. Maple or a similar wood, usually veneered. It is usually cut on the slab, so that the grain direction continues that of the peghead. The uppermost stave of veneer often goes across the angle with the heel (fig. 2), covering the joint if there is one, and also covering the edge of the fingerboard. At least one fingerboard (Jean Voboam, Harvey Hope collection (11)) is wedge shaped, tapering from about 5.5mm at the nut to about 2mm. This would allow some later adjustment of the action.

Neck joint. A. Neck block nailed to an integral neck and heel. The block is usually somewhat wider than the neck. cf. Fleischer, Hope collection; Sellas, Railich (?) Nürnberg. (fig. 3)

B. Separate heel, two nails. cf. Tessler, Nice. This could possibly be a repair. (fig. 4)

C. Spanish heel and slipper foot with wedges in the slots. cf. G.C., Paris. The variant system seen in Voboam instruments has minimal wedges leaving the slots partially empty and only a small slipper. For the rounded back of G.C., the slipper rests on a bar or block shaped to the back but not extending to the sides. This method of construction sounds complicated but is very simple to make on a solid mould. (fig. 5)

Sides. Thin, no linings with the front. Voboam sides are typically 0.9-1.1mm thick in ebony. Fleischer (Hope collection) 1.2mm. (Tortoise shell instruments were built over a spruce (?) body). Ivory lines, etc., go all the way through - they are not merely inlay. Joints are reinforced with parchment. The reinforcing buttresses often now found are not original, although some do seem to have been necessary comparatively early in the guitar's career. cf. Jean Voboam, Hope collection.

Backs. The Italian bombé backs are thin, around 1-1.2mm in ivory, ebony and the red wood used by Selias. No bars. Reinforced with around 6 or 8 transverse parchment strips and parchment or paper over the joints between. The flat French backs are thick, typically 3-3.5mm, usually of yew (rather than cypress or cedar as stated in the Paris Conservatoire check-list) and often cut on the slab. Alexandre and Alexandre le Jeune Voboam seem to have always used a five piece back, whilst Jean used six, perhaps because of the greater width of his instruments. They were sometimes, probably usually, not barred. cf. Jean Voboam 1690, Paris. Guitars from all schools have small pieces of cloth lining the side/back joint.

Fronts. There is a lot of variation in thicknesses, perhaps according to the wood used, but they are always thicker towards the centre, and always heavier, up to around 50%, than a typical lute. Italian edge thickness around 2mm up to 2.9mm in the area next to the bridge towards the rose. French fronts seem generally to be slightly thinner but with much variation even by the same maker. cf. Jean Voboam, Paris 1690 and Hope collection. They are frequently made from three pieces.

Barring. Guitar bars are always thicker (5-6mm) than a lute. There is always a bar above and one below the rose.

Italian. The lower bar is angled to be closer to the bridge on the treble side. cf. Tessler, Nice; G.C., Paris; the chitarriglia in the Hope collection.

French. A third bar between the upper and the neck joint, and (?) sometimes small bars opposite the centre of the rose.

Hamburg. Like French barring, but sometimes a fourth bar between the rose and the bridge.

KM 264, Brussels, probably 3 1700, probably French or German, has four small fan bars below the bridge which are certainly old, perhaps original. (Three main bars, fourth truncated bar between rose and bridge).

bottom blocks. Italian are usually quite shallow but fairly wide. cf. G.C., Paris. That of the Tessler in Nice is more square, and narrower towards the belly. Voboam blocks are cut away behind so as to give extra gluing area to the back, less to the front. (fig. 6)

bridges. There is much more variation than with the lute and

many have been replaced.

Italian. Similar to that of a lute in cross section and with holes for individual strings. cf. G.C., Paris. (fig. 7). Lous-tachios are occasionally inlaid into the table. cf. Brussels Sellas.

Early French. cf. René Voboam, Ashmolean, Oxford. This has slots for pairs of strings which go as far as the table on the neck side only, and has a slight widening or ledge at the rear to give a larger gluing surface. (fig. 8).

Later French. cf. Alexandre le jeune Voboam and du Mesnil, Paris. These have the slots deepened to produce a plain square section bar with square arches. (The Oxford Stradivari has inverted triangular arches). The Paris Jean Voboam 1690 bridge seems to be a, much copied, replacement (4). The French bridge position is usually slightly closer to the bottom block than the Italian, 8-9cm against 9-10cm from the edge, giving a tighter and more introvert sound. (fig. 9).

Roses. Usually built up from several layers of parchment, sometimes of a single layer of wood and parchment. cf. Stradivari, Oxford or the 'guitarist' by Honthorst. (The Paris Cocko rose looks too crude to be original?). Each layer consists of two, sometimes three sheets of parchment. The Italians favoured a zig-zag pattern on the layer next to the belly and elaborate side walls. The French used plainer walls with simple patterns of punched circles, but more Xmas trees. Most roses were originally gilded. The Fitzwilliam Sellas (?) uses red and white parchment. Quite a number of roses now seen are replacements. It is possible that each member of the Voboam family had his own design. Interestingly that of the Alexandre le jeune Voboam guitar in Paris is similar to that of du Mesnil but with five layers instead of three. (The rose in the Brussels Sellas is from a harpsichord by Hemsch, as is perhaps that in the Kenwood Vermeer).

End pins. See comments above. French guitars have end pins or two smaller buttons on the back, or both. Italian guitars also have either, but frequently have a wooden block or eye for attachment instead of an end pin.

I would like to take this opportunity of thanking Florence Gétreau of the Paris Conservatoire museum and Harvey Hope, for the facilities and information which they have kindly made available to me.

Notes.

1. The neck of a guitar by Giorgio Sellas in the V&A., London, and that of the Ashmolean Sellas, both of 1627, have the same pattern of grotesqueries, but slightly displaced. An unlabelled guitar in the Fitzwilliam, Cambridge, also has the same pattern but on a 'plain' ivory body (The Ashmolean Sellas has a highly decorated body). This suggests a stock of decoration materials available as required.
2. The maker's name on instruments by Sellas is parallel to the centre line of the instrument so that it is easily read by an audience. Although the Voboam pentagonal rose is similarly directional, the Voboam name plates are at right angles to the centre line and less easily read. Extrovert / introvert again?
3. For chitarre battentes see cat. s. 740, 757, etc.
4. Three instruments by Jean Voboam:-

- a) Jean Voboam (?), Royal College of Music, London.
 b) Jean Voboam 1687, believed to have belonged to Mlle de Nantes, Paris Conservatoire Museum.
 c) Jean Voboam 1690, Paris Conservatoire Museum.
 The outlines of a and b are identical.
 b. The present fixed frets approximate to mean tone tuning so are probably early, perhaps around 1800, placing the 12th fret at the body joint and implying a high bridge position, as currently restored (bridge and moustachios copied from c. But the lack of an end pin implies that this guitar was played by a man, so that the probable original string length was 69.5cm. as a. (at present 66cm.).
 c. The rose hole is the same size as a and b, and in exactly the same position relative to the neck. Buttons on the back, hole for an end pin (19th c.?) The bridge is not original because there are pin-bridge holes under it. It seems to be copied from a type of around 1775 shown on instruments by Delaplanque, 1771, and Benoit Fleury, or the Mme Clotilde painting. Therefore this instrument may have been originally similar to a and b, but have been converted to modern (probably 19th c.) use by a conscientious worker who preserved its original appearance by shortening only slightly both the neck and the body.
5. Gonzales Coques, working in Antwerp during the first half of the 17th c. shows a great variety of guitars in his portraits of mostly middle-class patrons. He could be worthwhile studying properly - of the seven paintings that I know, five contain guitars.
6. For a mention of the importance of the sides of a modern guitar, see: Bernard E. Richardson, Investigations of Mode Coupling in the Guitar, acoustics '84, pp 81-88, Proceedings of The Institute of Acoustics.
7. Ephraim Segerman, Stringing of the 5 course guitar, NEMA Journal no. 5, June 1986.
8. See table below.
9. The instrument by du Mesnil in Paris (string length 67cm., no end pin, buttons on back), as well as that in the Dolmetsch collection (66cm.) and perhaps the R.C.M. Tielke (63cm.) were probably made for the amateur market and also tuned to the same nominal e' of those of 68-69.5cm..
10. Roberta Tucci and Antonello Ricci, The Chitarra Battente in Calabria, G.S.J. XXXVIII, 1985.
11. Private communication from Harvey Hope.

Bibliography.

The original paper was illustrated by slides. All of the paintings cited below, and most of the guitars can be found in the following publications, though not always in such detail as one would wish.

- Guitars. Tom and Mary Anne Evans, Paddington Press.
 Guitares. Evans et al, Editions La Flûte de Pan.
 The Early Guitar, James Tyler, Oxford.
 Art and Times of the Guitar. F.V. Grunfeld, Collier Books.
 The Guitar. Harvey Turnbull, Batsford.
 Hill Collection, David D. Boyden, Oxford.
 V&A catalogue. Anthony Baines, H.M.S.O.
 European and American Musical Instruments. A. Baines, Batsford.
 Joachim Tielke. G. Hellwig, Frankfurt am Main.
 Colour Encyclopedia of Musical Instruments. A. Buchner, Namlyn.
 Musical Instruments. S. Taganelli, Namlyn.

Paintings cited.

- Francois Puget, 1687, 'Louis XIV's Musicians', Louvre.
 Jean Daret 1615-68, 'Guitarist', Musée Granet, Aix-en-Provence.
 Gerrit van Honthorst, 1624, 'Guitarist', Louvre.
 Boucher, 1703-70, 'La Leçon', Musée Cognacq-Jay, Paris.
 Caspar Netscher, 1669, 'Guitarist', Wallace Collection.
 Sir Peter Lely 1618-80, 'Mary Davis, (Courtauld).
 ditto. 'Two Ladies of the Lake Family', Tate.
 Drouais 1775, Mme. Clothilde, Princesse de Piedmont, Versailles.
 Gonzales Coques, 'Le Duo', Musée Royaux des Beaux Arts, Brussels.
 J.A. Portail, 'La Guitariste', lost, illustrated in 'Guitares'.

Guitars cited.

- Stegher (?) 1621. s.l. 73.8cm., Dean Castle, Kilmarnock. Seems to be in original condition.
 Sellas, Matheo, alla Corona, 1638, Dean Castle. Bridge altered.
 G.C., Italian, s.l. 72.5cm., Paris Conservatoire E30. Original but rebuilt in conservation workshop.
 Cocko, 1602, s.l. 64.3cm., Paris Conservatoire. Neck, bridge and (?) rose altered.
 Anon, Sellas (?), s.l. 64.5cm. (originally @ 69.5cm.), Fitzwilliam, Cambridge. Neck shortened, bridge replaced.
 Anon, Italian, s.l. 65.25cm., Paris Conservatoire E279. Bridge altered.
 Mango Longo 1624, Castello Sforzesco, Milan. Battened - neck shortened, etc.
 Sellas, Matheo, Brussels Conservatoire 550. Neck shortened, new bridge, rose.
 Tesler, Giovanni, Ancona 1615, Musée Instrumental, Nice.
 Anon, chitarriglia, Hope collection.
 Sellas, Giorgio, 1627, Ashmolean. End fastening for strings.
 Sellas, Matheo, Paris Conservatoire 2089. Franciolini label, nice original oak and sides.
 Alexandre le Jeune Voboam, 1576, s.l. 69.4cm., Paris Conservatoire E1532. Seems to be in original condition except for moustachios.
 du Nesnil, 1648, s.l. 67cm., Paris Conservatoire E51. Seems to be in original state.
 Jean Voboam 1690, s.l., 64.5cm (?), Paris Conservatoire. See note above.
 Jean Voboam, Hope Collection. Bridge missing.
 Alexandre Voboam, Hope collection. Bridge replaced.
 Jean (?) Voboam, B.C.P., London. Bridge missing.
 Jean Voboam, 1687 (Ille de Nantes), Paris Conservatoire. See above.
 René Voboam, 1641, s.l. 69.5cm., Ashmolean, Oxford. Seems to be in original state. Length of neck to heel seems to indicate that it was intended for alfabeto.
 Anon, s.l. 67.8, Brussels Conservatoire K.264.
 Fleischer (?), Hope collection.
 Tielke (?), s.l. 59.2cm., Fitzwilliam, Cambridge. Front replaced.
 Tielke, s.l. 72cm, V.L., new fingerboard.
 Tielke, Hope collection. Bridge position raised.
 Stradivari, 1688 (?), s.l. 74.1c. Ashmolean, Oxford.

The list of alterations is meant to be helpful rather than exhaustive.

Drawings available.

Ashmolean, Oxford: René Voboam, Stradivari, Sellas in preparation.

Edinburgh: Matteo Sellas and Anon (French?) in preparation.
 R.C.M.: Jean (?) Voboam and Diaz.
 Paris Conservatoire: Jean Voboam 1687, 'G.C.', (Stephen Murphy's drawing of Jean Voboam, 1690, may still be obtainable).
 Nurnberg: Railich (?), Giorgio Sellas. X-rays also obtainable.
 only, at present.

Table of String Lengths.

Italy

72.5-74cm	cf G.C., Stradivari.	nominal d'?
68+	Oxford Sellas.	
64-65	Cocco.	nominal e'?
49+	chitarriglia, Hope coll.	nominal a'?
37	Smit, Vienna.	
57-61	chitarra battentes; Brussels, Hope coll.	

France

70.5+	Alexandre and Jean Voboam, Hope coll.	nom. d'?
68-69.5	Rene, Alex. le j., Jean Voboam etc. Paris, etc.	
66-67	Dolmetsch coll., du Mesnil.	nominal e'?
55	Diaz conversion?	nominal g:a'?
1696 Alexandre Voboam double guitar in Vienna. Smaller is nine frets shorter.		

Germany

72.5+	Tielke; V.&A., Hope coll.	nominal d'?
68-69.5	Fleischer, Paris	
63-65.5	Tielke, R.C.M., Fleischer, Paris.	nominal e'?
48	Tielke.	

Spain

70	Brussels 3184 and Paris (?)
67.5	Barcelona Conservatory.

Portugal

68.1	Vieyra, Oxford.
55.4	Diaz.

Italy, France and Germany, at least, seem to have had three main sizes of instrument.

The intervals between different sizes derive from the instructions for tuning three different guitars together in Foscarini, Colonna, etc., Calvi's instructions for four guitars has two of the mezzana size apparently a semi-tone apart? Carbonchi has no less than twelve tuned together, but it would seem safe to assume that this was a technical tour-de-force rather than common practice. Some early sources e.g. Cellier, Mersenne, Sanseverino, have the top string at a nominal d'. Over the whole of Europe there must have been considerable variation in nominal, and some in actual pitch for a given string length.

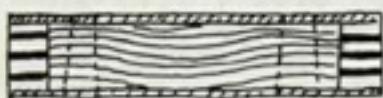


Fig 1 cross-section of
Italian peg head.

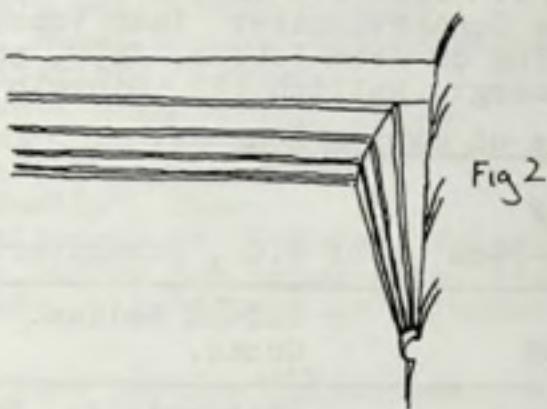


Fig 2

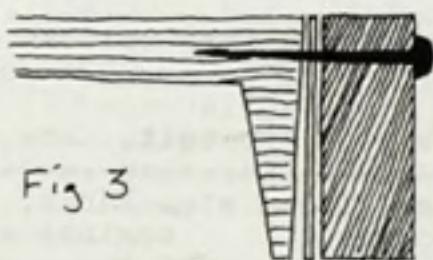


Fig 3

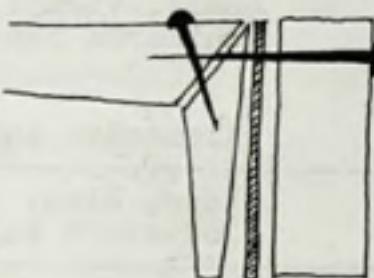


Fig 4

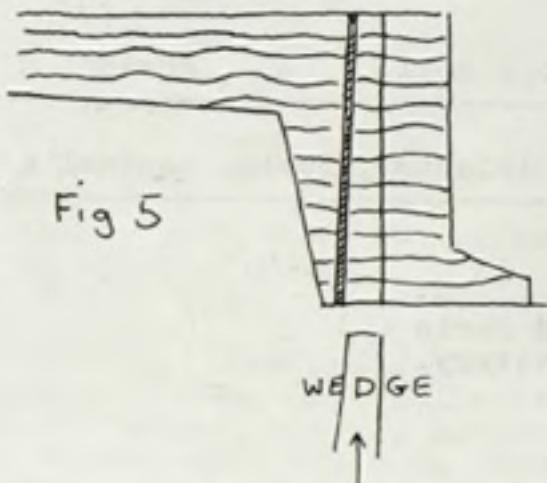


Fig 5

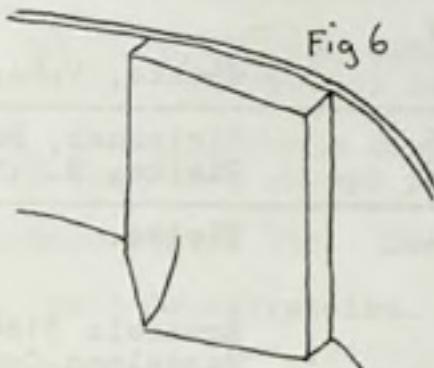


Fig 6



Fig 7



Fig 8



Figs 9

