FoMRHI Quarterly

COMMUNICATIONS

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The next issue, Quarterly 145, will appear in March. Please send in Comms and announcements to the address below, to arrive by 1st March

Fellowship of Makers and Researchers of Historical Instruments

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Christopher Goodwin

This is the fourth and final issue of the 2018 subscription year (numbers 141-144), more or less on time and with a mix of workshop advice and provocative argument. Many thanks to the contributors. A few people have paid in advance for 2019, and I have written to them to tell them so; otherwise you will find herewith a subscription form to renew your subscription. You will not that we don’t have credit card facilities any more! Hardly anybody was using them. We still accept cheques in pounds sterling, US dollars or Euros, but much the easiest way to pay is by Paypal, to sales@lutesoc.co.uk. Please attach a message to say what it is for – though I would probably guess anyway – and don’t forget to supply a new postal address, or email address, if either has changed.

Our policy is to send the first issue of each subscription year – our March issue, on a benefit-of-the doubt basis, and the second issue likewise, but only as PDF, but after that you have to subscribe to keep receiving the Quarterly. So it’s best to renew early in the year.

Annual General Meeting, 1 pm, Saturday 10th November 2018, Blackheath Concert Halls

Once again our AGM was held during the International Early Music Exhibition formerly at Greenwich, now at Blackheath – one hopes we will go back to Greenwich when the Great Hall paintings are restored! The meeting was not quorate, but no vital decisions had to be taken, and the accounts have subsequently been approved online by the committee, nem. com.

The minutes are as follows:

1. Minutes of previous AGM

These were approved nem. con.

2. Secretary’s report

This year we are in the happy position of having produced not only the delayed last issue of 2017, but of being fully on track to get four issues out, which good material already in hand for the December issue, and all of absolutely excellent quality – on such varied subjects as baroque woodwinds, the mystery of late renaissance lute strings, and cittern building, from people who can justly be called world authorities. We take this opportunity to thank all contributors of Comms during the year.

Our membership has slipped slightly, from 145 at the end of last year to 137 paid up in the year to date – but we may yet get one or two late renewals, and to re-iterate the expertise of the members we do retain is very considerable. Our broad modus operandi seems viable still. Electronic membership has risen from 6 last year to 17 in the year to date. The cheapness of this option, only £10 per year, might be a marketing tool in the coming years.

3. Treasurer’s report and following discussion

The accounts for 2017 are as follows.
FELLOWSHIP of MAKERS and RESEARCHERS of HISTORICAL INSTRUMENTS

Draft Accounts for the year 2017

1. Statement of Income and Expenditure

<table>
<thead>
<tr>
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<th>2017</th>
<th>2016</th>
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<tbody>
<tr>
<td><strong>Income</strong></td>
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<td><strong>Net Income for the year</strong></td>
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<td>£3,473</td>
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<tr>
<td><strong>Total funds Carried Forward</strong></td>
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2. Balance Sheet

<table>
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<th>31/12/2017</th>
<th>31/12/2016</th>
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<tr>
<td><strong>Assets</strong></td>
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<td><em>Current Assets</em></td>
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<td><strong>Current Liabilities</strong></td>
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<tr>
<td><em>Amounts Falling Due Within One Year</em></td>
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<tr>
<td><strong>Total Current Liabilities</strong></td>
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<tr>
<td><strong>Net Assets</strong></td>
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<td>£3,449</td>
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<td><strong>Funds</strong></td>
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<tr>
<td><strong>Increase/(Decrease) in Funds</strong></td>
<td>(£185)</td>
<td>(£24)</td>
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</table>
Notes to the Accounts

1. The accounts are prepared on the accruals basis according to Accounting and Reporting by Charities: Statement of Recommended Practice (revised 2005).

2. Subscriptions are accounted for in the financial period to which they relate. There were 141 paid subscriptions for 2017 (2016: 145). This includes five carried forward to 2017 from 2016 and two from 2015 to 2017. Subscription revenue in respect of 2017 was £2380 (2016: £2463).

3. Subscriptions paid in advance are treated as deferred income and carried forward in the balance sheet. One is carried over from 2017 to 2018. An additional two were carried over from 2016 to 2018.

4. The Secretary’s Fee is 50p per copy mailed. An average of 144 copies of each issue was mailed in 2017 (2016: 138).

5. The Fellowship maintained a bank account with Lloyds Bank which held £4089 at the balance sheet date and the Honorary Secretary maintains a float of cash and stamps which was £508 at the balance sheet date.

6. Amounts falling due within one year are: (a) prepaid subscriptions for subsequent years, which for 2017 was £52 (2016: £117) (b) provision for printing and distributing Quarterlies which is £1281 for two Quarterlies, based on twice the actual cost of the third one, produced in January 2018.

7. Two issues are carried over from 2017 to 2018 (2016 to 2017: one). One has now been produced. [since this was written the final issue of 2017 has been produced].

Commentary on the 2017 accounts:

These show reasonably good performance although the deficit of £185 is higher than last year’s £24.

Only two of the 2017 Quarterlies were issued during the year, and one more appeared in January 2018. It has therefore been necessary to make provision for the remaining two Quarterlies in the accounts based on twice the cost of the third, which is now known. At £640 it was £20 higher than the previous average and the number mailed was 144 compared with the previous average of 138.

Subscription income for the 2017 subscription year was £2380, and costs were £2565, leaving a deficit of £185. The variance against last year’s deficit of £24 comes from £60 of increased costs, primarily postage, and £101 reduced subscription income. This is, of course, partly based on the provision made for the cost of the final Quarterly. Reserves have therefore reduced but remain well in excess of the minimum required.
Total subscribers for 2017 were 141, compared with 145 for 2016. The revenue per subscriber was flat at just under £17, as opposed to the standard rate of £18. This year’s subscription is £19 which may be sufficient to eliminate the deficit if numbers hold up and the vast majority actually pay at close to that rate, which may be possible through the re-negotiation of PayPal fees with the Lute Society.

The financial objectives for 2018 are to eliminate the deficit and the uncertainty caused by the backlog in Quarterly production by: • catching up on the last 2017 Quarterly and issuing all four 2018 Quarterlies during the year, • increasing membership, or at least holding it steady • achieving subscription revenue as close as possible to £19 per member • controlling the cost of Quarterlies by limiting print runs and postage as far as possible

Interim Finance report, year to date 31st October 2018.

Total subscription revenue in respect of 2018 currently stands at £2428 (2017: £2399) including £34 paid in 2016 and £18 paid in 2017. This represents 139 paying members (2017: 136). A further £53 was received this year in respect of subscriptions for 2019. Average subscription per paying member has decreased slightly from £17.64 to £17.47 despite the increase in rate to £19.

The accounts currently show a deficit of £58 after provision for the remaining quarterly of the year and website costs yet to be paid. It is unlikely that the year-end results will be materially different from this unless at least the remaining quarterly is produced before the year end at a markedly different cost from the first three or several more subscriptions are paid in the last two months.

Two of the four quarterlies for 2017 were produced by the end of that year and the last two in the first quarter of 2018. A provision of £1281 was made in the accounts for their production, of which £1182 was actually needed, so the deficit was overstated by £99. That provision is released for 2018 which means the underlying position for 2018 is really a deficit for the year of £157 (£99+£58), assuming that the new provision is correct and that no more revenue will come in. Three quarterlies have been produced so far for 2018 and the accounts for the year to date show a provision of £640 for the remaining one, based on the cost of Q142. The average cost per issue this year was also £640, (2017: £605) and the average number mailed per issue was 143 (2017: 138).

There is therefore a slight increase in membership and subscription income but the cost per issue has increased by 6%, leading to the increased underlying deficit of £157 against £89 for 2017. This is despite the reduction in print run from 175 for Q137, the first of 2017, to 150 for Q143. The cost of postage has increased by 16% year on year, and printing is slightly more than for last year in spite of the lower runs.

The failure of the average subscription per member to increase by £1 in line with the move to £19 is concerning. If it had done so subscription income would be up by around £140 which would almost eliminate the deficit. Analysis of subscriptions received shows that one factor is that only 32% actually paid £19 or more whereas last year 54% paid £18 or more. In the past, the shortfall
has mostly been due to PayPal charges and foreign transfer costs. This is certainly an issue, and the Euro rate is currently below the equivalent of £19, but it also looks as if some members may have paid their 2018 subscriptions at a different rate - £18 or £18.50. An additional factor is the doubling of electronic-only members to 14, leading to a decrease of £63.

This does not seem to have been reflected in reduced printing and postage charges.

Subscription income should improve a little in the future because of better terms from the Lute Society on PayPal subscriptions.

Available funds have declined by about £240 over the last two years but still stand at over £3000, which is more than sufficient to cover a year’s operation. Membership seems to be stable and there is still time for a few more subscriptions to come in (five did last year, including one after the year-end).

Once the accounts are finalised in the new year the committee should consider how to bring average subscription rates closer to £19 and look to reduce the cost of production and distribution of Quarterlies, or at least contain the cost.

Discussion at the AGM of this report

It was noted that:
1.) The deficits reported are really of Lilliputian scale, and would be cleared by a single donation, or an increase in a future year of £1 on the subscription.
2.) The aims identified in the comment on the 2017 accounts, to stabilise membership, and catch up with the publishing schedule have been met.
3.) The deficit this year is caused by the unfortunate fact of the last Q being just a few pages and therefore a few grammes over the weight limit of 100g, which adds substantially to the postage costs – the editor will be more careful to avoid this in future.
4.) The Webmaster will look at encouraging donations via the website.
5.) The Secretary will write an appeal for Comms, and new subscribers, to the other participants at the Exhibition. [This has now been done].
6.) To increase the utility of Fomrhi, and stimulate further discussions, the Webmaster will draft a list of ‘what’s on your mind?’ questions to send to all members.
7.) The BVMA was noted as an organisation it would be worth contacting.
8.) In times past the unique offer of Fomrhi was a quick turnaround (three months) and lively debate on topics of interest. Now this role is well served by the internet – paradoxically what we offer now is a sort of permanence, for papers which need not be the final word on any topic, but which are available free on the internet after one year. This is basically a very sound and useful modus operandi.

Any other business

There was no further business.
Welcome to new members

We welcome new members this quarter: Charles Besnainou, Kevin Feeney, Jesper Johansen
Bill Swager of Brass on Ivory Music, of Edgewater, Maryland, USA. Bill writes: My wife and I have owned this business since 1989 and I have repaired instruments professionally since 1981. I have belonged to NAPBIRT since 1981. I repair: brass, woodwind, strings, percussion, and tune and repair pianos, also. I play all the instruments I repair, although my main instrument is the trumpet. I have always had an interest in the Renaissance and Baroque periods and the related instruments and have always desired to construct/build some of these instruments . . . especially the cornett/zink and the trumpets.

De Bouwbrief, up to 164

This is an attractive colour A4 Dutch language magazine for instrument makers—a bit like Fourrhi Quarterly but much prettier! Issue no. 166 has papers on building an organetto based on a sketch of Leonardo da Vinci, guitarreros of the Flamenco museum in Malaga, musical archaeology and attempts to build ancient lyres and harps, carving necks with heels and peg heads from a single solid piece of wood, organ pipes, a historic traverso, the use of a 3D printer to make parts for a racket.

Issue no. 167 has papers on making a copy of an Amati cello of around 1600, an instrument building course, the constructon of a tarogato (wide-bored clarinet), the building of a 6-string harp guitar, more on carving necks from solid—and the other parts of a viol, more on 3D racket printing, a Ruckers muselar project, details of a historic recorder, a hardanger fiddle, and an open day in Zutphen.

Issue no. 168—with a lovely photo of a Dutch tile on the cover, showing cherubs playing flute trumpet and lute, has papers on violin and viol bridges, Digital Amati—a computer programme for the reconstruction of stringed instruments, the maths of nodes and antinodes in the bore of a recorder, house organs, a maker and collector of mountain banjos, a Bern symposium on exact copies, and a news round up from the bouwgrupen.#

Issue no. 169 has papers on making folk instruments out of junk (tin can banjos and so on), making keyboards, data on historic baroque oboes, information on building courses, the trumpet violin of Willem van Wijnen, the instruments of pioneer luthier Peter Harlan, an organ in Amsterdam.

Issue 171 has papers on building a positive organ, and old violin which might be a Stainer copy, a Hopf bass recorder, an extraordinary one-man-band harp-and-alpen-horn(!), cittern building, dulcian building, and more on organs.
STANDING CALL FOR PAPERS

The Fellowship of Makers and Researchers of Historical Instruments welcomes papers on all aspects of the history and making of historical musical instruments. Communications or ‘Comms’ as they are called, appeared unedited (please don’t be libellous or insulting to other contributors!), so please send them EXACTLY as you wish them to appear – in 12 point type, on A4 paper with a 25mm or 1 inch border all round, or to put it another way, if you are using non-European paper sizes, then the text area must be 160 x 246 mm (or at least no wider or longer than this). Our printers make a good job of scanning photos.

In naming your Communication, remember that people will search for it online using keywords. So if you are discussing, say, a Ruckers harpsichord in Paris, call it ‘Observations on a Ruckers harpsichord in Paris’, rather than ‘Observations on a curious old instrument.’

You can send contributions EITHER on paper, OR as a Word-compatible or PDF attachment. If you really do not have access to a word processor of any kind, we may be able to retype typed or handwritten submissions; send it to our cover address.

The email address for Comms sent as attachments (and other email correspondence) is Lutesoc@aol.com or secretary@fomrhi.org. Non-members will be given a year’s free subscription if they send in a Communication to the Quarterly.

If your interests have changed, and you don’t now want to be a member of FoMRHI, please let us know, to save postage costs.
Making woodwind instruments

11: Recorders

11.1 Introduction: recorders as flutes with a windway

The term ‘recorder’ for the internal duct flute or fipple flute exists only in the English language. In other languages names are used in which characteristics of the instrument are indicated: *flauto dolce* (‘soft flute’ for its sound), *blokfluit* and *Blockflöte* (‘plug flute’ for the block or plug as essential part in the head), *flûte à bec* or *Schnabelflöte* (for the bill or beak-like shape of the upper end of the head). See Edgar Hunt’s good old *The recorder and its Music* (1966) or not so old Wikipedia for more information about the etymology and the history of the recorder. With the reintroduction of historical instruments in the 20th century some original names also reappeared, such as the *sixth flute* (soprano recorder in d2) and the *voice flute* (tenor recorder in d1). It is a reminder that in the the 17th and 18th centuries the term ‘flute’, or in other languages: *Flûte, fluit, flauto, flûte*, was also - or was even mainly - used for the recorder which is a woodwind instrument in the group known as internal duct flutes: flutes with a whistle mouthpiece, also called fipple flutes. Wikipedia discusses the confusion in terminology: until the mid-18th century, musical scores written in Italian refer to the recorder as *flauto*, whereas the transverse instrument was called *flauto traverso*. This distinction, like the English switch from ‘recorder’ to ‘flute’, has caused confusion among modern editors, writers and performers. Indeed, in most European languages, the first term for the recorder was the word for flute alone. In the present day, the word ‘flute’, when used without qualifiers, remain ambiguous and may refer to either the recorder, the modern concert flute (Böhm flute), or other non-western flutes.

11.2 From very simple to highly sophisticated: types and sizes of recorders

Recorders are made in many different sizes (lengths and pitches), numbers of tone holes, fingering systems, and in various materials (wood, ivory, plastics, metals). In fact, I think there is no family of musical instruments with so many members, and it is impossible to discuss all types and varieties. On these pages I will give information about experiences with the recorders I have made myself. These are mainly of the baroque and early baroque types: copies after historical instruments as well as adaptations of these instruments for playing at modern pitches and with modern fingerings, and some experimental recorders. I have only a little experience with the so-called *Ganassi recorders* which are popular amongst players of early (renaissance) music, and I have never made consorts of renaissance or baroque instruments, *French flageolets* (with six fingerholes: four at the front, two at the back) and *tin whistles* (with six fingerholes at the front and no thumbhole). But there is enough left to talk about. For instance, recorders are perfect instruments for carrying out experiments and also for making simple, toy-like whistles. You even do not need a lathe to make some types of recorders. But be aware: recorders are - apart from some of those toys - by no means easy to make. It requires a lot of skill and understanding of the acoustics of the recorder for making a fine copy of one of the recorders of the famous woodwind makers of the past. The modelling of the windway, block and labium must be carried out with great care and you have to use special tools, also for measuring (which tools you can make yourself, see chapter 2 - Comm. 2031 and 2032). Also needed: a trained eye to get the desired results. But that applies also for other types of musical instruments.
Terminology of a baroque recorder
11.3 Terminology
Recorders can be made in several parts, for instance:

head - middle part (middle joint) - foot
or: head – body
or: in one piece.

The parts of an instrument are connected by sockets and tenons or by metal tubes. The top of the head is sometimes called a ‘mouth piece’. It is the part of the head with the windway and the block: together with the window and labium it is the (sound) generator of the instrument (see also Ch. 3a, Comm. 2040). The rest of the head and the lower section contains the bore and the tone holes: the (sound) resonator.

About the names of the parts and details in the pictures: it was especially difficult for me to find terms for some details, for instance of elements of the turned profiles, I had to invent some of them in my native language and then to translate these terms into English: not an ideal situation. Other people may use different terminology; it is not so important, the main thing is that you will understand what I write in these paragraphs.

11.4 Acoustics of the recorder: a short introduction
There is much to tell about the acoustics of the recorder, how the air flows through the windway and how it behaves entering the window. I give here only the most necessary information so that you will have the basic knowledge needed for making a recorder.

The French recorder maker Philip Bolton explains on his website (www.flute-a-bec.com/acoustiquegb.html) with some fine pictures and videos ‘how recorders work’. It is clear - and important to know - that the air that comes out the windway is not simply divided in two parts: one part going into the bore of the instrument and the other part over the top of the labium. The labium edge is in the first place not in the middle of the air flow, on most recorders that edge is - looking through the windway - just visible at the lower side. Which means that most of the air goes out over the labium out of the instrument. Further: the air in the windway is not a regular flow; friction to the walls causes disturbances. The result of that is that the air jet coming out of the windway will oscillate around the edge of the labium, followed by an interaction with the air column in the instrument's bore, see pictures below (from University of Eindhoven, Netherlands, see the website of Philippe Bolton).
It is important for a recorder maker (and player!) to control the direction and behavior of the air jet to get the desired sound and other playing characteristics. However, there is not much information in books, articles and on internet about how to control the air jet and the oscillations. For instance: how to avoid noise (‘undefined sound particles’). I can’t give you all solutions as well, but I will try to show you the direction in which you can work.

There is much resemblance between a recorder and an organ pipe. But an organ pipe has to produce only one tone, and the wind pressure doesn’t vary. On a recorder you can often produce more than twenty notes (two octaves or more) while the wind pressure changes (or has to be changed) going through the scale. It is a challenge for the maker to get a perfect balance between the registers.

See for more information about recorder acoustics for instance:

These books give hardly any practical information for the recorder maker and you must have some experience in reading and understanding mathematical formulas. A consolation: the famous woodwind makers in the past didn’t need that!

### 11.5 Working order in making a recorder

Concerning the working order: some preparations are required before the real work begins. For instance, apart from a plan of an instrument (drawing + measurements) you must have pieces of wood which are sufficiently dry, machines (a lathe) and tools (such as reamers and drills). That might sound not so encouraging, but I started myself with a rather cheap equipment (such as an electric drill which was also used as a motor for a simple lathe, see chapter 6a in Comm. 2056) and made some fine instruments that way.

- The first step: the interior, the bore and the sockets of the parts.
  
The traditional way is described in Comm. 2056: turning a massive piece of wood into a round rod and use a lunette for drilling a pilot hole (always working from one end only: you are never sure getting a straight hole when you do the drilling from both ends). With this method the wood is spinning and the drill is pushed against the wood (photo left). I myself prefer to make a pilot hole in a piece of wood when it is still square: the drill is spinning and is pushed into the wood (or the wood is pushed into the spinning drill, photo right).
!!! **Warning:** drilling long holes can be a dangerous job, the combination of a big lump of wood or a drill is turning at a considerable speed and the force that is needed to make a hole can lead to dangerous situations: the wood or drill becoming loose, the drill getting jammed or becoming hot. !!! I have lost some pieces of wood and a few drills over the years, but still have all my fingers. Important: your lathe must have an emergency stop (I have one which I can also stop with my leg). And I don’t like lathes (or other engines) which are too powerful, or are generate too much speed.

- Second step: the exterior, the turned parts.
  It is impossible (or very unwise) to do the second step first, thus turning a massive piece of wood at first, and then trying to drill a hole through the whole length and perfectly in the middle of the wood.

- Third step: working on or in the wall of the instrument: windway, labium, finger holes.
  Making windway, labium and block takes most of the time (unless you have to make a key system).

- Fourth step: finishing the surfaces, playing in the instrument, making corrections.

I do not always complete each step before I go to the next. For instance I sometimes leave the bore a bit too narrow in some places, doing the final reaming at the end when tuning the recorder. And I turn initially only a part (the middle section) of the head of a recorder and finish the turning after I have made the windway, labium and block.

Never forget at every step when you are making a recorder: just as with other woodwind instruments, making a recorder is mainly a combination of removing wood and finishing surfaces.

When making a head of a recorder, I turn at first only the middle section to the required diameter (I call that a ‘working head’ - in Dutch: **werkkop**, see photo below). Upper end and lower end are still too thick, so that I can clench it firmly in my workbench.
11.4 Easy starters

a)-A simple whistle with 1 + 4 fingerholes

At excavations in Amsterdam some very simple recorders were dug up: with only a few fingerholes and the window made with the same drill as these holes.

The whistle at the top has been preserved rather well, the other two have suffered during the drying process.
Some measurements (in millimetres):
  L: 120, L to block line 105; L windway 14; window: 4.6 (L) x 4.8 (W); total length of labium + window: 9
Windway: width from c. 5.5 to 4.8, made with a file (to about 0.5)
Bore: Ø 10 mm over whole length
The block is a round piece of wood, just a bit flattened at the side of the windway.
Thickness of the wood: Ø at block line, 15.5 to 16 at fingerholes, at lower end c. 20.
Fingerholes (L from centre of hole to block line, Ø of hole)
  0 - L 41.5, Ø 5.0 (= thumb hole at the back)
  1 - 41.5, 5.2/5.5
  2 - 55.5, 5.2/5.5
  3 - 69.7, 5.0
  4 - 84.5, 5.2/5.5
Fingerings:
  e2  0 1 2 3 4  e3  0h 1 2 3 4 (h means: hole only partly opened)
  f#2 0 1 2 3     f#3 0h 1 2 3
  g#2 0 1 2     g#3 0h 1 2
  a2 0 1 3 4     b2 0 1
  c#3 .1 2 d#3 all holes open, or closing 2 or 3

With these 1 + 4 holes you can play a more or less precise diatonic scale. It is possible to make this type of whistle a bit longer, or the bore narrower (for instance 9 or even 8 mm Ø), or to make it (with other fingerings) with 3 or 5 fingerholes at the front.

b)-a wooden ocarina
Ocarinas have about the same ‘generator’ as recorders, with a windway, window and labium. The resonator is, however, quite different. This can be any kind of shape: like an egg, a sweet potato, a thick cigar or torpedo, fish, bird, small sculptures, even a pretzel. Ocarinas come in all sizes.

From Wikipedia: the modern European ocarina dates back to the 19th century, when Giuseppe Donati from Budrio, a town near Bologna, Italy transformed the ocarina from a toy, which only played a few notes, into a more comprehensive instrument (known as the first ‘classical’ ocarinas). The word ocarina in the Bolognese dialect of the Emiliano-Romagnolo language means ‘little goose.’ The earlier form was known in Europe as a gemshorn, which was made from animal horns of the chamois.

Ocarinas are often made from clay. But metal, plastic and as we will see wood are perfect materials for the instrument.

About the acoustics of the ocarina (see https://newt.phys.unsw.edu.au/jw/Helmholtz.html for more information): when all fingerholes are covered, unlike on recorder which has an open end, the resonator body is completely closed (apart from the window opening). The body acts as a Helmholtz resonator, which is a container filled with air and an open hole (or neck or port). A volume of air in and near the open hole vibrates because of the 'springiness' of the air inside. A common example is an empty bottle: the air inside vibrates when you blow across the top. The frequency of the tone that you will hear depends of the volume of the container and the size of the window, plus the size of other openings which are drilled on the body and act as fingerholes. Unlike with the recorder, the position of the
holes on an ocarina is not critical, the frequency of the note depends mainly on total amount of the surface of the opened fingerholes.

There are no soundwaves with nodes and antinodes in the body of the ocarina: the air vibrates evenly in the whole space of the body. That also means that there are no harmonics in the sound and that involves that you can’t overblow into the octave or other intervals. And that reduces the range of the ocarina: you can’t generally play more notes than the number of fingerholes on the instrument. The only way to extend the scale is adding keys which must then be operated with other parts of your hand. But there is a limit to what you can do: the quality of the sound goes down when the opening surface is becoming bigger.

With double holes you can play (some) chromatic tones and in fact it is possible to apply various types of fingerings to the instrument. I myself have applied fingerings after Hotterterre, which implies that hole 6 (which is covered by the ring finger of the lower hand) is for most holes closed. Doing so makes my type of ocarina more stable when I play it, because there are no notes where all the holes have to be open.

The fingerings for an instrument in c:

- c1: 0 1 2 3 4 5 6 7
- d1: 0 1 2 3 4 5 6
- e1: 0 1 2 3 4 5
- f1: 0 1 2 3 . 6;  f#1: 0 1 2 . 5 or 0 1 2 . . 6 7
- g1: 0 1 2 3 + 6;  g#1: 0 1 2 . . 5 or 0 1 2 . . . 6 7
- a1: 0 1 2 + 6;  a#1/b-flat1: 0 1 . . 5 6
- b1: 0 1 + 6
- c2: 0 + 6,  c#2: 1 + 6;  d2: only hole 6 covered
I made my ocarina from pieces of so-called FSC-certificated tropical hardwood, from a DIY shop, probably meranti. But it is not a pleasant type of wood for fine work. Making a smooth finish of surfaces is difficult. It is important that the parts of the body are perfectly fitting; even the smallest leak can destroy the sound of the ocarina.

The two parts with labium and windway, here presented upside down.

The generator (windway & labium) is made in two separate pieces of wood, which are attached with screws so that they can be easily removed and replaced. The windway (A) is cut in the top piece. The ‘floor’ of the windway (C) is in line with the surface of the body. That is why I had to cut a small ‘underlabium’ (see B). The hole in the body (left from C) must be sufficiently big. Apart from screws, I used strips pieces of thin double-sided tape (such as used for photo prints) around the sides for a leak-free attachment.

The ocarina from the picture on the previous page is actually not in c, but has as its lowest note d (like a voice flute).

About the dimensions (in millimeters): length of body: 198, width 51 height 39. The boards are about 6 thick, which means that the dimensions of the interior of the body are about 186 x 40 x 26.

The window is 12 (width) x 9.5 (length/height). The windway: width/height 15.5 x 1.5 (at top) to 12 x c. 1 (at window). Length of the slope of the labium: c. 15.

Regarding the placement and the size of the fingerholes: the position of the holes is not critical, you can place them so that they can easily be covered by your fingers. Hole 0 is at the back of the body, not too far from the (opposite) position of hole 1. It is obvious that the holes are becoming bigger going from 7 to 1 (and 0). For each other size of ocarina you have to try out the size of the fingerholes, it is not easy to give a formula (the size depends also - and very much so - of the fingering system that is applied).

I have drilled at first the holes a bit to small:
hole 7: 3 mm hole 6: 3.5 mm hole 5 and 4: 5 mm
hole 3: 6.5 mm hole 2: 8.5 mm hole 1: 7.5 mm hole 0: 10 mm
and enlarged them (from 0.5 up to 1 mm) in the process of tuning.
c)- a square soprano recorder

Alec Loretto designed a square soprano recorder. It has the common ‘English baroque fingering’, the pitch is \( a = 440 \) Hz.

I changed the construction of the resonator for my copy, much as I did with the wooden ocarina. But the block of the recorder is now a massive piece of wood. The height of the block can be altered by putting a piece of thick paper below (see drawing).

The four wooden panels must be absolutely flat and smooth at the sides where they are glued together. And that is perhaps the most difficult part of making this type of recorder! Leaking panels make playing the recorder impossible.

The fingerholes on my copy are a bit smaller than on the Loretto plan, maybe because I have made the walls a bit thinner. It is always good to drill the fingerholes a bit (0.5 mm) too small, and then widen them during the tuning process. Begin at hole 7, then 6, 5 etc. I have also undercut some of the holes. Doing so, you can manipulate a bit the relation between the main tones and the fork-fingered tones (esp. on holes 3 and 4).

See Comm. 2040 (FoMRHI Q 132) for an introduction with general rules for tuning woodwind instruments.
c)-a PVC recorder

This is a very simple soprano recorder (a-440), made from PVC tube (16 x 13.5 mm) from the DIY-shop.

The block is a round piece of wood, flattened at the windway side. I didn’t find rods of that diameter (or slightly thicker) in the shops, so I turned a piece of wood on the lathe (other solution: make the block from a piece of cork).

The photos show the construction of the windway: using a small saw with fine teeth and/or a sharp knife, files and pieces of sanding paper. It is not easy to finish the surfaces very smoothly, as you can see on the photos! The ‘roof’ of the windway is formed by a U-shaped piece of the tube. It is best to remove a few millimeters, otherwise the piece is too stiff and can’t be pushed over the rest.

I had to make several attempts before I found the right place and size of the fingerholes: these dimensions are quite different from those on the square recorder. My PVC recorder plays rather well, but with a bit of noise. The highest notes are a bit flat, unless you play them with some force.
Oboe collection Han de Vries in Rijksmuseum Amsterdam

The Rijksmuseum in Amsterdam has acquired the famous collection of oboes of the well-known oboe player Han de Vries (1941). The collection exists of 69 oboes (most early or rare examples) and 14 ‘works on paper’, such as fingering tables. A selection of the instruments and objects is until January 22th on display in one of the rooms of the Rijksmuseum.

Han de Vries stopped playing the oboe several years ago, on Dutch television he confessed that during his musical career he had to use tranquilizers to deal with the tensions of the concerts. And he knew of several other musicians with the same problems (Han de Vries played in the Royal Concertgebouw Orchestra). But it must also have been worrying to have such a lovely instrument collection in his home in Amsterdam. The transfer of the oboes and other stuff to the Rijksmuseum was not an easy process and lasted many months: money had to be found and there are with such transactions always issues to be solved in relation to last will declarations, insurance policies or taxes. It was the explicit desire of Han de Vries that his complete collection went to the Rijksmuseum; he even asked me two years ago if I could take measures if he should die before the transfer process was finished. The Rijksmuseum has with this acquisition now one of the finest oboe collections in the world, including some exceptional fine instruments by Dutch makers of the 17/18th century.

Oboe by F. Richters, in brown stained boxwood, ivory rings and silver keys.
In defence of real lutes and theorbos—why history matters

It is now more than fifty years since I built my first lute, and during that time we have learned a great deal about the instruments, their repertoire and the manner of playing them. Most of this advance in knowledge has come about through intense study of historical source material: the instruments themselves, the music itself, literature and iconography.

Today, however, we have a crisis in the lute world. A significant number of professional lutenists has chosen to ignore many of the things which are known about historical instruments and the way of playing them, preferring instead to invent their own ways of doing things. This manifests itself most clearly when members of the lute family are employed as continuo instruments. Does this matter? Surely, so long as the person is playing on an instrument with a lute-shaped body and some sort of neck-extension, that is all that matters. Well, clearly, for a number of people that is, indeed, all that matters but, surely, this is not satisfactory.

The lute had a very complicated history, not least because it was always being modified to suit particular musical requirements at various times and in various places. Those people who ignore historical practices are failing to understand these subtleties of the lute’s history and this lack of understanding often manifests itself in those players’ whole approach to the music.

Let me quote from J. A. Scheibe in 1740. He was a composer and the Capellmeister in Brandenburg-Culmbach and later at the court of Christian VI of Denmark:

How can a piece of music have the effect its author has sought to achieve if it is not also set up and performed in accordance with the wishes of the same and in conformity with his intentions?¹

Although we know a lot about historical lutes and performing practice there is a lot that we do not know, and that is why it has always seemed to me that the best we can do, at this distance in time, is to try to discover what would have been considered as ‘normal practice’ at any given time and place. There will always have been people who ‘did their own thing’ but we are not in a position to judge such eccentricity. We can only hope to discover what the majority was doing and, I think, we should use that as the basis for what we ourselves do.

I will use this picture to represent the Italian theorbo or chitarrone.

![Theorbo by Magno Stegher](image)

It shows a theorbo by Magno Stegher which is in the Ueno Gakuen collection in Japan. Now, many people
think that the defining characteristic of the theorbo is its long neck-extension. Of course, it isn’t! The theorbo actually seems to pre-date the invention of the extended neck. No, the defining characteristic is the tuning, i.e. the lowering by an octave of the first or first and second courses, and this was done for one reason only. Because of the large size of the instrument and the long string-length of the fingerboard-strings, it was physically impossible to tune those courses up to lute pitch.

If we think about an all-gut-strung renaissance lute, it is a treble-heavy instrument. When such an instrument plays with other lutes or with other instruments, the bass gets lost. As musical styles changed towards the end of the 16th century it became even more important to have some sort of lute with a strong bass which could cope with music which was strongly founded on its bass line. Experimentation showed that by taking, for example, a 6- or 7-course bass lute in D and restringing it so that it could be tuned to G or even A, the resulting thinner strings on the lower courses together with the large size of the bass-lute body produced a louder and clearer bass response. Of course, because of the long string-length, it then became impossible to tune the first, and often the first and second courses, up to lute tuning and they were lowered an octave. The evidence implies that the impossibility of tuning the first and second courses up to lute pitch was the only reason why these courses were tuned an octave lower. Conversely, if a theorbo is small enough to allow the second course to be tuned to the higher octave, this should be done.

These days I see many players, mainly in Europe, playing on small theorbos which really do not need their second courses tuned down an octave, even though those players persist in doing this. This completely misunderstands the true nature of the theorbo—its large size is the very essence of it.

Michael Praetorius, in 1619, said of the theorbo:

Because of the large and wide finger stretches, coloratura and divisions are not possible, moreover a common and appropriate technique must be used.  

I imagine that Praetorius never had the opportunity to hear the great Italian virtuosi.

As I said, theorbos were big instruments. This Magno Stegher has string lengths of 92 cm and 169.5 cm. Here are just a few further examples:

Magno Dieffopruchar, London Royal College, 93.4 and 170 cm
Matteus Buchenberg, Victoria and Albert Museum, 89.0 and 159 cm
Matteus Buchenberg, Brussels Royal Museum, 99.2 cm
Magno Graill, Rome, 96.4 and long neck broken off at 180 cm
Matteo Sellas, Paris, 89.0 cm (neck-extension cut in 18th century)
Giorgio Sellas, Paris, 96.7 and 177.3 cm
Martin Kaiser, Paris, 88.4 and 175 cm
Giovanni Tessler, Christie’s sale, 89.6 and 176 cm.

And below is some pictorial evidence.

Back of a chitarrone by Mattheus Buchenberg, Rome 1608, private collection.
This Matteus Buchenberg instrument has a string length of around 99 cm. These illustrations show the characteristic flattened back of the Italian chitarrone.

Engraving by Stephanus Picart of a painting by Lionello Spada (1576–1622, Paris, Louvre. This engraving was made after the painting by Lionello Spada which was in the collection of Louis XIV.

Painting by Ludovico Lana (c.1597–1646) of Geronimo Valeriani, lutenist to the Duke of Modena (the title on the music is ‘Corrente per la tiorba’).
This last is an important painting showing the whole of a French theorbo with all the characteristic details which we know from other iconography and the surviving instrument in the Yale collection, discussed below. Note the right-hand position in all of these pictures. This could well tell us something about string tension as well as tone quality.

As I said, I see many people today playing on instruments which are far too small to be real theorbos, or, at least, are only suitable as theorbos with just the first course lowered an octave like the 1611 Venere in Vienna, or the Matteo Sellas instrument in Brussels.

‘Ah!’ these players say, ‘it is impossible to play the solo repertoire on such large theorbos!’ Let us imagine that I am about to organise a concert. I ask a violinist if he would play the Elgar cello concerto. The violinist would, no doubt, protest that he did not play the cello, but only the violin. I would reply, ‘What is the problem? Both instruments belong to the same family, they both have four strings, they are tuned in fifths and they are played with a bow.’ Still, the violinist would protest that he did not play the cello. Ridiculous, of course, and yet, every lutenist who gets a theorbo thinks he should be able to rattle off the music of
the greatest theorbo virtuosi. When they find they can't do it, they decide that the problem must be the instrument and they go off to a maker and commission a small instrument which is easier to play. Well, a theorbo is no more a lute than a 'cello is a violin! Indeed, the difference between the string length of a violin and that of a 'cello is similar to that between a G lute and a proper-sized theorbo! It is worth listening to the recordings of those players who do play the solo music on the proper-sized instruments. After all, I don't think there is any evidence that people in the 17th century were all giants!

‘Well, it is so difficult to travel with those large theorbos.’ Imagine that you were attending a performance of Brahms’ German Requiem and you were very surprised to see that the harpist, instead of playing on a proper orchestral harp, was playing on a small, late-15th-century-style gothic harp. You would be equally surprised, upon asking the harpist why they were doing this, to hear the reply, ‘Well, it is so difficult to travel with an orchestral harp and I find the small gothic model so much more convenient.’

I am not aware that double-bass players go to their instrument makers and, since they find their instrument so awkward to play and so difficult to travel with, ask, ‘Could you, please build me a double-bass the size of a 'cello?’

Why is it that lutenists seem to feel free to invent all sorts of distortions of historical practice? Is it because they do not understand the complex history of the lute? Or, perhaps, they do know what they should be doing, but just don't care. Perhaps it is because, unlike with other instruments, very few lutenists have the opportunity to play on historical lutes and so they are less familiar with the ‘real thing’. When some lutenists order an instrument from a maker these days it seems a little like ordering a meal in a restaurant. ‘I would like such and such but could I have it without this but with some of that instead?’

I notice, also, that many players today use seven or eight courses on their theorbo fingerboards when the usual disposition on the vast majority of historical theorbos was six courses on the fingerboard and eight di-apasons. They say that they must be able to play the low chromatic notes A flat/G sharp and F sharp, but no theorist in the 17th century could ever play these notes because, with only six courses on the fingerboard, they simply did not exist on the theorbo unless the diapasons were re-tuned.

I once had a client who, having played on my French theorbo, decided that it was this type of instrument which would suit his needs best. ‘Of course,’ he said, ‘I would need to have eight courses on the fingerboard’. When I asked him ‘why?’ and he replied that he had to be able to play the chromatic bass notes because they were written in the music and music directors expected him to be able to play them, I pointed out to him that no theorist in the 17th century could have played those notes. He couldn't understand why I refused to do what he wanted as he said that it was a very simple thing to do. I replied that that was exactly why I wouldn't do it because it was just as simple in the 17th century but those players and makers chose not to do it. If we start to see problems with historical instruments and begin to invent new instruments to solve those perceived problems, then we shall never discover how the players in the past dealt with these matters which they, clearly, did not see as problems. This particular client, of course, simply went to another lutemaker who provided him with exactly what he wanted.

Incidentally, many Italian theorbos have double courses on the fingerboard; even the largest sized ones. How many players today follow this practice?

Of course, one can understand how these unhistorical practices spread wider and wider and become accepted. The player, when the music director asks him to do things of which the historical instrument is incapable, fears that he will not get further employment unless he gets an instrument which can fulfill the director's wishes. The maker fears that he will not get further orders unless he provides the player with everything he asks for.

One important piece of evidence that shows that a 76 cm string length is too short for tuning in A with the first and second courses lowered comes from France. Towards the end of the 17th and into the 18th century there was a smaller theorbo, the ‘théorbe des pièces’ or ‘lesser French theorbo fitt for lessons’ as the Talbot MS describes it. In that manuscript, measurements for such an instrument are given and, indeed, one survives in the Yale University collection. It was made by Wendelio Venere, converted to a small French theorbo and later to an angélique. The string length is 74.3 cm. But what is significant is that it is intended to be tuned in D, a fourth higher than the usual A tuning. Can you think of any other plucked instrument where one string length can
serve two different tunings a fourth apart? That would go against the whole theory of instrument design at a time when definite proportions were being used.

The other very important plucked continuo instrument is, of course, the archlute. There are two main kinds; the one we tend to call the ‘liuto attiorbato’ and then the long-necked archlute. Both of these instruments are true lutes and, therefore, will always have double courses on the fingerboard. This is nothing unusual; after all, it is worth remembering that almost all plucked instruments of this period had double courses: lute, cittern, orpharion, bandora, renaissance guitar, baroque guitar and mandolin. The only real exceptions to this are most French theorbos; some Italian theorbos and the angélique.

The ‘liuto attiorbato’ (see an example by Sellas, below) is really the Italian baroque lute and usually has six or seven double courses on the fingerboard (sometimes a single chanterelle) and double diapasons making 11, 13 or 14 courses in all.

There is one instrument by Magno Dieffopruchar (presumably converted by Sellas, see below) which has 17 courses (10 x 2 and 7 x 2, though the bridge has only 32 holes), all double. This is a large instrument of 69 cm string length. (See further photographs in The Lutezine 118, p. 15.)

(Editors note: see The Lutezine 126 for Mimmo Peruffo’s discussion of the musical inadequacy of plain gut bass strings: single diapasons on the liuto attiorbato were probably not an option, since without a very long neck, the added clarity of tone that came from octave double stringing was needed alongside gut basses that were too short and fat to make a really good bass sound.)
A large number of players today are removing half the strings from their archlutes and ‘liuti attiorbati’ and some even from 13-course German baroque lutes. Why do they do this? Perhaps it is because most people nowadays tend only to play on single-strung theorbo and think the archlute ought to be the same. Perhaps they think it enables them to play more loudly and, as we know, these days loudness is considered a major virtue in music. Granted, it is more difficult to make a good, strong sound on double courses but, just as violinists, flautists etc. have to learn how to make a good sound on their instruments, so, I’m afraid, lutenists must learn likewise. Perhaps these players have never managed to banish from their minds the aesthetic of the modern guitar which, of course, has nothing whatsoever to do with our historical instruments.

So far as I am aware, these single-strung archlutes are a completely modern invention and did not exist at all in times past. They are, perhaps, most closely related to the ‘Wandervogellauten’ of the early 20th-century German folk-revival.

I often think that people imagine these days that the role of plucked continuo is to provide a constant background of sound—a clatter of plucking, just as younger people, getting on a bus or train, immediately stick things in their ears so that they can have a constant background noise, clearly being afraid of silence or their own thoughts. I think the use of these unhistorical instruments encourages this.

A little while ago I went to a concert at the Wigmore Hall given by a well-known ensemble who were playing a programme of wonderful 17th-century French music. I noticed that the music director did not choose to play continuo on a modern Steinway concert grand piano but on a French-style harpsichord. The plucked continuo, however, was on one of these newly-invented lute-instruments (described in the programme, of course, as a theorbo). It was lute sized with a neck-extension, tuned like a lute but with single strings. This allowed the player to do all sorts of virtuoso passage work with plenty of strumming and scales up and down, turning each piece into a mini lute concerto. This approach was even employed in an air de cour by Moulinié for which the composer had, kindly, provided an accompaniment in tabulature. ‘Le bon gout’ it certainly was not! I wonder why the player did not play on a 10-string classical guitar as guitarists sometimes do when they are pretending to be lutenists. I suppose it would then have been more difficult for him to pretend that he was being historical.

Let me give you one or two quotations from historical sources. The first is from Bacilly, from his L’art de Bien Chanter:
Among the instruments used at present to sustain the voice are the harpsichord, the viol and the theorbo, the harp being no longer in use. The viol and the harpsichord haven't the grace and the accommodation found in the theorbo, which is a necessary thing for accompanying all kinds of voices. This may be because the sweetness of the theorbo adapts itself to weak and delicate voices while the other instruments tend to obscure such a voice. The question, therefore, arises: 'Is it necessary to be accompanied by a theorbo in order to perform a song properly?'

Undoubtedly, the beauty of a song is not set off to good advantage when it is accompanied by an instrument which obscures the voice. The instrument ought to accompany the person singing the melody . . . for the purposes of outlining the harmonies properly. This type of accompaniment is much more serviceable than the type in which the union of voice and instrument serves only to suffocate the fine points of the song in the resulting confusion, even though the result may be harmonically appropriate.

However, it is necessary to establish the fact that if the theorbo isn't played with moderation—if the player adds too much confusing figuration (as do most accompanists, more to demonstrate the dexterity of their fingers than to aid the person they are accompanying) it then becomes an accompaniment of the theorbo by the voice rather than the reverse.

Denis Delair (1690) states that:

The theorbo does not have a range that is high enough to supply the compass needed for the treble clefs. One makes up for this defect by taking the treble notes an octave lower.

Not every instrument is suitable for accompanying since, in accompaniment, the trebles should not dominate the basses . . . This is the reason one ordinarily does not use the lute or guitar to accompany, since the trebles are too dominant and the basses not long enough.

Very few chords are played in fast pieces and in slow recitatives chords are separated by some silence in order to feature the voice.

And from an earlier generation, Agostino Agazzari (1607):  

I say the same of the lute, harp, theorbo, harpsichord etc., when they serve as a foundation with one or more voices singing above them, for in this case, to support the voice, they must maintain a solid, sonorous, sustained harmony, playing now piano, now forte, according to the quality and quantity of the voices, the place and the work, while, to avoid interfering with the singer, they must not re-strike the strings too often when he executes a passage or expresses a passion.

He who plays the lute (which is the noblest instrument of them all) must play it nobly, with much invention and variety, not as is done by those who, because they have a ready hand, do nothing but play runs and make divisions from beginning to end when playing with other instruments which do the same, in all of which, nothing is heard but babel and confusion, displeasing and disagreeable to the listener.

How do these modern-day players manage to get away with such blatantly unhistorical practices? Well, of course, the answer is ignorance and it is not just on the part of the players.

I think there are three groups of people involved in all of this. First, the players themselves. Are they ignorant of the history of their own instrument? For professional players, that would be unacceptable. It is forty years since the late Robert Spencer published an article in Early Music (October 1976) entitled 'Chitarrone, Theorbo and Archlute' (now at http://www.vanedwards.co.uk/spencer/html/). Yes, we have learned quite
a lot since then but it is still the best introduction to the subject and every lute student should read it and absorb it.

Perhaps these players know what they ought to do but simply couldn’t care less about doing it. That would be worse than unacceptable. In this group I would also include teachers because they have the responsibility of passing on to their pupils the proper, historical way of doing things. Students and young players inevitably have a narrow view of their music-making, tending to copy what they see around them and especially following the example of any famous groups. This is how unhistorical practices spread—perhaps this is why we have to experience the annoying habit of sticking drums with everything! It is the teachers’ role not to encourage such things but to point out how different the historical practice was. Remember Socrates—he was unjustly accused of corrupting the young but he had to drink hemlock just the same!

The next group is that of music directors and I would include here directors of early music festivals and the ‘fixers’, i.e. those people who book the players in ensembles. These are all the people who employ lutenists. Even though throughout the whole period with which we are concerned the lute and its related instruments were central to music-making, they are, today, considered rather fringe instruments and directors of music, for the most part, do not feel the need to understand the various types of lutes and theorboes. Their background is most likely to be as a keyboard player, an orchestral stringed-instrument player or a choral conductor, and their feeling no need to understand the lute is the same as if a specialist in 19th and early 20th-century music were to ignore the piano as a completely alien instrument. They, probably, just assume that the lutenist will turn up with the right sort of instrument for the job. Well, they should be able to trust the lutenist but, as I have indicated, such trust is often ill-founded. I should like to think that music directors would learn enough about plucked continuo instruments and stop employing players who blatantly flout historical practice. Their ignorance often means that plucked continuo is used in an unsuitable way and is, therefore, not as successful as it should be. We see theorboes and, Heaven help us, baroque guitars in works by Bach. Did Bach ever use a theorbo, I wonder?

When Constantijn Huygens was part of a diplomatic trip to Venice, he went to vespers on the feast of St John the Baptist in the church of St John and St Lucy and heard music composed and directed by Monteverdi. He describes the forces as 10 or 12 voices accompanied by 2 cornetti, 2 violins, 2 fagotti, a bass viol of monstrous size, organs and 4 theorboes. How often do we hear an ensemble like that today?

The third group is that of the critics and the audience. Critics generally know nothing about lutes and, even if they did, would probably be too polite to criticise a player for being blatantly unhistorical, or may consider that it didn’t matter.

The audience is the only group which is entirely innocent. Because there has been an ‘Early Music Movement’ over the past fifty or so years they, reasonably, assume, when they see a lute-like instrument with some sort of neck extension, that they are about to hear an historically-minded performance, only to be deceived! I can illustrate this in another way. Everyone thinks that they can own Bach. His music is played on the banjo, the piano-accordion, the concert grand piano and the modern classical guitar but, with these instruments, no one is under the illusion that they are hearing the music as Bach might have intended it to be heard. When it is arranged and played on a theorbo or a single-strung ‘archlute’, because of the ‘Early Music Movement’ most audiences would assume that they were listening to the sort of performance which might have been heard in Bach’s day whereas, in fact, they are not getting anything different from the performance on the banjo or piano-accordion.

As you know, when you go to a concert, you usually get a programme which lists the music about to be played, probably some programme notes as well as short biographies of the performers. These biographies will tell you with whom the players studied, all the masterclasses in which they have participated and all the ensembles they have played in (many of which you will never have heard of) but I have never read anything to the effect that ‘these players are not particularly interested in an historical way of doing things, preferring, instead, their own way, unrestricted by considerations of the past.’ Well, why not? That would simply be being honest with the audience who would then know what it was they were listening to.

You probably think that I am being totally negative and you may be muttering things about ‘the authenticity police’. Everything that I have said boils down to one word: ‘respect’. We should remember that all
who earn our livings from the music of the past whether as players, instrument-makers or musicologists—we are all parasites. We depend for our livelihoods on the creativity of people three, four or five hundred years ago. We should admit that the instrument makers and performers of the past did actually know what they were doing. In the case of the lute, they were sophisticated people dealing with a highly refined instrument. If something seems to us to be problematic or not to work, then the problem almost certainly lies with us rather than with them. They knew far more about their own music and their instruments than we shall ever know, and I think we would gain deeper understanding if we simply accepted what they did as being what they chose to do rather than assuming that we know better and can improve on their inadequate or unsuitable methods.

People will say that there was a lot of freedom in performance practice in the past. Well, there was some freedom in some areas and not in others, and it is up to our researches to try to discover the details of those. There is also a lot of evidence that composers wanted their music to be performed according to their instructions and that even goes into modern times. François Couperin complained that although he had gone to the trouble of giving detailed instructions as to the performance of his music, people, nevertheless, were ignoring these. Ravel, after a performance of his ‘Bolero’, complained to Toscanini, ‘That’s not my tempo’. Toscanini replied ‘When I play your tempo, the piece is ineffective’. Ravel answered ‘Then don’t play it’. Even Wagner said ‘I care absolutely nothing about my things being given: I am anxious that they should be so given as I intended: he who will not or cannot do that, let him leave them alone’. I should like to recommend two books which do not concern themselves with lutes but do relate to these general problems: The Composers’ Intentions (Boydell, 2015) by Andrew Parrott, and The Notation is not the Music (Indiana University Press, 2013) by Barth Kuijken.

Of course, all these arguments have been rehearsed for the last forty or fifty years, and I find it particularly depressing that in my world of the lute there is still a need to reiterate them today. The least we can do is to respect the players and makers of the past and their mastery of their own arts.

One can usually find an apposite quotation from Roger North, Thomas Mace or the Mary Burwell Lute Tutor and I will end with one from the latter, an English source of around 1670. The teacher is advising the pupil of the correct approach when playing music not of their own composition:

He must shake off self-love in playing those lessons as the author does, without altering or adding anything of his own which, if he does, he will disoblige them and be esteemed a vain man, as if he had more wit than those whose production he is glad to borrow. Notes

1 Johann Adolf Scheibe, Der Critische Musicus (Hamburg, 1740), pp. 709-10.
2 Michael Praetorius, Syntagma musicum band II De Organographia (Wolfenbuettel, 1619) p. 52.
3 Vienna Kunsthistorisches Museum, C47.
4 Brussels Instrument Museum, no. 255.
5 Bertrand de Bacilly, Remarques curieuses sur l’Art de Bien Chanter, 1668) from the section on the necessity of instrumental accompaniment in vocal music.
6 Denis Delair, Traité d’accompagnement pour le theorbe, et le clavecin. (Paris, 1690).
7 Agostino Agazzari, Del sonare sopra il basso (1607).
8 Constantijn Huygens, Journal van de Reis naar Venetie.
9 François Couperin, Pieces de Clavecin III, (Paris, 1722).
11 Richard Wagner, Saemtliche Briefe (Leipzig, 1993); a letter of 30th December 1852.
Turkish castanets, or should that be ‘the bones’ – a correction to Comm 2094

It seems that our Comm. 2094 was written in a little too much haste. Not only was one image of mediaeval square-frame drum wrongly indicated as depicting the dance of Miriam when surely it must be the dance of Salome, with Herod holding up a menacing sword, in Limoges MS B.M. 0002 f.182v, a gradual for Notredame de Fontevrault, from 1250-60 . . .

. . . but more importantly, it was suggested that images of the ‘Turkish’ castanets appear only in Jewish or Levantine sources, not in Christian ones. But in fact here is Salome with hand-held percussion in a Christian carving from the south face of the cloister of Tudela cathedral, from the 12th century (see: https://dialnet.unirioja.es/descarga/articulo/2255998.pdf).
Indeed they can be seen too is a water jar by Polignotos (c. 450–420 BC) showing the Symposium of Xenophon, now in the archaeological museum in Naples, one of many such images on wine jars and water jars. So evidently they have a long history.

This does not invalidate the point that Praetorius does not depict this instrument, nor that by the time Bonanni wrote in the 18th century it was regarded as ‘Turkish’, nor that it is seen in later Turkish sources.
Yet is this instrument really none other than the ‘bones’? Is it time for mediaeval ensembles to start enlivening *cantigas* and other repertoires with a riff or two on the bones – or even the spoons?
Reviews of two books by Christopher Page:


[Preamble: Cambridge University Press recently sent me review copies of these two books and a suitable review has now appeared in Early Music Performer (the journal of the National Early Music Association) Issue 43, October 2018. This focussed on the social and musical history of the early guitar as is, indeed, a stated aim of Christopher Page's latest works. Nevertheless a number of organological matters are touched upon and it is therefore appropriate to repeat much of the review for FoMRHI but in a revised and slightly expanded form to cover aspects associated with the physical development and construction of the instruments.]

In modern times many books about the guitar have often adopted something of a romantic approach when considering the period instrument – reflecting the author’s personal foibles, they may contain uncorroborated speculations, excessive reliance on anecdotal and secondary sources and on artistic assertions. But a few have fairly recently adopted a more welcome forensic approach; such have included the late James Tyler’s *The Early Guitar – A History and Handbook* (Oxford Early Music Series, 1980) and the expanded work by Tyler with Paul Sparks, *The Guitar and its Music* (Oxford Early Music Series, 2002) covering the development of the instrument and its music from the sixteenth century through to the early nineteenth. These also briefly dealt with the various national schools and the general types of instruments from the early four-course guitar through to the introduction of the new six-single-string instrument around 1800. However both of these, being relatively slim volumes, necessarily only touch on the particular manifestations of the instrument in various countries and there has long been a need for more detailed national histories of the instrument.

Two new books now very well cover this lacuna for the guitar's social and musical history in England– at least up to the early eighteenth century. Christopher Page’s fine works, *The Guitar in Tudor England* and *The Guitar in Stuart England*, are scholarly, as might be expected from Professor Page, but are also highly absorbing and very readable. Indeed, from the high level of detailed research and insightful deductive reasoning, it would be difficult to see how many of these aspects could be better covered. The two books are fine examples of the more recent and welcome tendency to employ a scientific approach in the analysis of sources, including related literary works and pictorial depictions. Both are subtitled ‘A Social and Musical History’ and this, rather than organological matters, is Page's principal focus with findings directly based on ‘gathering the relevant literary, archival and pictorial documents in a more comprehensive manner than has yet been attempted’.

Whilst each book is self-contained they are, in truth, an omnibus recounting the guitar’s history in England from around 1550 through to the first decades of the 1700s
as is, indeed, reflected by their titles. A further final book is promised in this CUP trilogy to cover the guitar in Georgian England – although I do hope Page might feel able to extend his work up to the end of Victoria’s reign and so cover: important social and musical developments (including adoption by the middle classes – as recounted by Dickens); significant organological changes (Panormo’s influences and the like); and influential, if often idiosyncratic, guitarists working in England later in the nineteenth century such as Giulio Regondi (also a celebrated Wheatsone concertina virtuoso), Madame Sidney Pratten (née Catharina Pelzer) and the popular music-hall comic, Ernest Shand, who had a second, more private, career as a guitar performer and composer.

Both books follow a similar pattern: an introduction setting the scene and outlining what is to come; various chapters on different aspects of the instrument; relevant appendices fleshing out the main text; a very extensive bibliography separated into primary and modern sources including some relevant dissertations and articles (although not all relevant specialist journals - such as *FoMRHI Quarterly* - are represented); and a useful index. Extensive notes are collected at the end of each chapter (but I still hanker for the more convenient format of having them as footnotes close by the main text).

The four-course guitar (English ‘gittern’, ‘guiterne’ and other cognates) was played in many parts of Europe during the sixteenth century, including Spain, Italy, the Low Countries, but especially in France where it enjoyed particular popularity. England was no exception to the fashion and in *The Guitar in Tudor England* Page identifies and recounts relevant manifestations of the guitar in this country. The seven chapters cover:
- images of the guitar in Tudor England, such as the Hengrave Hall overmantel depicting two guitars and the Eglantine Table at Hardwick Hall, which includes a guitar inlay. How typical these depictions showing such tiny instruments (string lengths around mid 30cm) were of all contemporary guitars is, of course, difficult to say and little is made of other representations to estimate general size, but Page puts a case for considering these particular historical artefacts as reasonable representations;
- studies of various inventory listings, accounts and other documents which identify some of those who owned guitars – from Henry VIII, through various gentlemen, university fellows and even apprentices – although how relatively widespread guitar ownership was compared to, say, the lute and/or cittern is not established;
- surviving sixteenth-century London Port Books which show the importing of instruments, including guitars, primarily by drapers and the like who may have simply filled free shipping space alongside their principal imports – small business entrepreneurs I suppose we might call them today;
- James Rowbothum’s printed guitar tutor, *An Instruction to the Gitterne* from around 1569, of which only fragments survive. It seems to be an English adaptation of a partially extant work from Adrian Le Roy and this allows Page to reconstruct, fairly convincingly, much of Rowbothum’s missing original tablature;
- examination of other contemporary sources of or relating to guitar music including the refined works published by Le Roy & Ballard (perhaps the finest guitar music of this period) and pieces from the Osborn Commonplace Book;
- possible song accompaniments with guitar which, although there are no extant sources for such songs from England at this time, Page believes was a known practice and, after considering various contemporary sources, he develops suitable accompaniments to some songs;

- the autobiography of a particularly interesting individual, Thomas Whythorne, who not only wrote songs and sonnets but also played the guitar. Whythorne appears to have successfully climbed the first few rungs on the social ladder towards becoming a gentleman through his artistic endeavours (studying composition, the lute, virginals, ‘sittern’ and the ‘gittern’) as well as possessing skill in the gentlemanly arts of fencing and dancing.

A conclusion summarises the preceding chapters and also outlines the eight substantial and relevant appendices. These cover: the terms ‘gittern’ and ‘cittern’; references to gitterns from 1542 to 1605; the probate inventory of Dennys Bucke (1584); octave strings on the third and fourth courses; the fiddle tunings of Jerome of Moravia, ‘swept’ strings and the guitar; the mandore and the wire-strung gittern; the ethos of the guitar in sixteenth-century France; Raphe Bowle’s manuscript of 1558.

The Guitar in Tudor England contains a few facsimiles of early guitar tablatures, but most musical examples are given in the octave transposing treble clef as if for a modern instrument in E (perhaps to appeal to modern guitar players), rather than a more expected nominal G or A for the period instrument (or even higher for the tiny instruments suggested above). A parallel intabulation would also have been useful for period guitarists who do not play from modern guitar staff notation.

The only significant reservation I have over much of what Page writes are the assertions about the stringing of the third and fourth courses (Appendix D). Firstly, the idea that on the early four-course guitar the high octave of an octave pair was always placed on the ‘outside’ (i.e. the plucking thumb side) of the course: whilst there is clear evidence that this was a practice widely employed on the later five-course guitar, there is no primary evidence, as far as I’m aware, for such use on the early four-course instrument – it may have been the case, or may not – but future anticipated retrospection is not really sufficient evidence for an earlier practice. Indeed, the similarities between much lute and guitar music of the period (for example in the Le Roy prints of both lute and guitar music) suggests a more lute-like disposition (with the lowest string of the bass pair on the right hand, thumb side) rather than one more suitable for the baroque campanella style of play and high chords, as often found with the later five-course instrument. Secondly, the evidence of one early printed instruction book, Selectissima Elegantisissimaqve, Gallica, Italica Et Latina In Gviterna Lvdenda Carmina (Pierre Phalèse, 1570), requiring a high octave on the third of the four-course guitar is dismissed as a contemporary confusion between other stringing instructions for the cittern and those for the guitar: whilst this possibility has also been suggested elsewhere, and may even be the case, in my view the thesis is simply not sufficiently proven.

Notwithstanding these particular reservations, Page’s fine book on the Tudor instrument is undoubtedly a major step forward in early guitar scholarship and ought to be bought by anyone with a genuine interest in the four-course instrument.
Much more has been written about the five-course guitar than the earlier four-course – not only in books but in specialist journals. Nevertheless, Professor Page has mined rich new seams and unearthed much significant material to expand and add to our views of the instrument. The guitar seems to have played a significant role in seventeenth-century England and especially at the Restoration court – even more, perhaps surprisingly, than at the court of Le Roi Soleil – and Page elaborates on this in the early chapters of his latest book, *The Guitar in Stuart England*.

The five-course guitar, developed at the end of the sixteenth century, became astonishingly popular throughout most of Europe in the seventeenth and in some parts continued to be so even well into the eighteenth. In England the social revolutions of the time, the Commonwealth (and Stuart exile in France) and the Restoration had a peculiar influence and shaped much of the later usage of the guitar. In *The Guitar in Stuart England* Page identifies some relevant pictorial representations, literary works and archival materials to produce a story of the guitar in England from its early appearances in the Jacobean and Caroline courts, through the Interregnum, into its heyday at the Restoration court and finally on to its decline in the early eighteenth century. The seven chapters cover:

- some of the relevant background found in his earlier book on the Tudor instrument and which sets the scene for the guitar in Jacobean and Caroline England. The guitar in early seventeenth-century England is explored especially focussing on the court masque and town fashion and on the particular suitability of the instrument for use in the simple chordal accompaniments of the new 'baroque' thorough bass. The Jacobean court was especially subject to Spanish influences, as found in some song settings, while the later, Caroline court more so by those from France, including the court masque and also reflecting Henrietta Maria’s arrival and later when the guitar became à la mode. But the seventeenth century was a period of turmoil and the changes of monarch, the Commonwealth and Restoration certainly had a significant impact on the guitar in England which Page very well, and interestingly, recounts;

- explorations of household accounts in England (principally London) and abroad showing payments for guitar lessons and the purchase of instruments and strings. Studying abroad also directly exposed Englishmen to foreign influences and this continued under the Commonwealth, especially for those wishing to distance themselves from the revolutionary conflict;

- a brief foray into the guitar during the Interregnum leading into a meaty chapter on the Restoration court which was guitaristically dominated for almost twenty years by the acclaimed Francesco Corbetta – the leading player and composer of guitar music of the age. Page, most appropriately, devotes much space to describing Corbetta’s influences and music, even touching on his sadly neglected vocal works, as well as describing suitable performance spaces and general court repertoire;

- an exploration of paintings of women playing the guitar, in a novel exposition entitled ‘Regarding the Female Guitarist’, but, as Page also points out, it was by no means a woman’s instrument alone and, indeed, was often associated with rakish men. The female sitters are invariably depicted strumming in a particularly elegant posture which perhaps suggests that playing the guitar with such strummed chords was considered particularly fit for displaying feminine charms.

- the use of the guitar on the London stage (‘Guitars, Gallants and Gentlewomen’).
in which Page points out that the instrument was eminently suitable for being played on stage to accompany the action – either with a straightforward (generally strummed) dance or a simple song accompaniment. Unsurprisingly, very little of this repertoire has survived since there was already a large pool of suitable pieces available as required. Such relatively simple works also seem to have been a staple of gallants, were used by ‘City Dames’ and also at young gentlewomen’s schools. One of these was the Chelsea boarding school where Josias Priest was dancing master and where, of course, Purcell’s *Dido and Aeneas* was performed – perhaps with ‘Gittars’ dances played as noted in the earliest libretto.

- Samuel Pepys’ writings which include much on his involvement with the guitar (he initially disliked it - “methinks it is but a bauble”) and with his Italian guitar teacher, Cesare Morelli, who Pepys eventually commissioned to write out songs with guitar tablature – resulting in one of the largest collection of songs with guitar from this period. Pepys also knew Nicola Matteis who settled in England and wrote the best contemporary treatise about realising a thorough bass on the five-course guitar;

- the guitar book of ‘Princes An’ (later Queen Anne), dating from the 1690s but also containing music from earlier times as well as settings and adaptations of violin and vocal music of the period for solo guitar, is considered in ‘The Autumn of the Five-Course Guitar in England’. Page traces the last historical images of the instrument in England, such as a 1747 portrait of the Earl of Blessington in ‘antick’ historical dress with a five-course guitar – perhaps even then a sign of its obsolescence.

Finally, there are four substantial appendices covering: Conspectus of Musical Sources and Selected Inventories; Guitars in Probate Inventories of the Seventeenth Century; The Letters of Samuel Pepys concerning the Guitar; The Dupille Manuscript. The checklist of sources is a particularly useful appendix identifying sources of relevant printed books, some appropriate staff notation sources, and guitar tablature manuscripts. In line with the book's primary focus there is little on related organological matters.

Again, as with his earlier book on the Tudor guitar, the only significant concerns I have about Page’s otherwise generally excellent work, are his assertions and assumptions for the stringing of the five-course instrument (*Introduction*, 10–11). Page readily accepts that this is ‘contentious field’ and that he has therefore usually only employed the stringings recorded in English sources (except, he says, where a clear Italianate influence seems apparent). Since there is only one (just) pre-Restoration source which indicates any tuning in England for the five-course guitar (a note of 1660 by Richard Toward), which Page unequivocally (if questionably) interprets as requiring an instrument with no bourdons whatsoever, this is something of a hostage to fortune for he is then committed to this one tuning for all the earlier seventeenth century musical examples – even for music in the simple strumming (‘thrumming’) style. However, there is still much ongoing debate and the situation is less clear cut than this with continuing foreign influences suggesting a range of tunings were probably employed on the five-course guitar in England (as, indeed, elsewhere) – thus the pre-Restoration guitar may have equally well had bourdons as none. Nevertheless, Page is certainly right in suggesting that, after the Restoration, Corbetta’s tuning with a bourdon only on the fourth course and the high octave on the thumb side (and with no
nonsense about a high octave on the third) became popular – although perhaps still not universal.

Like Page’s earlier book on the Tudor guitar, this on the five-course instrument is an outstanding work which should be read by all serious players of the period guitar and, of course, procured by all academic institutions, public libraries and other bodies with any interest in the social and musical history of instruments and their performance.
The

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