

# TRAINING THE NEXT GENERATION

of harpsichord, clavichord and fortepiano  
makers and technicians

*This talk was given (in abbreviated form) at a virtual meeting of the Musical Instruments Resource Network (MIRN) on 17 September 2021. For relevant internet resources, see the list at the end.*

## *The UK problem*

When it comes to the care of early keyboard instruments, harpsichords, clavichords, and early pianos, we are approaching a crisis here in the UK. Several practitioners in this field have recently dropped out because of death, illness, or retirement. Most of those that are left are approaching retirement, and none, so far as I know, have successors in place ready to take over their work.

Younger people are not coming forward in sufficient numbers; and those who do come forward face considerable difficulty in finding anyone to train and guide them. There is a danger that soon it may be impossible to get old instruments looked after properly, and clients wanting new instruments will be faced with very long waiting times or may have to go abroad to find what they want.

This paper will consider the skills involved, the ways in which training has been given in the past, and what might be done to improve the present position.

## *The skills involved*

There are several skills involved in looking after keyboard instruments, which are logically distinct but inter-related.

1. The first of these is tuning and routine maintenance, vitally important if instruments are to continue to be used for concert performances, recording, teaching, and domestic music. This is a task that players and owners can sometimes reasonably be expected to undertake themselves, but on important and demanding occasions such as recording, players usually prefer to have a tuner/technician on hand.
2. Secondly, repairs and overhauls such as restringing, repairing cracks to the soundboard, easing, adjusting and levelling keyboards, and so forth, which will normally be well beyond the capabilities of an instrument owner, and for which a skilled craftsman with a well-equipped workshop is essential.
3. Thirdly, there is the conservation and restoration of historical originals, whether or not they are to be used in performance. It is vitally important that skilled craftspeople are available to undertake this if the instruments are to be safeguarded for future generations.
4. And finally there is the making of new instruments, which is always going to be a practical necessity; and which, besides, is an expression of the artistic culture of the age.

There is considerable overlap between these four skills, and I propose to consider them together.

## *Ways in which training may be given*

There are essentially three ways in which skills can be acquired:

1. on-the-job training, such as apprenticeships and traineeships;
2. off-the-job training: courses at schools, colleges and universities; and

3. self-education, where the trainee finds their own way without the help of a teacher.

I shall deal with each of these in turn.

### *Apprenticeships and traineeships*

An apprenticeship was traditionally a contract made between a master – the head of a craft workshop – and an apprentice, typically a young person aged between about 13 and 18. It was recorded in a written ‘indenture’ and might last anywhere between two and seven years. Both parties made binding commitments. The apprentice promised to work diligently under the master’s direction, and to be obedient and of good behaviour (for example, they might bind themselves to avoid ‘drinking, gaming, and fornication’). In return, the master undertook to teach them all aspects of the craft. Apprenticeship has a long history, and many of the celebrated makers of keyboard instruments in the historical period began as apprentices.

Apprenticeship never died out in the UK piano-making industry (whilst we still had one); and when historical keyboard making was revived here, the apprenticeship model was sometimes adopted, particularly in the larger workshops: the Dolmetsch firm, for example, took on formally indentured apprentices. Other workshops took on trainees, who were similar to apprentices but without the legally binding commitments. Some of those who are active today as makers, tuners and technicians began in this way.

By the 1980s, however, apprenticeships and traineeships in this field had all but disappeared. For complex reasons, small workshops of perhaps six or ten craftspeople, which had been a common pattern, had ceased to exist in the UK; instead there were a number of single-handed makers, working with perhaps one assistant.

Now, it is quite hard for a small workshop to take on an apprentice. Let’s look at some of the difficulties.

1. Firstly, and most importantly, the loss of the master’s own productive time. One maker has estimated that he had to reduce his work rate by at least 50% in order to supervise a trainee, at least for the first few months, and I can confirm this from my own experience.

2. Secondly, the need for the master to have additional skills. A high level of competence in the craft is necessary, of course, but it is not enough: teaching and supervising are separate skills which the master must somehow acquire, and not everyone has a natural talent for them.

3. The master is responsible for any work that the trainee carries out – and things may go wrong. Mistakes can be expensive to correct, and it is distressing to see valuable materials sometimes wasted.

4. The selection of trainees or apprentices with suitable talents, background skills and commitment is another problem. Unfortunately, some people put themselves forward for training who, whether from lack of natural ability or poor motivation, will never progress in the craft. If such a person starts training, sooner or later they will have to be dismissed, which is another painful and unwelcome task for the master.

5. Then there are the burdens of legal regulation. The master will be obliged to pay the national minimum wage and National Insurance contributions, and to operate PAYE; they will probably also have to provide for holiday pay and perhaps statutory sick pay. They will have to have appropriate insurance. The workshop will have to

comply with Health and Safety regulations, the requirements of which are stricter than for one-man operations.

6. Finally, there is the practical difficulty of enforcing the kind of commitment that was part of a traditional apprenticeship. Whether or not there is a formal agreement, the trainee may choose to leave after a year or so, just at the point where their presence in the workshop is beginning to be a help rather than a burden, and the master then gets no benefit from all the time and energy expended in training them.

Despite these difficulties, a number of individual craftspeople in our field have – out of unselfish concern for the future of our craft – taken on full- or part-time trainees, sometimes with the help of funding from various charitable sources: I shall come back to this later.

Although apprenticeship has the backing of long tradition and provides an excellent training in craft skills, we ought not to view it sentimentally: it has certain disadvantages. Apprentices may become narrowly focused on the methods and traditions of a particular workshop. And they are trained, at least initially, by doing what they are told; but initiative, inventiveness, and the ability to solve unforeseen problems and to organise one's own time are just as important as craft skills for success. Repairing damage on a keyboard instrument, for example, is far from routine: each new job may present new problems, requiring new solutions based on intelligent analysis and foresight. And nearly all the craftspeople in our field will be self-employed, or running a small one- or two-person business, which requires yet another set of skills.

The traditional way of overcoming these disadvantages was for the apprentice, once the specified period had been satisfactorily completed, to work as an assistant or 'journeyman' in several other workshops for a while; they might or might not proceed in due course to set up in business as a master in their own right.

### *The Government Scheme*

Before I leave apprenticeships, I must say something about the UK government scheme. This was introduced in 1994 as 'modern apprenticeship' but is now known simply as 'apprenticeship'. It aims to encourage, support and regulate industrial apprenticeship, providing an alternative to higher education at college or university. Some details of its design are clearly aimed at preventing abuses, whereby some employers in the past had used apprentices as a source of cheap unskilled labour, making no serious attempt to train them and discarding them when the required period came to an end.

The scheme is regulated by a body called the National Apprenticeship Service (NAS). It is supported partly from general taxation, and partly from a levy on larger employers. Employers must register with the NAS; they must provide apprenticeships in partnership with an approved 'training provider', and the apprentice must follow an approved 'apprenticeship training course'. The details of each course are approved by a separate body called the Institute for Apprenticeships and Technical Education. Training providers are many and various: they may be colleges of further education, university departments, or private technical colleges.

Employers must pay the national minimum wage and a proportion of the costs of the 'training provider'. They do, however, qualify for one-off incentive payments of up to £3000 at the start of an apprenticeship contract.

This scheme was not devised with craft workshops in mind and is not well adapted for our sector. It is bureaucratic; it is intended principally for school leavers, and based on the assumption that the trainee's work will be a source of profit rather than a burden. Nonetheless, it is not impossible that the scheme may be useful at some future date. The concept of a partnership between an employer – a workshop – and a college is potentially useful. Among the 600-odd approved training courses at the moment are some craft-based ones, for example 'Assistant Puppet Maker': there is even a course entitled 'Organ Builder', which might seem relevant for us; but a search within the website shows that as yet 'There is no training provider for this course'. [Update, October 2021: an organ-building apprenticeship under the government scheme is now available: see the list of internet resources at the end].

### *College courses*

The first full-time college course in the UK devoted specifically to early-keyboard skills began at a local-authority funded college, the London College of Furniture (LCF) in 1974, as a response to the need for trained craftspeople to service the rise of so-called 'authentic' performances of renaissance and baroque music. Courses in plucked instruments such as guitars and lutes, and in violins and woodwind instruments were established at about the same time.

I can speak from personal experience about this course because I was a student at the LCF from 1982 to 1985. Each instrument specialism had its own workshop, in which we spent most of our time, working under the guidance of tutors on making and restoration. This was supplemented by separate tuition in machine woodworking and such useful supplementary subjects as wood science and acoustics. We were expected to demonstrate our ability to research some aspect of our specialism and to produce a coherent dissertation about it. There was tuition in tuning and playing the harpsichord, and there were other formal and informal musical activities.

We were allowed a great deal of freedom in the workshop projects we selected: most of the time, no-one checked up on us, and guidance was generally not imposed unless it was asked for. We had free access to the workshop at what seemed, sometimes, to be all hours of the day and night, provided only that powered equipment was not used unless a member of staff was present. As a result, almost everyone did succeed in producing at least one instrument by the time they left. As you can imagine, this environment was almost ideal for those of us who were fully committed and had the ability to pursue our interests on our own initiative.

The tutor in early keyboards during my time was Lewis Jones and I am deeply grateful for all that I learnt from him at that time. I also learnt a lot from discussions with my fellow students, which went on continually. The LCF course provides an example of just how effective off-the-job training can be – even though we did not always appreciate that at the time. Several craftspeople active in our field today began there.

This valuable course no longer exists; it was closed down several years ago by the London Metropolitan University, the successor to the LCF, along with the other instrument-making courses. At present, the situation in the UK is quite bleak: no full- or part-time course in early keyboard instruments exists. A piano tuning and repair course is available at Newark College, but this is focussed entirely on the modern piano. West Dean College offer a number of excellent full- and part-time courses in musical instrument crafts, but none of these include early keyboard instruments. Those who plan to concern themselves mainly with the conservation of antique instruments may perhaps be better served: there are currently more than thirty undergraduate, postgraduate or diploma courses in conservation in the UK.

However, most of these are highly specialised, and none, as far as I can establish, are directly concerned with musical instrument conservation.

### *Self-education*

By this I mean efforts by the student to learn without a teacher, through the use of any resources they can get their hands on. These may include books; periodicals; websites; visits to museums; visits to workshops; visits to auction houses on viewing days when instruments are being sold; attendance at concerts; and above all, asking questions of anyone who seems to know something, and hoping they will reply. If these are supplemented by, say, some basic practical skills, the self-educator can make a surprising amount of progress. Of course, it is not easy, and drive and determination are needed; but that is not necessarily a disadvantage. Many of the craftspeople who are active in our field began in this way, and a few are entirely self-taught.

### *Funding*

Self-education is paid for entirely by the student, but other kinds of training need financial support. Traditional craft apprenticeships, while they existed, were funded mostly from the profits of the workshop, something that is much less practical for a single-handed maker than for a small group workshop, where turnover is higher. College courses were supported by the taxpayer: participants' fees covered only a small part of the total cost, and in many cases a government grant or loan was available to cover them.

Neither of these sources of funding is available today. This has increased the importance of a third funding source, namely charitable organisations, which previously played only a marginal role. There are several that might help.

1. The Heritage Crafts Association (HCA), formed specifically to support and promote traditional handcrafts in the UK.

The HCA places crafts in four categories:

- extinct
- critically endangered;
- endangered; and
- currently viable.

A 'red list' of extinct and endangered crafts (the first three categories) is published on the HCA website and is regularly updated. According to the 2021 list, piano-making is listed as 'critically endangered'; keyboard-instrument making (which means essentially harpsichord and clavichord making) is classified as 'endangered', along with several other musical-instrument specialisms.

The association offers grants of up to £2000 to fund projects that support and promote endangered crafts; there is also an annual prize of £3000 awarded to an individual craftsperson who will use that funding to ensure that craft skills are passed on to the future.

2. The Finchcocks Charity for Musical Education

Formerly based at Finchcocks Musical Museum, which closed in 2015, the charity is now at Waterdown House in Tunbridge Wells. Its aim is 'to champion the study and musical use of historical keyboard instruments, and to help preserve the vital skills and expertise required to restore and maintain them'. To this end, it has supported the training of several newcomers in collaboration with individual craftspeople and Newark College.

### 3. The Queen Elizabeth Scholarship Trust

This is connected with the Royal Warrant Holders' Association. The trust offers scholarships of up to £18,000 for the training and education of talented and aspiring craftspeople. So far, this source does not yet seem to have been involved in supporting musical-instrument craft training as far as I can establish.

### 4. The City of London Livery Companies

These are the successors to the medieval craft guilds of London. There are over a hundred of them, and they are important sources of charitable funding in the UK. Several livery companies, including the Musicians' Company and the Clothworkers Company, have made grants to support craft education.

### 5. The Crafts Council

This is a charitable body, but it also receives government funds through Arts Council England. It has in the past given grants to musical-instrument makers. However, the emphasis has always been on *contemporary* rather than traditional crafts: that is, on using craft skills to produce what are, in effect, unique fine-art objects. The council is less likely to support craftspeople who make and maintain traditional musical instruments.

There are other charities that might be approached, but these are the main ones. The problem is that their provision is uncoordinated: each has somewhat different criteria and making applications can be complicated and time-consuming.

#### *The way forward*

It would be nice to think that a college course like the old LCF course could be re-established somewhere. This is highly unlikely at present, because such courses need a reasonable number of new entrants each year to be viable, and newcomers are not coming forward in sufficient numbers. This may be because the harpsichord, clavichord and fortepiano, though still in frequent use for performance, recording, and domestic music, have dropped out of the limelight somewhat here in the UK since the heady days of the 1970s and 80s. Anything we can do to raise their profile will be helpful. Meanwhile, I should like to propose two ways in which the present situation could be improved.

Firstly, I think it is likely that any successful future craftsperson will start out by seeking information for themselves: by what I have called 'self-education'. At the moment sources of information are quite plentiful, but they are scattered and difficult to find. We could seek to improve this by using the internet – a wonderful tool, incidentally, that was not available when most of the craftspeople who are active today in this field began. A series of documents could be produced and placed somewhere easy to find online. These could, perhaps, include:

1. a list of the published books on the subject, probably divided into two sections: a basic set of texts for beginners, and a more detailed list of reference works. My colleague Andrew Wooderson has already made a start on this by drafting a *Harpsichord and Clavichord Bibliography*;
2. a list of recommended websites and online videos, and also the various e-mail lists and relevant pages on Facebook and similar social media or networking platforms;
3. a list of relevant college courses and sources of funding; this might include some courses outside the UK; and

4. a list of available technical drawings.

These documents can be created at minimal cost, and a start has already been made on them. I shall be seeking a suitably prominent host or hosts in the near future.

At a more advanced level, it is hoped to create a National Early Keyboard Archive at an existing college or university. This would offer to preserve all the accumulated documents from existing workshops as they close – a precious resource that has all too often been squandered in the past. In addition, it could contain a library of reference texts and drawings. Some of the material could be digitised so that it could be consulted online. This project is not my idea: my colleagues Andrew Wooderson and Cesar Hernandez have both been working on it for some time, and discussions on funding and hosting it are ongoing.

My second suggestion is aimed at simplifying the process of selecting candidates for further training, and making the most of the limited funds available. It is that an advisory panel should be set up under the umbrella of one of the relevant charities. It would be drawn from existing practitioners in the field and those with relevant experience. It might have, say, three to five members, who would be compensated for their time.

The advisory panel would have a threefold duty:

1. First to the candidate, to assess their strengths and weaknesses and guide them on where to apply for funding and training.
2. Secondly, to those craftspeople who are willing to provide on-the-job training, to try to ensure that anyone put forward would have at least sufficient ability and initiative to benefit from training, and perhaps in due course to be a productive asset to the workshop. The panel could also assist the trainers to access funds to support their time and effort.
3. The panel's third duty would be to the charities which are providing funds, by trying to ensure that these are appropriately deployed.

The panel would be purely advisory and co-ordinating, and would in no way constrain the freedom of craftsperson-trainers, of candidates, and of charitable bodies to make their own decisions.

Consultations and discussions on this idea are proceeding. Meanwhile, if anyone has other ideas about ways to ensure that there will continue to be capable harpsichord, clavichord and fortepiano makers and technicians in the future, please do get in touch!

*Many thanks to those who have provided information and suggestions:*

*Lucy Coad, Cesar Hernandez, Lewis Jones, Christopher Nobbs, Jenny Nex, Michael Parfett, Malcolm Rose, Huw Saunders, Mimi Waitzman, Judith Wardman and Andrew Wooderson.*

*Internet resources:*

Musical Instruments Resource Network

<https://mirn.org.uk/>

Newark Piano School

<https://www.lincolncollege.ac.uk/courses/ba-hons-musical-instrument-craft-piano-tuning-and-repair>

West Dean College

<https://www.westdean.org.uk/study/degrees-and-diplomas/courses/foundation-degree-craft-practices-musical-instruments>

The Institute of Conservation

<https://www.icon.org.uk/training/conservation-training/higher-education.html>

Heritage Crafts Association

<https://heritagecrafts.org.uk/>

Finchcocks Charity for Musical Education

<https://www.finchcocks.co.uk/charity.html>

Queen Elizabeth Scholarship Trust

<https://www.qest.org.uk/>

City of London Livery Companies: complete list

<https://www.liverycommittee.org/about/livery-companies-and-guilds/livery-companies-database/>

Furniture makers company

<https://www.furnituremakers.org.uk/>

Musicians company

<https://wcom.org.uk/>

The Crafts Council

<https://www.craftscouncil.org.uk/>

U.K. Government Apprenticeship scheme; general information:

<https://www.gov.uk/topic/further-education-skills/apprenticeships>

Organ-building apprenticeship:

<https://www.findapprenticeship.service.gov.uk/apprenticeship/-659345>