

PERSPECTIVES FROM A CHANGING CULTURE: ONE HUNDRED YEARS OF DEBATE ON THE ROLE OF MUSICAL INSTRUMENTS

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1. Frontispiece
2. 'Violins kept in vitrines dry out and die. It is the use and the humidity emanated by the player that keeps them alive' (LORIN MAAZEL, *The New York Philharmonic in Victorian New York*, 6th December 2002)
3. 'Instruments by continual use are apt to become weary. They may even virtually be killed. Give them rest. We feel it a duty to urge most strongly that fine instruments should not be brought to premature death by ceaseless use' (W.HENRY, ARTHUR F., ALFRED E. HILL, *Antonio Stradivari, his life and work (1644-1737)*, p. 239)
4. '[The musician's] task is to consume musical instruments'. CIMCIM Bulletin 50 (2002)

These three powerful quotations, spanning over a period of a hundred years, epitomise effectively the extremes of current perceptions on the topic of our two-day conference: although their original assumptions and conclusions are quite contrasting, they generally agree on the fact that usage plays a key role – vital or deadly as it may be – on the 'life' of musical instruments. But can there be such contrasting claims from equally authoritative sources, and do we have sufficient information to responsibly dismiss one or the other as ill-informed phantasy?

5. In the huge variety of changes, transformation and models of 'art' instruments through the centuries, one can identify three driving priorities: an instrument should sound well, be comfortable to use, and should physically resist the wear of being used as long as possible. The fact that these three ideals are in a delicate equilibrium and each of them has an impact on the others is certainly well known to any musician today, and has been discussed and documented for at least three centuries: Thomas Mace, in his treatise *Musick's Monument* (London 1676) highlighted how, in order to keep a lute in good working order, its soundbox should be opened every couple of years to check the

soundboard and re-glue its bass-bars, and systematic records of conservation required to maintain bowed and keyboard instruments in playing condition survive for example in the Medici collections since the 16th century.

6. It is only since the late 1960s that this begins to be perceived as a serious issue: until then – I am sure with rare exceptions – the wear and tear that follows use appears to be considered perfectly acceptable and part of the life of an instrument. In fact, surviving instruments would be much less interesting to study, and far less telling, had they not been transformed in relation to their use sometimes for centuries, and we, as organologists, would have far less interesting material to study. We can therefore say that the effects of early use are now perceived as a fundamental part of the instrument's history to the point that even the boldest conservator would not imagine replacing worn touch-plates on an early harpsichord or re-varnishing a Baroque violin.
7. Now, why is this? Why so much of our publications concentrate more on the modifications that instruments underwent as a consequence of their use, than on these instruments themselves? One of the reasons is certainly that – almost unique among cultural heritage – many instruments underwent a comparatively long life of active use, and a use related to an aspect of culture, music making, that is otherwise very difficult to document until the beginning of the age of recording. The ways musical instruments were used, and the way these changed, often offer a key perspective to reconstruct changes in music performance and taste that would be hard to substantiate otherwise. Keys being added and switched in keyboard instruments, strings and keys added to plucked and woodwind instruments, repairs, pattern of wear and layers of transformation, all tell stories – musical stories – that the collaboration between museums, musicians, conservators and scientists has been helping to unfold. The results of this approach, whose potential was individuated already in the late 19th century, have become particularly convincing in the past decade, but it is clear that we have only yet scratched the surface.
8. Furthermore, two elements had appeared between the end of the 19th century and the mid 20th that had added a new perspective to the issue: the appearance and growth of public musical instrument museums on the one hand, and the spreading success and interest towards the revival of early music. The combined effect of these two elements led to an increasing number of musicians borrowing and 'bringing back to life'

old instruments – in the words of a curator of the time –, often from museums and public collections, for performances and recordings. Needless to say, the results were often disastrous because of the combination of limited experience and understanding of these instruments on one side, and the fact that most of these instruments needed to be restored to playing conditions after an interruption in some cases of several centuries, much resembling the outcome of some popular mummy stories.

9. This added a new dimension to the issue of using musical instruments, or in fact extended to all types of musical instruments an issue that until then had been mostly confined to those of the violin family and church organs: the effects of playing on old musical instruments – with or without an uninterrupted tradition of usage – became a new area of concern: what are the effects of playing on musical instruments, how can some of the bad ones be reduced, and which are the good ones that could counterbalance the others. Time cannot be stopped, but what accelerates the decay of our instruments, and what does not? (a question, by the way, which applies just as well to modern instruments as to old ones).
10. If we follow the discussion through some of the milestones in conservation literature, we obtain a clear perspective of the gradual increase in the awareness and concern about the use of early instruments in the past 50 years: in the first specialised monograph on 'Preservation and Restoration of Musical Instruments', edited by Alfred Berner, Jack van der Meer and Geneviève Thibault in 1967, we hardly find any mention of what happens to a musical instrument after it is brought back to play. It is assumed that western instruments, with few exceptions, are going to be restored to playing conditions if they are inefficient, and the issue to be discussed is 'what is acceptable to reach this goal'. Subsequent consequences seem still very much to be discovered.
11. As a consequence, the following two decades saw an uproar of interventions on musical instruments, often by reputed and leading conservators who now look back at their work of that time with some regret. By the early 1980s this had led to a more rounded perception of the importance and complexity of musical instruments as cultural heritage. Some collections, particularly the Vleeshuis Museum in Antwerp and the RCM under the guide of Elizabeth Wells began experimenting the making of copies with conservation purposes, a

solution that has the great merit of diverting the consequences of use from the original to an accurate reproduction, but that for obvious reasons can only be applied to an infinitesimal fraction of the instruments that are in use. A parallel study of originals and their copies, aimed at assessing the similarity or diversity of wearing patterns and consequences of use, could potentially lead to a better understanding of wearing dynamics and of the usage history of originals, but I am not aware of any study where this approach has been systematically applied, yet.

12. At the same time, authors such as Florence Gétreau and John Barnes were advocating a more careful approach, and for the first time trying to assess wear and tear as part of the life of an instrument both new, or after restoration, whenever it was used. The attention at this point was very much focussed on what we can call 'macro consequences' of usage: the wear caused by the repeated action of the musician's fingers, the scratches of plectra on plucked instruments, the wear of wood around fingerholes in woodwinds, the traces left by chin-rests, or by the bare skin of the musician on violins and violas, the physical deformation of soundboards under the tension and pressure of strings, the effect of humidity, the wear of parts due to frequent cleaning, the mechanical wear of parts against parts.
13. John Barnes even suggested some countermeasures to limit the wear of keyboard instruments being used: 'a restored keyboard instrument should have a suitable material covering the key-plates, [...], and perhaps a thin plastic membrane protecting some of the soft action parts'. I never heard of this suggestion to have been applied (one can imagine that the application of cling-film to piano hammers does not lead to the best musical result), but it is clear that – although sound and musical efficiency remained a priority – countermeasures were being studied to reduce their effects.
14. Coming back to our times, we can say that practice, through the careful activity of musicians, museums and some conservators, has led us to a rather accurate understanding of many of these macro-effects although much remains to be investigated regarding ways to document, reduce and contrast these issues: we all know that key-plates wear down with use, as well as varnishes and materials in general, but how can we measure and document these changes, can protections be used that do not in any way modify the original surfaces and materials and have no impact on sound? Even measuring the simple change in colour of a violin

exposed to light is a major issue, let alone the documentation of the complex and numerous macro-phenomena that occur, for example, on a 17th century harpsichord regularly played in concerts over a period of several years. This is a major area where the help of scientist is badly needed if we want to move forward from assumptions that by now are more worn down than the instruments under discussion.

15. However, these are only a very small part of the issues on which collaboration between scientists, conservators and curators could lead to new practices and understanding. The most complex issues, and those on which our knowledge is still completely inadequate, are those that could be defined as micro- and long-term effects: these began to be taken in systematic consideration only in the last couple of decades and although knowledge in material science has immensely progressed in recent years, their specific consequences on musical instruments are still almost unexplored. In the words of an influential group of conservators writing in 1997: 'Wear with use may be obvious and require continual attention, or it may be difficult to detect over a period of days, weeks or months, and only become significant, harmful and obvious over a period of years'. Despite the fact that this text is now almost 20 years old, the state of current knowledge is still very much the one that we read in the following pages: 'Unpredictable behaviour makes clear guidelines for using early woodwind instruments impossible to establish' (p.100) and 'too little is known about the behaviour of woods under these conditions to allow adequate guidelines to be presented' (p.101) which leads to the sensible conclusion that 'there are few circumstances under which the woodwinds of a collection can be used' (p.101). But this just means that we need to be exceedingly prudent because we do not know enough and that further research is now vital in order to strengthen the ground on which we make better informed decisions. Although woodwinds are certainly the most obscure area for our understanding of reactions to use, stringed instruments are in no far better condition, despite centuries of observation: the behaviour and medium- and long-term reaction of their materials, particularly where sound is concerned, is only now beginning to be systematically documented and explored.

16. Finally, and on this I am going to conclude, the efforts and intensity of debate which arose in museum collections over the past fifty years, may immediately lead to think that the issues that we are discussing are specifically related to museum collections and early instruments, but I would like to strongly challenge this assumption: for all musicians,

musical instruments are extension of their artistic personality to the point of attributing them characteristics that are eminently human (we often talk about bringing instruments back to life, letting them die or transform their personality). The long term preservation, or 'good health' of his/her instrument is for a musician at least as important – often more – than for most curators. As a consequence of many different phenomena, an increasing number of musicians play instruments that are several decades old and have been subject and will be subject to continuous use for hopefully much longer. We can easily assume that the issue of reducing the adverse consequences of use on them is more compelling to their owners than to any museum, considering how more regularly their instruments are going to be played. Finally, even those who play recently made musical instruments know that they plastically react to the effects of being used, although these reactions are often difficult to describe accurately and correlate reliably with the multitude of processes that affect both instrument, musician and eventual audience during any performance. At the same time, the interest of makers for the behaviour of materials and their interactions, is obvious and evident through the many experiments that have been for centuries and still are one of the most evident aspects of musical instrument innovation.

17. The complexity of this field is huge and will require a coordinated effort and resources over a long period, but it cannot be denied that it is a major and relevant issue, impacting both a great number of people including musicians and their audience, makers, conservators, and an important part of our cultural heritage, of which old as well as modern instruments are all part.