

Robert Barclay

## Old and New. Mediating Musical Experience

**The role of the historic object** Since the onset of the early music movement, there has been a strong emphasis on the study of early instruments and restoring them to playing state. There are two components to this trend: recapturing the sounds and sensations of early music, and learning about craft processes, the manner of construction and use of materials. The first of these components is highly subjective and aesthetic, representing a strong desire to recapture the past. As conservator John Watson has observed:

“Playing Beethoven on an early nineteenth century piano, one cannot help imagining the day when the same instrument took part in the creative process of Beethoven’s contemporaries, if not the composer himself. This represents a profound opportunity to step into a dimension of the cultural landscape from which the music originated.”<sup>1</sup>

The historic object is a mediator; it helps a spark in our sensibilities cross from the lost past into the experienced present. As such, this use of the historical object is central to the human psyche; it is the driving force behind early music, classic drama, historical fiction, archaeology and the open-ended list of ways in which people of the present culture try to access the past on its own terms.

The second component to the trend is the more pragmatic search for information, often conducted during restoration or conservation treatment. Traces of original craft practices, alterations over the instruments’ lifespan, and much other relevant data is derived from instruments during examination. It is true that the bulk of the information we possess concerning the disposition and workings of early instruments has been derived from the processes of either restoration to playing state, or examination with the intent to produce copies. Just to set the record straight upon one point: technicians inform organologists who, in turn, inform musicologists, and not contrariwise. Without craft intervention and organological study, and the technical tools that these two disciplines bring to bear in research, analysis and documentation, the world of early music would be a mere thought structure.

**Conservation and restoration** Over many centuries of treatment of valuable artistic and technical objects, the restorer has accumulated a history of opprobrium from a twentieth and twenty-first century perspective. Transformations of musical instruments during

1 John Watson: Historical Musical Instruments. A Claim to Use, and Obligation to Preserve, in: *Journal of the American Musical Instrument Society* 17 (1991), pp. 69–82, here p. 75.

craft intervention have resulted in objects that masquerade as original, yet have acquired accretions as worn parts were replaced, and as musical fashions changed. Classic violins are a case in point. One has only to recall the words of Dom Vincenzo Ascencio, who restored a Stradivari violin for the Spanish Court in 1783:

“I pierced the centre [patched the belly], replaced the bar by one adjusted to mathematical proportions based on that of Stradivari. I corrected the thicknesses, pieced the four corner-blocks, took the back off and inserted a piece in the centre, as it was too thin. I had to replace the neck, which I did in the most careful manner. I then adjusted the instrument, the tone of which was rendered excellent by all these changes.”<sup>2</sup>

The extent and nature of Ascencio’s treatment is by no means atypical for the period. Similar transformations have taken place with early keyboards and other instruments. Whenever an object is used it will inevitably change through intervention with tools. Such slow and incremental substitution can lead to a level of unwitting deception, where the desire to recapture the past (mentioned above) comes into conflict with a changed and non-representative object. In essence, the less one knows of the circumstances of an aesthetic experience, the more profound it is likely to be. Gullible scientists have even been co-opted into lending substance to these experiences where the violin is concerned.<sup>3</sup> There is the additional problem of deliberate deception brought about by less scrupulous craftsmen such as Leopoldo Franciolini, whose concoctions grace the storage rooms of many collections.<sup>4</sup>

It has been clearly established that restoration is time-sensitive, in that the processes and results are based upon current knowledge. Restorations considered definitive in previous decades may need to be revisited once new information becomes available. But every re-restoration pushes the historic instrument further from its original state; it does not bring it closer. Thus, returning historical instruments to a functioning state has resulted in a broad understanding of the music in its historical context, but at the expense of the instruments themselves. Conservators, cognisant of these issues, developed the concept of reversibility, all too aware at one level that reversibility of craft processes is impossible.<sup>5</sup> Changes to the historic object during intervention are inevitable. In past decades this realisation resulted in polarised camps where, on the one hand, restoration

<sup>2</sup> William Henry Hill/Arthur F. Hill/Alfred E. Hill: *Antonio Stradivari. His Life and Work (1644–1737)*, facsimile reprint of 1902 edition, New York 1963, pp. 77f.

<sup>3</sup> Robert L. Barclay: *Stradivarius Pseudoscience*, in: *Skeptic* 16/2 (2011), pp. 45–50.

<sup>4</sup> Edwin M. Ripin: *The Instrument Catalogs of Leopoldo Franciolini*, Hackensack, NJ 1974.

<sup>5</sup> Robert Barclay: *Reversibility. The Thinking Behind the Word*, in: *Reversibility. Does It Exist?*, ed. by Andrew Oddy and Sara Carroll, London 1999 (British Museum Occasional Papers, Vol. 135), pp. 157–160.

to playability was considered axiomatic, and where consignment to a display case or storage room was equated with death; and on the other hand, where restoration was seen as the licensed destruction of historic assets for the purposes of ephemeral delight. The history of this conflict and the strategies to resolve it have been well documented for general musical instrument collections,<sup>6</sup> and more specifically for historic organs.<sup>7</sup>

Two avenues of progress resulted from the reappraisal of restoration to a playable state: restorative conservation, and the making of reproductions. Restorative conservation is a mediated approach to bringing historic instruments into working condition while still protecting their integrity as documents of past practice. This approach has reached a high level of both practical and philosophical maturity, at least in the English-speaking world.<sup>8</sup> The key to this approach lies in documentation and analysis, so any treatment of the object results in a net yield of information. (Translations of these key documents into a number of European languages, at least German and French, would be an excellent service to the profession at large.)

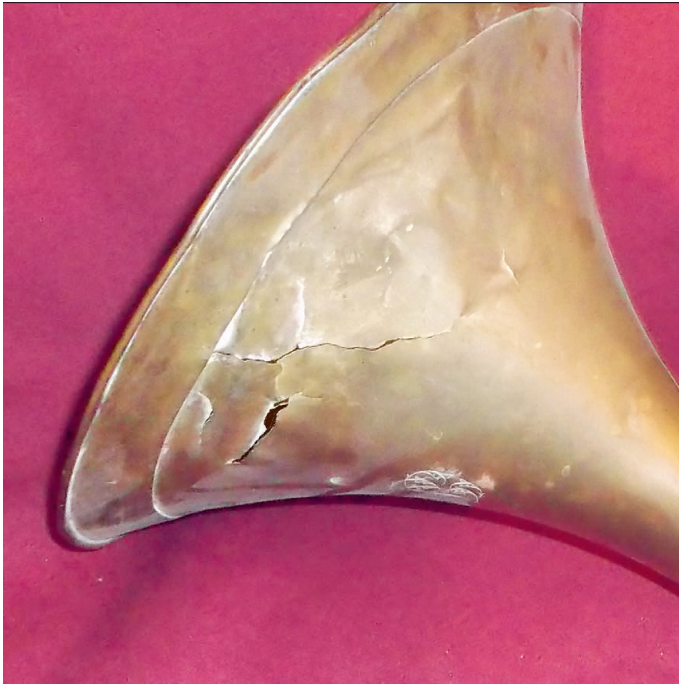
**Making copies** The early music movement provided a huge stimulus to musical instrument makers in researching and recreating early examples. The industry of producing facsimiles ran parallel to the restoration of extant instruments. Three cases studies – an eighteenth-century horn and two recently-discovered Nuremberg trumpets – illustrate the ways in which musical instrument-making can enhance musical experience while preserving historic documents.

Horn by Christopher Hofmaster, London, circa 1760 This instrument exhibits ‘season cracking’, a typical deterioration in brass that has been stressed during manufacture. Strain between the grain boundaries in the metal results in vulnerability to attack, particularly by alkalis; cracks appear and propagate, making the metal extremely fragile (Figures 1 and 2). Instruments in this condition cannot be played without great risk, and their acoustic properties are often compromised. In the case of the Hofmaster horn, the fragile state and the lack of a set of crooks and tuning bits made copying the only choice available. Measurements of the corpus of the instrument were used in machining a steel mandrel that conformed exactly to the inside dimensions, and this was used for forming a new bell from sheet brass. A set of crooks based upon the musical requirements of the period was made, each one using a steel mandrel that tapered from the known starting

6 Robert Barclay: *The Preservation and Use of Historic Musical Instruments*. Display Case and Concert Hall, London 2004.

7 John Watson: *Artifacts in Use. The Paradox of Restoration and the Conservation of Organs*, Richmond 2010.

8 *Ibid.*



**FIGURE 1** 'Season cracking' on the bell of the Christopher Hofmaster horn (photo courtesy of Richard Seraphinoff)



**FIGURE 2** Crumpled tubing due to impact on weakened brass (photo courtesy of Richard Seraphinoff)



**FIGURE 3** Copy of Hofmaster horn with set of crooks (photo courtesy of Richard Seraphinoff)

point in the receiver of the corpus to the known bore of the mouthpiece receiver. The resultant musical instrument is not an 'exact copy' in its entirety, but it is based upon such evidence that the musical results are extremely convincing (Figure 3).<sup>9</sup>

Trumpet by Johann Carl Kodisch, Nuremberg, 1719 This instrument appeared in an estate sale in Indianapolis, Indiana, and little is known of its history. Unlike the horn featured above, this instrument could at least be sounded, although its condition precluded extensive use. It is a good example of the category that has come to be labelled 'soundable' as opposed to 'playable'. For museum objects this is an important distinction, because it means that playing and acoustic qualities of instruments in collections can be assessed under controlled conditions without deleterious use. The decision to make a copy of the trumpet arose from these restrictions in using the original. Basic conservation treatment was applied to the trumpet, including cleaning, stabilisation and filling of a small crack. Dimensions were taken for the production of steel mandrels, and all other parts were documented by drawing and photography. The copy followed the dimensions of the original; the instrument stood in the high pitch of F (~A = 412), and there were reinforcing sleeves on the bell, mouth-pipe and middle yard. It was not possible to determine whether these parts were added in the process of repair, or intentionally in order to alter the pitch after original fabrication. It was decided to retain the present pitch of the original in the copy. The techniques of brass instrument-making have been documented in detail elsewhere.<sup>10</sup> Production of the decorative design on the ferrules could not be done without access to the original rolling mill, so the design was copied and laser-cut into a steel form, which provided the negative mould for pressing new material. The new Kodisch trumpet can be regarded as an 'informed copy' as it follows the original in its present form but, unlike the Hofmaster horn, it makes no conjecture as to the original state (Figures 4 and 5). The finished instrument was assessed against the original and the playing qualities of both were judged identical, but it must be remembered how subjective such impressions are (Figure 6).<sup>11</sup>

Trumpet by Wolfgang Birckholtz, Nuremberg, 1650 This instrument was discovered hanging in the Lutheran church of Belitz in north eastern Germany, where it had remained since 1676 when its owner, Stabstrompeter Jacob Hintze, was killed after an

- 9 I am indebted to horn-maker Richard Seraphinoff for permission to use this instrument as a case study.
- 10 Michael Münkwitz/Richard Seraphinoff/Robert Barclay: *Making a Natural Trumpet. Herstellung einer Naturtrompete*, Ottawa 2014.
- 11 I am indebted to Scott Clements for permission to use this instrument as a case study.





FIGURE 4 Ferrule on Kodisch trumpet (below) and a new ferrule made for the copy (top; photo courtesy of Scott Clements)



FIGURE 5 Engraving of the garland of the Kodisch copy; the supporting plaster of Paris is still in place (photo courtesy of Scott Clements)



FIGURE 6 The old and the new Kodisch instruments side by side (photo courtesy of Scott Clements)

altercation. It was in exactly the state it had been when last used, although its condition had deteriorated.<sup>12</sup> As it stood, the Birckholtz trumpet was a priceless historical document (Figures 7 and 8). Even if it had been playable, the decision to conserve it in its present state and make a copy (or copies) was clear and obvious. As with the other examples above, the instrument yielded dimensions for the production of mandrels and other tooling (Figure 9). In addition to providing a copy, this instrument also provided the additional experience of live concerts in the Belitz church and a commercial recording.<sup>13</sup> The original instrument is now preserved in the collection of the Germanisches Nationalmuseum in Nuremberg, and two copies hang in its place in the church (Figure 10).<sup>14</sup>

**Conclusions** There has always been conflict between the preservation and the use of historic properties, and this will doubtless continue as long as objects provide the connection – the spark – that crosses the gap between the past and the present. In the museum world we have developed ways of accommodating the demand for authenticity in experience while still maintaining historical and documentary integrity. Careful and structured restoration of originals is the way to achieve this, but it is only valid if the player or auditor requires the ‘authentic’ aesthetic experience that only the original can provide. The flawed nature of this experience is a separate issue, depending as it does on a lack of information about the actual state of the original object.

Producing copies has been a standard process when supplying musicians with instruments contemporary with the music being played, and it has been the role of museums and private owners to provide access to the originals. Much interpretation has taken place in both conjecturally returning copied instruments to a first-used state, and in providing instruments that modern musicians can use and modern conductors can tolerate. The three case studies here show how degrees of ‘copying’ are possible and, by extension, how the word ‘copy’ can be misused. There is an argument to be made for using the term ‘informed copy’, as is done in the informed performance of early music.

12 State and condition are often confused. See Barclay: *The Preservation and Use of Historic Musical Instruments*, p. 286, fn. 14.

13 Jean-François Madeuf & Ensemble: *Die Birckholtz-Trompete von 1650, Raumklang RK 1805*.

14 I am indebted to Michael Münkwitz for permission to use this instrument as a case study.



FIGURE 7 The Birckholtz trumpet as found (photo courtesy of Michael Münkowitz)



FIGURE 8 Close-up of the Birckholtz bell (photo courtesy of Michael Münkowitz)

FIGURE 9 Close-up of the bell of the Birckholtz copy (photo courtesy of Michael Münkowitz)



FIGURE 10 Two copies of the Birckholtz trumpet now hang in the church in Belitz, on either side of Jacob Hintze's memorial plaque (photo courtesy of Michael Münkowitz)



## Content

**Preface** 7

**Martin Skamletz** “Practice-Oriented Research”. Fifteen Years of Brass Projects at Hochschule der Künste Bern 9

**Adrian von Steiger** The Preservation of Historical Brass Instruments. Developing Guidelines for Their Preventive Conservation 32

**Martin Ledergerber / Emilie Cornet / Erwin Hildbrand** Humidity in Regularly Played Historical Brass Instruments. The Possibilities and Limitations of Preventive Conservation 48

**Bernhard Elsener / Tiziana Lombardo / Federica Cocco / Marzia Fantauzzi / Marie Wörle / Antonella Rossi** Breathing New Life into Historical Instruments. How to Monitor Corrosion 61

**Federica Cocco / Marzia Fantauzzi / Bernhard Elsener / Antonella Rossi** How Surface Analysis Can Contribute to an Understanding of the Preventive Conservation of Brass Instruments 73

**David Mannes / Eberhard Lehmann** Monitoring the Condition of Played Historical Brass Instruments by Means of Neutron Imaging 83

**Martin Ledergerber** Endoscopy as an Investigative Method 92

**Daniel Allenbach** A Glimpse into the Orchestra Pit at the Théâtre des Champs-Élysées in Paris on 29 May 1913 97

**Arnold Myers** Preserving Information Relating to Instruments in Museums 120

**Robert Barclay** Old and New. Mediating Musical Experience 128

**Sabine K. Klaus** To Play or Not to Play? How BIAS Can Help 136

**Marie Martens** Angul Hammerich and the Bronze Lurs. To Play or to Display 145

**Index** 160

**Authors** 164

TO PLAY OR NOT TO PLAY

Corrosion of Historic Brass Instruments

Romantic Brass Symposium 4 • Edited

by Adrian von Steiger, Daniel Allenbach

and Martin Skamletz

MUSIKFORSCHUNG DER  
HOCHSCHULE DER KÜNSTE BERN

Edited by Martin Skamletz  
and Thomas Gartmann

Volume 15



Dieses Buch ist in gedruckter Form im Januar 2023 in erster Auflage in der Edition Argus in Schliengen/Markgräflerland erschienen. Gestaltet und gesetzt wurde es im Verlag aus der *Seria* und der *SeriaSans*, die von Martin Majoor im Jahre 2000 gezeichnet wurden. Gedruckt wurde es auf Eos, einem holzfreien, säurefreien, chlorfreien und alterungsbeständigen Werkdruckpapier der Papierfabrik Salzer im niederösterreichischen Sankt Pölten. Das Vorsatzpapier *Caribic cherry* wurde von Igepa in Hamburg geliefert. *Rives Tradition*, ein Recyclingpapier mit leichter Filznarbung, das für den Bezug des Umschlags verwendet wurde, stellt die Papierfabrik Arjo Wiggins in Issy-les-Moulineaux bei Paris her. Das Kapitalband mit rot-schwarzer Raupe lieferte die Firma Dr. Günther Kast aus Sonthofen im Oberallgäu, die auf technische Gewebe und Spezialfasererzeugnisse spezialisiert ist. Gedruckt und gebunden wurde das Buch von der Firma Bookstation im bayerischen Anzing. Im Internet finden Sie Informationen über das gesamte Verlagsprogramm unter [www.editionargus.de](http://www.editionargus.de), zum Institut Interpretation der Hochschule der Künste Bern unter [www.hkb.bfh.ch/interpretation](http://www.hkb.bfh.ch/interpretation) und [www.hkb-interpretation.ch](http://www.hkb-interpretation.ch). Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über [www.dnb.de](http://www.dnb.de) abrufbar. © der zeitgleich erschienenen digitalen Version: die Autorinnen und Autoren, 2023. Dieses Werk ist lizenziert unter einer Creative Commons Namensnennung-Nicht kommerziell 4.0 International Lizenz (CC BY-NC 4.0).

DOI [10.26045/kp64-6179](https://doi.org/10.26045/kp64-6179) ISSN 2700-8681 ISBN 978-3-931264-95-6