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Considerations on Keyboard Conservation and Policy for Facsimile and Replicas in France

Florence Gétreau

Keyboard instruments preserved in French museums are in various states of conservation. Some came into public collections in the second half of the 19th century being part of decorative art collections (they are often in quite an “historic” state). Some were previously in musician’s hands, and they then show signs of use, maintenance, and adaptation to specific “tastes”. Whilst in the museum, they also get several “stratifications of restoration”, each generation having a peculiar deontology, different techniques and different results.¹

If we consider some very famous harpsichords conserved in former times in the Conservatoire of Paris (Musée Instrumental), one can understand the many signs of intervention they carry.

The Jean-Claude Goujon harpsichord (Paris 1749, E. 233) was considered, up to the restoration undertaken by Frank Hubbard at the end of 1966 a “Hans Ruckers instrument”. It has a set of jacks signed “Cerdier” and a label written in March 1867 by the piano makers “Charles Kriigelstein and Charles Plantade, Facteurs du Roi à Paris” (which is three years after it came into the collection of the museum), attesting work done on it. In 1961-1962 Marcel Asseman “repaired and tuned” it for a recording of Mme Françoise Landowski.² In 1967 Frank Hubbard put it in playing order. Michel Robin did an important restoration in 1979 because the wrest-plank was beginning to come away from the case.³ Since that time it has been constantly regulated, tuned, played and used for recordings.⁴

¹ GÉTREAU, 1987; GÉTREAU, 1995.
² See particularly GÉTREAU, 1996, pp. 444, 452, 459, 467.
³ GÉTREAU, 1981, pp. 70-71, 86.
The double manual harpsichord by Nicolas Dumont (Paris 1687, E. 774) rebuilt by Pascal Taskin in 1789, after its acquisition by the Musée Instrumental in 1878, was repainted in March 1879 by a painting restorer, the widow Bardoux.5 Between 1883 and 1887 Luigi Tomasinì, the famous piano restorer, worked on it. In 1939, Marcel Salomon retouched the case painting.6 In 1957, Anselme Noël, who specialised in tuning and repairing pianos, organs and harmoniums but was also “restorer of early instruments”, “restored it and repaired the stand”.7

In November 1964, Maurice Chrétien (known for “restauration d’ancien”), restored it once more and extensively painted the case and the stand.8 Between December 1966 and April 1967, Frank Hubbard put the instrument in playing order.9 In 1972, William Christè and David Fuller used it for a recording.10

The Pietro Faby Harpsichord (Bologna 1677, E. 224) was subjected to a repair by the piano maker Klemmer in Paris, Rue Dauphine in 1869, five years after its acquisition by the museum, probably after the death of Hector Berlizó, curator of the collection (April 1866 – March 1869), and before the nomination of Gustave Chouquet. The decoration of this instrument suffered an intervention in 1881.11 A Noël signed a bill in December 1960 but it is hard to know what he did to the instrument. Hubert Bédard put it in playing order in 1967. Some months later it was used in a recording by Rafael Puyana.12

Two famous instruments from the collection of Madame de Chambure, acquired in 1979 by the museum, had an even more eventful life.

The notorious Andreas Ruckers (Antwerp 1646, E. 979.2.1) rebuilt by Pascal Taskin in 1780, was restored by Luigi Tomasinì in 1882 when it belonged to Baron Pichon. Louis Diémer played it during an audition in April 1889.13 Part of the collection of Paul Eudel and later of Mme Adrien Allez, it was acquired by Madame de Chambure in 1962. In a quote written in the same year by Marcel Asseman, restorer in Saint-Denis, we notice that he planned to “Repair one stand, clean the inner side of the instrument, glue cracks on the soundboard and straighten it, put registers and knee levers in working order, complete strings [...], check and rub down the angles of all the jacks,

8 See the very detailed report in GÉTREAU, 1996, pp. 464-465.
11 A bill by Moreau, in Nogent-sur-Marne, is preserved. GÉTREAU, 1996, p. 448: «Refait deux pieds, couvert en vernis Martin et doré la caisse, réparé le mécanisme et monté en cordes».
12 Musique italienne pour clavecin, Rafael Puyana, Philips 802898 L.Y., 1969.
regulate keyboards, jacks, coupling and dampers, tune and check the staccato". When Frank Hubbard worked in 1967 for the Musée Instrumental and asked Hubert Bédard to join him, this harpsichord was put in playing order. It was used in a recording some years later by Harmonia Mundi. The text prepared by Bédard and printed on this occasion states that "During the Restoration, made in Autumn 1967, I tried to put the stops and mechanisms in the state Taskin made them in 1780, to reinforce the instrument but to suppress additions dating from the 19th century harming the sonority". Since that time, and also after its acquisition by the Musée Instrumental in 1979, this harpsichord has been constantly regulated, tuned, played and recorded.

The harpsichord by Gilbert Desruisseaux (Lyon 1678-1679, E. 979.2.3), part of Madame de Chambure private collection since the first half of the 20th century, received a new inner frame by Marcel Asseman after she acquired it from Marcel Salomon. It was greatly "reconstructed" by Hubert Bédard in 1967 (III. I and 2) when he put the instrument once more in playing order for the Contesse de Chambure. Part of the Paris museum since 1979, it has not been playable any more for the last twenty years.

Three of these harpsichords have a fourth register built for a buff stop. Original preludes in "peau de buffle" were replaced and seem to be definitively destroyed on the harpsichord by Jean-Claude Goujon, on the Dumont-Taskin, and on the Ruckers-Taskin preventing any further analysis or study, with historic references, of the special sound qualities of this very particular stop of late French harpsichords. Frank Hubbard and Hubert Bédard restored these three instruments with a register of jacks quilled with soft leather preludes in 1967. Even with this replacement, the recording made in 1981 for Harmonia Mundi by William Christie and David Fuller with Armand-Louis Couperin's Deuxième quatuor à deux clavecins and Symphonie de clavecins was a "revelation" although not played by authentic buff-prelude jacks.

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14 Musée de la Musique. Centre de recherche et de documentation. Individual file of the instrument.
17 PUSIOL, 1997.
In recent decades, fortunately, some instruments acquired by public collections have been in their last historic “state of use”. Because of changes in museum policies some were put in playing order without preserving this state, and some were strictly “conserved” and facsimiles were built for preservation and educational purposes.

A wing shape spinet by Jean-Claude Goujon (Paris, 1753 (?), E. 971.5.1.) was acquired by the Musée Instrumental in a public auction in June 1971. At that time its set of 8’ jacks was quilled with “peau de buffle” as it was in its last stage of use at the end of the 18th century as is confirmed by an inscription on the reverse side of the name board: “Mise au ravalement et en bauffe par l’abbé Tapray, l’année 1789”.21 Michel Robin and Hubert Bédard put it in playing order in 1972 and 1973. Constantly played during the travelling exhibition organised by Paris and London between 1973 and 1975, and in the permanent exhibition of the Musée Instrumental since 1976, this spinet was used in a recording for the first time in 1989.22 It has not been played since.

In the same way, a harpsichord made by Jean-Henry Hemsch (Paris 1761, E. 974.3.1), preserved in a provincial castle in the state of its last period of continuous use (very end of the 18th century?) was purchased by the Musée Instrumental in 1974. Some original strings and remnants were still present on the soundboard and around some tuning pins (Ill. 3). The 8’ stop of the lower manual was quilled with "peau de buffle" (Ill. 4) and since the instrument was in very good condition it was decided to put it back in playing order. But because musicians wished to have a "classical" use for such a French harpsichord (i.e. with quill plectra), the historic "peau de buffle" stop was removed, the original tongues being removed from the jacks. No records of any of the original fittings or ephemera (key clothes, plectra, etc. Ill. 5) were made before doing so. This means that a vast amount of knowledge concerning the very specific sound taste of the very end of the 18th century, at the time of the early pianoforte development, will remain unknown after this decision. And even if the three former harpsichords with the buff stop could have given a real idea of their sound, the buff stop is not on the principal 8’ register as it was on the Hemsch harpsichord in its later period. Since it is in playing order in the “classical way”, this instrument has been extensively recorded and played during concerts from then on.23

21 Thebault-Jenkins-Ricci, 1973, pp. 4-5, note 1. The text does not mention the several modifications done by Hubert Bédard during his restoration: quill plectra, new painting of all the inner and outer case.
Facsimiles and reconstitution of instruments in playing order of great historical and musical importance

All the instruments already quoted have been in playing condition for more than three decades. They have suffered regular use and wear (especially to their moving parts). Apart from the progressive loss of original parts, their regulation was becoming more and more difficult, perhaps even dangerous or impossible. So the decision has been taken more and more to have partial facsimiles of the registers and of the jacks made. This procedure is very satisfactory in combining conservation (the original parts are preserved for study) with optimal regulation, security and reliability for the musicians.

The first partial facsimile of an action was started in 1985-1986 with the harpsichord by Jean-Henry Hemsch, followed in 1991 by the Ruckers-Taskin. During these years while planning the Musée de la Musique some important restorations were undertaken by the staff of the museum or by private restorers under contract to the museum. This new policy was presented by Michel Robin in a detailed report.24

When we wrote the Programme of the permanent and temporary exhibitions of the forthcoming Musée de la Musique, we decided to include also complete facsimiles or reconstitution of various harpsichords representing different regional schools to be regularly used in public. 25 A complete reconstitution of the Jean-Claude Goujon harpsichord was made by Ivan de Halleux (Belgium) in 1995. It is quite interesting to consider that at the same time a CIMCIM conference had been organised in Antwerp on the theme “Copies of instruments with museum value”. 26 Two communications, at least, pointed out the advantage to public collections of copies “as an alternative to restoration”. 27

Facsimiles of instruments modified in the course of their life or highly damaged

When establishing the ideal list of complete facsimiles for the Paris museum, we also selected instruments showing signs of fundamental changes in their structure to avoid a restoration to a period when they were last played. Take for example the keyboard instrument signed by Carlo

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27 KOSTER, 1994, p. 12; WELLS, 1994, pp. 28-34.
Grimaldi (Messina 1703, E. 980.2.644). When Madame de Chambure acquired it, it was fitted with a strange set of metallic hammers (this famous collector was convinced she had one of the “first pianoforte” in the world, even if it was clear that this is a conversion carried out at the time of pianoforte development). The complete facsimile built by Denzil Wrought was, following the contract established by the museum, also held to the instrument from 1697 preserved in Nuremberg (MIR 1075), especially with regard to the original action. As in all the facsimiles ordered in recent years by the museum, original material and historic hand-making procedures had to be respected and an extensive documentation of the building process had to be produced for the museum by the selected maker.

In the same way, the famous violin by Guarneri del Gesù (Cremona 1742, E. 1217) the property of Delphin Alard during the 19th century and altered but still retaining its original neck (III. 6), was copied to give a concrete example of its original proportions and musical characteristics.

An important archlute by Christoph Koch (Venice 1654, E. 546) had been selected for the permanent exhibition of the Musée de la Musique at the end of the 1990’s. But its very poor state of repair (a drastic restoration done in 1974 in the museum had greatly weakened the integrity of the soundboard) suggested the «deposit» of the original soundboard, and the construction of its facsimile by Joël Dugot, now both exhibited in the same showcase.

**Facsimiles of unique instruments in a very “original” state**

For the last few decades, instruments are more often preserved in the state in which they are found and the decision to put them in playing order is more and more exceptional. In the Musée de la Musique in Paris some unique instruments that have never been “rebuilt”, nor restored, but in a “poor state” are exhibited or preserved as “archaeological pieces” to avoid any intervention that could wipe out original details and traces specific to a maker, a school of making and a period. Very often, such instruments are warped, damaged and have missing parts.

The first example is a harpsichord by Vincent Tibaut (Toulouse 1691, E. 977.11.1) cabinet and instrument maker between 1673 and 1691. Only three instruments signed by him are known today. The latest (1691) came into the museum in 1977 from its original place of use, the town house of Jean-François Passama de Montadet, Baron de La Busquière, owner of the castle of the

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28 A monograph on both instruments is among the publications planned by the musée de la Musique.
30 BATTAULT, 2001, pp. 128-129.
32 ANSELM, 1997a.
same name and of a pretty mansion in Lombez (Haute-Garonne) very close to Toulouse. This instrument had been left untouched for generations, but suffered greatly from long storage under the roof of this house. Humidity, wasp nests, broken pieces of tiles were the main damages I saw when I bought it in summer 1977 and with the depredations of children who used to play in this garret. The original stand had been “integrated” into a modern rustic table. But many samples of original strings were still in place, and in its study this instrument showed many striking features.

Despite its poor condition and state of conservation (Ill. 7-9), it is an exceptional item because it has never been remodelled to suit musical developments (scaling, coupling system and disposition of the registers, etc.). The decision to document it and not to restore it to playing order was not easily accepted by the sponsors who paid for its acquisition or by makers and harpsichordists eager to play a very rare specimen from the “high period” of the French repertory (Louis Marchand, Louis Couperin, Jean-Henry Danglebert). One generation later, when the polemic died down, the museum commissioned in 1993 a “facsimile” (Ill. 10) to be made by Emile Jobin. A short time later, the Conservatoire ordered for its pedagogical activities a “copy” inviting the maker to “improve”, in an experimental way, the qualities of this instrument, for example the acoustical effect of a partly hollow wrestplank (two channels are dug under the position of the nut, letting the tenor and bass strings sound in a more readable and dynamic way), or the soundboard bracing (Ill. 11) in a herringbone pattern and joined to the upper bracing of the case at two points in order to encourage a “chest voice”. Because the copy made for the Conservatoire was not so “accurate” as the facsimile made for the museum (absence of some of these construction details), Emile Jobin could experiment with the acoustic results of such specific actions without impairing this unique source of documentation.

Among original instruments that recently entered the museum, two pianoforte were put in playing order but get a partial facsimile of their actions: in the instrument by Ignace Pleyel, (Paris 1829, E. 985.1.1), the hammers were copied during its restoration by Alain Moysan; in the J. Brodman pianoforte (Vienna 1814, E. 982.6.1) a more extensive partial facsimile was ordered from Christopher Clarke. Because of its good condition and representative nature of this precious instrument it was also restored to playing order. But to avoid any damage to and waste of the original fittings it was decided to preserve them and to insert facsimiles of hammers, dampers, and cloths in the original instrument.}

34 JOBIN, 1999
My next example is a non keyboard instrument, a bass viol by Michel Collichon (Paris 1683, E. 980.2.667) reproduced as a complete facsimile by Tilman Muthesius, Potsdam, in 2002. Eight viols built by the Parisian maker Michel Collichon are preserved today. One of them, a bass viol da gamba dated 1683, was collected by Geneviève de Chambure as a sort of “puzzle of gamba” (Ill. 12-13). But the genuine features had survived totally untouched since the end of the 17th century: a un-repairable crack in the soundboard and important wood-worm damage to the peg box and the fingerboard prohibited any attempt of restoration. The various parts (case, soundboard, neck, peg box, etc.) were fortunately never reassembled and adjusted to put the instrument back in playing order. The nature of the wood (mahogany), the technique of joining the five pieces of the soundboard with linen strips, the dimensions and position of the bass bar, the very light protection of the inner side of the back are so clear that they provide a unique first-rate document for modern makers to understand and reproduce this special French style of making. This instrument is exhibited as an archeological item (Ill. 13). Many reproductions made by different makers in the world have spread much more of its acoustic qualities than any attempt of "restoration" could have done. In 2001, the Musée de la Musique drew up a call for proposals for facsimiles and sent it to makers specialised in the French 17th century gamba. The contract was extremely detailed (similarity of woods, structure, disposition of grain, etc.). This time too, a very complete documentation was made on the original and on the facsimile (Ill. 14), by Tilman Muthesius, the craftsman selected and author of the first systematic study on that maker. Only just recently, the epoxy used by a famous Parisian violin maker during the 70’s to consolidate the peg box and the head infested by wood-worms was removed and the ribs were fixed to the upper block for better stability.

Sometimes instruments are in good physical condition but so rare that it is impossible to play them for deontological reasons (especially woodwind instruments). Complete facsimiles are then made in keeping with a kind of experimental archaeology of sound. Indeed, when building a facsimile, some specifics and interpretation of construction details can be experimented without risk to the original. It can provide a lot of knowledge to makers and scholars.

More recent examples can be found in the Musée de la Musique illustrating this case: a set of column recorders after Raux von Schratt (Germany 16th century, E. 691 and 127) and a unique flute by Jacques Hotteterre Le Romain (Paris beginning of the 18th century, E. 999.6.1).
I must now emphasise that regional collections in France are becoming progressively more involved in very similar procedures.

The first example is a harpsichord by Jean Denis (Paris 1648, Musée de l’Hospice Saint Roch, Issoudun, Indre). To our knowledge it is the earliest preserved harpsichord from the French school today. Although belonging to a public museum, it is also protected as a Monument Historique. An extensive study was done by Michel Robin in September 1986 and more recently by Alain & Marie Christine Anselm (1989 ; 1991 ; 2001/2002). All this information will be published in the near future and a full facsimile is also planned.

In quite a similar way the redecorated instrument belonging to the Comte de La Panouse in the Château de Thoiry (Yvelines), the François Blanchet (Paris 1733) although not itself individually protected as a Monument Historique, will probably get the benefit of a full facsimile ordered by the Regional Direction for Cultural Heritage, fully aware that this harpsichord, never put back in playing order since the 18th century but still in its original setting, is a unique document.

**Facsimiles for museographic purposes**

Finally, a third category of instruments can also appear in the museum context: instruments missing in a particular collection but very important for an historic panorama (in the permanent exhibition) or to complete a thematic and pedagogical presentation. Building a facsimile answers the desire of knowledge and completeness. It is quite common in museums of archaeology. The original models are selected from other collections. In the case of musical instruments complete facsimiles can be built to be exhibited but they can also be played.

When François Lesure and I prepared the third *Programme of the permanent and temporary exhibitions* for the Musée de la Musique in Paris in 1990 the main theme was based on ten major musical scores illustrating essential ensembles of original instruments placed in their musical contexts (with a facsimile of the specific moment of the score, with a “figuration” of the orchestration, and iconography related to the original place of performance).

Monteverdi’s *Orfeo* was one of the major scores selected allowing the museum to present an important group of Italian instruments from the 16th century. Three specific moments of the score were chosen: the first *Toccata*, Act I, *Lasciate i monti, lasciate i fonti – Ritornello*, from the Coro di Ninfe e Pastori; Act III, *Caron singing with regal and Sinfonia*. The original printed score indicates

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39 ANSELM, 1997b, p. 228.
40 DOWID, 1984, 1733 Harpsichord.
the use of “ceteron” for the Ritornelli. Since no instrument was present in the collection we planned to incorporate one facsimile, made after an original by Gironimo Campi kept in the Museo Bardini in Florence (inv. 1922 n. 362). The instrument was made by Carlos Gonzales. But when the actual Director of the Louvre was commissioned to judge all the decisions about the museography of the Musée de la Musique in 1992 he chose to exhibit only “authentic” objects. Context objects and iconography were removed from the programme as well as this replica which had already been made. This instrument is today used for musical demonstrations, but not exhibited. This last example is illustrative of the debate around the use of facsimiles in museums. The same decision was taken for an instrument missing from the range of lutes: a seven course Renaissance lute. Since no example was present in the Paris museum the plan of the new presentation listed a facsimile of an instrument by Jacob Hes (Venice, 1586, Dépôt Musée des Arts Décoratifs, n. 40381). It was ordered from Stephen Murphy and has been constantly used for the last ten years for demonstration purposes but never exhibited.

**The reception by the public and the media**

As a conclusion to my presentation, I would like to give some considerations regarding the “reception” of these policies among administrators and musicians, taking into account the public and the media.

When the Musée de la Musique was inaugurated in January 1997 the opening concert was deliberately devoted to this new policy of facsimile. Only one original instrument was played (a violin by Nicolas Lupot 1803). The public was assembled to hear the facsimile of the lute by Jacob Hes (Venice 1586); the theorbo after Matteo Sellas (Venice c. 1640), the harpsichord after Carlo Grimaldi (Messina 1703) and the harpsichord after Vincent Tibaut (Toulouse 1691). Among the documents prepared for the journalists, a handout was entitled: “Can we play the instruments of the museum?”. It was referring to the conclusions of the ICOM General Conference in Buenos Aires in 1986 where it was emphasised that playing musical instruments of the museums had a large cultural role in musical life but that this “caused important damage and ruined many instruments”. Stressing the objectives of public collections (conservation and education), this document described the programme of facsimile production over the last few years and listed the instruments already available. The concert programme reinforced this attitude and underlined that many of these "facsimiles" gave a more “historic” idea of the original models because of the complexity of the historic models’ present states. I think that it is symptomatic that the journalist Eleonore Büning, in
her long article published some days later in Die Zeit\textsuperscript{41} quoted only the brilliant interpretation of the
Molinara by Paganini played by the young Vadim Repin on his own Stradivari and ignored 80\% of the
rest of the programme and its “educational” purpose. Joanna Pieters in The Strad\textsuperscript{42} chose out of
this inaugural concert only the Lupot 1803 and mentioned nothing else. Alain Lompech, in Le
Monde, is even directly polemical: ignoring the concert he wrote that “From time to time
instruments will be allowed to be played in the museum auditorium, like prisoners are allowed to
walk some steps in a courtyard”.\textsuperscript{43} These superficial comments and commonplaces were quite
typical of media people. On the other hand, the reactions of the public and of musicians in charge of
the pedagogical programmes of the exhibition at the museum give us a very different impression of
the results of this active policy of playable facsimiles. Pascale Boquet, a lutenist playing frequently
for the visitors of the Musée de la Musique, published an amusing account of their reactions.\textsuperscript{44} The
question of whether a facsimile or an authentic instrument is played does not seem to trouble
visitors. The music itself and the distinctive characteristics of each type of instrument are the focus
of their interest together with the relationship with the musician introducing the collection.

Finally, four years later, the Musée de la Musique organised a temporary exhibition called A
museum under X rays: ten years of research at the service of music.\textsuperscript{45} Recent acquisitions,
technologies applied to museum conservation and investigations with scientific methods were the
centre of this demonstration. Some of the recently built facsimiles were exhibited and regularly
demonstrated: the harpsichord after Tibaut and the set of Renaissance column recorders based on
very rare originals in the collection. Joël Dugot in an article printed in the weighty catalogue,\textsuperscript{46}
summarised the objectives and results of the programme of facsimile begun 15 years earlier. What
is significant is the evolution in the mentality of journalists since the opening of the museum when
they reported on this “scientific exhibition”. The titles of their articles were: “Saving is not
playing”;\textsuperscript{47} “The Musée de la Musique examines its collections under X rays. From 17\textsuperscript{th}
century Harpsichords to electric guitars, the institution collects and preserves a huge instrumental memory.
This exhibition demonstrates the obligations of this conservation process supported by high
technology”.\textsuperscript{48} The time for polemics and banalities seems to be over in the very same newspapers
that were so negative at the time of the opening of the museum. Detailed reports of intentions,
dilemmas and technical procedures used in the museum were presented to the public at large. Unfortunately no qualitative survey was done during the exhibition to collect the public reaction. But we can be more confident that the difficult dilemmas to show music in a museum and the solutions proposed, such as facsimiles, seem to be more and more understood by the sponsors, users and critics of museums.
List of Facsimile and replicas made after instruments preserved and used in the Musée de la Musique

Complete Facsimile and replicas
- 1993, Single manual Italian Harpsichord by Denzil Wraight, Schönerstadt, after Carlo Grimaldi, Messina, 1703 (E.980.2.644).
- 1994, Lute with seven courses by Stephen Murphy, Buis-les-Barronies, after Jacob Hes, Venice 1586 (Dépôt Musée des Arts Décoratifs, n°40381).
- 1998, Violin by François Denis (Angers), Frédéric Chaudière (Montpellier) and Eric Lourme (Le Havre) after Guarnieri del Gesù, Cremona 1742 (E.1217).
- 2000, A set of four Renaissance recorders in column form, by Henri Gohin, Boissy-l’Aillerie, after Raux von Schratt, Germany, 16th century (Paris, Musée de la Musique, E. 691 and E.127; Bruxelles, Musée instrumental, n. 189).
- 2000, Traverso with one key by Claire Soubeyran, Boissy-l’Aillerie, after Jacques Hotteterre dit Le Romain, Paris beginning of the 18th century (E.999.6.1).
- 2002, Bass gamba with 7 strings by Tilman Muthesius, Postdam, after Michel Collichon, Paris 1683 (E.980.2.663)

Partial Facsimiles
- 1991, Reinhardt Von Nagel, Paris, action (jacks, registers) of the harpsichord by Ruckers-Taskin, Antwerp/Paris 1646/1780 (E.979.2.1)
- 1991, Alain Moysan, Doussard, Action (hammers) and stringing of the pianoforte by Ignace Pleyel, Paris 1830, n. 1555 (E.985.1.1).
- 1991-1994, Christopher Clarke, Cluny, (during the complete restoration), action (keyboard, hammers, dampers, paddings) of the pianoforte by J. Brodman, Vienna 1814 (E.982.6.1).

49 This list was completed with the generous help of Joel Dugot.


**Plates**


3. Harpsichord, Jean-Henry Hensch, Paris 1761. Paris, Musée de la Musique, E. 974.3.1. State when it was acquired with original strings and remnants.

4. *Idem* lower manual, jacks quilled with buff from its late stage of use.

5. *Idem*, key clothes from its late stage of use.

6. Violin, Guarneri del Gesù, Cremona, 1742, property of Delphin Alard during the 19th century. Paris, Musée de la Musique, E. 1217. Endoscopy showing that the original neck is still in place.


9. *Idem*, State when it was discovered in Lombez in 1977.


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