

# *Suite “colori”* by Mario Bertoncini: From Performance to Archival Research<sup>1</sup>

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*Suite “colori”* is a work in five movements for prepared piano composed in 1999 by the composer, pianist and writer Mario Bertoncini (Rome, 1932 – Siena, 2019). In Bertoncini’s catalogue,<sup>2</sup> *Suite “colori”* is one of six works for piano and is chronologically second to last. It follows *Cifre* (1964–1967) for piano and a variable number of players, *Scratch-a-matic* (1971) for piano set into vibration by nine DC motors at variable speed, *An American Dream* (1974) for prepared piano and DC motor, *Pagine per Dieter* (1983), dedicated to the pianist and composer Dieter Schnebel, for prepared piano with six motors and photoelectric system; and it is followed only by *PIX* (2014) for prepared piano. The piano is also present under other guises in Bertoncini’s catalogue: for example, it appears partially dismembered in *Alleluia* (1981) for eight Japanese gongs played on a grand piano mechanism, and as a resonator both in *Il Cimitero degli Elefanti* (1979/2000) for five pianos and DC motors and *Solo aus dem Klavierquartett* (1993–1994) for suspended cable and five resonators. Beginning with *Cifre* and with increasing clarity in his more recent works, these compositions for piano reflect a vision that, as we shall see, is found consistently throughout Bertoncini’s oeuvre.

After graduating in piano performance and composition, in the 1960s, Mario Bertoncini began experimenting with alternative notations, instrument

preparations, and extended instrumental techniques. One of the founders of the improvisation collective Gruppo di Improvvisazione Nuova Consonanza – of which he was a member from 1965 to 1972 – Bertoncini went on to teach at McGill University in Montreal (1974–1976) and at the Universität der Künste in Berlin (1977–1998).

Since the 1970s, Bertoncini explored a new approach to composition. He started composing sounds through traditional (albeit prepared) instruments,<sup>3</sup> and he also began devising new objects with their own sonic characteristics. Among the objects, he built Aeolian harps and gongs of various dimensions, while for his works for instruments he built bespoke tools for their preparations – which is why he described himself as a ‘musical constructivist’.<sup>4</sup> For Bertoncini, these objects and prepared instruments could not be conceived as musical instruments: while traditional instruments are adaptable and flexible and can play several different pieces of music, his objects and prepared instruments would be usable to perform exclusively the composition they were devised for.

In this article, the work *Suite “colori”* for prepared piano will be used as an emblematic case to illustrate several distinctive elements and to examine some intrinsic issues in Bertoncini’s work. Pianist and musicologist Luisa Santacesaria will detail her close work with Mario Bertoncini to learn how to play the piece and reflect on this multi-year process. In the final part musicologist Valentina Bertolani will reflect on the fluidity of the material and the constitution of Bertoncini’s archive.

## 1. SUITE “COLORI” AS A CASE STUDY: WHY?

Since 2009, together with musicologist Valentina Bertolani, we have worked closely with Mario Bertoncini with the aim of building possible ways of preserving, enhancing, and disseminating his work. The first step was to ask the composer to teach me to play one of his works for piano. Bertoncini chose to begin this journey with *Suite “colori”*. Until then, Bertoncini himself had been the only one to perform that piece in public, and to this day I am the only other person to have done so.

*Suite “colori”* is a piece in five movements that follow each other without interruption. As the composer explains,

Each of them [is] marked by an arbitrarily chosen colour, as a ‘non-functional’ analogy (I: *Rosso scuro*; II: *Verdazzurro*; III: *Azzurro manganese*; IV: *Giallo cadmio*; V: *Verde scuro*) and is based on procedures aimed at obtaining continuous sounds on the piano – almost like the ones produced by string instruments – which the author has found and frequently demonstrated in public since the early 1960s.<sup>5</sup> In addition, J[ohn] Cage’s now-classic ‘prepared piano’ contrapuntally accompanies the unfolding of the five movements.<sup>6</sup>

Each movement involves a different preparation of the piano:

Movement	Preparation
I. <i>Rosso scuro</i>	nylon lines
II. <i>Verdazzurro</i>	Aeolian gong
III. <i>Azzurro manganese</i>	vertical harp, nylon strings
IV. <i>Giallo cadmio</i>	wedges
V. <i>Verde scuro</i>	DC motor

These preparations consist of a mix of custom-made objects, store-bought objects and medium-sized objects composed of several parts. Bertoncini also points out that

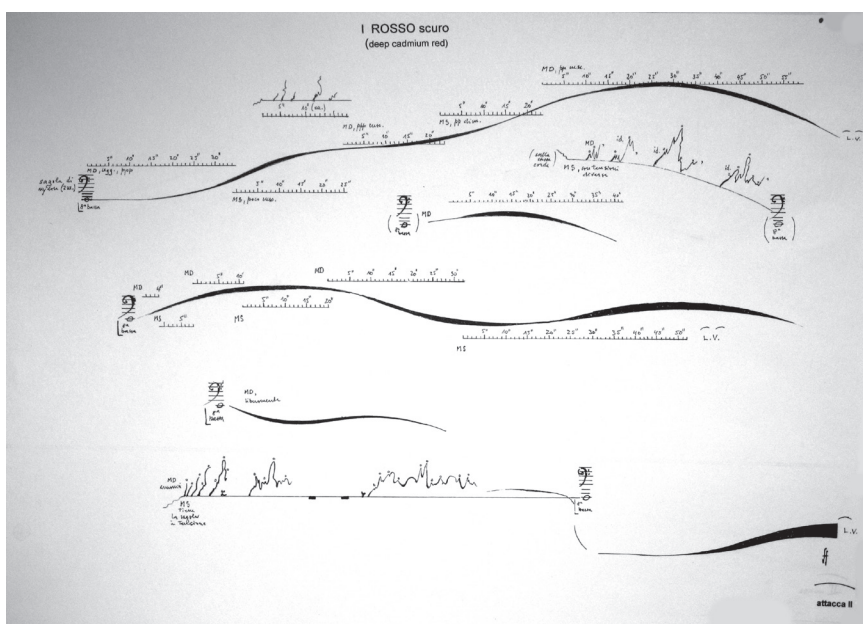
The ‘fundamental sounds’ used in the work correspond to the initial notes of the fifteen Scarlatti Sonatas included in the first part of the programme.<sup>7</sup> The reader should not be alarmed: these sounds are altered and generate spectrums of ‘upper and lower harmonics’ that are not offensive to the ear of a contemporary listener.<sup>8</sup>

With Mario Bertoncini we began working on *Suite “colori”* with the first movement, *Rosso scuro*. My feeling is that Bertoncini chose to start with this movement not only because it was the first, but also because it had a few characteristics that were particularly suited to introducing me to his music. First, a relatively simple preparation: two nylon strings (later also referred to as lines) knotted at one end to two of the piano’s low strings (A1 and E1), to be sprinkled with rosin and played one at a time, with both hands gripped.<sup>9</sup> Secondly, a score (a sheet of paper, see FIGURE 1) showing the various actions to be carried out with an indication, albeit approximate, of the time frame for each of them. As can be seen from FIGURE 1, the score of *Rosso scuro* presents two clearly distinguishable graphic signs: a dark, broad, curvilinear mark that represents the two nylon lines – referring, depending on the note marked on the staff, to the line tied to the E or A string – and the type of sound to be produced with the line. Wide lines, with more or less thick strokes, indicate sounds belonging to the medium-low frequency spectrum, whose intensity and pitch vary depending on the thickness (thinner line = quieter sound, thicker line = louder sound) and the direction of the line (line pointing up = sound to be directed from low to higher frequencies, line pointing down = sound to be directed towards lower frequencies). The other type of graphic sign consists of temporally shorter, pointed figures, some of which have the harmonic symbol

traditionally used in notation for stringed instruments. These figures, which are almost reminiscent of neumatic notation, correspond to sounds – more or less short, depending on the corresponding sign – with a high pitch. The two sound categories, corresponding to two distinct graphic signs, are obtained by applying minor (medium-low sounds) or major (high sounds) tension on the line and rubbing more or less lightly with the fingers on it. The result of these actions is a complex sound obtained from the sum of the fundamental of the string and its formants; and, due to the nature of the preparation and the materials used, it is not entirely controllable by the performer (it is therefore not possible to produce definite pitches, but it is possible for each string to move within these two sound categories). The fundamental action when performing this is to always avoid blocking the natural vibration of the line with the fingers, and to capture the vibration in the rubbing gesture, following it along the line to allow it to produce a richer spectrum of sound.

For all our early meetings with Mario Bertoncini, around the summer of 2009, we concentrated on studying this first movement and the way sound is produced by rubbing the lines.<sup>10</sup> Together with Valentina Bertolani, we documented these initial encounters with video footage. The recordings show the first clumsy attempts to produce sound by rubbing the lines and Bertoncini's advice on which actions to take and which to avoid at all costs.<sup>11</sup>

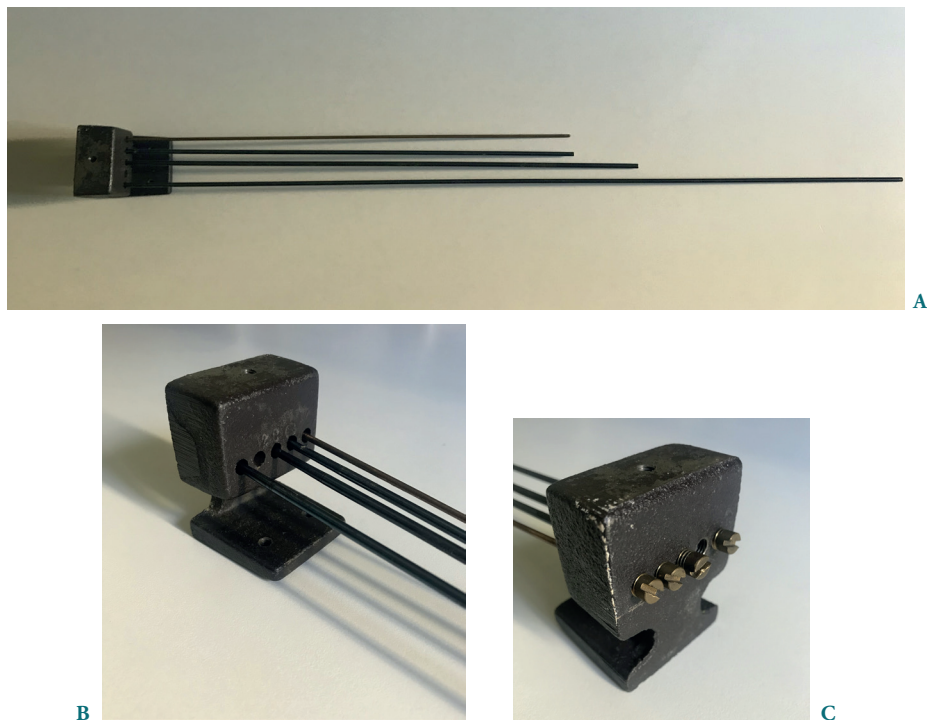
FIGURE 1. *Rosso scuro*, score.<sup>12</sup>



At the end of these initial encounters, Bertoncini gave me some lines of a different diameter (0.5 mm thick, thinner than the ones he had been practising on) and told me to try them out on my piano. I came home with a photo of the score of *Rosso scuro* and these lines, got myself some solid rosin, powdered rosin, a wooden dowel to firmly lower the resonance pedal, and started to practice. Months later, in the winter of 2010, Bertoncini delivered to me, all at once, the rest of the materials needed to put together the preparation kit for *Suite “colori”*, namely:

— 1 Aeolian gong.<sup>13</sup> This object, used in different ways in other works by Bertoncini, is the preparation for the second movement of *Suite “colori”*, *Verdazzurro*, and consists of an iron parallelepiped with a rectangular base (L = 10 cm, W = 6 cm, H = 8 cm, approximately), to which are screwed four metal bars of different lengths, materials and thicknesses, tuned to the same number of frequencies. The Aeolian gong is used on the piano tailpiece to obtain a range of complex sounds through three different actions: contact and bending of the gong on the tailpiece (in both horizontal and vertical positions) at certain nodal points; percussion of the bars by beating; and longitudinal or concentric (spiral, as indicated in the score drawings) rubbing of the gong base on the tailpiece;<sup>14</sup>

FIGURES 2 (A, B,C). Aeolian gong. © Luisa Santacesaria.



— 1 plastic bar with rail to be attached to the piano lid by means of two clamps, plastic rings, and metal hooks to build the vertical harp of the third movement, *Azzurro manganese*. The vertical harp (my wording, not Mario Bertoncini's) should be considered as a single preparation, consisting of a bar, rings, clamps and 12 nylon threads with metal hooks. This preparation involves rubbing the rosined nylon threads with rosined fingers. The sound result must be a continuous sound produced by rubbing the nylon threads, hooked onto the piano strings (with the resonance pedal down), which take the pitch and its formants.

FIGURE 3. Bertoncini playing the vertical harp in Cetona (July 2009). © Luisa Santacesaria.



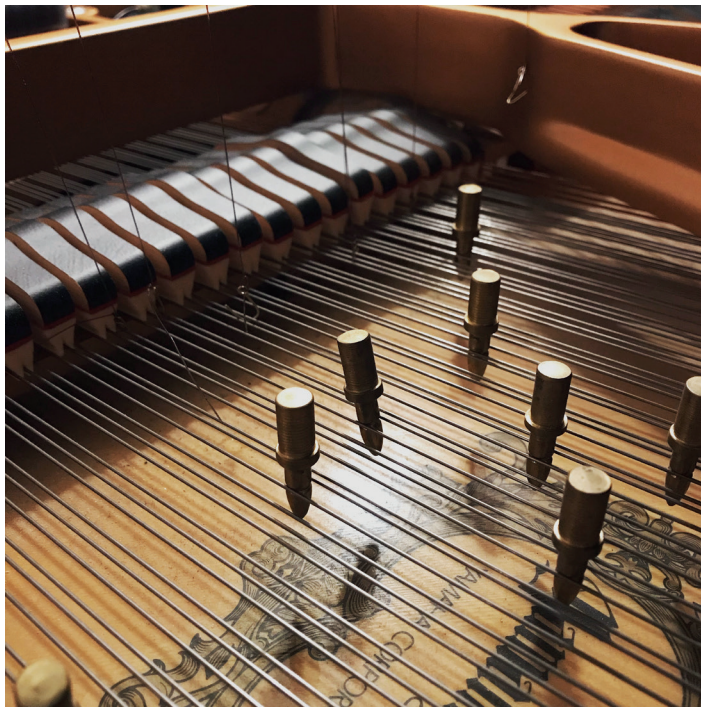
— 1 brass wedge – with the request to have it replicated, according to the score, at least 17 times by a blacksmith – to be inserted between adjoining strings (i.e., in three-stringed choirs) of the piano to play the fourth movement. As the composer explains,

[...] it was my care to make *Suite* compatible with other pieces in the same programme, not only with regard to the invasive wire systems but also with regard to other preparations – I'm talking about those of the Cagean type. To this end, I designed and had turned small conical brass wedges with a groove to gently fix the object between two adjoining [piano] strings, so

that the adaptation, removal and above all the movement of the preparation along the string (in order to fix the object on the various nodal points), did not constitute any trauma to the [piano] strings and could be carried out instantaneously.<sup>15</sup>

Wedges are used to change the timbre of the piano and to make unstable and undefined the pitch of the string in which they are inserted. Depending on the positioning of the wedges along the string, the sound produced by the preparation is the result of the sum of the fundamental frequency and the formants activated at the nodal point, to which the metallic timbre specific to the brass wedge is added;

FIGURE 4. Wedges © Luisa Santacesaria.



— various small wooden or plastic peg clips (normally used to hold small paper cards or blocks of paper) and small eraser plugs to insert into the highest strings of the piano. The higher pitched choruses of the piano, in fact, have closer and thinner strings, which are not suitable for preparation with brass wedges. Thus, small wooden peg clips can easily grip two strings without forcing them and be quickly removed, as can eraser plugs which, due to their flexible and adaptable consistency, have the same properties. Of course, the different material from which these preparations are made influences the resulting sound;

FIGURE 5. Peg clips © Carlo Ferraroni (Cremona, 2011).

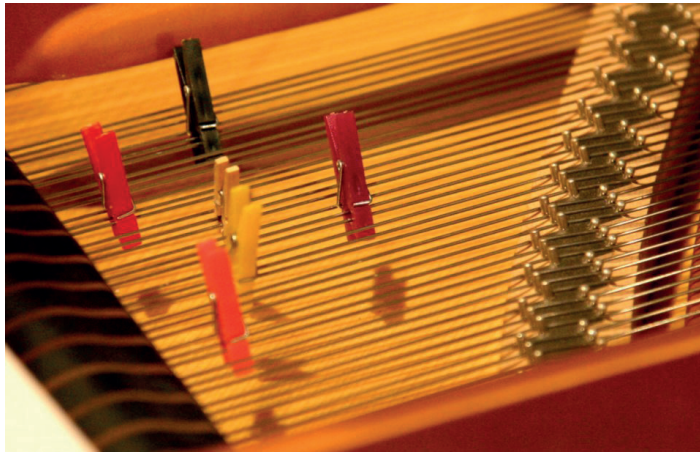


FIGURE 6. Bertoncini playing the DC motor on his piano in Cetona. © Luisa Santacesaria.



- 1 reel of 0.5 mm lines of a different model than the one given above;
- 1 DC motor<sup>16</sup> with rubber wheel and battery operation (2 AA batteries) and ON/OFF switch, to be used in the last movement. The DC motor, rotating at a



constant speed, is placed in contact with the piano’s low strings (with dampers up), and runs along a single string and/or between the strings to locate nodal points in order to produce the highest and richest harmonics;

- 1 wooden dowel for firmly lowering the resonance pedal in the first three movements;
- 1 piece of flat rubber (tyre type) to be inserted between the piano’s low strings to create a transition sound between second and third movements;
- 1 wooden dowel (wood other than the pedal block) to be inserted vertically between the strings, near the fingerboard, to produce a transition sound between the third and fourth movements.

If we pose a problem of conservation and transmission of the work *Suite “colori”*, it is necessary to distinguish these preparations in two distinct categories: on the one hand, the preparations consisting of objects found on the market, such as the lines, the small wooden peg clips, all the materials needed to construct the vertical harp, the stoppers and the rubber pieces; on the other hand, the custom-made preparations, that were made from scratch, assembled or repurposed by Mario Bertoncini, or designed and patented by him, such as the brass wedges, the Aeolian gong and the DC motor.

In addition to the preparations listed above, in the winter of 2010, Bertoncini gave me the first three sheets of the score, corresponding to the first three movements of *Suite “colori”*, in light of my first public performance of the piece, scheduled for November 2011 (the last two sheets would be given to me in 2012 after that first performance). This choice was by no means senseless, but was based on several reasons, which I will try to reconstruct. To start, the first three sheets of the piece were ready in 2010 in their final version. For the purposes of the performance of the piece, the first three sheets provide clear indications of the first three movements, the third sheet is also essential for the preparation of the fourth movement (FIGURE 8). In fact, as FIGURE 7 shows, the sheet corresponding to the third movement, *Azzurro Manganese*, consists of two different blocks of staves differentiated by the indications ‘tastiera preparata’ (‘prepared keyboard’) and ‘12 fili’ (‘12 strings’). The first block refers to the piano strings that must be prepared with brass wedges – or, if in the high register, with wooden small peg clips or rubber stoppers; in essence, it also contains the preparation instructions for the fourth movement, *Giallo cadmio*. The second block indicates the piano strings to which the 12 nylon strings of the upright harp must be hooked, starting from the bar attached to the piano lid and hooking onto the strings of the instrument; this information concerns the performance of *Azzurro manganese*, the third movement of *Suite “colori”*.<sup>17</sup>

FIGURE 7. *Azzurro manganese, score.*

III AZZURRO MANGANESE  
(manganese blue)

tastiera preparata:

12 fl.:

The first three sheets of the score, corresponding to the first three movements (including, in part, the fourth with regard to the indications on keyboard preparation), are in A3 format and have a clear, graphically detailed layout. The last two, which Bertoncini handed over to me in 2012, are in A4 format and, compared to the others, are in the form of a sketch/notes and are written in both pen and pencil. A comparison with the sketches kindly provided to me by Valeska Bertoncini and now kept in the archives of the Akademie der Künste in Berlin shows that in the preparatory materials for *Suite "colori"* there are numerous graphic experiments and attempts to write down the first three pages of the score, while for the last two there are very few sketches.<sup>18</sup>

There could be multiple reasons for late delivery. It is probable that until 2012 Bertoncini had not yet written the last two pages, perhaps due to lack of time, dissatisfaction in the graphic rendering of those indications, or just difficulty in putting his ideas into writing. But it is even more probable that he did not feel the urgency to complete them because, in the first place, he did not need them for his concerts, while I had already received the kit and all the necessary instructions verbally from him during our meetings. In addition to this, from the moment

I set about installing the preparations of *Suite “colori”* on my piano, it was clear how the process of constructing and assembling the various materials, as well as the continuous sound exploration and various tests of the sonic results on my instrument, had replaced the traditional score study to which I was accustomed as a classically trained musician.

The Mini-DV cassettes dating from our first meetings, in July 2009, document various talks in which Bertoncini insists that *Rosso scuro* (the first score he showed us) was a ‘non-score score’.<sup>19</sup>

The exchanges I had with Mario Bertoncini over the years regarding *Suite “colori”* was a gradual learning process, which was articulated not only through the sharing of materials – such as the kit and the score – but also through conversations that proved to be of substantial importance for the understanding and performance of the work. Thanks to these exchanges, the concept became increasingly clear to me that the preparation of the piano was, in essence, the construction of a sound source with limited possibilities of sound production, defined a priori by the composer, i.e. a closed system (exactly as in the case of Bertoncini’s Aeolian harps).<sup>20</sup> Not only this, but in *Suite “colori”* the sound result of the various preparations also has a non-formalisable nature, not controllable by the performer, who must be trained to respond actively to the stimuli of the sound material they produce by vibrating the object-instrument.<sup>21</sup> Therefore, the performer’s actions within this closed system, which has been defined by the composer in all its sound parameters, are totally alien to the practice and concept of improvisation. The performer can, if anything, define a sequence of actions within the individual movements and draw up their own performative score, with the intention of making the prepared instrument resonate in such a way as to bring out all of its timbre possibilities during the performance of the work.

During this learning process, my relationship with Mario Bertoncini’s archive – that is, with the materials preserved at his home in Cetona – had always been mediated by the composer. Bertoncini always chose which materials to show and explain to me, and he rarely left Bertolani and me free to explore the rest of the documentation kept in the house. All the materials, whether related to *Suite “colori”* or to other works, were presented and illustrated to us under his constant supervision.

The situation changed after his death on 19 January 2019, when we helped Valeska Bertoncini, Mario Bertoncini’s daughter and sole heir, in various stages of organising and arranging the archive in order to prepare it to be transferred to the institutions that would receive it. At that moment, we had access to the entirety of the preserved materials and became aware of the actual size of the collection.

After intensive examination and cataloguing work by Valeska Bertoncini, at the beginning of 2020 the composer's legacy was divided between two different archives. The Archive of the Akademie der Künste in Berlin, where part of the paper documentation of the works the composer had produced from the beginning of his career up to 1999 was already stored, took in the remaining paper documentation, thus completing its collection. The physical objects (sound objects and instrument preparation kits), on the other hand, were handed over to the Fondazione Isabella Scelsi in Rome, which started work on cataloguing the materials in 2022.

All documentation relating to Mario Bertoncini's work has therefore been preserved and is kept at two places that are committed to making it accessible to scholars and performers. In addition to the institutional archives, materials relating to Bertoncini's compositions have, over the years, become part of the private archives of musicians who have performed his works, as in my case with *Suite "colori"*, but not only.<sup>22</sup> For this reason but, above all, as historical memories and repositories of the performance practice of Bertoncini's works, the experience of the performers who worked in close contact with the composer and under his supervision on the performance of his works becomes increasingly necessary and urgent in order to bridge, clarify and transmit – to future performers and musicologists alike – the connections between the physical and paper materials preserved in the archives.

## 2. BECOMING ARCHIVE

This text has described the work undertaken by Santacesaria with Bertoncini while he was alive and cooperative. This work has similarities with that of the other performers – cited in endnote 22 – who cooperated with Bertoncini directly. Since the composer's passing in early 2019, our knowledge about Bertoncini's work underwent a major shift. His knowledge, both embodied and engraved, migrated from being centralised around his own person and started to be multicentered and dispersed among many entities. The new centres of knowledge are many and diverse: the archive at the Akademie der Künste (AdK) in Berlin, owning most of the paper-based documents; the archive of the Fondazione Isabella Scelsi (FIS) in Rome, where most of the physical objects and traces and some paper-based documentation are kept under a 10-year loan-for-use agreement; the heir of the composer, holding digital copies of documents, recordings, copyrights, memorabilia and memories; the archives of institutions that have documentation about individual performances (e.g. the Venice Biennale archive and the documentation about Bertoncini's *Spazio-Tempo*); traces left at academic institutions where he taught (e.g.: the special collections of McGill University's library and in particular

their Sonde collection); a number of individual performers and music scholars, holding small objects, physical and digital correspondence, recordings, embodied knowledge of performance techniques, copies of scores (sometimes even early versions of scores), memorabilia and memories; and his students, which hold notes, theoretical and embodied knowledge, and memories.<sup>23</sup>

This decentralisation of knowledge, in which knowledge has become communal and shared among many with no one holding all of it, did not happen overnight. One could say that Bertoncini curated this process himself, choosing his interlocutors over time and sharing with them materials, techniques, and pieces of information. Analysing this process, which is rarely done in musicology, one could identify the highly intentional, curated and relational nature of oral history and historical memory. By way of illustration, as concerns the experience of Santacesaria and myself, in our own work with Bertoncini two moments felt important. Both happened a few years after our work started. The first one was visiting the documents at the AdK in Berlin for the first time in 2011. Since Bertoncini was always very private with us about his sketches, we saw them at the archive for the very first time. Conversations with Bertoncini after these visits were very interesting since, on the one hand, he downplayed whatever we could gather from there instead of talking with him, and on the other side, he was clearly curious about what was there and wanted detailed reports of what we saw. The second occasion was during one of our many visits to his home. John Cage's *Cartridge Music* was a topic that often came up in conversation with him, be it about the centrality of this piece for music history or the centrality that playing it had in Bertoncini's own narrative. Yet, that time, Bertoncini went into his studio, reached a shelving unit with many boxes that were completely unknown to us, took one of those boxes and left it with us in the living room while saying something like: 'Maybe this will be of interest. Have a look at it while I go and make something to eat'. The box contained his working materials for the preparation of his performance of *Cartridge Music* in 1968. That was the first time (and one of the very few times) that he showed us some sketches and preparatory materials at his home. No other explanation was provided during that visit, and no conversation on it was encouraged afterwards. Within our experience, this was almost unique.<sup>24</sup> So much so that once we worked with the heir, Valeska Bertoncini, and she was sorting out the studio and preparing documents to go to AdK, it felt very unusual to have access to all those boxes of documents that had always been there but that he rarely showed us.<sup>25</sup>

This process of becoming an archive takes a long time. While the handover of the material by the heir to FIS and AdK was an important milestone, it did not complete the transfer of sources of knowledge and did not stabilise or centralise the materials yet (if ever). A lot of work needs to be done by and among those

who were lucky enough to receive some experiential and practical knowledge, so that this privilege can be widely shared with anyone interested. This knowledge should complement all the material traces now stored in archives and ensure that performers who will come to these pieces, even decades from now, will be put in the best possible conditions to express themselves and Bertoncini's works.

Once again and quite obviously, this labour of sharing knowledge is not unique to the case of Bertoncini. Indeed, music scholars have consistently been engaged with the responsibilities of preservation. It is difficult to think of any archival collection that has not been supported by the labour of many music scholars.<sup>26</sup> Yet, this labour is rarely thematised in musicological discussion and no methodological discussion is provided to support these practices with awareness. Very few scholarly works take into account and theorise the change in status that occurs when documents cease to be in the hands of those who produced them and it becomes possible to use them without the curations and conditions that those creators would have put.<sup>27</sup> And yet, what happens in this in-between space is rich in consequences. The problems of classification and critical understanding of material sources carried out at the archival level heavily affect future musicological works. This is particularly true in cases like Bertoncini's, in which materials clash with traditional disciplinary concepts and categories. How can musicology claim an official role and develop specific practices to support this transition? Once again, it is useful to look at others to understand what direction to take in seeking to classify Bertoncini's materials.

Possibly one of the most useful examples to help us reflect on the role that musicologists can play in this phase of archival decision-making comes from the work by scholar You Nakai on David Tudor. First of all, there are physical similarities between the two collections. Tudor's and Bertoncini's documents alike are both scattered across institutions, unique in their typologies and yet abundant in quantity.<sup>28</sup> Notwithstanding this abundance, Nakai identifies a lack of scholarship on Tudor which he attributes to four categories of problems: 1) the problem of diversity: Tudor's constant change of focus and interests; 2) the problem of concept: usual categories of musical discourse are inadequate to address Tudor's music; 3) the problem of text: meaning a lack of both traditional theoretical writings and scores created by Tudor; 4) and the problem of literacy: musicologists are generally not trained to engage with technical documents such as schematics.<sup>29</sup> Anyone who studies Bertoncini's work would find these four categories of problems very familiar. What is becoming more and more apparent, as the Bertoncini estate transitions from the material formerly housed by its creator and settles into its archival form, is that these categories of problems not only transcend the musicological debate; indeed, they are exacerbated when considered as archival problems.

Let's take for example problems 2) and 3), i.e. the problem of concept and the problem of text. Concerning the problem of concept, Nakai notes that Tudor's activities 'were difficult to categorize using the traditional polarities used to conceptualise music: "composer/performer", "score/instrument", [...]. Rather than orienting the researcher, these concepts often lead the researcher astray, lost in the details without being able to coordinate the fragments'.<sup>30</sup> Concerning the problem of text, Nakai notes that 'in addition to the lack of concept, there was an absence of authorial texts, the material that scholars depend on when traditional concepts fail. What could be studied instead of these "musical texts" were instruments and documents related to instruments that could not be read in the same way as letters on a page'.<sup>31</sup> These descriptions about the problems faced by a Tudor scholar are eerily similar to those faced by a Bertoncini scholar. While (mostly) Italian and German musicologists have debated these issues at length so far, we are still lacking a series of key musicological contributions regarding Bertoncini's claim that his objects are scores, and more generally about the relationship between the traditional dichotomy 'score/instrument' within Bertoncini's work. Obviously, this is just a common problem within musicological scholarship, which has its own pace like any other academic discipline. However, from the perspective of immediate archival needs, this is now a huge practical issue. There are questions that we do not have answers for yet, such as: What kind of series and sub-series should be created in Bertoncini's collection? Do we have enough scores to justify a traditional 'score' series, as is customary in composers' archives? How do we classify objects, as scores, instruments, or else? Are preparations (small wedges such as those used in the *Giallo cadmio* movement of *Suite "colori"*) to be classified in the same way as bigger objects (such as the vertical harp used in *Azzurro manganese*)? What if the two major archives holding scores, sketches and objects by Bertoncini apply a completely different approach in their classifications of materials? It is normal to not have these answers yet. As already noted, like any transition, the process of becoming archive is longer than expected and not easy. Yet, it is also rich with possibilities, and new starting points, and cues for brand new musicological and interdisciplinary investigations. And, while at the moment part of the Bertoncini collection is held at the FIS on a temporary basis through a commodate agreement, which limits the scope of practical interventions that can be undertaken, the theoretical work to deal with this collection's challenges is well underway. For example, as part of the project ARPOEXMUS funded through a Marie Skłodowska-Curie Fellowship and together with the staff members at the Fondazione Isabella Scelsi (in particular in collaboration with archivist Lucia Petese) there are discussions on how to solve these issues in ways that will best serve scholars, performers, and Bertoncini's aesthetics and this interdisciplinary

approach is full of possibilities for further research.<sup>32</sup>

With this article and with our current and future work we aim to contribute to this conversation, committed to understand archival formations as communal and shared responsibilities.

## Notes

- 1 The introduction and section 1 ('Suite "colori" as a case study: why?') are by Luisa Santacesaria; section 2 ('Becoming archive') is by Valentina Bertolani. The latter has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 101030595.
- 2 For a complete list of Mario Bertoncini's compositions, with author's notes and images, as well as more information on his biography, bibliography and discography, see the website 'Mario Bertoncini / Composer, Pianist, Writer', <http://www.mariobertoncini.com> [accessed on 21 April 2022].
- 3 Bertoncini's works for prepared instruments are mainly for piano, but we also have the case of *Elementi di forma* (2000–2001), for prepared cello and digital manipulation. See Ingrid Pustijanac, 'Dal gesto informale verso gli Elementi di forma', in: *La bottega del suono. Maestri e allievi*, ed. by Chiara Mallozzi and Daniela Tortora, Napoli: Editoriale Scientifica, 2017, pp. 199–216.
- 4 See this definition on <http://www.mariobertoncini.com/biography.html> [accessed on 21 April 2022]. Some examples of compositions using custom-built objects are *Vele* (1973–1974) and *Chanson pour instruments à vent* (1974), but Bertoncini has built many more objects over time.
- 5 For a description of *Suite "colori"* see Pietro Cavallotti, 'Das Klavier als universeller Klangkörper. Suite '99 "colori" von Mario Bertoncini', in: *Jahrbuch des Staatlichen Instituts für Musikforschung* 2012, hrsg. von Simone Hohmaier, Mainz: Schott, 2012, pp. 77–94.
- 6 'Ciascuno di essi [è] contrassegnato da un colore scelto arbitrariamente, per analogia "non-funzionale" (I: *Rosso scuro*; II: *Verdazzurro*; III: *Blu*; IV: *Giallo cadmio*; V: *Verde scuro*) ed è basato su procedimenti volti ad ottenere suoni continui sul pianoforte – quasi prodotti da strumenti ad arco –, che l'autore ha trovato e dimostrato spesso in pubblico a partire dai primi anni sessanta. Inoltre, l'ormai classico "prepared piano" di J. Cage accompagna contrappuntisticamente lo svolgersi dei cinque movimenti'. Mario Bertoncini on *Suite "colori"*, <http://www.mariobertoncini.com/opere/suiteIT.html> [accessed on 21 April 2022].
- 7 'I "suoni fondamentali" di cui il lavoro si giova corrispondono alle note iniziali delle quindici sonate scarlattiane incluse nella prima parte del programma' (Mario Bertoncini on *Suite "colori"*). Bertoncini does not envisage *Suite "colori"* simply as a stand-alone piece, but right from its conception wants to create a link with Domenico Scarlatti. The preparations of *Suite "colori"*, in fact, can be removed in a few minutes – during the intermission between the first and second part of the concert, thus making it possible to perform additional pieces on the same instrument.
- 8 'Il lettore non si allarmi: tali suoni sono alterati e generano spettri di "armoniche superiori ed inferiori" non offensivi per l'orecchio d'un ascoltatore contemporaneo'. Mario Bertoncini on *Suite "colori"*.
- 9 Right from the start Bertoncini advised me to use two different types of rosin, depending on the use: powdered for the hands, solid for the lines and nylon strings.



- 10 The first movement of *Suite “colori”*, as well as the second and third, have the resonance pedal permanently lowered to allow the piano strings, as well as the lines and nylon strings, to vibrate permanently. In order to keep the pedal permanently depressed, Bertoncini provided me with a piece of wood to block the pedal, which I had replicated when I returned home, creating one that was adaptable to the size of my grand piano.
- 11 A documentation of these very first attempts can be found in Mini-DV cassette No. 3, used with Bertolani to film the first days spent with Bertoncini in Cetona in July 2009.
- 12 All images from the score of *Suite “colori”* are published with permission from Valeska Bertoncini.
- 13 In the work of arranging and organising the Bertoncini fund carried out in Cetona by Valeska Bertoncini during 2019 in view of the transfer of the materials to the archives, a catalogue of gongs from the Wagner company emerged. The catalogue shows gongs that are generally used in the internal mechanics of clocks, and features photos of specimens with different shapes and sizes. Over time, Bertoncini purchased from Wagner several gongs for use in his own works. The catalogue and correspondence between Bertoncini and the Wagner production company are preserved in the archives of the Akademie der Künste in Berlin.
- 14 After the first model of gong, Bertoncini gave me, probably in 2015, another lighter and more manageable model in view of another concert of mine.
- 15 ‘[...] fu mia cura quella di rendere *Suite* compatibile con altri pezzi in uno stesso programma, non soltanto riguardo agli invasivi sistemi di fili ma anche riguardo ad altre preparazioni – parlo di quelle di tipo cageano. A tal fine disegnai e feci tornire piccoli cunei conici in ottone dotati di una scanalatura atta a fissare dolcemente l’oggetto tra due corde contigue, in modo che l’adattamento, la rimozione e soprattutto lo spostamento della preparazione lungo la corda (al fine di fissare l’oggetto sui vari punti nodali), non costituissero alcun trauma per le corde e potessero avvenire istantaneamente’. Mario Bertoncini, ‘... Altre cose... Dialogo decimo in quattro giornate’, in: *Ragionamenti musicali in forma di dialogo: X e XII*, Roma: Aracne, 2013, p. 170.
- 16 The DC motor can also be found in Bertoncini’s earlier works, such as *Scratch-a-matic*, *An American Dream* and *Il Cimitero degli Elefanti*.
- 17 As for the third movement, the score sheet only indicates the tuning of the upright harp – i.e. to which piano strings the nylon strings are to be attached – but does not give instructions on the construction of the upright harp.
- 18 Something similar happens in *Spazio-Tempo* (1970), another work by Bertoncini. See Valentina Bertolani, *Improvising New Consonance: Following the Subterranean Connections between North American and Italian Avant-Garde Collectives (1963–1976)*, PhD diss. University of Calgary, 2018, pp. 215–225, <https://prism.ucalgary.ca/handle/1880/107006> [accessed on 30 April 2022], and Valentina Bertolani, ‘No Score, Hundreds of Sketches: Mario Bertoncini’s Spazio-Tempo’, *TCPM 2015: Analyser les processus de création musicale / Tracking the Creative Process in Music*, <http://medias.ircam.fr/xf0e3a4> [accessed on 30 April 2022].
- 19 These speeches are contained in cassette no. 1, from 14:05, where Bertoncini explains, talking about the *Rosso scuro* sheet, that ‘This is a page relating to the first colour, i.e. *Rosso scuro*, and this non-score score bears in bits and pieces some indications not only of gesture but also of seconds: that is, a certain determination and some pitches that refer to the fundamentals of the string engaged at that moment’.
- 20 I proposed publicly this idea for the first time in April 2018 at the Fondazione Morra in Naples – on the occasion of the presentation of the book edited by Mallozzi and Tortora, *La bottega del suono* – and Bertoncini agreed with it.
- 21 This principle of ‘action-reaction’ can also be found in Bertoncini’s more complex works,

- which involve more than one performer (as, for example, *Spazio-Tempo*, 1967–1970), and probably takes its cue from Bertoncini’s experience in the Gruppo di Improvvisazione Nuova Consonanza. See Valentina Bertolani, ‘Improvisatory Exercises as Analytical Tool: The Group Dynamics of the Gruppo di Improvvisazione Nuova Consonanza’, *Music Theory Online*, 25/1, 2019, doi:10.30535/mto.25.1.1 [accessed on 30 April 2022]. In the case of pieces involving a single performer, the reaction is not to the stimulus of another performer but to that of the – informal – material produced by the object/instrument.
- 22 Among the performers who worked with Bertoncini are Francesco Dillon, Reinhold Friedl, Michela Mollia, Ulrich Maiß, Ulrich Krieger, Yung-Kyung Lee, Giorgio Nottoli, Luisa Santacesaria, Angelina Yershova and Zaum\_percussion (Simone Beneventi, Carlota Cáceres, Lorenzo Colombo). Also, Bertoncini worked and shared his techniques with some of his students, such as the members of the Canadian collective Sonde (e.g. Charles De Mestral, Pierre Dostie, Andrew Culver, among others). Beyond historical performers, other actors hold shareable knowledge. Simone Pappalardo closely worked with Bertoncini on his Aeolian harps, and at the moment holds a rich collection of materials for Aeolian harps and circular Aeolian harps to rebuild.
  - 23 This dispersed situation is not at all unusual. You Nakai described it in detail for what concerns David Tudor, see Valentina Bertolani, You Nakai, Luisa Santacesaria, ‘What Does Musicology Have to Do With Archiving? Three Experiences of Engagement’, *Intersections*, 40/1, 2020, pp. 111–128 (published in 2023).
  - 24 Once again, while not extensively thematised within the discipline, this experience is not unique to the study of Bertoncini’s work. For example, musicologist Alice Miller Cotter gave an extensive account of a similar experience while studying John Adams at the Annual Meeting of the American Musicological Society in November 2021, during a panel titled ‘Better Off Dead? Challenges in Researching Living Composers’ and facilitated by William Robin, Alice Miller Cotter, Alejandro L. Madrid, Cecilia Livingston and Ana Alonso-Minutti.
  - 25 Again, this act of curating knowledge for and with his interlocutor was not unique to Bertoncini. Indeed Joseph Auner for example describes the case of Arnold Schönberg and his carefully curated way of disseminating his sketches, preparatory works and documents during his life. See Joseph Auner, ‘Composing on Stage: Schönberg and the Creative Process as Public Performance’, *19th-Century Music*, 29/1, 2005, pp. 64–93.
  - 26 Among the many scholars that would have amazing accounts to tell here we would like to mention You Nakai, Angela Ida De Benedictis, Laura Zattra, Maurizio Farina, the stories told at the AMS panel ‘Better off Dead?’ by William Robin, Alice Miller Cotter, Alejandro L. Madrid, Cecilia Livingston and Ana Alonso-Minutti, but also the work done by Eileen Southern, Mark V. Campbell, and many more.
  - 27 See for example this critical account on how Conlon Nancarrow is currently archived: Jeffrey Arlo Brown, ‘Buried: On the Paul Sacher Stiftung’, *VAN Magazine*, 15 September 2016, <https://van-magazine.com/mag/paul-sacher-stiftung> [accessed on 2 May 2022]; see also the work of Mark Anthony Neal, who thematises the importance of curation and respect of curated knowledge when in relation to archives of Black musical culture: Mark Anthony Neal, *Black Ephemerata: The Crisis and Challenge of the Musical Archive* (New York: New York University Press, 2022); another interesting case is presented in Susana Sardo, ‘Institutionalising and materialising music through sound sources: The case of Bruce Bastin’s fado collection in Portugal’, in *Historical Sources of Ethnomusicology in Contemporary Debate*, ed. by Susanne Ziegler, Ingrid Åkesson, Gerda Lechleitner and Susana Sardo, Newcastle-upon-Tyne: Cambridge Scholars Publishing, 2017, pp. 21–33.
  - 28 Cf. You Nakai, *Reminded by the Instruments: David Tudor’s Music*, New York: Oxford University Press, 2021, p. 8. For Bertoncini’s abundance of documents I can report that when working on

his theatrical piece *Spazio-Tempo* (1970), I had access to more than 600 pieces of paper related to it, divided in more than 25 folders.

- 29 Nakai, *Reminded by the Instruments*, pp. 9–10.
- 30 Nakai, *Reminded by the Instruments*, p. 9.
- 31 Nakai, *Reminded by the Instruments*, p. 9.
- 32 Initial results of this research have been presented by myself, in collaboration with Lucia Petese, in September 2022 at the conference on Mario Bertoncini organised by the Fondazione Isabella Scelsi for the 90th anniversary of Bertoncini’s birth. An article on the topic is in preparation.