The Digital Project of the RAI Archive: Catalogue, Chronology and Study of the Italian Broadcasting Orchestra

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ABSTRACT

The RAI music archive, located at the “A. Toscanini” Auditorium of Turin (Italy), contains five different types of documents: a valuable collection of rare, autographed manuscripts (letters and scores); printed music of symphonic and entertainment repertoire; a historical collection of opera librettos; an enormous corpus of arrangements for radiophonic orchestras; and the collection of concert programmes from the nineteen-fifties to the present. All of this material, practically unknown to the musicological community, was catalogued according to internationally adopted standards and has been the subject of a partial digitization. The collected information is now accessible on line (www.osn.teche.rai.it), thanks to the digital intervention of Rai Teche experts. The on line publication of the catalogued records made possible studies in various fields: the philological analysis and historical contextualization of the manuscripts preserved in the “Autographs and Rare Manuscripts” fund; a research on the repertoire of the arrangements for radiophonic orchestras; a complete history of Rai concerts performed in Turin; a series of studies about the activities of the RAI orchestras. The project, funded by MIUR (Ministero dell’Istruzione, dell’Università e della Ricerca) was completed between 2012 and 2016.

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Introduction

The RAI¹ National Symphony Orchestra’s Music Archive, located in the RAI Auditorium “Arturo Toscanini” in Turin (Italy), holds a wealth of musical and music-related documents. The most valuable section is called “Autographs and Rare Manuscripts”: 152 documents, including letters, scores, engravings and daguerreotypes, which make up an important body of material of historical-philological interest. Included among them are eight letters by Giuseppe Verdi, Johann Sebastian Bach’s final letter written in 1749, a letter by Richard Wagner, the autographed manuscript of Fünf ungarische Volkslieder by Liszt, the autographed score of Conchita by Riccardo Zandonai, and two unknown and reworked versions of Bach and Vivaldi by Ottorino Respighi. There are around
45,000 arrangements for radio and television orchestras (including collections relating to Orchestra B, entertainment orchestras and theme tunes), allowing access to a repertoire which, even today, remains almost unknown to the scholarly community because the sources were untraceable. The series of folders of opera librettos, approximately 2000 of them, contains many rare documents which in some cases date back to the 18th century. Of particular musicological interest is the “Carafa di Maddaloni” collection which contains valuable manuscript scores from the operatic repertoire of the 18th century, and, in particular, the work of Giovanni Paisiello. The collection of programmes (approximately 5000), preserved almost in its entirety since 1947, is useful in reconstructing a timeline of scheduled concerts (particularly in Turin) during the 20th century. All these documents came from different branches of Rai following the foundation of the Rai National Symphony Orchestra in Turin. During that year, 1994, all archived material on musical production from the various branches were brought together in the “A. Toscanini” Auditorium in Turin.

**Bibliographic access**

Between 2012 and 2016 a research group, coordinated by the writer of this paper and financed by MIUR (Ministry of Education, Universities and Research) as part of a FIRB (Future in Research) plan, worked on this collection of documents. Before then no one had had the opportunity to fully analyse the material, which still remains inaccessible to the public. This is evidenced in the low bibliographic output. In the collection of manuscripts and rare documents, there is just one publication, by Alberto Basso in 1962, which aims to describe the 85 bibliographic items which were in the Rai Auditorium in Turin at that time; a task which, as affirmed by Basso in the forward, was just a starting point for further research, and contains historical gaps. Over the years the Rai Archive has also been supplemented by 67 other documents that the scholarly community was unaware of. The only other bibliographic contribution before 2012 was in the first volume of *Le Fonti Musicali in Piemonte (Musical Sources in Piemonte)* by Annarita Colturato: this article made it possible to estimate the number of manuscripts, scores and texts for music preserved in the Auditorium up to 2006, highlighting the need to catalogue such a wealth of assets for academic use. There were no specific publications about the production of arrangements that the national radio company encouraged around the middle of the 1900s, because it was very difficult to reconstruct with appropriate sources the main stages of the genre. There were some mentions of various symphonic rhythm-orchestras in the volume produced by the Rai on its own history and in Adriano Mazzoletti’s monograph on jazz in Italy, but both publications only marginally address the issue as they focus on other themes. In terms of the chronology of concerts performed in Turin, there was one useful bibliographic precedent: the volume published by the Rai for the 50th anniversary of the
Orchestra of Turin. About the concerts performed from 1983, however, there are no paper or digital records available to academics. In Rai Teche’s Multimedia Catalogue there was a partial inventory of the documents preserved in the archive: the database is not compiled in accordance with international cataloguing standards, but it is a quick consultation tool designed to meet the practical needs of Rai personnel.

Before this project there was no comparable chronological database of broadcasting orchestras in Europe, with the exception of the BBC PROMS performance archive (https://www.bbc.co.uk/programmes/articles/3SsklRvCSPvfHr13wgz6HCJ/proms-performance-archive), which can be explored from its origins (1895) to date. Although lacking a quick search feature, the latter may be considered an example of archiving, both for its visibility on the company’s digital broadcasting platforms, and for the effective integration with iconographic historical material. The tool allows users to research the history of the orchestra, but it does not have a search engine to conduct complex queries: users can only browse the seasons by filtering by composer, artist and orchestra name from the start to the present day. There is no trace, however, on any of these sites, of the sheet music or historical scores preserved in the radio and television company’s archive.

**Objectives**

The project had a number of key objectives.

- Cataloguing the historical collections from the archives, and selecting material of major interest to reconstruct the company’s production and artistic events. The selection aims to show academics and audiences the role the national radio company played in disseminating the classical repertoire to Italian listeners.
- Producing a complete timeline of concerts performed by the Rai Orchestra of Turin (in-house and in other venues) from 1933 to the present day. The operation aims to reconstruct the complete history of a symphony orchestra launched at the very beginning of radio, with a database that is of fundamental importance for research and statistics on the dissemination and reception of classical music in Italy.
- Publishing a number of studies on the assets which are almost unknown to the scholarly community, processing mostly unknown bibliographic items. Creating new musicological and historical interest in repertoires and other sources which were unknown to date.
- Developing an accessible online portal, available from August 2016 at: www.osn.teche.rai.it. Staff members worked on the portal alongside personnel from Rai Teche, following the same template as Radiocorriere and Approdo letterario. The project involved the Department of Humanistic
Studies at the University of Turin in partnership with the Rai National Symphony Orchestra (who linked the portal to the Historical Archive section of their website www.orchestrasinfonica.rai.it) and Rai Teche.

**Project methodology and delivery**

The first phase of the project was designing the musical cataloguing software which was planned around the nature of the documents in the archive. A few months later, with support from Flavia IngROSSo, under the supervision of Annarita Colturato, the architecture was built to meet both the ICCU (Central Institute for the Union Catalogue) cataloguing standards and the requirements of the RAI. The main bibliographic reference for printed music was the *International Standard Bibliographic Description for Printed Music* edited by the International Federation of Library Associations and Institutions (IFLA), and includes as first elements the Title proper and the Statement of responsibility as they appear on the title page. As far as music manuscripts are concerned, up to today they are not regulated by international standards and Italian rules, except for the points in common with the bibliographic description of printed resources, prescribe how to treat the elements which distinguish them from publications. The research group has found the cataloguing activity of manuscript documents on the fundamental works edited by Massimo Gentili-Tedeschi. RAI staff requested some corrections to the standards quoted above about the abbreviations of musical instruments: for example pf, vl, vlc were changed to pianoforte, violino and violoncello.

The software runs in web mode on a postgressSQL database on a server provided by Rai Teche IT services: it is multi-user and interfaces with the Rai Teche Multimedia Catalogue; every record can be linked to a multimedia file; and it can be scaled according to the specific demands of each individual project. Thanks to Flavia Ingrosso, Filippo Arri and Silvia Caratti, the cataloguing process has created approximately 11,000 bibliographic units selected by the research group on the basis of their specific historical-musicological interest. The work on the “Autographs and Rare Manuscripts” collection was particularly nuanced. The material was conserved in a way which would not conform to modern techniques for safeguarding historical archives. In partnership with RAI staff (in particular the office coordinated by Paolo Robotti) the research group reorganised, analysed, digitised and catalogued every single bibliographic item, making sixty-seven previously unknown documents available to the scholarly community. This phase of the study required collaboration with various international institutions: Cambridge University for the Online Chopin Variorum Edition, the Universitat Leipzig for the Felix Mendelssohn Briefausgabe, the Istituto Nazionale di Studi Verdi of Parma and the Fondazione “Bellini” of Catania. In 2013, during the celebrations for Verdi year, the autographs in the archive were displayed in two exhibitions curated by the research group: one in the foyer of the “A. Toscanini” Auditorium (Figure 1) and a large exhibition under the
High Patronage of the President of the Republic at the Vittoriano in Roma, entitled “Giuseppe Verdi: Music, Culture and National Identity”.

The collection of programmes was used to reconstruct a full timeline of concerts performed by the RAI Orchestra of Turin and later, the National Symphonic. All the documents found were used to create a discrete database, organised by the following fields: date of the event and the repeat performance, venue, name of the orchestra, conductor, choir, conductor of the choir, soloists and composers, titles of the works, author of the programme notes and author of the translated lyrics. All the rediscovered programmes were digitised (approximately 5000 documents) and made editable with modern OCR conversion software. This enables users to quickly search all the concerts for which the group was able to find information (even pre-existing partial timelines and documents provided by the artistic director’s office): dates range from 6 January 1933, when Ottorino Respighi was the conductor at the Turin Theatre, to recent events in 2016. For periods not covered by the programmes, staff had to refer to issues of Radiocorriere, a RAI volume from 1983 dedicated to the first 80 years of the Turin orchestra, documentation conserved in the offices of the artistic director, and radio technical schedules. The result is a database of around 5000 records which allows access not only to the metadata relating to the concerts, but also the programmes.

**Research outcomes**

Thanks to the volume of information in the database, a monograph of historical-musicological interest has been created, dedicated to the RAI’s cultural policy as expressed through its symphonic programming. The individual papers were written by prominent academics and young musicologists involved in the project research. The subjects chosen were all useful in reconstructing the history of the RAI in terms of its symphonic orchestras: Federica di Gasbarro

![Figure 1. Exhibition of Verdi’s letters (Auditorium RAI, Turin, November 2013).](image-url)
and Angela Ida De Benedictis looked after new music on the radio, from the beginning to the present day; Paolo Gallarati was interested in the figure of Massimo Mila who frequently wrote texts which have been conserved in the RAI’s historical archive; Cesare Fertonani shone light on the considerable work undertaken by the broadcaster in Vivaldi revival during the 20th century, also working on unknown material found in the “A. Toscanini” Auditorium archive; Daniele Spini investigated the practice of rhythmic versions; Maurizio Corbella tackled the theme of music for film in the institution’s regular and occasional programming; Filippo Arri threw light on the war period, uncovering unknown material which proved useful in reconstructing a timeline which had been missing up to that point; Marco Targa examined the strong links between the EIAR (Rai denomination until 1944) and the composers of the “Giovane Scuola”; and Carlo Lo Presti reconstructed the work of a number of historical directors, focusing particularly on the work of Alfredo Casella, Giorgio Federico Ghedini and Ernest Bloch.

Another important outcome of the project was an in-depth study on the production of RAI arrangements, the first to be carried out directly on scores. The work began in March 2012 with a first survey of all the folders in the archive; this phase of the study, to get a reasonable overview of the material present, was rather laborious. Examination of the scores (mainly manuscripts) highlighted some particularly interesting lines of research. The “German repertoire” collection (Figure 2) was catalogued first (412 items), reconstructing an obscure period in the company’s history: between 1943 and 1945 the Nazis took over EIAR (as the company was known as during the war), put their men at the head of the various managerial teams, and controlled the daily programming of music scheduling. But there is no trace of these months in the official press services because publication of “Radiocorriere” ceased between 19 September 1943 and 3 November 1945. This gap meant that academics were never able to fully analyse the artistic choices of the period; but the discovery of this collection shed light on

![Figure 2. Nazi stamp on printed score of the RAI’s “German repertoire” collection.](image)
some completely unknown aspects. The names emerged of some arrangers sent directly by the Reich (in particular Richard Etlinger) to drive forward a radio project called “Soldatensender Italien”. Suddenly it was possible to make historical and cultural evaluations of favourite authors and genres: a scene dominated by representatives of what Goebbels called “Steel Romanticism.”  

(Karl Pauspertl, Emil Juel-Frederiksen, Werner Bochmann, and Fritz Rockmann), by Germanised versions of Neapolitan songs (Torna a Surriento became Erinnerung an Sorrent, Mattinata was translated as Morgenständchen and reworked with Austro-German language), by pieces inspired by Japanese folklore in clear homage to the political alliance signed in 1940, and Viennese waltzes reworked with the language of Italian opera. All these thematic threads demonstrate the artistic choices made by the Reich in a radio station that was making one final, desperate effort to unite Italians and Germans.

Also surprising was the discovery of a substantial quantity of documents about Orchestra B, an orchestra which was unknown to academics, but which in fact made a strong mark on the radio company’s programming for 20 years (1932–1952). A large part of the symphonic repertoire arranged by the broadcaster (approximately 20,000 documents) is credited to this orchestra, demonstrating a vocation to reconciling classical music and music for dancing. In the “A. Toscanini” Auditorium archive, a lot of folk-inspired material emerged (approximately 200 arrangements). This is not surprising: the dates run from 1930 to 1944, namely the period when Fascism, and the Ministry of Popular Culture in particular, exerted maximum control through the mass communication channels; and the dominant power of that period had chosen the popular to forge “that new type of Italian, strong, determined and active, that no one up until yesterday had known or even dared imagine, who is now, consciously and with dignity, taking his place in the world to which he is entitled.”  

Research on this corpus, however, helped clarify the role of the National Recreational Club (Opera Nazionale Dopolavoro) in disseminating music designed to forge “the unitary spirit of the homeland”; and the considerable documentation produced by EIAR is useful in analysing an important juncture in Italian national history, providing academics with the material that ethnomusicologists have been demanding for many years.

The final aspect the research group focused on is two illustrious names from the RAI between the 1950s and 1960s: Ennio Morricone and Bruno Maderna, two different characters who nonetheless made a significant contribution to the history of radio arrangement. Morricone continually looked for new timbre solutions, honing one of his best talents: making sound the character, action and scenography, beginning to cultivate the language that would characterise cinematographic production over the following years. Maderna, on the other hand, in his songs exploited all the solutions he acquired at the Studio of Phonology and in a cultured environment: some of the processes he experimented with in his arrangements go back to the works of the 1960s, marking a curious meeting.
point between parallel worlds. These two concurrent productions, in close proximity to one other, helped delineate the two faces of the RAI after the war: focused on entertainment, but also playing a very culturally valuable educational role.

A particular paper finally was published in the journal Studi Verdiani about the collection of Verdi manuscripts which was awarded a prize by MIBACT (Italian Ministry of Culture and Tourism) in 2017 for its strong cultural value. In addition, a number of articles were written discussing the project generally or specific themes which were studied using materials from the RAI archive.

**The new website**

The portal [www.osn.teche.rai.it](http://www.osn.teche.rai.it) is the end result of the research undertaken over the course of the four-year period. All sections of the site were designed by a group of IT experts who created solid links between the metadata and the digitised material provided by the research group. All parts of the site have been tested for accessibility on various devices currently utilised by web users (PC, Mac, smartphone, tablet).

The homepage of the website offers a simple introduction enabling users to quickly understand what content is stored in the RAI Symphony Orchestra’s historical archive; and therefore what information can be accessed through the site. Underneath the text there is a search box which allows users to quickly find indexed content on the site. Users can search the timeline in two different ways: by browsing the individual seasons as if they were pages in a directory (“Seasons” section) or by performing an advanced search (“Concerts Search” section). In the first instance (second section on the menu), users see a series of miniature images of the concert programme for the inaugural concert, complete with a date label; after which they can continue browsing the individual events in the season selected (Figure 3).

The second way to search (Figure 4) is by using the search engine which enables users to perform specific queries on the metadata stored in the database. Searchable fields are: date, concert identifier (a serial number assigned to every record), composition, composer, venue, orchestra, choir, conductor, soloist, author of the programme notes, author of the translation (where the published programme required translation). The profiles returned in the search have a button allowing users to view the programme. Searches cover the Turin Symphony Orchestra and the National Symphony Orchestra in Italy and abroad (in the most popular venues), but the database is continually updated. Adding new metadata is simple thanks to an authority file which immediately links to the main functions in the database.

The section of the site dedicated to the catalogue of scores preserved in the “A. Toscanini” RAI Auditorium can be searched using the search engine (Figure 5).
The need to find a compromise between ICCU cataloguing standards and the requirements of the RAI management (concerning the use of abbreviations and the necessary interface with the Teche Multimedia Catalogue) means the database is not directly linked to the Sistema Bibliotecario Nazionale (www.sbn.it). The fields selected for the portal and their corresponding labels do however conform to standard methodologies for online catalogues.

**Figure 3.** How to browse the timeline by season.

**Figure 4.** How to browse the timeline using the search engine.
In the section entitled “Autographs and Rare Manuscripts” there is an interface with eight different categories: letters, music manuscripts, printed music, iconography, monographs, opera librettos, other documents, dedications. Every element is identified by a specific profile which includes metadata using the most recent cataloguing and archiving methodologies, a preview of the document, and two buttons which link to the digitisation and transcription (in the case of letters) of the bibliographic unit. Similar profiles can be viewed in the section “Carafa di Maddaloni”, made up of scores and arrangements of works created by Neapolitan copyists between the end of the 18th century and the beginning of the 19th century.

The dissemination of the new website was carried out through papers and conferences, 18 articles on specialised journals, 19 activities on social media, participation in radio and TV broadcasts (Radio 3, Radio della Svizzera Italiana), general press, 20 television programs (RAI 5), seminars conducted by university students in collaboration with RAI staff and Orchestra musicians.

Future outlook

The portal designed by the research group is part of an ambitious project which RAI Teche staff are working on to promote archived material. Over the next few years, the plan is to create an interface between the concert profiles and the wealth of audiovisual documents in the Multimedia Catalogue. The aim is to build a music portal which links the records of individual live events to all the archived material related to that particular event: in addition to the programmes
(which have already been digitised, including the work of the RAI Orchestras in Rome, Milan and Naples), there will be radio recordings, television repeats (where available), iconographic documentation and publicity material produced for the concert (in Radiocorriere and Approdo musicale). A test phase has also been launched, thanks to a university intern from the DAMS (Drama, Art and Music Studies) degree course at the University of Turin, to check the expertise required to create all the necessary links between the various databases. Further research work is planned to complete the timeline for the RAI orchestras in Rome, Milan and Naples: (due to gaps in the collection) digitising the programmes has not provided sufficient information to develop a complete chronology of all the symphony orchestras founded by the RAI over the course of the 20th century.

The project described here aims to offer the musicological community a number of research options. The digital catalogue will undoubtedly become a point of reference for academics interested in deepening their radio repertoire. The thoroughness of the database, whose architecture is based on standards adopted at an international level, provides an enormous amount of information for researchers. Free access to this wealth of metadata and to the full digitisation of historic collections will help safeguard this valuable material of great interest for studies in philology and music history, radio and the art of arrangement. The majority of the composers who contributed to the scores preserved in the RAI Archive are unknown to academics; but actually they have played a fundamental role in developing an aesthetic taste which we often lose trace of today. Studying their professional journeys, and particularly their music which has been lost in the ethereal space of radio, will allow us to rebuild an historical-artistic framework which will take shape beyond the RAI archives. In addition to the specific contributions detailed in this project, further interest from other academics who can take advantage of complete and reliable consultation tools would be welcome. Extending the project to other European countries should be considered, given the similar work underway in international radio orchestras. Research group made contact with the staff of historical European broadcasters (BBC, Radio France, WDR) aiming at establishing specific collaborations concerning the history of their respective orchestras: comparative studies, statistical comparisons, parallels on the history of musical reception in the various European countries.

Notes

1. RAI is the acronym of the Italian Broadcasting Company (National Tv and Radio).


8. For the manuscripts we referred to: Istituto Centrale per il Catalogo Unico delle biblioteche italiane e per le informazioni bibliografiche, Massimo Gentili-Tedeschi (ed.), *Guida a una descrizione catalografica uniforme dei manoscritti musicali* (Roma: ICCU, 1984); Massimo Gentili-Tedeschi (ed.), “I manoscritti musicali,” in *Guida a una descrizione uniforme dei manoscritti e al loro censimento*, ed. Viviana Jemolo and Mirella Morelli (Roma: ICCU, 1990), 103–42; Istituto Centrale per il Catalogo Unico delle biblioteche italiane e per le informazioni bibliografiche, *Guida a SBN Musica. Manoscritti* (Roma: ICCU, 1997).


16. Details of the main contributions published during or after the FIRB project on the Rai Orchestra’s historical archive:


18. The website was presented (July 2016) in Rome during the annual meeting of the IAML (International Association of Music Libraries, Archives, and Documentation Centres). The research group also planned some dissemination activities (seminars, conferences) with some Italian musical associations (Amici dell'Orchestra Rai in Turin, Festival della Canzone Italiana in Sanremo, NoMUS in Milan).


Disclosure statement

No potential conflict of interest was reported by the author.

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