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## 'Musico Napolitano'—An online biographical index of music professions in Naples

OR centuries, the city of Naples was a meet- $\Gamma$  ing point for musicians from different parts of Italy and Europe. Particularly during the two centuries of Spanish, and subsequent Austrian, domination, from the early 16th to the early 18th centuries, the intense circulation of music and musicians gave rise to the reputation of Naples as an important musical centre. Neapolitan musical life revolved around both the theatre and the sacred music cultivated and practised in many churches, monasteries and congregations. Neapolitan musical spectacles, both sacred and secular, were characterized by a complex succession of events that constituted a great employment opportunity for both foreign musicians and local artists.

This extensive musical activity is testified today by the huge quantity of surviving primary sources. However, tiny scraps of information are scattered among different types of documents; sometimes there are complete memoirs; other times just a payroll entry that cites a name being remunerated for some service. It is almost impossible to get a larger picture of the musical activity in Naples by tracing the occupations and movements of single musicians, given the large quantity of data that needs to be processed by scholars. Studies which do take this approach investigate primarily the most important musicians. It is difficult to take into account the details of all those who constituted the musical world at the time: the musical world is complex, populated not only by famous composers, but also by musicians, copyists, instrumentmakers, impresarios, librettists and many others.

How is it possible to coordinate all the pieces of this scattered puzzle, in an effort to reconstruct the relations between people, their roles and the city, and how can these data be presented in a meaningful and usable way?

The online database 'Musico Napolitano' was created to solve this problem. Its inspiration derives from the application of 'big data' analysis in the digital humanities and the application of 'network theory' to data relating to people. An online database is not just another form of a printed book, but a new tool that permits analysis of the data in new ways. The information has to be selected and coded in a meaningful manner, then enhanced with metadata. It is possible to distinguish two main aspects in the application of computational methods in the humanities: the management of a large amount of information, and the graphical display of the results of their analysis. Regarding information management, it is easy to predict that the results of a computational analysis of big data will be different, to a significant degree, from the human reading of a printed book. This is because a machine is able to process much more data than a human being, enabling a database to accommodate thousands or even millions of lines of information. As for the task of analysing data (that is, the contents of relevant documents), an appropriate presentation (through the cross-referencing of several indices) allows a scholar to relate data in the sources that are located in disparate contexts.

Big data and network theory converge by highlighting the socially significant relationships and singling them out from the mass of information.

We can take an everyday example from Neapolitan sources. The relationship between an agent making payments on behalf of a bank to an individual musician is intrinsically insignificant, although in the archives, such as those of the Banco di Napoli, many documents testify to such transactions. However, if we build a network between the musicians' names, their roles, and the institutions to which they belonged, these relationships become much more significant. It is well known that musicians worked for many employers, at times assuming multiple roles, but questions about the economic and social organization of their lives still remain unanswered. Chapels employing regular musicians were rare in the city. Did the musicians work individually, or were they organized into ensembles but simply not officially designated as such? Were there informal networks organized outwith the chapels, perhaps deriving from associations of musicians? How common was it for a musician to have multiple roles, besides the most obvious combinations, such as violin and viola, flute and oboe, trumpet and horn? For these and many similar questions, the application of network theory to archival data collected in 'Musico Napolitano' can help provide answers.

To allow as much freedom as possible for future development, no date ranges have been fixed for the project. However, most studies of Neapolitan music based on archival documents relate to the 17th and 18th centuries. In the last decade many scholars have transcribed and studied the primary sources, trawling through thousands of documents to gather names, places and years of activity. As a first step,



1 Detail from Alessandro Baratta's perspective plan of Naples, *Fidelissimae urbis Neapolitanae ... delineatio*, 1629, reprinted 1724 (Zentralbibliothek Zurich, 5 Gt 04:1, reproduced by permission)

these previously published documents have been incorporated into the database.

The database itself is designed to be as simple as possible. The main goal is to underline and make evident relationships, rather than to provide a repository for transcriptions of archival documents (although the database does provide the possibility of transcribing unpublished sources). Data should not be duplicated if they exist and are easily accessible elsewhere, meaning that only the core data from previously published material are maintained in the database. This comprises a list of names as they appear in the documents; added to this list is any information pertaining to a role, a date and an institution for which services were provided. This information, while it may at first glance seem basic, provides all the necessary data needed to reconstruct a network of people active in the city: these four elements precisely position a name bi-dimensionally in time and space. By collecting thousands of little pieces of information, like those found on payrolls, we can deduce exactly where a person was active, when and what activity they were engaged in. For an example, take the composer Pietro Auletta (1698-1771). New Grove mentions his post as chapelmaster in the church of S. Maria la Nova in Naples, as well as his theatrical productions.<sup>2</sup> The database structure of 'Musico Napolitano', with its simple comparison of archival documents, provides at a glance a more detailed picture of his activities: we learn that he was also in the private service of two noblemen, the Duca di Parete and the Prince of Belvedere, and was subsequently also chapelmaster of the monastery of S. Maria Maddalena delle Spagnole and of the church of S. Luigi di Palazzo.3

Another key concept of the database is that names are given exactly as they appear in the document, being just linked to their standardized form. This is important because it permits a 'Google Books' approach to searching, using a 'fuzzy search' algorithm, meaning that names are matched approximately, making it possible to search without knowing the precise spelling of a name. For example, Saverio Carcais, a violin player, is variously cited also as 'Carcai', 'Carcaio' and 'Carcajus'.

The other fields, in contrast, are normalized and indexed. Thus, a name on the document is at the centre of this little universe of data, being linked to the document that cites it, the normalized role name, the normalized institution name and a standardized name (where available).

With the data organized in this way it is possible to link personal names together using roles, institutions or documents as intermediaries. These links can then be plotted onto a map, for example, to follow the physical movements of musicians in time. Aggregating by institution and year enables the identification of the important centres of musical production, and aggregating by source (i.e. document) can reveal how those musicians interacted. Thus, if the same group of musicians is shown performing in various institutions without a dedicated musical establishment, we can deduce the make-up and movements of an 'unofficial' ensemble. The 'fuzzy search' capabilities allow one to search the database for unknown or obscure people, while the indexed standard names enable the careers of better-known individuals to be tracked. The database allows biographical data to be entered, so that a contributor can provide supplementary information for names unknown in standard music dictionaries. Similarly, the database does not need to contain a complete transcription of the documents: if the sources are already published, then only the names are extracted and suitable references provided. In the case of yet unpublished documents, the database allows for the entry of transcriptions in TEI4 format. Support for digital images is also planned so that the transcription of an unpublished document can be accompanied by a facsimile. Another ongoing task is to directly link the people and institutions to a historical map overlaid on Google Maps,5 so that the distribution of people over the years can be directly plotted when data are entered. A similar analysis is planned using the Dariah Geo-Browser.6

This database is in no way a simple digital version of a printed book, but aims to be a new tool in the hands of scholars, helping them to correlate

and analyse large quantities of data, and thus to build a more detailed and accurate picture of the context in which the Neapolitan musicians of the past worked. 'Musico Napolitano' is online at https://musiconapolitano.unifr.ch/ (musiconapolitano@unifr.ch).

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- 1 See, for example, F. Cotticelli and P. Maione, 'Prospetto dei pagamenti riguardanti la musica e lo spettacolo a Napoli tratti dai giornali copiapolizze di cassa degli antichi banchi pubblici napoletani conservati presso l'Archivio Storico del Banco di Napoli', on the CDR attached to Pergolesi Studies, v (2006); M. Columbro and P. Maione, La cappella musicale del Tesoro di San Gennaro di Napoli tra Sei e Settecento (Naples, 2008); A. Magaudda and D. Costantini, Musica e spettacolo nel regno di Napoli attraverso lo spoglio della 'Gazzetta' (1657-1768) (Rome, 2010). Many thanks to Francesco Cotticelli, Paologiovanni Maione and Marta Columbro for providing the authors with a Word file of the document transcriptions from their books.
- 2 M. F. Robinson and R. Leonetti, in *Grove Music Online*, www. oxfordmusiconline.com; the information is taken from Ulisse Prota-Giurleo's entry in the fourth volume of the *Dizionario Biografico degli Italiani* (Rome, 1962).
- 3 This information is taken, respectively, from Cotticelli and Maione, 'Prospetto dei pagamenti'; C. Sartori, *I libretti italiani a stampa dalle origini al 1800* (Cuneo, 1990–94), no.17321 and others; A. Fiore, from the current research project *Music in Neapolitan female religious institutions* (1650–1750) led by Luca Zoppelli (University of Fribourg, funded by the Swiss National Research Foundation); and D. Fabris (with students of the Università Ca' Foscari in Venice), 'Dal Medioevo al decennio napoleonico e oltre:
- metamorfosi e continuità nella tradizione napoletana', in *Produzione, circolazione e consumo. Consuetudine e quotidianità della polifonia sacra nelle chiese monastiche e parrocchiali dal tardo Medioevo alla fine degli Antichi Regimi, ed. D. Bryant and E. Quaranta (Bologna, 2005), pp.227–81.*
- 4 The Text Encoding Initiative is a standard for the description of texts in digital form; www.tei-c.org.
- 5 One is a 1724 reprint of Alessandro Baratta's plan of Naples in perspective from 1629 (a detail of which is reproduced in illus.1); another is Niccolò Carletti's plan from his *Topografia universale della città di Napoli* (Naples, 1776).
- 6 See https://de.dariah.eu/.