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OPENGADDA  
AN AUTHORIAL DIGITAL LIBRARY

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## Introduction

The field of textual scholarship is often a thorny one and for different reasons. When dealing with authorial manuscripts of 20th-century authors, the scholar is aware he/she will face many adversities. First of all, the copyright regulations, stalling the publication and study process and denying access to physical and digital reproductions.

A similar labyrinth awaits those who venture into the study of an author's personal library. Here, terminological and conceptual challenges abound. Establishing a standardized definition for an author's library is crucial. Even though in Italy the topic has been thoroughly investigated, this is not the case for the Anglo-Saxon and French areas. The interest in authorial libraries mainly focuses on traditional humanistic aspects such as the history of the library, the description of the collection, the reconstruction of the life, and, possibly, the work of the possessor. In Italian librarianship, the concept of author's library usually applies to collections owned by twentieth-century personalities. The lack of specialized studies on the phenomenon abroad implies the absence of terms corresponding to that of "biblioteca d'autore". The definition usually used are that of "private library" or "bibliothèque personnelle".

This terminological gap contributes to confusion within the scholarly community, which is further compounded by the challenge of identifying criteria for delineating an authorial library. Even though we could consider it as the collection of all the volumes owned by an author, distinguishing between those actually read by the author and those acquired through familial or other channels poses a significant challenge.

Moreover, when employing the concept of an authorial library as a tool to gain deeper insights into the writing process, scholars must also consider integrating the notion of the immaterial library. This adds a layer of complexity by acknowledging the intangible influences and sources that contribute to an author's creative process. (**Chapter 1**)

In this context, the possibilities offered by the digital medium seem to be the ideal landscape for the study of this subject. In recent years, the proliferation of digital tools and resources within the realm of scholarly editing has become increasingly prevalent. These instruments serve the crucial functions of annotating, enhancing, and mapping data, creating an intricate

tapestry of enriched information. Simultaneously, the surge in the volume of enriched data has propelled the development of innovative computational methodologies.

Dirk Van Hulle, one of the curators of the Beckett digital manuscript project, adopts a “cognitive approach” for the examination of the personal library of the author. He claims that «genetic digital editing may be the key to creating a bridge and a bi-directional exchange between literary studies and cognitive science».<sup>1</sup> Some identificatory cases that brilliantly succeeded in the creation of an interactive approach to an author’s library are the Melville’s Marginalia,<sup>2</sup> the Darwin Online project,<sup>3</sup> and the Beckett Digital Manuscript Project.<sup>4</sup> (**Chapter 2**)

A common problem that all the scholars involved in the creation of these projects had to encounter is the legal constraint. These limitations encompass both copyright restrictions and non-copyright considerations, such as the privacy and moral rights of authors. In those specific cases that involve the use of digital platforms or digital editorial methodologies, the problem seems to be double-faced, apart from the usual challenges posed by the European copyright laws, there is also an additional suspicious attitude towards these new tools.

The lack of clear digitization protocols and descriptions, results in the need for extensive permission requests, creating a chain of communication hurdles. As Valentina Moscon sums up, the InfoSoc Directive itself «is based on the general assumption that, particularly in the online environment, right holders need effective and rigorous control over widespread forms of mass usage».<sup>5</sup>

In order to find an effective way to be able to surpass the legal limitation imposed by copyright laws, we tried to develop a platform that aims to create an open environment, specifically a website, where the user can consult the author’s work and, through the model of a mental encyclopedia, can collect in one place all the possible knowledge around the author chosen, employing only freely accessible documents.

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<sup>1</sup> DRISCOLL, PIERAZZO 2016, p. 11.

<sup>2</sup> <https://melvillesmarginalia.org/Browser.aspx>

<sup>3</sup> <http://darwin-online.org.uk/>

<sup>4</sup> <https://www.beckettarchive.org/home>

<sup>5</sup> MOSCON 2015, p. 102.

The OpenAuthor paradigm is specifically thought to deal with authors, whose works are currently available freely to the public due to copyright laws. To do this we shifted the focus from a media-oriented one to a data-oriented one, being unable to use the usual documents employed in the textual scholarship field, the project engages in the study of different kinds of documents.

The specific case treated in this thesis is dedicated to Carlo Emilio Gadda, a preeminent figure in 20th-century Italian literature and one of its most influential writers. After thoroughly investigating the peculiar case represented by this author (**Chapter 3**), we started developing the OpenGadda platform.

The main goal of the OpenGadda is the creation of a thick digital network of information around the figure of the writer, utilizing different publicly available documents, in our case we worked on the author's archives and personal library. For what concerns the library, we focused mainly on the extraction of two kinds of data, from two different sources, which are the library data and the annotation data.

Using the *Catalogo della Biblioteca di Carlo Emilio Gadda*, curated by Giorgia Alcini and Milena Giuffrida as a starting point, the necessary data have been extracted, and displayed accordingly, focusing on the specific necessity of the material under study. The dataset obtained through the data extraction can be used to become the source of web visualizations, allowing us to explore the mind of the engineer through careful analysis. In the context of authorial libraries, we believed that employing visualization within a digital storytelling framework would be the most effective approach for presenting innovative information about the collection. In the specific case of OpenGadda, we decided to create three main thematical areas: authors, books, and annotation, each one highlighting a specific aspect of the library or the reading experience of the author. (**Chapter 4**)

## Ch. 1 Authors' libraries and libraries' authors

### 1.1 A brief history of (private) libraries

“Every library answers a twofold need, which is often also a twofold obsession: that of conserving certain objects (books) and of organizing them in certain ways.<sup>6</sup>”

The image of the library traverses Western literature with the inexhaustible vitality of a constant theme, it is both the room for the energy that fuels imagination and a place of incessant dialogue with the past. Throughout history, it has played a crucial role in shaping our perception of tradition, a key element in our quest for a lasting legacy. Beginning with Don Quixote, the library transcends its physicality and evolves into a pivotal location in the story of many novels. It transforms into a *chronotopos* offering authors and readers a platform for aesthetic and meta-literary contemplation.

A library, differently from an archive, qualifies itself through the documents that it contains. Then, we could say that the quality of a library can be assessed in relation to its bibliographic “architecture”, that is, the selection of works that compose it, the documentary character, and the specific purpose of the collection itself.

As the popularity of digital content over printed content continues, some may think that libraries are slowly becoming obsolete. This is not the case.

Starting from the 17th and 18th centuries that libraries in Europe started to become popular and were seen as a symbol of social prestige. New libraries were established, existing collections were enriched, and a new sort of bibliophilic enthusiasm perceived the book object as a bearer of symbols, connecting it to a religious status.

Owning and displaying a collection served as a testament to the family's significance and social standing. As a result, private libraries proliferated to a considerable extent, evolving into a phenomenon of social prominence and fascination. They symbolized both civility and culture, as well as signifying elevated personal and familial status.

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<sup>6</sup> PEREC (1999), p. 148–155.

In particular, in Italy, the abundant production of printed books and holdings of a good number of manuscripts resulted in the birth of numerous private libraries in the sixteenth century. While during the age of the manuscript, a lot of private collections were donated to religious orders and monasteries, this humanist-Christian spirit came to a halt in the late sixteenth century, and the same collections that were held in monasteries started being institutionalized, either independently or as collections.

It's important to highlight that the concept of "private" at that time still contained an idea of serving the common good and cannot be linked to the idea of ownership we are used to. Because of this tendency in the Italian territory, two of the oldest public libraries were founded there, both by the collections of just one person who placed their personal volumes at the disposal of the public. The two libraries are Biblioteca Angelica in Rome founded by Angelo Rocca<sup>7</sup>, and the Biblioteca Ambrosiana in Milan by Cardinal Francesco Borromeo. The Parisian Gabriel Naudé (1600-1653), librarian of some of the most important private collections<sup>8</sup> of that time, in his book *Advis pour dresser une bibliotheque*<sup>9</sup>, addressed the two libraries above mentioned as the only truly public libraries, together with the Bodleian in Oxford.

As we can see, the concepts of public library, private collection, and private library were merged together without clear borders and definitions that could differentiate them. The collections of the ruling dynasties, such as the Gonzaga and the Medici, mixed artistic and librarian. In houses and palaces, books were always flanked by botanical gardens, paintings, portraits, and archaeological objects. The connection between cultural, ideological, and social was evident in the fact that private collections were morphing into public museums in the same years in Florence, with the Uffizi Gallery, and in Venice.

This kind of institutionalization was fundamental especially for ruling dynasties; for these families, it was mainly an opportunity to legitimize their prestige through their own collections.

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<sup>7</sup> About: SERRAI 2004.

<sup>8</sup> Nudé started his career as a librarian taking care of Henri de Mesme's collection. In 1629 became librarian to Cardinal Guidi di Bagno at Rome and then to Cardinal Francesco Barberini. He over headed to Cardinal Richelieu's library and to the Mazarin Library, to which he dedicated himself for ten years, collecting books form all part of Europe, till he managed to assemble a library that contained 40000 volumes. For further information see: CLARKE 1970.

<sup>9</sup> NAUDÉ 1627. See also: NAUDÉ 2008.



Eruditions and politics started being strictly related, providing support to the legalization of power:

The collections transmit precise ideological messages – for example, the constant claim of continuity with the classical past which pervades all forms of power in this period – useful for building up consensus within the state and for creating prestige and renown beyond borders [...] Hence, there was a pragmatic need to possess a vast patrimony of books and documents, in addition to the aura of culture which they brought.<sup>10</sup>

Libraries themselves started to be perceived as instruments for the construction of social models. It is significant to mention that a new cultural paradigm regarding personal libraries was developed with the pre-humanist Francesco Petrarca. Every scholar, from Petrarca onwards, shows a particular consideration regarding his library, especially the part that collected volumes redacted in Vulgar Italian, a section that was usually separated from the rest and kept private.<sup>11</sup> Petrarca himself, a philologist and the curator of an exceptional personal library, was among the first to conceive of a public collection in a modern sense. His example highlights the essential connection between humanists and libraries, marking the birth of new concepts in book collections.<sup>12</sup>

At a certain point, the libraries of key figures in the Italian Renaissance began to take on a life of their own. These collections gained renown not only for having been in the possession of great writers of the past but also for being utilized in philological research and writing. As the number of readers increased, new libraries were born, and the relationship with material goods changed: the idea of collecting and accumulating reached a level in which private libraries started being bibliographical organisms of great complexity. Two collateral passions started to put roots into the high-class scholars: *bibliophilia* and *bibliomania*. We started noticing the birth of manuals that proposed methods of ordering these private collections and new technical instruments that were necessary for the management of the libraries themselves.<sup>13</sup>

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<sup>10</sup> NUOVO 2010, p. 229-240.

<sup>11</sup> On this matter see: BILLANOVICH 1961, p. 335-336 and PETRUCCI 1983, p. 536-537.

<sup>12</sup> About Petrarca's library see: BILLANOVICH 1995.

<sup>13</sup> A manual that obtained a certain success in the matter of library history is: MADER 1666.

The abundance of written and printed material available, accumulated over three centuries of typographic activity gave a boost to the creation of many public libraries during the 18th century. There was also a renewed interest in scholarly studies and typography as an art form. Additionally, when the Jesuit order was suppressed, their collections were added to these public collections.

Still, at this stage private libraries should not be judged in opposition to institutional ones; instead, both realities should be considered as mutually complementary entities.

While the former is typically an expression of strictly personal bibliographic needs and desires, the latter has gradually evolved into forms that are more integrative rather than competitive or substitutive in relation to private libraries.

## 1.2 Private libraries

Before going any further, it is important to specify that the term “author’s library” or “authorial library” is arbitrarily adopted here. Even though in Italy the topic has been thoroughly investigated, it is not the case for the Anglo-Saxon and French areas. The interest in authorial libraries mainly focuses on traditional humanistic aspects such as the history of the library, the description of the collection, the reconstruction of the life, and, possibly, of the work of the possessor. In Italian librarianship, the concept of author’s library usually applies to collections owned by twentieth-century personalities. The lack of specialized studies on the phenomenon abroad implies the absence of terms corresponding to that of “*biblioteca d’autore*”. The definition usually used are that of “private library” or “*bibliothèque personnelle*”.<sup>14</sup>

Because of the complex history of private libraries, scholars are nowadays finding it difficult to provide a unitarian definition that could sum up the different histories and routes of these institutions. Even though it is true that there are many studies that are being undertaken regarding single libraries and their owners, it seems that the concept of private libraries has not been institutionalized and currently lacks a proper methodological approach.

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<sup>14</sup> For more texts focusing on the library collections of modern artists in the French speaking area see: PARANT 2011 and LEVAILLANT 2010.

This might seem strange especially if we consider the history of public libraries. As Alfredo Serrai<sup>15</sup> points out, we could say that it was the literary content of private libraries that helped shape the general physiognomic of institutional libraries, also while adapting to the expansion of the documentary heritage and the growth of the publishing market. Just to make some examples, it is thanks to the influence of personal libraries that public ones started to acquire prestigious editions, multi-volume works, and periodicals.

As Serrai says:

Private libraries thus offer themselves as a library reality possessing an independent bibliographical authenticity, which is, however, only perceived 'post hoc', i.e. not before those collections could have, of course, not only their own origin, but their own existential actuality, and their own precise bibliographical character.<sup>16</sup>

This uniqueness can often become a fundamental contribution to deepen the knowledge about the culture of a certain historical era.

But to what extent is it correct to talk about “private libraries” in a context in which the boundaries between private and public are still blurred and not well defined? And, also, how can we discern between the property of a family library and the volumes actually owned by the personality we chose to study?

One of the primary issues regarding this point is linked to a terminological problem. The general term “private library” gathers in itself different things, it could indicate a group of volumes that are gathered together by casualty, a proper collection created with a specific aim in mind, or a proper library in a more canonical sense.

Before delving more deeply into the issue of defining private libraries, for the sake of completeness, it would be useful to understand the modern-day definition of a library. This is because private libraries are often characterized in contrast to their public counterparts.

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<sup>15</sup> SERRAI 2006.

<sup>16</sup> Ivi, p. 184.

According to the definition given in the UNESCO Public Library manifesto:

The public library is the local center of information, making all kinds of knowledge and information readily available to its users. It is an essential component of knowledge societies, continuously adapting to new means of communication to fulfill their mandate of providing universal access to and enabling meaningful use of information for all people.<sup>17</sup>

The manifesto was created in 1949 and has been periodically revised over the decades to adapt to the evolving role of libraries in society. However, one constant that remains unchanged is the crucial function of libraries as cultural institutions intended to serve the public. While the significance of the collection cannot be overstated, it is the goal of providing a service that serves as the rationale for preserving these materials.

This concept of availability as a service is what is lacking in private libraries, they share with the public ones the aspects of collecting and organizing but, in the private ones,<sup>18</sup> it builds itself around one individual (or sometimes a small group).

They don't have to respond to the demands of a whole community, intended both in a practical and theoretical sense, and, because of this, they show a major internal harmony and bibliographical coherence.

Given for granted that private libraries have an independent bibliographic authenticity, the study of these can lead us to pinpoint the emotional and rational choices made by the owner. Using Serrai's words:

Private libraries are the book images of the cognitive desires, metaphysical passions, and spiritual needs of souls who have interrogated and selected collective memories.<sup>19</sup>

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<sup>17</sup> Unesco and International Federation of Library Associations and Institutions, *Public Library Manifesto* (The Hague Netherlands: IFLA, 2022).

<sup>18</sup> Here we are making use of the three fundamental aspects of the public libraries identified in: GUTIEZ 1988.

<sup>19</sup> SERRAI 2008, p. 22.

But how can we be sure, for example when handling a family library, which part of the collection is the one owned by the person we want to examine, and inside of that hypothetical collection, which ones are the books that he or she really read and studied?

There have been numerous approaches to this key terminological and content-related issue. During the international conference of 2007 regarding private libraries as a bibliographical paradigm, Dorit Raines tried proposing a terminology that could help differentiate the different possible types of private library.<sup>20</sup> Even though she uses as a case study the context of Venice from the 16th to the 18th century, it could be useful to try to apply this classification to a different historical setting. These are the four categories Raines proposes:

- the *ego*-library
- the shared library
- the family library
- the library-museum<sup>21</sup>

The first one revolves around a single individual, whose cultural interests help shape the collection itself. The shared library is a kind of 'hybrid'; it can either be part of a heritage or result from the amalgamation of different family members' libraries. Moving forward, the family library is the one used by the members of the family, handed down from one generation to another. The last one is the only one that «requires planning and administrative organization similar to that of a public library»<sup>22</sup>, in this one the books are exhibited to enhance a sort of cultural visibility.

Another scholar who attempted to propose a categorization of private libraries is Francesco Barberi. He divided them into three groups: those belonging to «classical bibliophily, including relics of the miniature, typographic art, publishing, engraving, bookbinding», those with a «regional character» and, finally, special libraries, «of sometimes very limited subject matter: drama, music, popular literature, occult sciences, etc.»<sup>23</sup>

Thanks to these categorizations we can compartmentalize a bit the wide variety of private libraries, but in most cases, when studying a personality, the difference between the *ego*-library

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<sup>20</sup> RAINES 2008.

<sup>21</sup> The terms were deliberately translated from Italian, these are the original term proposed: la *ego*-biblioteca, la biblioteca condivisa, la biblioteca familiare, la biblioteca-museo.

<sup>22</sup> Ivi, p. 83.

<sup>23</sup> BARBERI 1981, p. 35.

and the family library is still blurred and the term “classical bibliophily” proposed by Barbieri can result in a partial view of the library.

Regarding contemporary libraries, writers' libraries, also known as authorial libraries, constitute a distinct typology within the broader category of private or personal libraries. These have specializations that are shaped by the cultural or professional activities and interests of their owners. Consequently, they differ significantly from the size and encyclopedic bibliographic approach of private libraries from the *ancien régime*.

When approaching the discourse about author's libraries one could fall into the error of considering them the faithful depiction of those who created them, it seems more correct to use the image proposed by Caproni of the library as a “marsh”, «a treacherous place where one does not immediately realise the possible dangers, as well as the pitfalls and traps, that lie behind it».<sup>24</sup>

The marsh metaphor seems more fitting, given the numerous difficulties and problems concerning the treatment and management of archives and author's libraries. The criticalities connected to this field have been the focus of discussion within the National Commission for special libraries, archives, and author's libraries of the Italian Library Association.<sup>25</sup>

Barberis can be considered a precursor of this field of study since, in 1956, he referred to the private library of an author as the “mirror” of the personality of its creator.<sup>26</sup> In the following years, precious interventions were made especially by Caproni, Serrai, and Crocetti. But the first real event focused on author's libraries and archives was the conference “Conservare il Novecento”<sup>27</sup> held in Ferrara in 2000; it provided a crucial contribution and laid the groundwork for subsequent investigations.

A fundamental turning point was the 2003 symposium “Biblioteche d'autore: pubblico, identità, istituzioni”<sup>28</sup>, here, the author's library starts being considered in its library-related aspects, discussing also about acquisitional problems and tutelage.

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<sup>24</sup> CAPRONI 2004, p. 16.

<sup>25</sup> See the website at: <<http://www.aib.it/struttura/commissioni-e-gruppi/gbaut/>>.

<sup>26</sup> BARBERI 1981.

<sup>27</sup> MESSINA, ZAGRA 2001.

<sup>28</sup> ZAGRA 2004.

During the event, a project team was established, namely the “Gruppo Biblioteche d’Autore”<sup>29</sup> of AIB<sup>30</sup> which aimed to study private libraries from the 20th century preserved in public or private cultural institutions.

The group, coordinated by Laura Desideri and Maria Cecilia Calabri, attempted to provide a unitarian definition of authorial libraries, the results of the studies of the collective were then presented during the conference “Collezioni speciali del ‘900: le biblioteche d’autore: definizione e gestione”<sup>31</sup> held in 2004.

This is the general definition of an authorial library offered by the collective:

A collection of books brought together in a functional manner by a significant subject for the cultural community. The documents are bound together in a way that characterises them as a whole and such that they convey both the profile of the producing subject and moments of our cultural history.<sup>32</sup>

The group defines two main identification criteria, one external: «belonging to an individual who has been significantly active in the cultural world of the 20th century, weaving relations with the intellectual community, of which his books bear traces», and one internal, meaning that «the collection must document the owner's interests and relationships in the historical and cultural context in which he or she operated»<sup>33</sup>.

Furthermore, to differentiate an author's library from the broader category of a private library, they examine the presence of annotated volumes, materials inserted between the pages, and other unique special materials. These additional elements serve as further criteria for identifying an author's library.

In 2007, Giuliana Zagra, who was already in charge of the literary collections of the 20th century at the National Central Library of Rome described the author's libraries as:

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<sup>29</sup> The group has been active from 2003 till 2011.

<sup>30</sup> Associazione Italiana Biblioteche <<https://www.aib.it/>>

<sup>31</sup> DESIDERI, CALABRI 2008. Also available at the website: <http://www.aib.it/aib/cg/gbautd04>.

<sup>32</sup> Guidelines on the processing of personal collections by the National Commission for Special Libraries, Archives and Author Libraries (version 15.1 - 31 March 2019)

<sup>33</sup> Ivi.

A private and personal book collection that, due to its internal characteristics, through its individual documents and as a whole collection, is able to testify to the intellectual activity, the network of relationships, the historical and cultural context of its owner.<sup>34</sup>

During the conference “Carte libri memorie: conservare e studiare gli archivi di persone”<sup>35</sup>, while focusing on authorial archival documentation, she highlighted the “amphibious” nature of these special libraries,<sup>36</sup> the term here is used to indicate their hybrid nature that comes with the need of treating them not only as a mere collection of books but also as a documentary testimony.

It is noteworthy to emphasize that a particular syntax, conveying a sense of blend and amalgamation, is carried forward from Caproni (as exemplified by viewing the library as a marsh) to other scholars.

The interest in this discourse was carried on during the conventions of 2004 and 2007, namely “Biblioteche private in età moderna e contemporanea”<sup>37</sup> and “Le biblioteche private come paradigma bibliografico”.<sup>38</sup>

However, the greatest source of information regarding author’s library is the study day “Collezioni speciali del Novecento: le biblioteche d'autore”<sup>39</sup>, it was organized by the group Biblioteche d’autore in 2008 and reunites all the considerations regarding both organization and management, not forgetting cataloguing and acquisitional issues.

An author who never stopped reflecting upon the topic of author’s libraries and gave many fundamental contributions is the already mentioned Attilio Mauro Caproni. He mainly focused on the link between bibliography, bibliometry, and personal library. According to Caproni, a personal library is the expression of the human need to preserve ideas in a material frame; through the object book, men enact the «staging of the sign» (messinscena del segno).<sup>40</sup>

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<sup>34</sup> For the definition of author’s library, we refer to: ZAGRA 2007.

<sup>35</sup> *Carte, libri, memorie: conservare e studiare gli archivi di persona: giornata di studio, Treviso, 26 ottobre 2007*, Treviso, Fondazione Benetton Studi Ricerche.

<sup>36</sup> The same concept was first stated by Bonsanti and Crocetti, see: BONSANTI 1980 and CROCETTI 1999.

<sup>37</sup> NUOVO 2005.

<sup>38</sup> SABBA 2008.

<sup>39</sup> DESIDERI, CALABRI 2008.

<sup>40</sup> CAPRONI 2016, p. 16.



But this *mise-en-scene* is put in place thanks to a bibliography that becomes a “symbolic investment”.

If the author's library is able to reflect the personality of the person who set it up, it will do so with regard to the choice of documents offered and the way in which these documents were (or were not) arranged. The author's arrangement is thus a manifestation of the library owner's "bibliographic vision," therefore, it should be safe to affirm that the author's ordering also has a biographical and testimonial value.

Moreover, he points out the risk of automatically viewing a writer's library as an archive of texts from which it's possible to effortlessly trace the clues and cues utilized in the moment of creation.

Caproni highlights the difference between the books that were “chosen” and the ones that were “suffered”, meaning those he/she received or those the author acquired following a bibliophilic taste. In this matter he contrast the so-called homogeneity of an authorial library described by Giuliana Zagra, he poses:

The idea [...] that the library is the outcome of a writer's precise choices or represents the point from which assonances depart must be completely overturned as far as the chronological and spatial span of the 20th century is concerned. The personal library also comes into being unexpectedly and independently of the author and, above all, it manifests itself with what he has read and decided to read, not being subject to the usual canon of authority typical of the sixteenth-nineteenth century.<sup>41</sup>

We already mentioned that it is difficult to clearly trace the concept of private library after the 18th century. This difficulty is also a consequence of the revolutions in reading practices and in readers' approach to books and libraries. The act of writing itself loses its function of preservation and memorization to become an intellectual work.

These revolutions also invested the function of the “author”,<sup>42</sup> and opened a debate regarding its differences with the “writer”. The two terms refer to two notions that are sometimes

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<sup>41</sup> CAPRONI 2003, p. 39.

<sup>42</sup> The epistemological debate on the function of the author was opened by Michel Foucault, and it was one of the most important in the context of the structuralist current. It gave birth to a more scientific vision of modern concepts such as “author”, “text”, and “writer”.

overlapping but that cannot be combined. The new relationship between the writer and their manuscript began to take on a subjective perspective. To such an extent that, in the 19th century, authors began accumulating various objects that bore witness to their creative process.

In reference to personal library collections, Laura Desideri and Maria Cecilia Calabri, indeed associate the concept of an author's library «more with a judgment of 'authoritativeness' than 'authorship'» and broaden the definition of the term "author." They extend it to encompass a broader notion of the individual responsible for a work.<sup>43</sup>

Before trying to achieve a definition of author and, consequently, of authorial library, Christian Del Vento adds another level of complexity to this issue: would it be more correct to differentiate between private and personal libraries? This pivotal question is fundamental, particularly when handling libraries owned by writers or scholars.

Differently from a private library, an author's library allows us to observe the writing process and the intellectual context in which the individual starts a dialogue with the past, in Del Vento's words:

A writer's books are part of the genetic dossier of his works and literary projects; for more than one reason: as an element that helps define the original context in which a work was born.<sup>44</sup>

The “genetic dossiers” to which Del Vento refers can appear more complex than expected, even when the library of the author has arrived to us with a catalogue or an inventory, we have to keep in mind that it is nothing more than a snapshot that offers us a view that limits itself to a given time, what is lacking is the “diachronic depth”.<sup>45</sup>

A lot of premises are necessary when handling an author's library, they are organisms that get inherited, shared, and bequeathed; «It must then be taken into account that libraries are a living body, which grows and changes with time»<sup>46</sup>. When affirming this, Del Vento seems to borrow the last of the five laws of Library Science proposed by Ranganathan,<sup>47</sup> in 1931 which

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<sup>43</sup> DESIDERI, CALABRI 2008, p. 156.

<sup>44</sup> DEL VENTO 2019, p. 39.

<sup>45</sup> DEL VENTO 2022, p. 254.

<sup>46</sup> Ivi, p. 254.

<sup>47</sup> Dr. S.R. Ranganathan, a pioneering Indian librarian and mathematician, is credited with formulating the Five Laws of Library Science. His profound contributions to the field have earned him recognition

poses: «The Library Is A Growing Organism». A library is indeed the result of a stratification of mental and material, and as such must be treated.

In the library, the connection and interaction between the individual act of creation and the writer's immersion in the social space materialize. Not only it is the site in which the singularity of the author starts to get built, but it also reflects his interests and passions. This aspect is even more apparent when treating personalities of the 20th century. At this time authors don't have to submit to the canon imposed between the sixteenth to nineteenth centuries. This is the main reason for which Del Vento affirms that the personal library of a writer and his authorial library don't overlap.

Nevertheless, considering these two like antonyms would be a mistake. The boundary that divides them, exists because, while the personal library contains all the books that were possessed and read by the owner, the authorial one holds also those who were read but never acquired. As a result, scholars often need to utilize public libraries to access lending catalogues and verify which books the individual under examination borrowed or consulted. The study of an author library also cannot overlook private libraries of friends and teachers, diaries, and private correspondences.

The library, and not only the author, immerse itself in a social space, in which the shadows of the past authors start a play of refraction between themselves and the living author.

It seems necessary at this point to differentiate between material and immaterial libraries. The main way in which we can focalize the material library of an author is by looking for traces of annotations in the books of his/her personal collection.

As we know, the library is the virtual space in which reading and writing meet, so the marks left on the volumes become “clues”<sup>48</sup> that the scholar has to keenly examine in order to catch a glimpse of the private life of the author or the first moments of the life of a work.

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as the father of library science in India. Ranganathan's work played a pivotal role in shaping library systems and practices. These laws, regarded as foundational principles in library science and management, provided a philosophical underpinning, ensuring the enduring relevance of the discipline, the profession of librarianship, and the utilization of libraries. They are as follows: 1. Books Are For Use, 2. Every Reader His/Her Book, 3. Every Book Its Reader, 4. Save The Time Of The Reader, 5. The Library Is A Growing Organism.

<sup>48</sup> DEL VENTO 2022, p. 255.

A long time has passed since monastic librarians used to place "anathemas" and other injunctions in books to discourage potential abusers. Today, *marginalia* are considered a most useful tool for historians and literary scholars.<sup>49</sup>

The signs of reading that will have to be considered are not only the *marginalia* or spoken annotations but also the "non-spoken" signs. These are the highlighting, underlines, the dog ears left in a book, doodles, etc... Other *marginalia* to consider are the ones that demonstrate traces of possession, such as *ex libris*, *ex donos*, dedications or objects inserted between the pages like papers, notes, letters, cutouts, photos. Generally speaking, any kind of annotation can enable informative literary practices and signal different information about different readers.

A comment about a certain passage can show the will to master a greater insight of the book read, an exclamation mark left on the side demonstrates appreciation, doodles on the pages let us know a certain level of distraction during the reading practice, etc...

As Heather Jackson points out: «*marginalia* reveal something about their mental lives and about the sources of the creative process»<sup>50</sup>. Jackson also proposes to treat author's annotations and *marginalia* as separate categories, because of the different intentions with which authors specifically write in their books.

All of these elements are used collectively by philologists to reconstruct an 'author's reading' (along with an 'author's library') and gain a clearer understanding of the social and cultural context in which the writer embarked on their creative journey.

Sometimes, authors also offered evidence of well-attested reading practices in their own work, an example of this could be Vittorio Alfieri, who in his autobiography, meticulously explained the way in which his books were annotated.<sup>51</sup>

In other cases, we are able to see the traces of different layers of readings, so the scholar becomes a sort of archaeologist, and the goal of his studies will be to find the different traces and hints under a stratigraphic point of view, going vertically in the history of reading instead of just horizontally. The layers often bear witness to the intensity of the reading itself and offer precious clues into which books were the most loved and studied.

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<sup>49</sup> For more information regarding the history and the study of *marginalia* see: JACKSON 2002.

<sup>50</sup> Ivi.

<sup>51</sup> Regarding Alfieri's annotations see: DEL VENTO 2017.

Professor Dick Van Hulle, when speaking about reading notes poses that:

Reading notes- as they appear in archives, in notebooks, letters, diaries, or in the margins of books- can tell us more than anything else about the book a person was reading as well as about the person who was reading the book.<sup>52</sup>

They become, thus, crucial to reception history and the history of reading. In particular, when facing the library of a 20th-century author, reading notes provide evidence about his interests, inclinations, habits, and tastes also while showing us his view on the word and his “intellectual construction”.

But the most precious thing that can be found in notes is their honesty regarding both themselves and the author, the notes are maybe the only written place in which the author is not trying to camouflage himself through the shield of literature.

Through the study of the reading patterns of authors, we are able to see directly the merging between the individual “author” and the individual “writer”, these two co-live inside the page and try to establish a connection, this connection takes the form of the annotations.

As we have seen, finding the traces of the material library is a relatively easy task, the same cannot be said for the immaterial counterpart.

Immaterial libraries refer to the collections of intellectual and creative influences, references, and inspirations that authors accumulate over their lifetimes. They shine through the work of the writers and have no physical medium, but rather they can be considered a mental reservoir of ideas, experiences, and cultural touchstones that inform an author's work.

Sometimes also the characters of a book have their own libraries, that inevitably reflect the ones of their creator. This game of mirror multiplies the images of the author/reader and helps us build a map of the whole imagination of the writer, smoothly meandering in the thin line between reality and invention.

As Anna Dolfi clearly says:

There is no doubt that, apart from the more aseptic ones, everyone has or builds up in his or her mind a library in which the books of childhood are mixed with those

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<sup>52</sup> VAN HULLE, VAN MIERLO 2004.

of study, those of work with those of holidays; those that are forgotten with those that are never forgotten.<sup>53</sup>

These special kinds of libraries encompass a wide range of sources, including books, but also personal experiences, conversations, travels, art, music, and more. Authors draw upon these immaterial libraries to craft their narratives, develop their unique voices, and shape their creative expressions. Immersed in the world of ideas and experiences, creators weave together their own interpretations and reflections into the tapestry of their written works.

Tracking down this mental library has to be an intellectual endeavor, but it is fundamental for deepening the knowledge of an author's engagement with the world and culture around them.

In this case, the books owned by the author and his own writings will not be enough for the philologist. Nevertheless, we have to keep in mind that *marginalia* and side comments represent a means of introspection, but they also stand in direct proximity to the ideas of others that have given rise to them, reflecting a kind of “creative symbiosis” of the annotator’s thoughts with those of the author of the annotated book. As a result, they are valuable tools for reconstructing immaterial libraries because, through them, the philologist is able to perform an “archeology of reading”<sup>54</sup>, as Jackson called it.

Together with this, the study of letters and correspondence might be a good start, since often letters may contain references to specific works, authors, or conversations that shaped the author's thinking. Focusing on contemporary reviews and critiques of an author’s work could also be useful in highlighting the sources of inspiration. Lastly, the biographies and memoirs, the archival materials, and the personal documents of the personality taken into consideration are all elements that cannot be neglected.

Once again, we find ourselves in front of a stratigraphic study of materials, which involves piecing together fragments of information from various sources to gain a comprehensive understanding of the influences that shaped an author's creative process.

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<sup>53</sup> DOLFI 2015, p. 18.

<sup>54</sup> JACKSON 2002.

To sum up, the field of authorial libraries is a thorny field, starting from the terminology itself, and going into its content and acquisition issues.

Many questions remain unanswered or can encompass various interpretations or possibilities, leaving room for ambiguity or multiple perspectives. Nevertheless, the advent of the use of technology in literary studies gives us a precious opportunity to allow more vast access to these resources and also try to make order in the different materials contained in the labyrinth of an author's library.

## Ch. 2 Digital Libraries

### 2.1 Digital libraries

The concept of digital libraries began to take shape in the late 20th century with the advent of digital technologies and the rise of the internet. The transition from traditional libraries to digital ones marked a significant shift in how information is stored, accessed, and disseminated. Even though this thesis focuses on the concept of authorial digital libraries, it could be useful to swiftly keep in mind some significant milestones that led to the creation of such a concept.

The initial seeds of digital libraries can be traced back to the 1960s and 1970s, when various projects aimed to explore the use of computers for organizing and retrieving information. These experiments focused mainly on creating electronic catalogues and databases. A crucial role was, of course, played by the spreading of the World Wide Web during the 90s, in these years the University of California started the development of a pioneering effort in the field: the Alexandria Digital Library Project,<sup>55</sup> which aimed to create a digital library of geographically referenced materials.

Another case that needs to be included is The Project Gutenberg,<sup>56</sup> started by Michael S. Hart in 1971 and often regarded as one of the earliest digital library initiatives. It focuses mainly on digitizing and archiving cultural works, making them freely available.

The advancements that the 2000s and onward witnessed in digital technologies, storage, and infrastructures, helped to further enhance the capabilities of digital libraries, while gaining popularity thanks to the Open Access movement that advocated for a free and unrestricted access to scholarly materials.

As of today, digital libraries evolved and play a pivotal role in the preservation and accessibility of cultural heritage and scholarly knowledge. They started exploiting the hybrid and interactive nature of the internet and developed a unique and transformative approach to information management. Digital libraries transgress the physical limits of a traditional library

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<sup>55</sup> Alexandria Digital Library, and Santa Barbara University Of California. Alexandria Digital Library Project. The website was last updated in 2004.

<sup>56</sup> <https://www.gutenberg.org/>. At the moment the website is unavailable in Italy, it could be due to changes in internet regulations or other factors that have occurred.



and start building themselves on the threshold between library and archive. These libraries often include a wide variety of materials such as manuscripts, letters, drafts, photographs, audio recordings, and other archival documents.

In the particular case of authorial digital libraries, all these elements will be associated with the referenced author and a certain level of interoperability between them will be granted. Apart from the digitalization of literary archives (hence the conversion of physical documents into digital format), these libraries go beyond textual documents, incorporating different sorts of multimedia. All these elements are tied together by robust search functionalities, allowing the user to discover specific content, enhancing accessibility, and facilitating the research.

Having remote resources available under a simple mouse click is probably one of the motivating factors that make humanities scholars keen to pick up on these new technologies. Another important innovation is the collaborative nature of some of these platforms, as Peter Boot says: «The move is from a desktop perspective of research towards a networked paradigm».<sup>57</sup> Collaboration among researchers and scholars is encouraged by providing tools for annotation, commentary, and discussion. Another important motivation behind the choice of a collaborative platform is the concept of reliability, which comes with the trustworthiness of the material provided. Such trust can be gained through authorization schemes and peer evaluation, moreover, it also develops sustainability, creating trust that the digital resource can be relied upon to be there for the foreseeable future.

In recent years, the proliferation of digital tools and resources within the realm of scholarly editing has become increasingly prevalent. These instruments serve the crucial functions of annotating, enhancing, and mapping data, creating an intricate tapestry of enriched information. Simultaneously, the surge in the volume of enriched data has propelled the development of innovative computational methodologies. This transformative approach underscores a growing demand for augmentation, where meticulously curated data emerges as a foundational prerequisite for conducting more robust, quantitative, and in-depth analyses within the field of humanities.<sup>58</sup>

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<sup>57</sup> ZUNDERT, BOOT 2011, p. 142.

<sup>58</sup> HEY, TANSLEY, TOLLE 2009.

These innovations, of course, come with a cost. Digital scholarly edition technologies may have major epistemological and methodological benefits, but they are built on an instable and always shifting platform as the World Wide Web. The problem of self-sustainability applies both to tools and data. Another issue that needs to be addressed is the necessity of the establishment of common standards for metadata, transcription, etc...

A shared vocabulary would aid scholars in understanding common editorial features and help developers adhere to community guidelines,<sup>59</sup> fostering better collaboration between academia and technology. At present, digital editions often consist of one or more resource files, usually encoded in TEI, and a software layer that gives the user interface its structure and retrieves the relevant files. Currently, the software layer is custom developed for each edition, confusing the user, and not granting a common standard for developers to stick to.<sup>60</sup>

However, we still have to remember that the future of digital scholarly editing is in its fluidity, and the same stands for classical libraries: “Though IT partners may provide the critical technology, and researchers and research institutions may provide initial form, flow, and content, it is the libraries that can define, manage and maintain the processes, workflows and quality controls that can assure the edition’s long term availability in the digital realm”.<sup>61</sup>

When examining personal libraries of modernist authors, the scholar faces different and new challenges. Focusing on the private books of an author one must be aware of the fact that the texts themselves bear witness to the creative process of the author, a process that often is extended over decades. Given this fact, intertextuality must play a key role in the development of a digital edition of a private library. The manuscript's digital edition should engage in a bidirectional discourse with the library's digital edition, seamlessly incorporating various formats like marginalia, annotations, private letters, and photos.

Dirk Van Hulle, one of the curators of the Beckett digital manuscript project,<sup>62</sup> adopts a “cognitive approach” for the examination of the personal library of the author. He claims that

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<sup>59</sup> For a further discussion on this topic see: BLEEKER 2015.

<sup>60</sup> Boot and Zudert suggest in ZUNDERT, BOOT 2011: «What we are suggesting here is that we need a vocabulary to describe declaratively which part of the edition content should go in which ›slots‹ in the edition’s user interface. Describing this procedurally (i.e. programming it) implies developing edition-specific logic».

<sup>61</sup> ZUNDERT, BOOT 2011, p. 151.

<sup>62</sup> <https://beckett.flw.uantwerpen.be/exist/apps/bdmp/>

«genetic digital editing may be the key to creating a bridge and a bi-directional exchange between literary studies and cognitive science». <sup>63</sup>

Contrary to other SDE, at the centre of this kind of paradigm there is not a text but a personality. If we take for granted Daniel Ferrer's definition of genetic criticism we have to understand that the research project of this field is not a material object, <sup>64</sup> but the material traces (if there are any) of the writing process.

To make this concept even clearer Van Hulle uses the definition of *exogenesis* and *endogenesis* created in 1979 by Raymonde Debray Genette. The former determines the use of external source texts, while the latter is used to identify the writing of the drafts properly speaking. <sup>65</sup>

Genette herself points out the difficulty of distinguishing between the two, cause when an author makes a reading note, it may have already impacted the endogenetic writing process. Hans Zeller adds a level of complexity to the discourse: he separates "*Befund*" and "*Deutung*", strictly dividing what is conceived as a "record" (documents as objective facts) and what instead is an "interpretation". <sup>66</sup>

Zellers' studies exemplify the contemporary push in textual scholarship to encompass a broad spectrum of exogenous elements. The fascination with these unique libraries gained momentum at the onset of the 20th century, as evident in collections like "Bibliothèques d'écrivains" <sup>67</sup> (2001) and "Reading Notes" <sup>68</sup> (2004).

We will briefly proceed in the description of a couple of identificatory cases of authorial libraries that manifest themselves in the digital medium, such as:

- Melville's marginalia online
- Darwin Online
- Beckett Digital Manuscript Project

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<sup>63</sup> DRISCOLL, PIERAZZO 2016, p. 11.

<sup>64</sup> FERRER 2011, p. 185.

<sup>65</sup> GENETTE 1979.

<sup>66</sup> See: ZELLER 1971 and ZELLER 1995.

<sup>67</sup> DÉCULTOT, D'IORIO, FERRER 2001.

<sup>68</sup> VAN HULLE, VAN MIERLO 2004.

## 2.2 Melville's Marginalia Online

The Melville's Marginalia online project<sup>69</sup> is a digital edition and online catalogue of the private library of author Herman Melville. The project is one of the first that aims to provide a digital resource for researching Melville's literary influences by making parts of his library available. As one could expect, reading played a major role in the writer's life and he was «extraordinarily responsive to literary influence»,<sup>70</sup> making him an active annotator. Thanks to this legacy, the Melville marginalia online (from here onward referred to as 'MMO') aims to address the challenges of representing a writer's library utilizing an accessible catalogue of the books owned, borrowed, or consulted by the author himself, and a Digital Edition with digital reproductions of some of the surviving copies with his annotations.

The project is built by making use of previous research, such as Merton Sealts Jr.'s work *Melville's Reading: A Check-List of Books Owned and Borrowed*, first published in 1948 and last updated in 1988.<sup>71</sup> As for the digital edition, it is based on the book *Melville's Marginalia* by Wilson Walker Cowen.<sup>72</sup>

While the catalogue is a combination of a virtual library and the extent library of Melville, it contains the copies of which a digital facsimile is available (supplying the link when it is externally hosted), and, secondly, the copies that can only be consulted in the institutions that hold them.

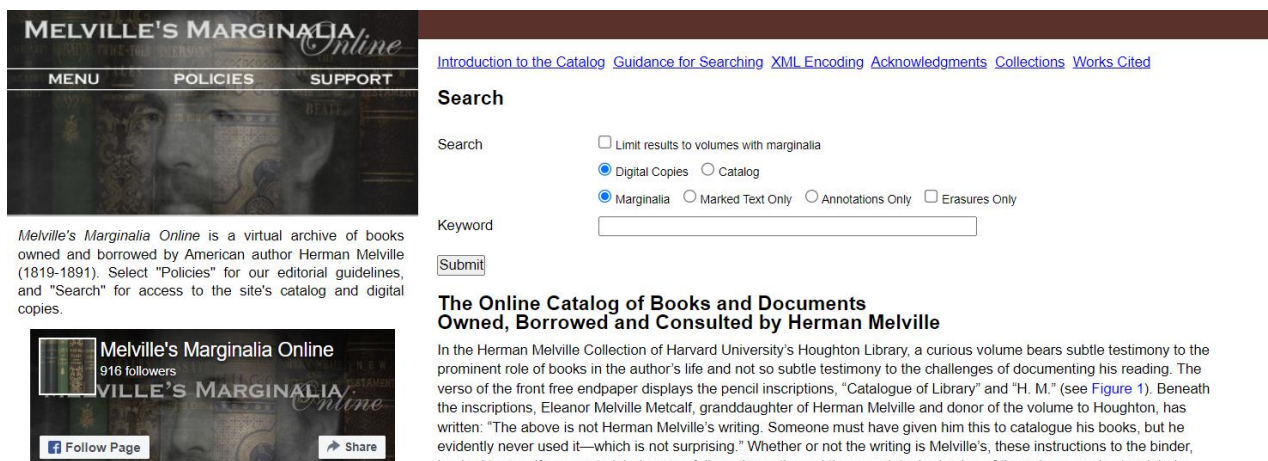


Fig. 1

<sup>69</sup> <https://melvillemarginalia.org/Browser.aspx>

<sup>70</sup> OLSEN-SMITH, NORBERG, MARMON 2008.

<sup>71</sup> SEALTS, MERTON 1988.

<sup>72</sup> COWEN 1987.

Through a well-functioning search engine (Fig. 1), users can search for all books associated with the writer or only those known to have survived. Moreover, it offers a wide range of parameters to facilitate the queries such as keyword, genre, and subject; or queries related to the collection, distinguishing between books owned and borrowed, containing marginalia ecc...

The search results are displayed as bibliographical entries with standard metadata and a link to a digital facsimile, when available.

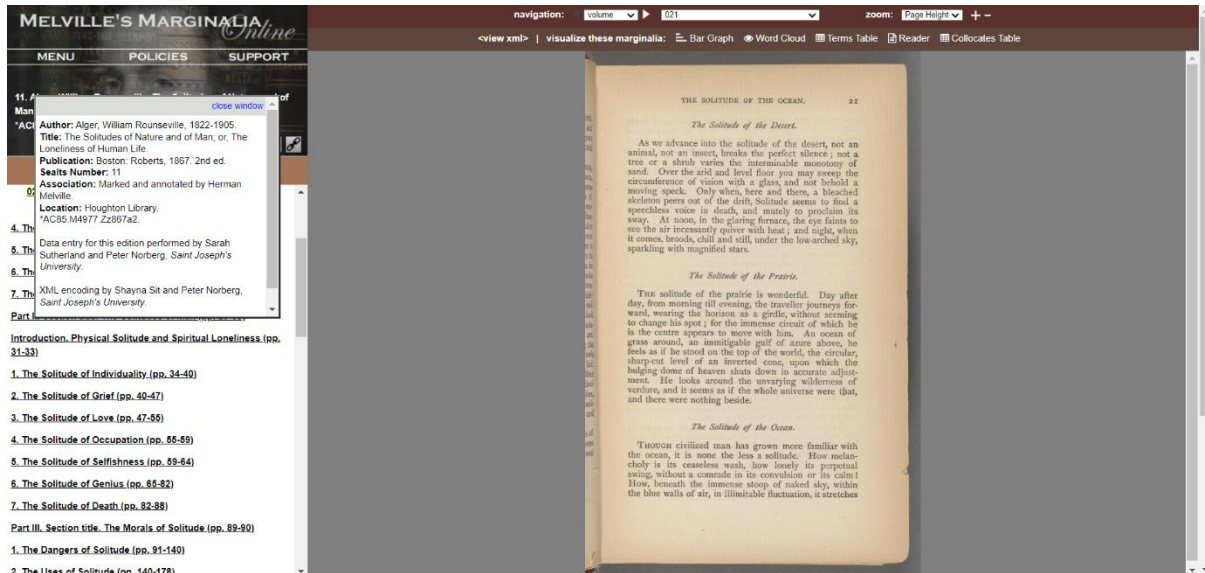


Fig. 2

The second part of the MMO project consists of the digital edition, constituted by the digital reproductions of the surviving copies (Fig. 2).

Each copy is accompanied by a critical introduction or essay on the *marginalia*, authored by one of the editors. These essays highlight connections between the book's content, its marginalia, and texts written by Melville. The facsimile allows users to browse pages, zoom in, and click on annotations for cross-referencing. *Marginalia* are meticulously described and transcribed in accordance with editorial guidelines, including the identification and description of their types.

A valuable addition to the project is the flexibility afforded to users. They have the option to navigate volumes page by page, explore all pages with markings and inscriptions, or specifically focus on pages with inscriptions alone. This flexibility arises from the decision made by editors to digitize every page, not limiting the process to those exclusively containing marginalia.



For what concerns the *marginalia*, the site could benefit from a simple visualization of the textual connections or the possibility to easily jump between different texts. As for now, it seems like the current presentation follows to a great extent the design and approach of a printed edition and does not take much advantage of the possibilities of the digital medium.

Finally, a dedicated section on technical implementations could serve as a valuable addition to the webpage, offering access to XML encoding details. Additionally, leveraging crowd-sourcing for metadata additions or text transcriptions presents another promising idea.

### 2.3 Darwin Online

Darwin Online<sup>74</sup> stands as the world's most extensive Darwin resource, offering a comprehensive scholarly platform for exploring the life and works of Charles Darwin. This monumental website encompasses 300,000 searchable text pages, 230,000 page images, 119,500 manuscript scans, 6,000 PDFs, and 18,000 book illustrations. With Darwin's writings available in 29 languages, the site features the largest collection of his private papers and manuscripts ever published, totalling around 20,000 items, including 9,000 transcribed manuscripts.

The launch of Darwin Online in 2006 garnered international attention, becoming a media sensation and reaching an estimated 400 million people. The site's contents include not only Darwin's works but also an extensive bibliography, translations in 29 languages, and manuscripts signed or owned by Darwin and his family. Notably, the website provides the most complete list of scientific descriptions of Darwin's Beagle specimens and reconstructs the entire library Darwin used during his voyage. Continuously evolving, the platform adds new discoveries and materials, maintaining its status as a free and invaluable scholarly resource, although ongoing funding is crucial for its sustainability.

Users can navigate through the materials using various tools, including table of contents pages, search functionalities, and the Freeman bibliographical database. The site advises on

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<sup>74</sup> <http://darwin-online.org.uk/>

how to search within documents, move within large documents, and adjust font size for optimal viewing.

Citations for using Darwin Online in research or publications are specified, emphasizing the importance of proper attribution. The search engine encompasses electronic documents and a database of bibliographical and manuscript archive records, utilizing the Lucene search engine for efficient and unified data retrieval.

The electronic texts are categorized into Books and Pamphlets, Publications in Serials or Articles, Manuscripts, and Supplementary Works. These texts, available in XHTML format, are meticulously transcribed and can be viewed alone or alongside facsimile images. (Fig.4)

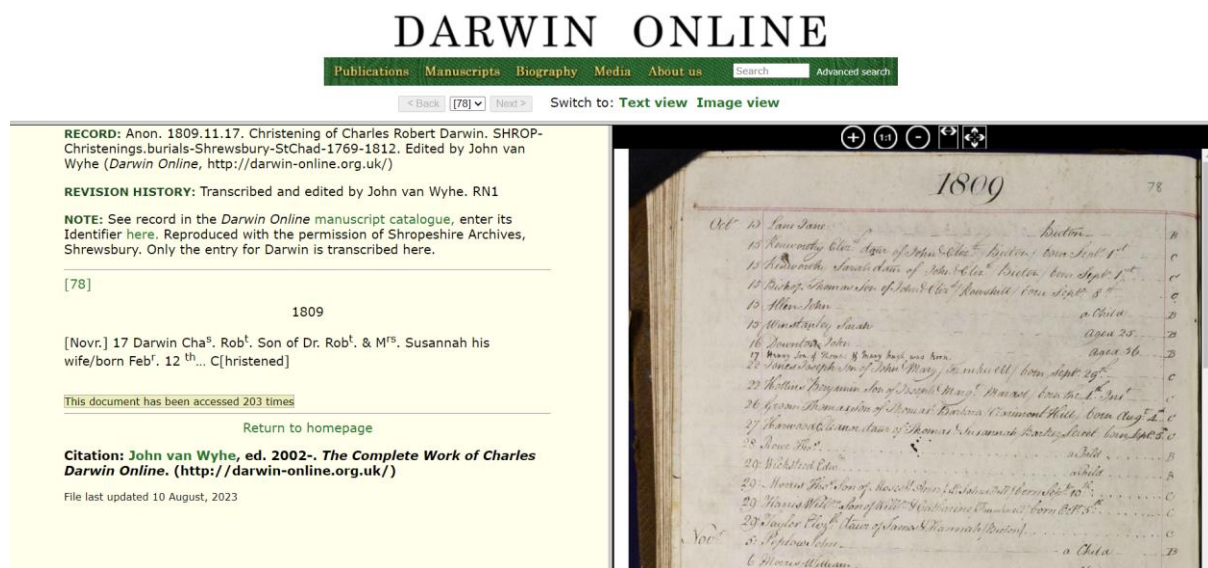


Fig. 4

Manuscripts, the largest collection ever published, follow specific transcription rules. The site also provides information on navigating images of publications and manuscripts, including details on scanning processes, file formats, and download options. The inclusion of PDFs allows for offline viewing and printing.

The website offers a comprehensive search interface, with three main types: Advanced Search covering the entire website, Freeman Bibliographical Database Search, and Darwin Manuscript Catalogue Search. The electronic texts are complemented by manuscript images, which vary in provenance and are currently presented in greyscale.



The site's top frame includes essential links, a quick search box, and navigation buttons. Permanent stable URLs facilitate easy linking to specific pages or documents. The website's design ensures accessibility for various browsers, even without Javascript or frames. Lastly, the project also offers comprehensive technical documentation that address the overall structure from the Back End, following processing through Java/Lucene indexing process, integration with the full text corpus, and the solutions adopted for the initial rendering by the Front End. Alongside, Data Encoding standards and content markup standards are provided. The whole documentation is curated by Van Wyhe and Antranig Basman.

The website was lastly implemented in 2021 with the addition of the entire collection of all the book reviews Darwin ever published, this would make the largest collection of reviews of any scientific figure in history. The available material allows you to read, directly from the original sources, how Darwin's work was received and how it was "narrated" to those who were beginning to learn about his work through these texts. Therefore, it is a decidedly precious testimony, given the impact that Darwin's work has had not only on science.

Despite his being innovative in various fields, the website doesn't present itself with a user-friendly interface. First of all, the search engine itself, despite providing a wide range of search methods, could result conducive for the average user and could use a bit more explanation of how to properly navigate through it. Lastly, even though the encoding standards are clearly defined it could be useful to provide a downloadable XML version of the transcriptions.

## 2.4 Beckett Digital Manuscript Project

The Beckett Digital Manuscript Project<sup>75</sup> (BDMP) is a prime illustration of excellence within the domains of textual scholarship, genetic criticism, and digital editing.

In order to fully comprehend the scope of the deep research undertaken by the BDMP it should be necessary to define the concept of genetic criticism and how it was created. The necessity of new methods in the field of philological studies starts being evident particularly when facing

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<sup>75</sup> <https://www.beckettarchive.org/home>

the task of working on modern manuscripts. The influence of structural linguistics and post-structuralism led to a:

[...] shift of interest from the literary object as a final product to aspects of the writing process (*écriture*) and to mechanisms of textual production initially served as the ideal repertoire for the study of Heinrich Heine's manuscripts, acquired by the Bibliothèque Nationale de France in 1966. The study of literary drafts gradually gained institutional support in France (*Centre d'Analyse des Manuscrits* (1976) & *Institute des textes et manuscrits modernes* (1982)) while the collaborative research environment inaugurated a scientific scholarly approach to textual genesis, i.e. genetic criticism (*critique génétique*)<sup>76</sup>.

It thus elaborates a textual theory of "writing poetics" rather than one of "textual poetics"<sup>77</sup>. The text has to transcend its physicality and be seen as a "semiotic object".

Maybe because of this destructuralization of the text, Gabler says that «the editing of manuscripts [...] belongs exclusively in the digital medium, as it can only there be exercised comprehensively».<sup>78</sup>

According to Van Hulle, Samuel Beckett is a «paradigmatic author of manuscript genetics»<sup>79</sup>; the author not only shows a pluralistic nature, transcending different genres but also make use of both French and English in his literary drafts. The drafts themselves become both witnesses and vehicles of the writing process, which for Beckett was an "excruciatingly arduous task".<sup>80</sup>

The Beckett Digital Manuscript Project is a collaborative effort involving the Centre for Manuscript Genetics (University of Antwerp), the Beckett International Foundation (University of Reading), and the Harry Ransom Humanities Research Center (Austin, Texas). Additional support comes from Beckett's Estate and various national and international funding bodies, including the ERC. Launched in 2011, the project aims for a modular evolution, planning to provide 26 research modules for an equal number of Beckett's works in the digital archive. Accompanying these modules are 26 printed volumes that analyse the genesis of the texts found in the corresponding manuscripts. It is overseen by Dirk van Hulle and Mark Nixon, but a

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<sup>76</sup>SICHANI 2017, p. 2.

<sup>77</sup> GENETTE 1979.

<sup>78</sup> GABLER 2010, p. 52.

<sup>79</sup> VAN HULLE 2008.

<sup>80</sup> SMITH 1982.

comprehensive list of contributors and credits is present in the 'Colophon' section on the website.

As stated in the “Series Preface”, the BDMP aims to «function both as a digital archive and as a genetic edition [...] in that [it] digitally reunites the manuscripts of Samuel Beckett's works and facilitates the exploration and examination of the genetic dossier from diverse perspectives»<sup>81</sup>.

It achieves this through the accessible representation and transcription of Beckett's drafts, providing facsimiles and full transcriptions of all versions of the works. The project offers two methods of transcription - topographic/document-oriented and linear/text-oriented - alongside high-quality digital images of the drafts, allowing for a comprehensive understanding of the original documents (Fig 5.).

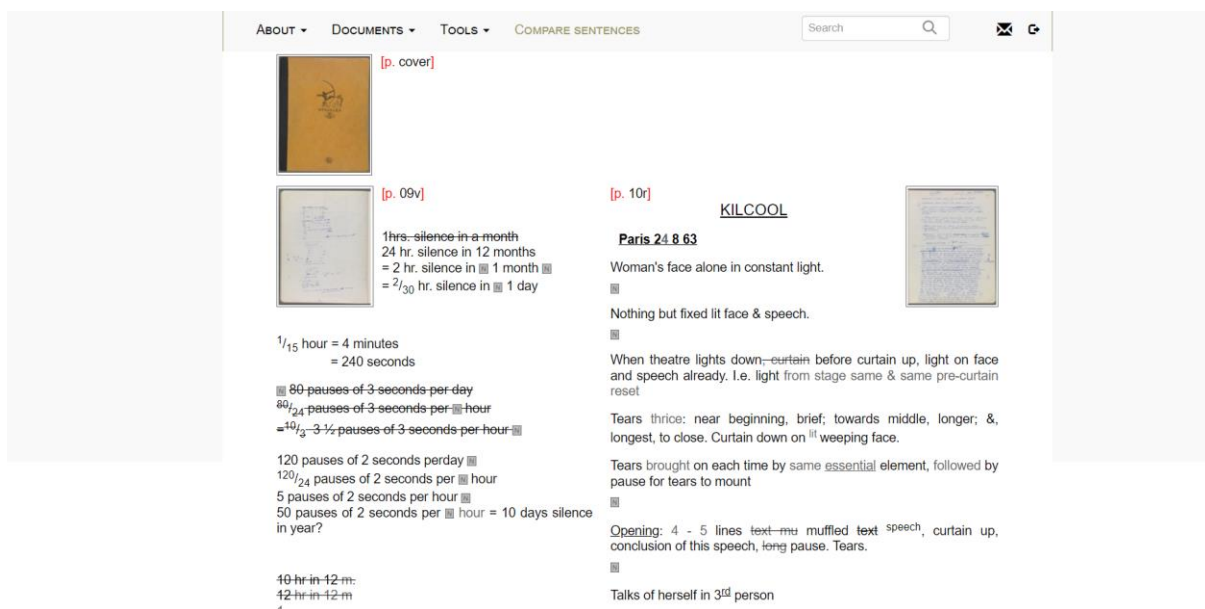


Fig. 5

The BDMP's sophisticated encoding scheme and content architecture enable the visualization and processing of primary material in various contexts and ways, facilitating dynamic comparisons of compositional and translation variants.

The digital edition's encoding design is based on Extensible Markup Language (XML) using the Guidelines of the Text Encoding Initiative<sup>82</sup> (TEI P5). When the TEI published version 2.0.0. of its P5 guidelines, it incorporated most of the recommendations made by the Text

<sup>81</sup> <https://www.beckettarchive.org/2-editorial>

<sup>82</sup> <https://tei-c.org/guidelines/p5/>

Encoding Initiative's 'Special Interest Group'<sup>83</sup> (SIG) working on genetic editions. The BDMP uses some of these new tags but also deviates in some instances, it follows the definitions of fundamental notions such as 'document', 'text', 'version', and 'work' as discussed by Peter Shillingsburg in his book *Scholarly Editing in the Computer Age*.<sup>84</sup>

Each document undergoes thorough markup encompassing metadata, primary structural tags, global attributes, and authorial alterations, including additions, deletions, transpositions, metamarks, and their associated attributes. Furthermore, specific tags incorporate an @xml:id attribute, referencing a singular, defined element. This feature is implemented to facilitate the cross-document functionalities of the Beckett Digital Manuscript Project during the rewriting process.

A really interesting feature that allies the editors to mark the degree of uncertainty in a digital genetic edition is the possibility to add a @cert attribute to the <note> tag in the markup. The genetic editions are published in a Java framework as a Cocoon web application 2.1.11 inside the Apache Tomcat servlet container to generate content dynamically. The raw files (XML, images, scripts) are presumably converted into the HTML frontend by a number of XSLT scripts on the fly. The Beckett Digital Library, given its different material and purpose, significantly differs from the overall uniform technical design, using a relational database infrastructure, for which no further implementation details are provided.

For what concerns the visualization of the manuscripts, a set of metadata is provided with a full bibliographical description, holding library, and transcription. Each document can be browsed through a text view or an image view, the latter offering a zoom feature, a text image visualization, topographic transcription, and a linear transcription. It is worth mentioning that the linear transcription renders a graphic impression of the original document's layout. Lastly, the XML encoding is also available only for browsing.

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<sup>83</sup> <https://tei-c.org/activities/sig/>

<sup>84</sup> SHILLINGSBURG 2006.

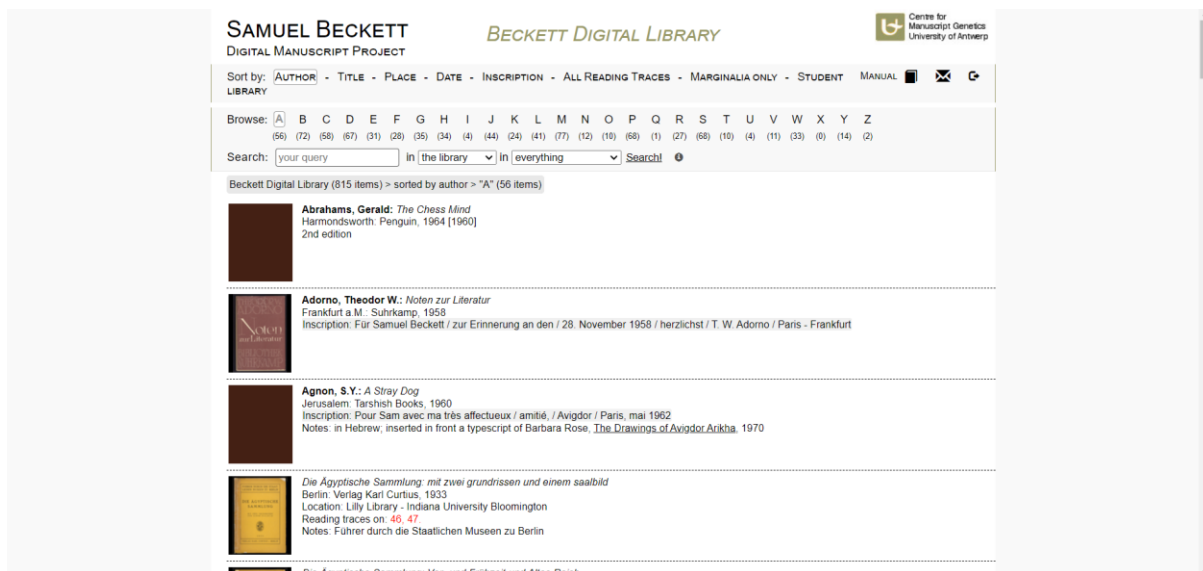


Fig. 6

The Beckett Digital Library (Fig. 6) is a separate module from the whole project and aims to digitally reconstruct Samuel Beckett’s personal library, consisting of both the books he possessed and the virtual ones, for which no physical copy has been retrieved, meaning the book's entries used by the writer based on allusions on his works/drafts. It currently houses 815 extant volumes, as well as 247 virtual entries for which no physical copy has been retrieved. The showcasing of the document is made using a relational database format, providing a number of metadata for each book entry, such as bibliographic data, the ‘inscription’ field (Beckett's signature, date of acquisition, dedication etc.), information about ‘reading traces’ in the book and a “manuscript link” that will direct the user to the relevant manuscript whether a passage is alluded to in the drafts.

The search engine is very functional, allowing across-module feature, providing full-text search and “suggested search”. One of the key features that distinguish the BDMP is the production of both digital and printed output, once more highlighting the hybrid nature of a genetic edition, while also reconceptualizing the concept of digital paradigm.

Thanks to a scholarship obtained at the *Alma Mater Studiorum* of Bologna I had the opportunity to collaborate to the encoding of one of the Genetic Edition, particularly the

Murphy module. Having the credentials necessary to enter the editing process, I worked on the encoding of the MS-TCD-10971-8.xml.<sup>85</sup>

As specified in the editing module:

Due to an agreement with the Estate of Samuel Beckett and the publishers of Beckett's work, the digital edition of Murphy only contains draft versions leading up to the publication of the text (the so-called 'avant-texte'), including page proofs. It therefore excludes epigenetic material such as later annotated editions.<sup>86</sup>

The XML encoding of Beckett's library make use of the eXide editor<sup>87</sup> (Fig. 7). eXide is a web-based XQuery IDE built around the ace editor, tightly integrated with the eXist-db<sup>88</sup> native XML database.

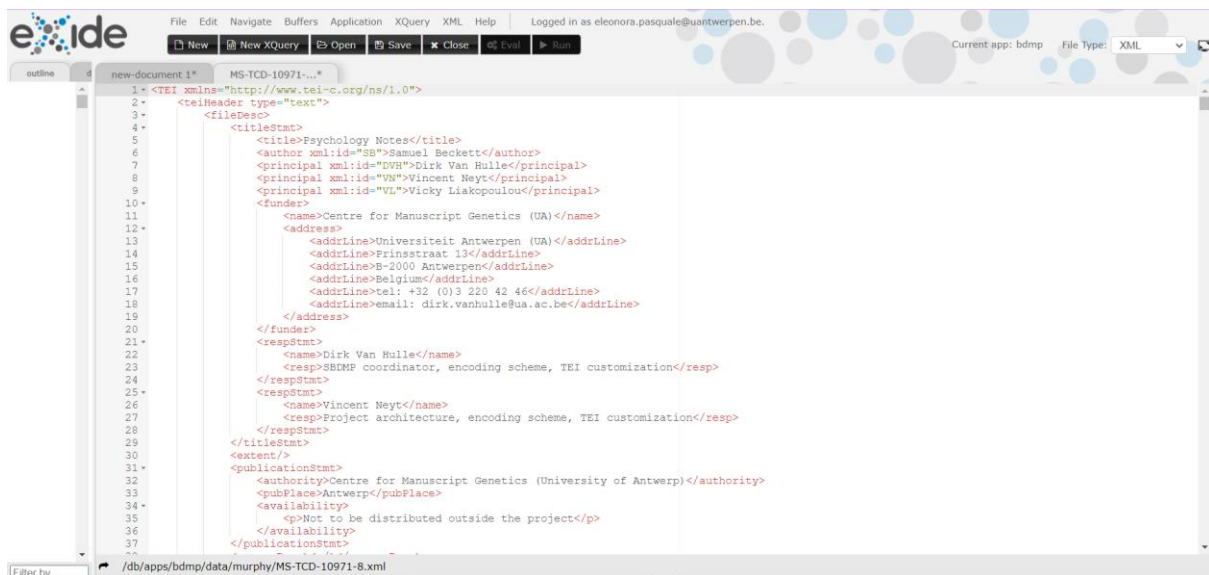


Fig. 7

This last one (also called eXist for short) is an open-source software project for NoSQL databases built on XML technology. It is classified as both a NoSQL document-oriented database system and a native XML database (and it provides support for XML, JSON, HTML

<sup>85</sup> Numbering follows TCD archive foliation.

<sup>86</sup> <https://www.beckettarchive.org/noti/about/catalogue>

<sup>87</sup> <https://github.com/eXist-db/eXide?tab=readme-ov-file>

<sup>88</sup> <https://exist-db.org/exist/apps/homepage/index.html>

and Binary documents). Unlike most relational database management systems (RDBMS) and NoSQL databases, eXist-db provides XQuery and XSLT as its query and application programming languages.

For the encoding, we relied on the Becket Digital Manuscript Project encoding guidelines.<sup>89</sup> The text encoding suggested by the project for dealing with prose is the following:

```
[xml] <text xml:id="MS-UoR-2934">
<body>
<div type="page" n="01r" rend="recto">
<pb n="01r"/>
<head>TITLE</head>
<seg n="MS-UoR-2934,[0127]">xxx.</seg>
<seg n="MS-UoR-2934,[0127|001]" rend="part1">xxxxx xxx xxx
xxxxxxxxxxxxxxxxxxxxx </seg>

</div>
<div type="page" n="02r" rend="recto">
<pb n="02r"/>
<seg n="MS-UoR-2934,[0127|001]" rend="part2">xxxxxxxxx.</seg>
<seg n="MS-UoR-2934,[0128]">xxxxxxxxx.</seg>

<seg n="MS-UoR-2934,[0129]">xxxx.</seg>
<seg type="paralipomena">xxx.</seg>
<seg n="MS-UoR-2934,[0130]">xxxxxx.</seg>
<seg n="MS-UoR-2934,[0130]">xxxxxxxxxxxxxxxxxxxx xxxxxxxx.</seg></div>
</body>
</text>[/xml]
```

The portion of text I had to encode gave me the opportunity to gain a deeper understanding regarding the use of the tags in the text section, the most common intervention from Beckett's hand were additions, deletion, underlining and highlighting.

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<sup>89</sup> <https://bdmpmanual.uantwerpen.be/>

All these cases have their own attributes, but for all the four cases mentioned above the @type, @hand, @rend, and @resp attributes are an option and, in some cases, are obligatory. The @type and the @rend attributes vary according to the tag, but for what concerns the @hand attribute, at the moment we can distinguish between three different hands:

- handwritten additions made by Samuel Beckett (hand="#SB")
- typewritten additions made by *anyone* – including Samuel Beckett (hand="#typist"),
- handwritten additions *not* made by Samuel Beckett (hand="#unknown").

The @resp attribute, on the other hand indicates the person responsible for the deletion's transcription, and its value consists of a hashtag (#), followed by the transcriber's initials.

The deletions are recognized by the <del> tag and are distinguished in 4 different types:

- crossed out text (type="crossedOut"),
- overwritten text (type="overwritten"),
- instant corrections (type="instantcorrection")
- and text that was marked for deletion by underlining (type="underlined").

Additions use the <add> tag, we can distinguish between three different hands:

- handwritten additions made by Samuel Beckett (hand="#SB")
- typewritten additions made by *anyone* – including Samuel Beckett (hand="#typist"),
- handwritten additions *not* made by Samuel Beckett (hand="#unknown").

Both the <del> and <add> tags use the same criteria for the @rend attribute, which indicates the writing tool used to mark the deletion. At the moment there are 5 different writing tool renditions:

- additions made in blue ink (rend="blue ink"),
- additions made in black ink (rend="black ink"),
- additions made in ink darker than blue, but lighter than black: (rend="blueblack ink"),
- additions made in red ink (rend="red ink")
- supralinear made using a pencil (rend="pencil")

The 'ink' in these cases can both be a pen's ink, or a typewriter's ink ribbon.



Finally, the <hi> tag marks a passage that was highlighted in the original document (in most cases by the author). We distinguish 9 different types of highlights:

- italics (rend="i")
- bold (rend="b")
- boxed (rend="boxed")
- circled (rend="circled")
- connected (rend="connect")
- doubly connected (rend="updownconnect")
- indented (rend="indented")
- superscript (rend="sup" – ONLY if distinct from a supralinear <add>)
- underlined (rend="u")

The guidelines also encompass some more specific cases such as “boxed”, “circled”, “connected”, “doubly connected”, “intended”.

In Fig. 8 there are some examples of the tags above mentioned, present in the Murphy genetic edition.

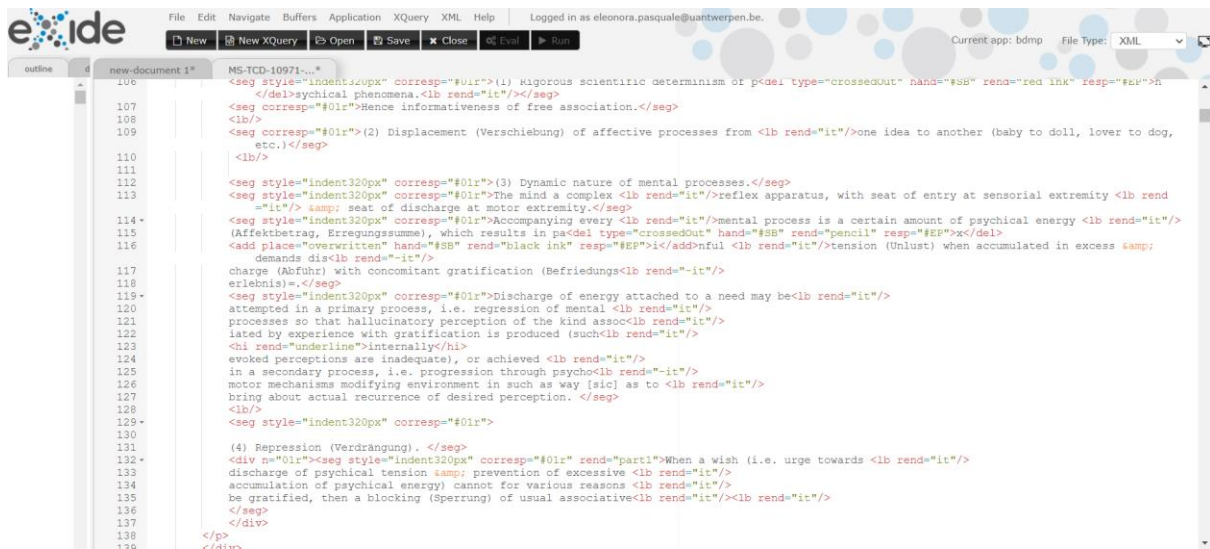


Fig. 8

## Ch. 3 Gadda's library

### 3.1 Gadda, the reader

Throughout his life, Carlo Emilio Gadda experienced a nomadic existence, compelled to constantly shift residences and even countries. This restlessness stemmed from the inner tumult of his soul, and at times, it was a pragmatic necessity dictated by the demands of his profession or the disruption of war. The engineer traversed various cities, both within and outside Italy, creating a mosaic of diverse experiences.

Yet, amid the constant flux of his surroundings, there remained an imperative requirement for Gadda to truly feel at home — the presence of his books. Regardless of the unfamiliarity of a new city or the challenges presented by shifting circumstances, the solace he found in the company of his literary companions was unwavering.

Throughout all his peregrinations, of course many volumes were , «dispersed or abandoned in city or district transfers».<sup>90</sup> The result is a library scattered through 4 main locations, according to the author's will.

The two main funds that collect Gadda's library are the one located in the Biblioteca Teatrale del Burcardo in Rome<sup>91</sup> and the one kept at the Archivio Liberati di Villafranca of Verona. The former is the largest collection among the whole four, collecting approximately 2500 volumes and more than 70 periodicals. It was bequeathed by the author, according to his will and was catalogued and studied by Andrea Cortellessa, Maria Teresa Iovinelli, and Giorgio Patrizi<sup>92</sup> in 2001; the publication includes a series of thematic essays by various scholars on the different sections of the library, moreover, it is accessible also online on the Edinburgh Journal of Gadda studies,<sup>93</sup> curated by Federica Pedriali.

The second most significant collection, as previously mentioned, is the Archivio Liberati, housing approximately 800 volumes and periodicals. These are the books that the author intended to retain until his death, subsequently becoming part of Giuseppina Liberati's

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<sup>90</sup> PEDULLÀ 2001, p. 8.

<sup>91</sup> The library was originally positioned next to Teatro Argentina, now moved in Rome's SIAE offices in the EUR neighbourhood.

<sup>92</sup> CORTELLESSA, PATRIZI 2001.

<sup>93</sup> <http://www.gadda.ed.ac.uk/Pages/resources/catalogues/burcardoa.php>

inheritance. Arnaldo Liberati, in his book *Il mio Gadda*,<sup>94</sup> provides an initial inventory for this collection while simultaneously tracing the history of the Villafranca fund from Giuseppina's passing to the present day. The criteria guiding Gadda's selection of books destined for the Burcardo and those retained within the Liberati section remain unclear. However, it is possible that he wished to keep with him the volumes he deemed more closely connected to his most recent works.

In addition to these two primary collections, additional volumes can be incorporated from the Archivio Bonsanti of the Gabinetto Scientifico Letterario G.P. Vieusseux in Florence. This archive contains the volumes and periodicals donated to Alessandro Bonsanti before Gadda's relocation from Florence to Rome. The Bonsanti collection primarily comprises correspondence with friends and family, along with manuscripts featuring notes and various texts<sup>95</sup> and it can be regarded more as a family archive than an individual one. Within it, one finds not only the books purchased by the author himself but also those owned by Adele Gadda Lehr, Clara Gadda, Enrico Gadda, and Francesco Ippolito Gadda.

Lastly, a smaller bundle of books is kept at the Biblioteca Trivulziana in Milan. The institution initiated a project to collect correspondence and archives of Milanese writers. This fund collects the books he left to Gian Carlo Roscioni throughout the seventies and the portion belonging to the Fondo Gadda of the Archivio Garzanti and of the Fondo Citati, in 2002.<sup>96</sup> To these, must be added the Fondo Gelli, which is «still fully the private property of its possessor, and there is no inventory of it».<sup>97</sup>

The overall impression that arises from this situation is one of "fluidity"<sup>98</sup> as Giorgia Alcini describes it, a fluidity that aligns perfectly with the author's intention not to present a unified image of himself: «a projection of lack of unity by Gadda himself».<sup>99</sup> Is not a case that the self-portrait the writer leaves behind is one of fragmented complexity, a "garbuglio" (tangle), mirroring precisely the tangled nature he attributes to existence.

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<sup>94</sup> LIBERATI 2014.

<sup>95</sup> <https://www.vieusseux.it/archivio-contemporaneo/elenco-dei-fondi/carlo-emilio-gadda.html> and ITALIA 2003.

<sup>96</sup> <https://www.gadda.ed.ac.uk/Pages/resources/catalogues/trivulz.php>

<sup>97</sup> VELA 2015.

<sup>98</sup> ALCINI 2016.

<sup>99</sup> VELA 2011.

By visualizing Carlo Emilio Gadda's scattered libraries and dispersed archives, we gain insight not only into the intricate facets of the engineer's personality but also into his conception of reality.

As usual, when delving into an author's library, the collection itself takes on the semblance of a living organism, a tool that allows for the exploration of diverse reading paths, unveiling a network of correlations, displaying tangible traces of its utility as a working instrument.

In Gadda's case, as one gradually explores his collections, an archive organized through the books themselves is laid bare—a library that acts as a container for a parallel personal archive. Even when certain books are intentionally left behind, it is a deliberate act. It is not coincidental that towards the end of his life, Gadda was driven by «a sort of Liliana Balducci-style 'oblative mania' on the part of a senile Gadda who no longer wants to know about his paperwork and wants to get rid of it so that he never has to go through it again».<sup>100</sup>

Approaching Gadda's library, a scholar is aware that they are confronting a dismembered entity, not due to external forces, but a deliberate choice made by the writer himself. In the preface of the first volume of *La biblioteca di Don Gonzalo*, Walter Pedullà describes the author's library as "earthquake-stricken"<sup>101</sup>, marked by noticeable absences, including titles he meticulously documented having read.

Nevertheless, during his life, he must have had the desire to create a library that reflected his interests and his education: "a biographical library"<sup>102</sup> as Vela says. What is fairly certain is that the engineer was not what could be generally considered a bibliophile, a book collector, or a voracious reader. Aligning himself with Lombardian standards, he was more accustomed to a frugal lifestyle, exhibiting a certain tendency to avoid expenses.

Even from this point of view, Gadda stands out as an atypical case in the realm of authorial libraries owned by 20th-century personalities. First of all, as we already specified, his library is composed of a sum of multiple libraries that faithfully mirror an anomalous education. An educational background that made him capable of combining mathematical and humanistic

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<sup>100</sup> VELA 2014, p. 10.

<sup>101</sup> PEDULLÀ 2001, p. 8.

<sup>102</sup> VELA 2011.

sciences in a wholly unusual pairing, not only for literature but also for Italian philosophy in the twentieth century.

As a result, Carlo Emilio's library doesn't fit the mold of a "erudite library" (*biblioteca erudita*) but rather takes on the character of an instrumental library, dedicated to nurturing the "science" of passions to which the engineer has always aspired. Additionally, the collection itself is relatively modest, comprising a total of 2,995 volumes and 155 magazines—a significantly smaller number compared to other notable 20th-century writers, such as Umberto Eco, who amassed around 3,000 volumes.

Another noteworthy aspect that becomes apparent upon delving into Gadda's library is the conspicuous absence of volumes by contemporary authors. Instead, there is a substantial presence of philosophy books, the majority of which were acquired between 1924 and 1929 (excluding psychoanalysis books, obtained from the 1930s onward), a specific timeframe that aligns with Gadda's involvement in the Scientific-Literary Academy.

The examination of the library serves as a valuable tool for chronologically tracing the author's biography. The philosophy books correspond to the aforementioned period, while the mathematical books align with the time when Gadda was employed as a teacher at the Liceo Parini. Finally, the more technical volumes correlate with Gadda's journalistic and radiophonic collaborations.

According to Claudio Vela's analysis, the library experienced its most notable expansion during the 1950s, a period in which Gadda was employed at RAI (Radiotelevisione Italiana) and was starting his journey as an established novelist.

The increase in the library was not only a result of gifts from colleagues or intellectuals but also stemmed from an increase in his income. A parallel surge in the library's size had occurred previously, during the 1940s when Gadda was associated with the *Giubbe Rosse* in Florence. During this period, he amassed more than four hundred works, either through donations or strong recommendations from friends.

Currently, the most valuable tool for delving into Gadda's library is the Catalogue curated by Giorgia Alcini (University of Rome La Sapienza) and Milena Giuffrida (University of

Catania).<sup>103</sup> Published in 2022 by Bulzoni Editore, this comprehensive inventory encompasses all the volumes in Carlo Emilio Gadda's library. It can be seen as the successor to the cataloguing efforts of Andrea Cortellessa and Giorgio Patrizi in 2001,<sup>104</sup> who meticulously inventoried the tomes housed in the Biblioteca del Burcardo.

The catalogue mostly uses as a starting point the first reconstruction of the library provided by Claudio Vela in 2011,<sup>105</sup> and, theoretically, the studies on Gadda's philosophical and literary education partaken by Lucchini<sup>106</sup> and Borali<sup>107</sup>, allowing for a more coherent and organic approach to the author's library.

The new catalogue not only brings together the four inventories, providing an extraordinarily important research tool for any future investigation into the Engineer's work, but also aim for the virtual reconstruction of the author's library.

As indicated in the Guide to Consultation, the criteria adopted are the same as the previous catalogue (texts presented in alphabetical order by author, with bibliographic data and indications of reading marks, from bookmarks to ownership notes and dedications), with the addition of the archive code for each title. In addition to the preserved texts, there is a collection of texts marked with an asterisk, dispersed but documented by the library's first inventory prepared in the 1970s by Maria Corti and Angelo Stella. Another additional value is the final paragraph,<sup>108</sup> which attempts to outline Gadda's *usus legendi*, focusing on the traces of the reading practices partaken by the author.

### 3.2 Gadda, the annotator

When examining an authorial library, a crucial aspect for comprehending the mind of the author under study is the investigation of their annotation habits. Gadda is no exception to this, and until 2016, this aspect remained largely unexplored in Gadda studies. Thanks to the efforts of

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<sup>103</sup> ALCINI, GIUFFRIDA 2022.

<sup>104</sup> CORTELLESA, PATRIZI 2001.

<sup>105</sup> VELA 2011.

<sup>106</sup> LUCCHINI 2019.

<sup>107</sup> BORALI 2019.

<sup>108</sup> Paragraph edited from ALCINI 2016.

Giorgia Alcini<sup>109</sup>, this is no longer the case. The scholar conducted a meticulous exploration of the reading notes found in the volumes housed in the Burcardo library, providing comprehensive transcriptions.

Gadda cannot be characterized as an avid annotator. Even when considering not only the formal annotations but also the reading marks left on the pages, the volumes containing them are relatively few.

For this reason, we could say that the relationship between Gadda and his books was one of «respectful distance».<sup>110</sup> This characteristic holds true for both fiction and reference materials like dictionaries and vocabularies, which constitute a significant portion of his library (more or less 30 volumes).

Alcini distinguished different types of intervention of the author on his books, from most to least invasive:<sup>111</sup>

1. Foldings,
2. Horizontal and vertical underlinings
3. Annotations
4. Inserted papers

Folded pages are a common occurrence in novels and can serve as a marker for an important passage to be revisited later or function as a bookmark to remember where the reader left off. Although Gadda's annotations are not extensive, one of his favoured reading habits was underlining, often using different colours or types of pencils. Two types of underlining can be identified: vertical and horizontal, the former being used to encompass larger sections of the text. In both cases, they are «spies of a participatory reading, albeit, at times, devoid of annotations».<sup>112</sup>

Basing her work on the typological distinction of annotation partaken by Giuseppe Frasso<sup>113</sup> and Nicholas Barker,<sup>114</sup> Alcini distinguishes the following categories of annotations:

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<sup>109</sup> ALCINI 2016.

<sup>110</sup> ITALIA 2017, p. 64.

<sup>111</sup> The original terms utilized are 1. piegature, 2. sottolineature orizzontali e verticali, 3. postille, 4. foglietti inseriti.

<sup>112</sup> ALCINI, GIUFFRIDA 2022, p. 51.

<sup>113</sup> BARBIERI, FRASSO (2003).

<sup>114</sup> BAKER 1998.

- Didactic (PD).

The notes he leaves when studying for an exam, particularly present in the texts he used during his time at the *Politecnico* or while pursuing his degree in philosophy. He also employed these notes to mark passages he deemed important for future reviews.

- Critical-praising (PCE)

Made to indicate approval or agreement with what is being read.

- Critical-negative (PCN)

The contrary of the PCE, shows a disagreement with the text.

- Literary (PL)

These are the cultural references sparked by Gadda's reading, they show Gadda's nature as an engaged reader, and are particularly useful for comprehending the scope of the mental library of the author.

- Personal (PP).

Encompass all notations that do not fall into the other four typologies.

In the books preserved at the Teatro del Burcardo Library, it is possible to come across some texts where Gadda left brief annotations on paper slips inserted between the pages of the book; the same habits are maintained also in the books that he bought with him in Rome, later entrusted to Giuseppina Liberati and now housed in the Arnaldo Liberati archive in Villafranca di Verona.

The picture Gadda leaves of himself in his annotations is one of a «moody, capricious, fussy reader»,<sup>115</sup> unafraid to challenge the authority inherent in written words. A clear example of this is his reproach to Montesquieu, being accused of being a jester (“*che pagliaccio!*”) or the lapidary consideration of Balzac as an “imbecile”.

### 3.3 Gadda Online

In recent years, studies on Gadda have been particularly flourishing in harnessing and making the most of the resources offered by the digital realm.

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<sup>115</sup> ITALIA 2017, p. 67.



A first attempt was the website [carloemiliogadda.it](http://carloemiliogadda.it),<sup>116</sup> archived from the original URL on the 28th of May 2019.

One of the most successful initiatives is The Edinburgh Journal of Gadda Studies<sup>117</sup> (EJGS), established in April 2000 by Federica Pedriali, with backing from Robert Dombroski and Emilio Manzotti. EJGS aims to serve as a hub for scholarly discussions through an annual electronic publication and an online resource center dedicated to Gadda studies. Regarded as a model for similar initiatives, EJGS continues to thrive, having published works by 83 scholars to date.

The website is organized into two sections:

- The Journal, a yearly electronic journal dedicated to the study of the works of Carlo Emilio Gadda
- The Resource Centre, an extensive reference source for Gadda scholars. Here, in the section Catalogue are listed the volumes and magazines contained in the Biblioteca teatrale del Burcardo,<sup>118</sup> curated by Andrea Cortellessa and Maria Teresa Jovinelli, and the ones donated to Giancarlo Roscioni, acquired in 2000 from the Biblioteca Trivulziana di Milano.<sup>119</sup>

Additionally, the website provides users with a site-wide search feature and an informative Introduction to Gadda, catering to those new to the topic.

The second project that deserves special attention is the Centro Studi Gadda (CSG).<sup>120</sup> It was established in Cremona at the University of Pavia with the initiative of Mariarosa Bricchi, Paola Italia, Giorgio Pinotti, and Claudio Vela. It serves as a dynamic and comprehensive hub for Gadda studies, engaging with archival materials, exploring Milan and Lombardy as narrative landscapes, and contributing to the deeper understanding of Gadda's literary legacy.

Situated at the Department of Musicology and Cultural Heritage, the CSG aims to be a space for documentation, discussion, and exchange, not only for specialists but also for those

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<sup>116</sup> <https://web.archive.org/web/20190528204130/https://www.carloemiliogadda.it/>

<sup>117</sup> <https://www.gadda.ed.ac.uk/index.php>

<sup>118</sup> <https://www.gadda.ed.ac.uk/Pages/resources/catalogues/burcardoA.php>

<sup>119</sup> <https://www.gadda.ed.ac.uk/Pages/resources/catalogues/trivulz.php>

<sup>120</sup> <https://centrostudigadda.unipv.it/>

approaching Gadda's literary universe for the first time. In order to maintain a high level of agency toward the user, one of the main goals of the project is enhancing visibility through exhibitions and theatrical, and educational initiatives, with a particular emphasis on Gadda's relationships with Lombardy in general, delving into the linguistic layers, institutions, and monuments that played pivotal roles in his literary works. This city, in fact, stands as a “narrative force” in a lot of his works, to the point that it can be considered one of the characters. A special focus is reserved for exploring Gadda's archives, autographs, and documents, particularly those emerging since the 1970s.

A different project, that maybe shows a less dynamic digital approach is GADDAMAN.<sup>121</sup> Developed by the Department of Musicology and Cultural Heritage at the University of Pavia (Cremona branch) in collaboration with the Department of Philology and Criticism of Ancient and Modern Literature at the University of Siena, it presents itself as a digital archive of manuscripts belonging to Carlo Emilio Gadda, providing access to the description and cataloguing of all of the four public funds containing Gadda's papers and materials. The website offers an exhaustive overview, census, and typological categorization of Gadda's papers as well as a cataloguing of each document within the funds. (Fig. 9)

Scheda dettagli	
Fondo:	Bonsanti
Segnatura:	Bon. II.1.2.34
Tipologia del materiale:	manoscritto
Tipologia di testo:	appunti
Titolo:	[Giornale di campagna]
Numerazione autografa:	
Data autografa:	
Presenza di elaborazione:	no
Incipit:	avv. Carlo Cattaneo, di Seregno, tenente degli alpini,
Explicit:	Stazione, Cividate - Malegno.
Note filologiche:	
Cartino:	
Presenza di note:	no
Numerazione note:	
Postille o altri elementi metatestuali:	no
Testo di riferimento:	
Pagine di testo:	

Fig. 9

<sup>121</sup> <http://www-5.unipv.it/gaddaman/>

To facilitate the approach to the material, the user can query the data, with advanced search options enabling cross-referencing of various indicators such as material type, text type, title, autograph date, location, presence of notes, annotations, reference text, and drawings.

The analytical filing, sheet by sheet, is descriptive and philologically oriented, detailed in the dedicated section: *Struttura delle Schede*. Typological cataloguing of materials distinguishes and separately identifies within each fund: unpublished literary texts, including essays and translations in any form (complete texts and fair copies, partial drafts, sketches, fragments); preparatory materials and various drafts (also in typescript or print drafts) of edited texts, all included in the general category of "*avantesto*"; documents and any other non-literary but documentary-interest material (e.g., notes).

On a general level, the archive aims to identify and study unpublished texts, providing valuable insights into the genesis of Gadda's work, a useful tool both in critical editions and specific studies.

The last relevant project that deserves to be mentioned is WikiGadda,<sup>122</sup> an innovative project launched in 2009, that serves as a collaborative hub for exploring the literary works of Carlo Emilio Gadda. Thanks to the wiki<sup>123</sup> format, the platform allows active audience participation through web browsers.

Within WikiGadda, the "Eros and Priapus" section stands out, unveiling the initial manuscript of Gadda's antifascist pamphlet written in 1944-45, later published in 1967. This section is further divided into two key components. The "Edizione Critica" provides insights into the editing process, encompassing criteria, notes, corrections, and integrations. On the other hand, the "Materiali" subsection hosts digital reproductions of manuscripts, typewritten texts, and prints. The critical edition, a collaborative effort, saw contributions from various individuals, coordinated by Paola Italia and Giorgio Pinotti.

The "Seminario" segment unfolds the project's history, offering glimpses into work materials and updates on seminars. Meanwhile, the "Archive" section catalogues information about Gadda's archives, catalogued analytically. For an extensive exploration of secondary materials, the "Bibliography" section directs users to the Secondary Bibliography of the Edinburgh

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<sup>122</sup> [http://www.filologiadautore.it/wiki/index.php?title=Pagina\\_principale](http://www.filologiadautore.it/wiki/index.php?title=Pagina_principale)

<sup>123</sup> <https://en.wikipedia.org/wiki/Wiki>

Journal of Gadda Studies (EJGS). Within the website, various noteworthy projects are highlighted, including the previously mentioned Gaddaman.

## Ch. 4 OpenGadda

### 4.1 The Ice Age of Copyright

When dealing with a modernist author, a problem that is often encountered is the copyright restriction. In fact, the digitalization of artistic and historical artifacts is usually obstructed, preventing access to both the physical item and its digital reproduction. The only exception being the case in which the artifact is in the public domain, meaning it has no intellectual property rights.

In the case of authorial manuscripts from the 20th century, there are multiple considerations related to the ownership, duration, and permissible uses of the works. Generally, copyright protection is granted to the author or their estate, and it typically lasts for the life of the author plus a certain number of years. Nevertheless, moral rights, which include the right to attribution and the right to the integrity of the work, may still apply even after the expiration of copyright and can influence how the work is used and attributed.

The concept of fair use or fair dealing allows limited use of copyrighted material without explicit permission. This provision is often applied for purposes such as criticism, commentary, news reporting, teaching, scholarship, and research. However, the application of fair use or fair dealing depends on factors like the purpose of use, the nature of the work, and the impact on the market for the original.

Archival and research exceptions may exist in some jurisdictions, permitting institutions like libraries and museums to preserve and provide access to manuscripts for scholarly or educational purposes.

Copyright regulations vary by country, and the European Union (EU) has implemented directives to standardize copyright laws among its member states. Currently, the Berne Convention serves as a fundamental legal framework in this context.

The most recent and notable is the Directive on Copyright in the Digital Single Market, which was adopted in 2019. This directive introduces new rules on the use of copyrighted content, addressing issues such as online content-sharing platforms and the rights of authors and performers.

Considering all this, textual scholars engaged in the editing of culturally and historically significant documents often encounter legal constraints in their academic pursuits. These limitations encompass both copyright restrictions and non-copyright considerations, such as the privacy and moral rights of authors. In practical terms, these additional challenges and legal ambiguities compel funding agencies, libraries, and archives to prioritize the digitization and dissemination of materials posing fewer legal issues.

According to the Code of Copyright and Related Rights, the Berne Convention protects all «intellectual works in the literary, scientific, and artistic fields, whatever their type, form of expression, merits, mode of communication, or objective»,<sup>124</sup> which in practice means that any written text (including those dictated by practical purposes, such as correspondence) is covered by copyright, as long as it constitutes an original intellectual creation. It is worth also mentioning that, although the list ambiguously mentions «books, pamphlets, magazines, and newspapers» among the examples,<sup>125</sup> the object of legal protection should be the intangible content of the text, not its material record (either manuscript, print, or electronic).

In recent years European textual and genetic scholars have faced many restrictions when working with literary work that were not yet in the public domain. One notable example is the case that Elsa Pereira addresses in her article: “*Authors’ rights vs. textual scholarship: a Portuguese overview*”.<sup>126</sup> Pereira illustrates the most relevant contours of copyright policy and licensing in countries with a legal tradition of *Droit d’Auteur*, which protects not only intellectual property but also the sensitive moral interests of authors. The paper particularly focuses to case studies that showcase legal shortcomings in balancing authors’ rights with the academic freedom of textual scholars, especially when digital editorial methodologies are involved. For these cases in particular the scholar argues and problematizes the way in which the protection granted to copyright holders creates the biggest obstacle in the research ecosystem, preventing knowledge production and scientific publication, especially for anyone investigating textual variance in the works of 20th and 21st-century writers.

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<sup>124</sup> Código do Direito de Autor e dos Direitos Conexos (CDADC). Law no. 45/85, of 17 September 1985, as amended up to Law-Decree no. 47/2023, of 19 June 2023, art 2 (1).

<sup>125</sup> CDADC, art 2 (1) (a).

<sup>126</sup> PEREIRA 2023.

As an example, she briefly explains her experience with this problem. In 2013, Pereira obtained written authorization from the Portuguese Society of Authors (SPA) to conduct a genetic-critical edition of poetry by Pedro Homem de Mello (1904-1984) for a post-doctoral project at the Center of Linguistics of the University of Lisbon. The project, approved by the Portuguese Foundation for Science and Technology, involved collaboration with the poet's heirs, who granted unlimited access to manuscripts. In 2019, after significant research and investment, the heirs, represented by SPA, informed the scholar that the poet's works were no longer available for the intended use. The reason for this was that they had sold a commercial edition to Assírio & Alvim, managed by a different editor.

Due to the absence of specified conditions in SPA's 2013 authorization, negotiations with the heirs and SPA's legal office failed, leading to the abandonment of the scholarly edition. Subsequent authorization requests for using transcriptions in articles were also ignored, leaving the entire project paralyzed. The situation was described as a "perverse self-denial",<sup>127</sup> not justified by the flexible nature of copyrights.

Another concerning case, recently discussed in the newspaper *Nascer do Sol*,<sup>128</sup> involves the Italian researcher Federico Bertolazzi, who spent over three years working on a scholarly edition of scattered non-fiction prose by Portuguese poet Sophia de Mello Breyner Andresen (1919-2004). Being supported by a scholarship, he had authorization from the author's heirs to access Sophia's manuscripts at the Portuguese National Library. However, when the edition was ready for publication, the heirs refused authorization, expressing a desire to restrict publication to what they consider the author's best works. Consequently, the scholar had to transform the publication into a mere inventory of bibliographic descriptions, omitting the texts—a strategy employed by European scholars to navigate the challenges posed by copyright restrictions and uncooperative heirs.

The problem does not limit itself to Portugal, and it seems to be accentuated in recent years due to the digital turn in humanities research. For this reason, Dirk Van Hulle talks about an Ice Age of Copyright, as opposed to the Golden Age of Manuscripts.<sup>129</sup> When studying 20th centuries writers, their manuscripts or correspondence are fertile ground for a better understanding of the author and are the foundation for genetic criticism; on the other hand, in

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<sup>127</sup> SPOO 2007, p. 567.

<sup>128</sup> CARVALHO 2022.

<sup>129</sup> VAN HULLE 2023.

a scholarly environment emphasizing Open Access, the copyright obstacle becomes a blind spot, leading researchers to focus on authors whose works are out of copyright. This trend risks freezing research within a specific period and potentially turning the golden age of manuscripts into an intellectual "ice age".

The lack of clear digitization protocols and descriptions, results in the need for extensive permission requests, creating a chain of communication hurdles. Additionally, technical protection measures often limit access to digital reproductions, and, generally, digital editorial approaches are regarded with suspicion by heirs, legislators, and judges. As Valentina Moscon sums up, the InfoSoc Directive itself «is based on the general assumption that, particularly in the online environment, right holders need effective and rigorous control over widespread forms of mass usage».<sup>130</sup>

Another exemplary case is the one involving James Joyce's Estate, which is particularly renowned for refusing permission and taking legal action against many researchers who publish the author's papers found in archives and libraries open to the community. In fact, the Estate has restricted access to documents, including letters by James Joyce and writings by other family members, preventing publishing scholars from quoting findings in articles, books, or online. Despite the accessibility of these documents in public archives, the estate's imposition of silence is attributed to a climate of fear cultivated by copyright holders.

Various solutions have been proposed to address this problem. The James Joyce's Correspondence project,<sup>131</sup> for example, is a free-to-use, open-access scholarly edition made possible by the expiration of copyrights in the unpublished letters of James Joyce under the laws of Belgium and many other countries. So, while the project is accessible in these countries, it is still locked in others such as Spain and UK, which are facing extended copyright periods.

A luckier situation is, instead, the one faced by Centre for Manuscript Genetics at the University of Antwerp when developing the already mentioned Beckett Digital Manuscript Project. With the permission of the Estate of Samuel Beckett and support from a European Research Council grant, the research team successfully negotiated with the author's heirs. A compromise was reached by limiting access to the digital scholarly edition through a paywall,

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<sup>130</sup> MOSCON 2015, p. 102.

<sup>131</sup> <https://joyceletters.uantwerpen.be/exist/apps/jjletters/index.html>



and the revenue generated from this paywall goes to the Beckett Estate<sup>132</sup>. The Estate, agreeing to this solution, acknowledged the importance of digital scholarly editing in increasing interest in Beckett's works, granting the BDMP directors the license to publish genetic editions behind the paywall and also providing collaborating institutions with institutional access to the edition.<sup>133</sup>

To propel the research community forward, the European Society for Textual Scholarship (ESTS)<sup>134</sup> has taken the initiative to organize in October 2023 an online symposium focused on Legal Issues in Textual Scholarship.<sup>135</sup> The symposium aims to delve into these obstacles, offering a platform to reflect on the legal constraints impacting textual scholarship in both analogical and digital contexts. This could be a first important step in acknowledging the difficulties faced by humanist, who are not sufficiently conversant with the regulations that apply to their activity and the legal implications of their work.

In order to help their scholar to learn more about digital sustainability and publish the digital outputs of their research safely, Oxford developed a Sustainable Digital Scholarship (SDS)<sup>136</sup> service to safeguard the legacy of their research by ensuring that research outputs can respect the FAIR principles (remain Findable, Accessible, Interoperable, and Reusable). The existence of this initiative shows a growing commitment to securing the enduring viability, accessibility, and impact of digital research outputs. It also provides a starting point for substantial dialogue, fostering discussions on critical issues concerning preservation, openness, collaboration, and ethical considerations.

## 4.2 The OpenAuthor platform

In order to find an effective way to be able to surpass the legal limitation imposed by copyright laws, we tried to develop a platform that aims to create an open environment,

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<sup>132</sup> <https://www.beckettarchive.org/getlogin.html>

<sup>133</sup> For more information on this topic see: DILLEN, NEYT 2016.

<sup>134</sup> <https://textualscholarship.eu/>

<sup>135</sup> Legal Issues in Textual Scholarship (27 October 2023), A symposium organised by The European Society for Textual Scholarship in association with the University of Borås – SSLIS and the University of Lisbon – CLUL.

<sup>136</sup> <https://www.sds.ox.ac.uk/>

specifically a website, where the user can consult the author's work and, through the model of a mental encyclopaedia, can collect in one place only all the possible knowledge around the author chosen, employing only freely accessible documents.

The OpenAuthor paradigm is specifically thought to deal with authors, whose works are currently available freely to the public due to copyright laws. To do this we shifted the focus from a media-oriented one to a data-oriented one, being unable to use the usual documents employed in the textual scholarship field, the project engages in the study of different kinds of documents, such as an author archive or library.

The website is divided into subsections, each dedicated to a different documentary item, offering the user the possibility to browse through the items with the help of an enhanced search tool, customized accordingly to the need of the material under examination. Alongside this, the project employs data visualization to immediately observe the results of the relevant research questions. A digital storytelling format is particularly useful for transforming complex datasets into clear, memorable visuals, facilitating efficient understanding, and communication of insights across diverse target users.

The platform is meant to employ an OpenAccess approach and create a collaborative environment, forming a strong link between different satellite projects that will be handled by different academics coming from different backgrounds. The final work would offer the possibility not only for a new outlook on the world of digital criticism but also to open a further discussion about the most appropriate way to create a knowledge site around an author's work, whether we can access their writing or not.

It is worth mentioning that the platform is thought to be replicable; to guarantee this, the code can be easily accessed by the relevant GitHub repository.

## 4.3 OpenGadda. The library database

### 4.3.1 Data Extraction

OpenGadda pioneers the OpenAuthor paradigm, directing its focus towards Carlo Emilio Gadda, a preeminent figure in 20th-century Italian literature and one of its most influential writers. Its main goal is the creation of a thick digital network of information around the figure of the author, utilizing different publicly available documents, in our case we worked on the author's archives and personal library.

Martina Pensalfini dealt with the creation of a model for the visualization of Gadda's archives, thought to give the user the possibility to access all the archives in one single place, with some integrated functionalities to better heighten the experience, such as different types of browsing or through the added tool of data visualization.

The second section of the website is dedicated to the authorial library. The first operation to create a usable database of Gadda's personal library was the data extraction.

We focused mainly on the extraction of two kinds of data, from two different sources:

- Library data
- Annotation data

The starting file used is the *Catalogo della Biblioteca di Carlo Emilio Gadda*, published in 2022 and curated by Giorgia Alcini and Milena Giuffrida (Fig 10). For the compilation of the catalogue, they employed the same criteria as the previous work, curated by Andrea Cortellessa and Giorgio Patrizi, which focused solely on the Gadda collection at the Biblioteca Teatrale del Burcardo.

## VOLUMI

## A

- [1] Abba, Giuseppe Cesare  
*Ricordi garibaldini*. Torino, Sten, 1913 («Pagine di storia»: 2).  
BTB Segn. 1493
- [2] Abernethy, Silvia M.  
*Something to read. Qualcosa da leggere in inglese. Letture per gli studenti di inglese*. Firenze, La Nuova Italia, 1946.  
BTB Segn. 2404
- [3] Abetti, Giorgio  
*Amici e nemici di Galileo*. Milano, Bompiani, 1945 («Avventure del pensiero»: 50).  
BTB Segn. 743
- [4] Abraham, Pierre  
*Créatures chez Balzac. Recherches sur la réalisation intellectuelle. Avec un texte inédit de Balzac*. Paris, NRF- Gallimard, 1931 («Essais, critique, littérature»).  
Il testo inedito è *Un Avertissement à Le Gars*, prima versione de *Le dernier Chouan*.  
BTB Segn. 1116.  
Nota di possesso autografa in data 10.1931. Pieghe, sottolineature, postille.
- [5] Accademia Nazionale dei Lincei  
*Adunanza straordinaria pubblica Roma 14 novembre 1967*. Roma, Accademia Nazionale dei Lincei, 1967.  
BTB Segn. Op.22
- [6] *L'acquedotto del Flora in Maremma. Una grande opera voluta dal Duce*. Grosseto, Bollettino di Statistica, 1938. Estratto dal Bollettino di Statistica del comune di Grosseto.  
BTB Segn. Op.110
- [7] Acri, Francesco  
*Le cose migliori*. A cura di L. Ambrosini. Lanciano, Carabba, 1919  
(«Cultura dell'anima»: 15).  
BTB Segn. 1803  
Sottolineature. Ritaglio di giornale inserito.
- [8] Acton, Harold  
*Gli ultimi Medici*. Traduzione di A. Castelnuovo Tedesco. Torino, Einaudi, 1962 («Saggi»: 305).  
BTB Segn. 1494
- [9] Adam, Antoine  
*Proust*. Paris, Hachette, 1965.  
BAL
- [10] *Addestramento della fanteria*. Roma, Regio esercito italiano, 1916.  
BAL  
Nota di possesso di Enrico Gadda, Valpini B. Valchiese 25 campo.
- [11] Addison, Joseph  
*Il tappezziere politico*. A cura di A. Valori. Roma, Colombo, 1945 («Classici dell'umorismo»: 14).  
BTB Segn. 1235
- [12] *The Advanced Learner's Dictionary of Current English*. London, Oxford University Press, 1955.  
BTB Segn. 2482
- [13] Aegerter, Emmanuel  
*Le grandi religioni*. Traduzione di O. Pollidori Castellani. Milano, Garzanti, 1960 («Saper tutto»).  
BTB Segn. 1775
- [14] Afanas'ev, Aleksandr Nikolaevič  
*Antiche fiabe russe*. Torino, Einaudi, 1953.  
BAL
- [15] *Agenti segreti veneziani nel '700*. A cura di G. Comisso. Milano, Bompiani, 1942 («Grandi ritorni»).  
BTB Segn. 1495
- [16] Agnetti, Vincenzo  
*Obsoleto*. Milano, All'insegna del pesce d'oro, 1968.  
BAL

Fig. 10

The texts are organized alphabetically based on the author's surname, and for each, all bibliographic and editorial data available has been provided. Additionally, each reference includes information on the collection in which each text is preserved.

Specifically:

- BTB (Biblioteca Teatrale del Burcardo)

- Bac (Biblioteca dell'archivio contemporaneo "Alessandro Bonsanti" at the Gabinetto G.P. Vieusseux in Florence)
- BAL (Biblioteca dell'archivio Liberati)
- BTM (Biblioteca Trivulziana Milano)

At the conclusion of the catalogue, is present an index of family books and an index of volumes and journals held in the Liberati, Bonsanti, and Roscioni collections. These are indicated by the series numbers assigned to them in the catalogue itself.

Given the fact that the pdf document displays a two-column layout, this element posed an additional challenge due to several reasons. The main possible problem is the text overlapping, making it difficult to separate and extract the content accurately. Secondly the reading order could be glitched cause pdfs files not always store text in the order it appears visually.

In this case, we found that the most functional way to obviate this problem was processing the pdf file with the fitz module of PyMuPDF,<sup>137</sup> a high-performance Python library for data extraction, analysis, conversion & manipulation of PDF (and other) documents. Using an OCR technology we obtained a txt file and were then able to use it as a string for a facilitated extraction. We choose to split the string by dividing it into BookInfo and FundInfo. The pieces of information obtained were then converted to a list, that converged into the creation of a database, visualized thanks to the pandas library (Fig 11).

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<sup>137</sup> <https://pymupdf.readthedocs.io/en/latest/index.html>

		Authors	Title	Cities	Publisher	Years	Fund	Segni
1	0	Abba, Giuseppe Cesare	Ricordi garibaldini	Torino	Sten	1913	BTB Segn. 1493	nan
2	1	Abernethy, Silvia M.	. Something to read. ...	Firenze, La Nuova Italia	La Nuova Italia	1946	BTB Segn. 2404	nan
3	2	Abetti, Giorgio	Amici e nemici di Galil...	Milano	Bompiani	1945	BTB Segn. 743	nan
4	3	Abraham, Pierre	Créatures chez Balza...	Paris, NRF Gallimard	NRF Gallimard	1931	BTB Segn. 1116.	Nota di possesso aut...
5	4	Accademia	Nazionale dei Lincei ...	Grosseto, Bollettino di...	Nazionale dei Lincei ...	1967	BTB Segn. Op.22	nan
6	5	Not found	L'acquedotto del Flor...		Bollettino di Statistica	1938	BTB Segn. Op.110	nan
7	6	Acri, Francesco	Le cose migliori	Torino, Einaudi	Le cose migliori.	1919	BTB Segn. 1803	Sottolineature. Ritagli...
8	7	Acton, Harold	Gli ultimi Medici	Paris	Einaudi	1962	BTB Segn. 1494	nan
9	8	Adam, Antoine	Proust	Roma, Regio esercito...	Hachette	1965	BAL	nan
10	9	Not found	Addestramento della f...	Roma	Regio esercito italiano	1916	BAL	Nota di possesso di E...
11	10	Addison, Joseph	Il tappeziere politico	London, Oxford Unive...	Colombo	1945	BTB Segn. 1235	nan
12	11	Not found	The Advanced Learn...	Milano, Garzanti	Oxford University Press	1955	BTB Segn. 2482	nan
13	12	Aegerter, Emmanuel	Le grandi religioni	Torino, Einaudi	Garzanti	1960	BTB Segn. 1775	nan
14	13	Afanas'ev, Aleksandr ...	Antiche fiabe russe	Milano	Einaudi	1953	BAL	nan
15	14	Agenti segreti venezian...	700	Milano, All'insegna de...	Bompiani	1942	BTB Segn. 1495	nan
16	15	Agnetti, Vincenzo	Obsoleto	Torino, SocietàEditric...	All'insegna del pesce ...	1968	BAL	nan
17	16	Agostino, Aurelio	La città di Dio	Torino	SocietàEditrice Intern...	1939	BTB Segn. 1776-1777	nan
18	17	Agostino, Aurelio	Le confessioni. Prefa...	Paris	Einaudi	1966	BTB Segn. 1778	Biglietto inserito con i...
19	18	Agostino, Aurelio	Confessions. Libri IVII...	Roma	Les Belles Lettres	1947	BTB Segn. 1779-1780	nan
20	19	Ai vittoriosi di Castelf...	XVIII settembre MDC...	München	s.n.	1912	BTB Segn. Op. 92	Nota di possesso aut...
21	20	Albert Paris Gütersloh...	75. Geburtstag	Milano	Piper	1962	BTB Segn. 1227	nan
22	21	Not found	AlbertSorel, JeanLe d...		JeanLe déclin de la m...	1715	BTB Segn. 1591	Postille.
23	22	Gli albori della vita ital			Garzanti	1941	RTR Segn. 1578	nan

*Fig. 11*

To be able to more freely make use of the data, it was then converted into a CSV format.

#### 4.3.2 Web Communication

Having concluded the preliminary phase of the extraction of the relevant data, we proceeded to craft a web environment that could host the information received. To do this appropriately we developed the OpenGadda<sup>138</sup> website with a GitHub dominion, allowing the users to freely roam into the project repository.

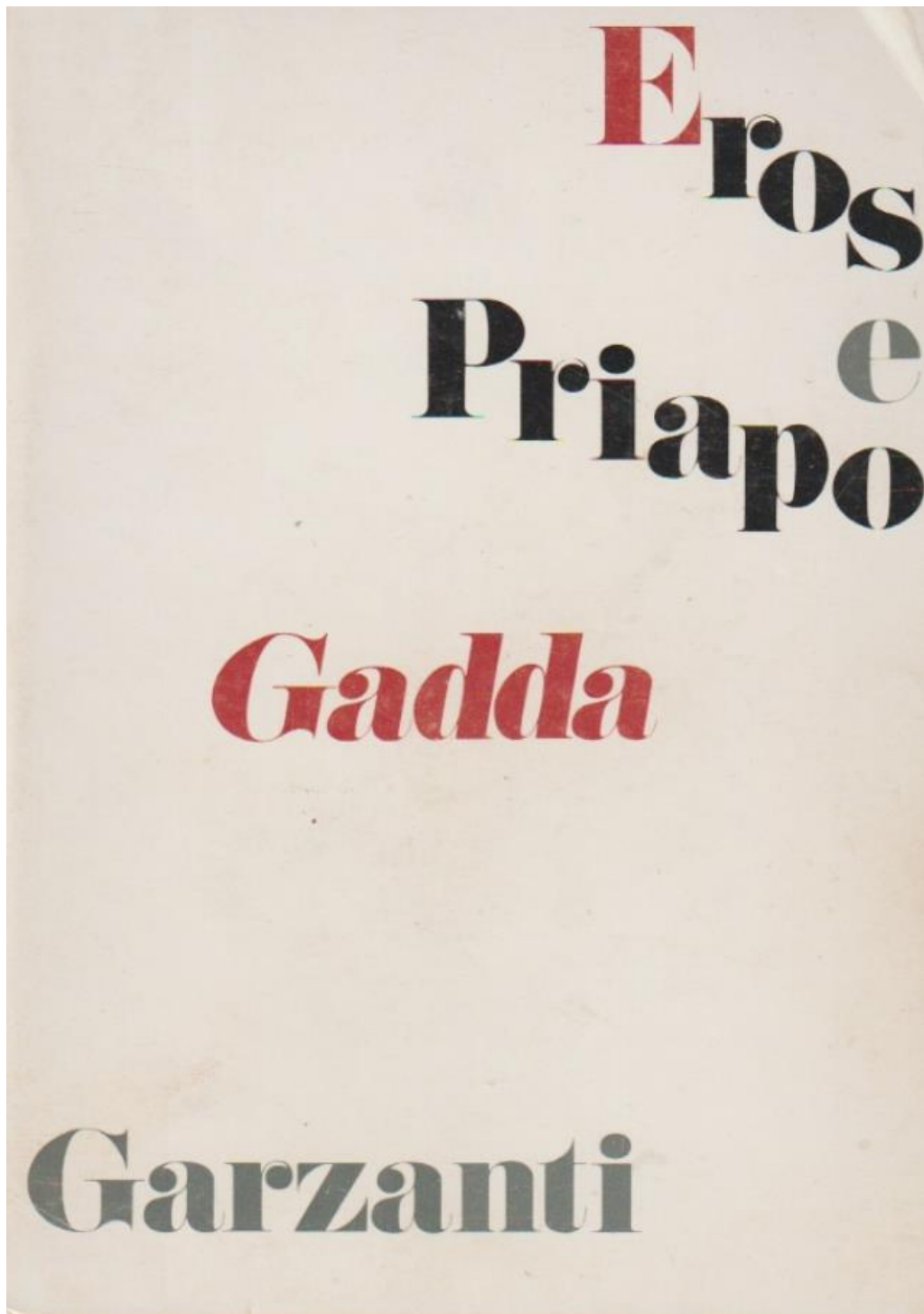
<sup>138</sup> <https://numgadda.github.io/OpenGadda/index.html>



*Fig. 12*

The site presents itself with a simple homepage (Fig. 12), named `index.html` in the repository, containing some preliminary information regarding the project and a navbar that grants easy access to the two subsections: the archive and the library.

The colour scheme used is crafted by taking into consideration the author examined, in fact, the colours were picked from the cover of the book series *I Bianchi* dedicated to Gadda and published by Garzanti in 1976 (Fig. 13). Moreover, the beige (colour HEX #f7f2df) is meant to be a resemblance of the colour of printed paper.



*Fig. 13*

For the visualization of the library, we chose to utilize a user interface designed to provide easy access, navigation, and interaction with digital collections. We tried to resemble a familiar aesthetic, using an entry point that offers an immediate overview of the available texts to guide users into the library (Fig. 14).



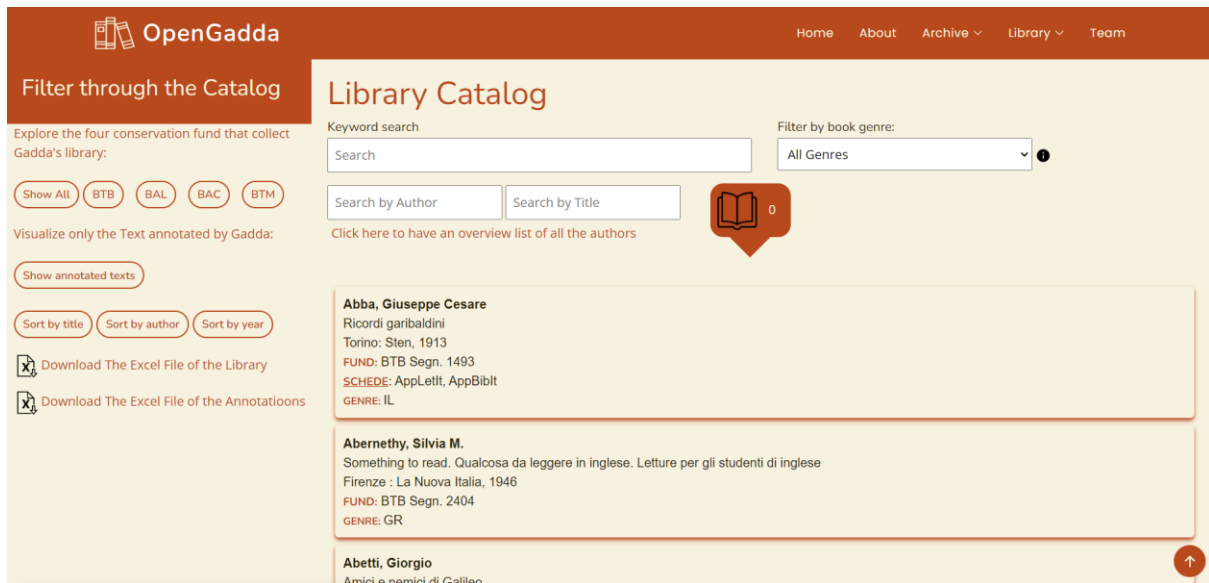


Fig. 14

The library catalogue has various search functionalities to assist users in querying the database based on their preferences. In this case, in addition to a prominent search bar designed for generic searches across the entire collection, two additional functionalities have been introduced—one dedicated to authors and the other to titles.

To enhance user navigation through the library efficiently, we have incorporated a sidebar menu featuring filtering and sorting options. The available filters include: annotated text, conservation funds, and genres of the book. All these functionalities work in tandem to obtain refined search results. Additionally, the catalogue can be sorted by title, author, or publication year.

The user can also visualize immediately the number of occurrences of a determined search, or when applying a filter, thanks to a count button that updates immediately according to the queries.

The form of display chosen for the library items makes use of the CSV files containing the library data, converted in a JSON format:

```
{
  "Id":0,
  "Authors":"Abba, Giuseppe Cesare",
```

```
"Title":"Ricordi garibaldini",
"Cities":"Torino",
"Publisher":"Sten",
"Years":1913,
"Fund":"BTB Segn. 1493",
"Segni":"null",
"Category":"IL",
"Schede":"AppLetIt, AppBibIt"
}
```

The item's representation was crafted to be harmonized to a classical standard used by digital libraries or online catalogues (such as the OPACSBN<sup>139</sup>). Each book item contains detailed metadata encompassing key information such as the author's name, title, the place of publication, the publisher, and the publication year.

Additionally, the catalogue presents specific details such as the conservation fund. Each item also indicates the genre of the book, drawing from a prior categorization of volumes in Gadda's library. The original schema features the following categories:

- L: Literature
- G: Geography
- GR: Grammars
- S: History
- SA: History of Art
- M: Military
- F: Philosophy
- T: Technology
- V: Varia

However, as these categories didn't seem sufficient to comprehensively encompass the entirety of Gadda's library and provide a well-rounded view of the diversity of his literary tastes, we deemed it necessary to modify and add some categories.

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<sup>139</sup> <https://opac.sbn.it/web/opacsbm>

The updated classification is as follows:

- AL: Anglo-American literature
- CL: Classical literature
- D: Vocabularies and dictionaries
- FL: French literature
- G: Geography
- GB: Gadda's bibliography (contains the books written by Gadda)
- GL: German literature
- GR: Languages, grammars, and literatures (contains Italian and foreign languages grammars, educational texts, and essays on philology and/or literature)
- H: History
- HA: History of art
- IL: Italian literature
- M: Military
- P: Philosophy
- RL: Russian literature
- SL: Spanish-American literature
- T: Technology and science
- TH: Theatre
- V: Varia

In the case in which a volume contains annotations, this will be signalled, and a link will be created directing to a dedicated page, figuring as Postille.html (Fig. 15).

OpenGadda Home About Archive Library Team

## Annotations

### *Créatures chez Balzac. Recherches sur la réalisation intellectuelle. Avec un texte inédit de Balzac*

Annotation of Ownership Markings **Pericope & Annotation**

**Pericope:** [p. 61 rr. 1-9 «Mais nous commençons à connaître la démarche de ses anxiétés nocturnes: a nous commençons à savoir le point à partir duquel Balzac se sépare de son expérience vécue pour forger l'être fictif auquel il va communiquer toute la force tragique de ses propres imaginations. Si la mort de l'enfant, si la mort de la jeune fille séduite, si ce fait divers bouleversant n'a jamais existé pour lui, est-on en droit de dire que rien n'aurait pu le causer?». ]  
**Annotation:** dopo la promessa { "meschinità --> dalle immagini alla biografia

**Pericope:** [p. 62 rr. 7-20 «En fait, la ressemblance entre le Benassis de cinquante ans et l'écrivain de trente-trois acquiert toute la valeur d'une conjuration lointaine. Comme Balzac a conjuré ses spectres de naguère, il s'efforce ici de conjurer le spectre de son âge mûr. La tragédie est la même, qu'il s'agisse de briser avec le passé ou de se libérer du futur. Fantômes d'hier ou fantômes de demain, les êtres modelés à la ressemblance de leur créateur assument, au long de la "Comédie Humaine", cette tâche affreuse de lui conquérir et de lui maintenir la route libre. A cette tâche ils succombent l'un après l'autre. Mais leur sacrifice n'est pas vain: la route demeure ouverte, et l'écrivain peut s'y donner carrière» ]  
**Annotation:** Conclusion sintetica

**Pericope:** [pp. 62- 63 rr 32-33; 1-13 «Trop engravés en lui pour réagir dans la plénitude de leur force. Déjà trop extérieurs à lui pour bénéficier de toute son énergie interne. Êtres mi-partie, ils apparaissent sous un signe funeste et sont dès leur naissance voués au pire destin. Ce qu'ils nous enseignent est précieux: entre l'auteur et la foule des personnages libres qu'il entend créer s'interposent, comme autant d'étapes à franchir, les images de lui-même qui lui font obstacle. Pour atteindre à la foule, ce sont, périodiquement, ces images qu'il doit immoler. Balzac ne deviant romancier, dans toute la force du terme, qu'une fois purgé de tout égoïsme, à coup de suicides imaginaires, à coup de suppressions répétées des images qui l'encroûtent, - bref, à coup de lui-même» ]  
**Annotation:** Interessante anche per me. Acuto

Fig. 15

One of the most interesting features added to this project was the possibility to connect the archive and library through a table of correspondences between the library genre and the archive thematic cards (schede tematiche).

Upon clicking the "SCHEDE" link, users are directed to the archive page displaying all the results related to that specific card (Fig. 16). Through this process, we aim to uphold a high level of interoperability across diverse documentary formats, demonstrating the seamless integration and dialogue between two distinct materials, in this case, an archive and an authorial library.

Archival Description	Internal Description	External Description
<b>archivio:</b> Archivio Biblioteca Trivulziana / <b>fondo:</b> Fondo Roscioni / <b>serie:</b> 1 / <b>sottoserie:</b> 22 / <b>unità:</b> 2 ff. a quadretti, formato protocollo, di cui il primo doppio, con indicazioni bibliografiche e appunti su Verga, Tozzi, riviste, teatro, letteratura francese.	<b>opera:</b> Materiali vari - Appunti <b>Schede:</b> Annotazioni bibliografiche, AppPers, AppBibt, AppLetFr library: IL, FL <b>genere:</b> Appunti	<b>forma:</b> Fogli <b>tipo:</b> Fascicolo <b>contenitore:</b> Faldone
<b>archivio:</b> Archivio Biblioteca Trivulziana / <b>fondo:</b> Fondo Roscioni / <b>serie:</b> 1 / <b>sottoserie:</b> 22 / <b>unità:</b> Busta con findicazione: - 1933.- N. 1.   Appunti bibliografici.-   C.E.G.-	<b>opera:</b> Materiali vari - Appunti <b>Schede:</b> AppBibt library: IL <b>genere:</b> Appunti <b>descrizione:</b> Contiene 5 foglietti, di cui uno doppio, con appunti e schizzi. data: 1933-01-01 00:00:00	<b>forma:</b> Busta <b>tipo:</b> Documento <b>contenitore:</b> Faldone
<b>archivio:</b> Archivio Garzanti / <b>fondo:</b> Fondo Garzanti / <b>serie:</b> Scatola 3 / <b>unità:</b> Quaderno	<b>opera:</b> Quaderno Climaterico <b>Schede:</b> Racin, Reclin, NoID, ProNarr, ProPrCri, Ind, Cont, Annotazioni bibliografiche, AppRecArt, AppLetIt library: IL <b>luogo:</b> Milano <b>genere:</b> Carte sparse e varie <b>descrizione:</b> Quaderno di mm 230 x 180 dalla copertina rivestita all'esterno in tela greggia e margine di marocchino in pelle nera; contenente (da fascio) cartoline con elabburazioni sul servizio postale	<b>forma:</b> Quaderni <b>tipo:</b> Documento

Fig. 16

When a scholar engages with OpenGadda or the broader OpenAuthor platform, they may do so with a specific scientific purpose, driven by a particular question that necessitates querying the catalogue. Alternatively, they might be in search of something without a clear idea of the parameters required for an accurate search. To enhance the search experience, beyond the conventional search bar, an additional functionality has been incorporated: a comprehensive list of all authors. By clicking on the specific link, the user will be directed to a dedicated page, named ListAuthors.html, featuring an alphabetical listing of all the authors present in Gadda's library (Fig. 17).

List of Authors	
Show All	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Abba, Giuseppe Cesare	1
Abernethy, Silvia M.	1
Abetti, Giorgio	1
Abraham, Pierre	1
Accademia Nazionale dei Lincei	1
Acri, Francesco	1
Acton, Harold	1
Adam, Antoine	1
Addison, Joseph	1
Aegerter, Emmanuel	1
Afanas'ev, Aleksandr Nikolaevič	1

Fig. 17

The data can be navigated through the alphabet menu positioned at the top of the page and each author entry is accompanied by a numerical indicator, signalling the number of occurrences of that author's works within the library itself.

Browsing-through research is a valuable approach to obtaining a thorough understanding, especially when exploring topics that may not be initially familiar. This method not only allows for the discovery of new and unexpected information but also has the potential to inspire and initiate entirely new research directions. It fosters a dynamic exploration of knowledge, encouraging scholars to uncover connections and delve into areas they may not have considered, thereby enriching the overall scholarly landscape and opening new possible research paths.

#### 4.3.3 Data Visualization

The dataset obtained through the data extraction can be used to become the source of web visualizations, allowing us to explore the mind of the engineer through careful analysis. On a general level, data visualization involves representing data in graphical or visual formats to make complex information more understandable, accessible, and actionable and helps individuals make sense of large datasets, identify patterns, and draw insights.

In the context of authorial libraries, we believed that employing visualization within a digital storytelling framework would be the most effective approach for presenting innovative information about the collection. Digital storytelling in particular, refers to the practice of using digital tools, such as multimedia elements, graphics, and interactive features, to tell a story. It combines traditional storytelling techniques with digital media to create a more immersive and compelling narrative experience; given its dual nature, it is the perfect tool to treat information gathered from artistic or historical materials digitally.

The key components are the incorporation of various types of media, and a high level of interactivity with the user, allowing him or her to engage with the story, creating a dynamic and participatory experience.

In the specific case of OpenGadda, we decided to create three main thematical areas: authors, books, and annotation, each one highlighting a specific aspect of the library or the reading experience of the author. The visualizations can be found in the dedicated section of the website, appearing as Viz.html in the repository (Fig. 18).



Fig. 18

Each one is crafted through technical tools such as Flourish<sup>140</sup> and AmCharts,<sup>141</sup> after the correct manipulation of data in order to answer specific research questions.

We will swiftly go into detail for each visualization, declaring the research question and the results obtained, and proceeding according to the categorization before mentioned.

#### 4.3.3.1 Authors

This section focuses on the representation of the writers present in Gadda's library. The first research question regarded finding the most common authors present in his library. To do this, it was necessary to count the number of occurrences of each author and find the top 20 personalities. It was done employing a simple Python script that made use of the Counter class, which is part of the Collections module, used to keep track of elements and their count where

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<sup>140</sup> <https://flourish.studio/>

<sup>141</sup> <https://www.amcharts.com/>

elements are stored as Dict keys and their count as dict value. Then, we extracted the 20 most frequent authors.

The results were the following:

Author No: 350 occurrences  
Emilio Carlo Gadda,: 49 occurrences  
Giosuè Carducci,: 21 occurrences  
Riccardo Bacchelli,: 20 occurrences  
Dante Alighieri,: 19 occurrences  
Alessandro Manzoni,: 19 occurrences  
William Shakespeare,: 19 occurrences  
Tullio Marco Cicerone,: 17 occurrences  
Gabriele D'Annunzio,: 16 occurrences  
Michajlovič Fëdor Dostoevskij,: 14 occurrences  
Paolo Pier Pasolini,: 14 occurrences  
Bonaventura Tecchi,: 14 occurrences  
Quinto Flacco, Orazio: 13 occurrences  
Pavlovič Anton Čechov,: 12 occurrences  
Benedetto Croce,: 12 occurrences  
von Wolfgang Johann Goethe,: 12 occurrences  
Marcel Proust,: 12 occurrences  
Vittorio Luigi Bertarelli,: 11 occurrences  
Immanuel Kant,: 11 occurrences  
Eugenio Montale,: 11 occurrences  
Piero Conti, Gadda: 10 occurrences

The term "Author No", which counts 350 occurrences designates an unknown or unspecified authorship of the item. It encompasses anonymous works, collective volumes, or materials where the authorship is unclear or not provided.

From the analysis of the results, we observe how Gadda's diverse library reflects an interesting blend of literary interest but with a prominence of his own literary production that counts 49 occurrences.



It is clear also a deep connection with Italian authors, such as Carducci and Bacchelli, accompanied by more classical figures like Dante and Manzoni. Also, his interest in philosophy and history is apparent, thanks to the presence of personalities like Kant and Proust.

In conclusion, the diverse mix of Italian and international literary figures spanning different genres and periods reflects Gadda's broad literary tastes and intellectual curiosity, not neglecting classical works and philosophical writings. Nevertheless, we can affirm that there is not a relevant prominence of a particular author in respect of the others.

To present the results we chose to make use of two different visualizations:

- A bubble chart format, that takes into consideration the 20 more present personalities in Gadda's library. Each bubble represents an author and is accompanied by the image of the author himself and information regarding the number of occurrences, sizing them according to their value (Fig 19).
- A bar with moving bullets showing the 6 top authors. This kind of graph enhances the interactivity thanks to the bullets, without sacrificing the maximum comprehension level of this classic chart type (Fig. 20).

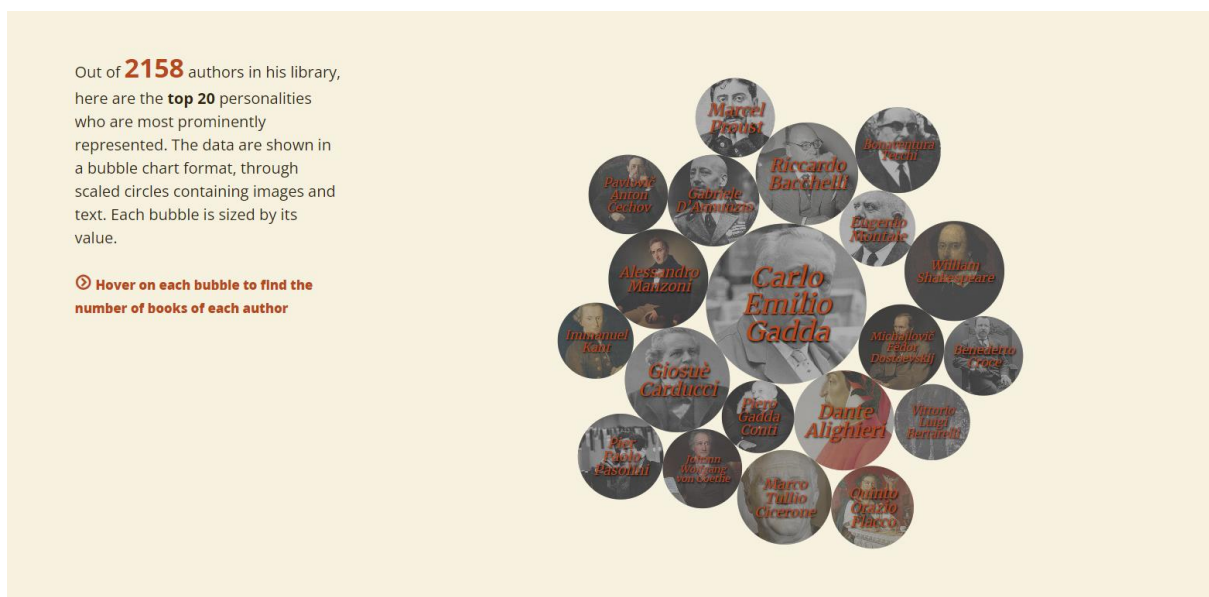


Fig. 19

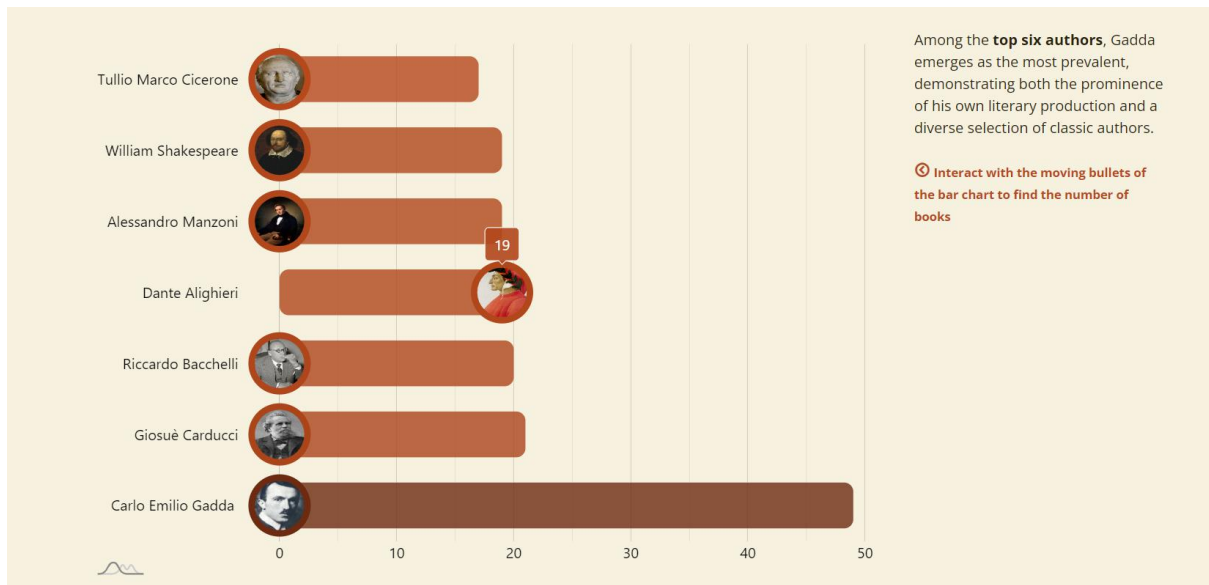


Fig. 20

#### 4.3.3.2 Books

The second section of the visualization page is dedicated to the volumes themselves, showing information about the books, including genre and edition year, to offer a comprehensive view of Gadda's literary collection.

The first element we wanted to investigate was the book genre, finding out which one appeared most frequently in Gadda's collection. In order to do this, we used a similar process to the one employed for the author section, exploiting again the Counter class. Apart from a more general categorization we deemed it necessary to add an ulterior sub-categorization.

The results were the following:

CategorySub	Category	Count
Italian	Literature	1054
History	History	254
Philosophy	Philosophy	191

CategorySub	Category	Count
French	Literature	183
Tech	Tech	159
Varia	Varia	156
Anglo-american	Literature	144
Classical	Literature	130
History of arts	Arts	119
German	Literature	72
Vocabularies and dictionaries	Languages	55
Russian	Literature	55
Gadda's Bibliography	Literature	47
Grammars	Languages	47
Spanish	Literature	36
Geography	Geography	93
Military	Military	20
French	Literature	11
Theatre	Theatre	5

The graph we chose to visualize the data, in this case, is a radial bar chart, ideal for grouping data and visualizing it hierarchically (Fig. 21). The primary layer represents the genre, while the secondary layer delineates subgenres, ensuring a comprehensive insight.

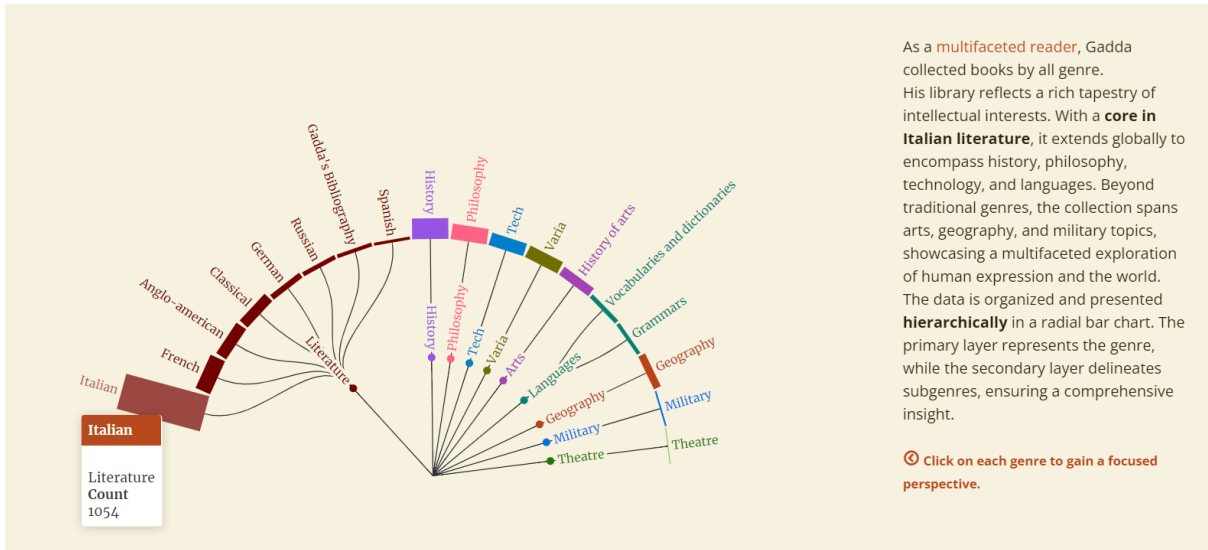


Fig. 21

As a multifaceted reader, the graph shows how Gadda collected books of all genres and how his library reflects a rich tapestry of intellectual interests. With a core in Italian literature, it extends globally to encompass history, philosophy, technology, and languages. Beyond traditional genres, the collection spans arts, geography, and military topics, showcasing a multifaceted exploration of human expression and the world.

Another noteworthy aspect is the publication year of the books in the engineer's library. Examining the distribution of publication years provides valuable insights into the temporal patterns within the collection. This exploration can also shed light on periods of heightened literary activity, and historical relevance, and potentially unveil Gadda's evolving literary tastes. To obtain the correct data format to investigate this aspect, we employed once more the Counter class, iterating on each item and counting the number of occurrences for each year. What we obtained was a JSON file like this:

```
{
  "Year": 1846,
  "Number of Books": 2
},
{
  "Year": 1847,
  "Number of Books": 2
},
{
```

```

"Year": 1850,
"Number of Books": 4
},
{
"Year": 1851,
"Number of Books": 2
},
{
"Year": 1853,
"Number of Books": 7
}

```

This particular format was necessary for using a date-based chart.

The chart provides a comprehensive view of the volumes in Gadda's library based on their publication years. The x-axis represents the date-based data, specifically the publication year of the books, while the y-axis depicts the corresponding number of books for each year (Fig. 22). Thanks to the scrollbar above the graph the user can zoom-in into the chart and focus on a more specific time period.

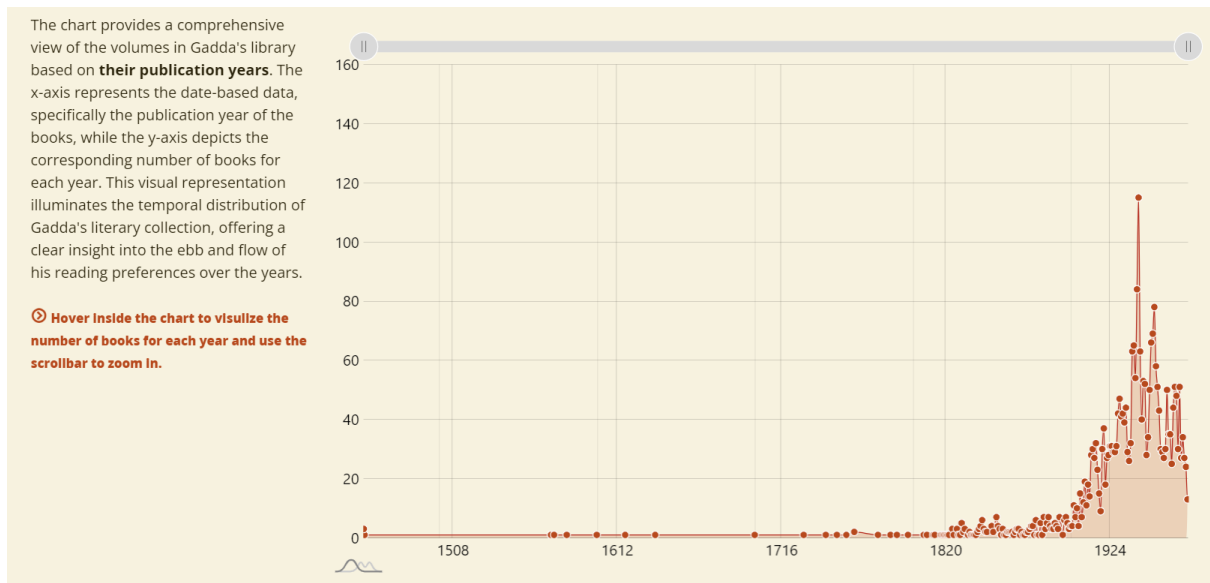


Fig. 22

From the chart we can immediately see how the highest peak is touched between during the 40s (Fig. 23), when Gadda was associated with the Giubbe Rosse in Florence and was starting his collaboration with the magazine “*Letteratura*”, one of the most influent in the field of Italian literature at the time.

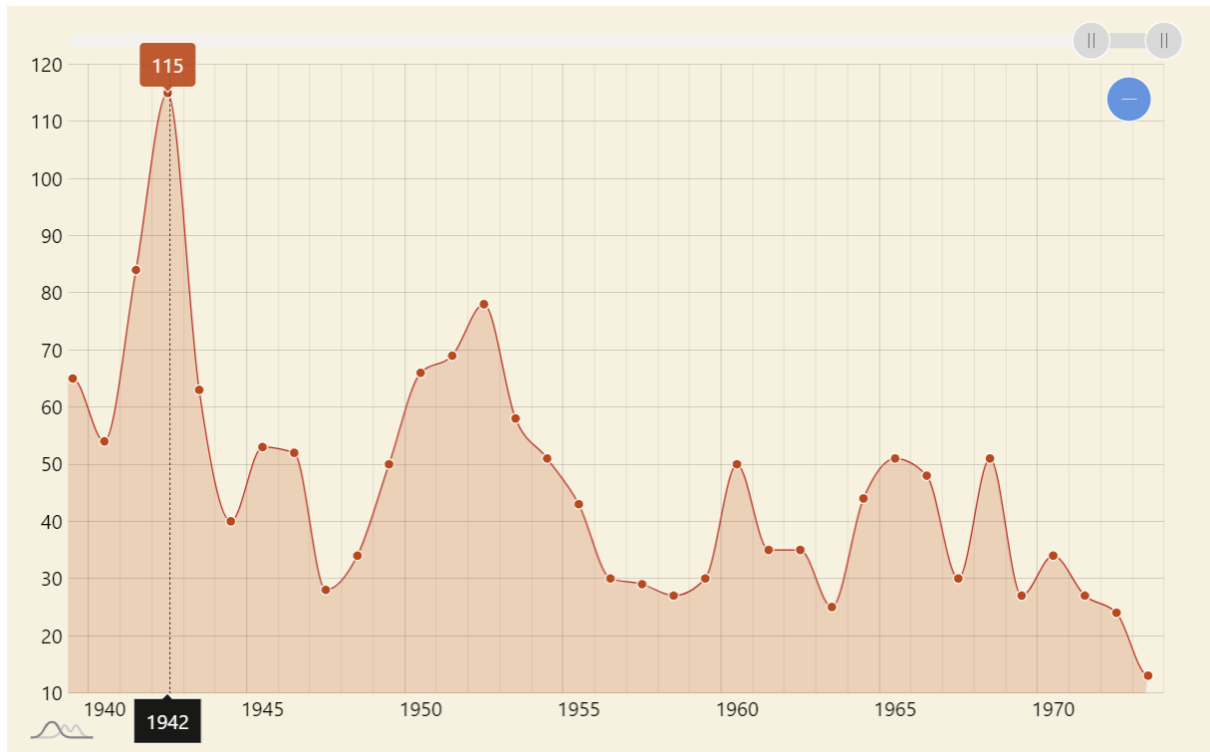


Fig. 23

## 4.4 OpenGadda. The annotations database

### 4.4.1 Data extraction

Regarding the extraction of data related to Gadda's annotations, we initiated the process using the comprehensive transcription of annotations undertaken by Giorgia Alcini.<sup>142</sup> Alcini dedicated efforts to transcribing annotations found in the volumes housed at the Burcardo. The process used was similar to the approach taken for the library catalogue. Starting from a Word Document (fig. 24) the relevant data were extracted utilizing, once more, a CSV format.

#### ARISTOTELE, *ETICA NICOMACHEA*, BARI, LATERZA, 1913

[p. 31 rr. 1-14 «L'intendere, invece, appartiene al mondo ideale. Se noi, dunque, riproduciamo in noi la natura di ogni essere, che è la mescolanza, di tal fatta sarà anche il bene sommo o felicità, a cui possiamo attingere: il piacere da solo, non è il bene, e neppure la scienza. La felicità, per esser desiderabile, perfetta, che basti da sé, deve, contenere l'intelligenza e il godimento. Qui Platone esamina minutamente quali piaceri e quali scienze debbano entrare nella costituzione del ben umano. Le conclusioni son queste: non i piaceri propri del corpo, ma quelli dell'anima; non i piaceri falsi, ma i veri; non i piaceri impuri, ma i puri.»]

Profondissimo in relazione al fine e al divenire (i due poli) si deve tendere al fine (conoscere) e bene attivare la tendenza alla vita (godere)

[p. 31 rr. 34-36 «Come allora, se n'è l'intelligenza n'è il piacere valgon da soli il bene, può valerlo la loro unione?»]

La critica non è acuta. Teoria polare

[p. 33 rr. 9-13 «Ma poi Platone ha dato alla parte affettiva tanto poco peso da ridurla a nulla o quasi, ripetendo il socratico *ουδεις εκων αμαρτανει*, dove non si vede come, se la virtù è volontaria, non lo sia anche il vizio.»]

Nessuno erra volontariamente

[p. 33 rr. 34-35 «La nostra natura affettiva è il principio dell'azione, come abbiam detto; [...]»]

Da meditare per la volontà

*Fig. 24*

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<sup>142</sup> ALCINI 2016.

#### 4.4.2 Web communication

The information regarding the annotations were converted from a CSV to a JSON file, similarly to the process used for the library database. The data were presented in a similar way:

```
{  
  "Id":3.0,  
  
  "Nota di possesso":"\u00abCarlo Emilio Gadda \u2013 ottobre 1931-\u00bb",  
  
  "Dedica":"null",  
  
  "Collocazione":"[p. 61 rr. 1-9 \u00abMais nous commen\u00e7ons \u00e0  
  conna\u00eetre la d\u00e9marche de ses anxi\u00e9t\u00e9s nocturnes: a nous  
  commen\u00e7ons \u00e0 savoir le point \u00e0 partir duquel Balzac se s\u00e9pare de  
  son exp\u00e9rience v\u00e9cue pour forger l'\u00eatre fictif auquel il va communiquer  
  toute la force tragique de ses propres imaginations. Si la mort de l'enfant, si la mort de la  
  jeune fille s\u00e9duite, si ce fait-divers bouleversant n'a jamais exist\u00e9 pour lui, est-  
  on en droit de dire que rien n'aurait pu le causer?\u00bb].",  
  
  "Postilla parlata":"dopo la promessa { \u2013meschinit\u00e0 --> dalle immagini alla  
  biografia",  
  
  "Postilla muta":"Sottolineature"
```



}

Partially deviating from the annotation categorization followed by Alcini,<sup>143</sup> we decided to group Gadda's intervention in 4 categories:

- Annotation of Ownership. Annotations made by Gadda or a member of his family, indicating the ownership of the book. These annotations may include the name or date of acquisition.
- Dedication. Refer to any inscriptions or notes made by external individuals, such as colleagues or friends, who dedicate a book to Gadda as a gift. Typically, these dedications originate from the authors of the books gifted to Gadda and provide valuable insights into the network of relationships surrounding the Engineer.
- Markings. Includes underlining, highlighting, or other visible marks made by Gadda within the book's text. These markings might indicate passages of particular interest, emphasis, or notes for future reference.
- Pericope and annotation. The pericope refers to a specific passage or excerpt, a section of the text in which the author decided to leave a comment or a note.

By grouping Gadda's interventions into these four categories, we aim to provide a comprehensive understanding of the different ways in which he interacted with and left his mark on the books in his personal library.

#### 4.4.3 Data visualization

The section dedicated to annotations aims to uncover Carlo Emilio Gadda's preferences within the vast collection of his library. Once again utilizing the counter module, we extracted information from both the JSON file containing annotations and the one with catalogue data.

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<sup>143</sup> ALCINI 2016.

To provide a comprehensive perspective, we separately analysed the ten most annotated books and the ten most annotated authors.

For what concerns the books, these were the results:

Book	Annotations
Manuale della letteratura italiana	901
Handbuch der italienischen und deutschen Konversationsprache	127
La pedagogia	101
Eléments de mathématique supérieure à l'usage des physiciens, chimistes et ingénieurs et des élèves des facultés des sciences	80
Racconto militare	53
Profilo d'un umanesimo cristiano	52
Caratteri e aneddoti: Dialoghetti filosofici. Xilografie di Parigi	44

Salto mortale.	40
La congiura di Don Giulio d'Este	38
Un filo di brezza	31

The ten most annotated author, on the other hand, are as follows:

Authors	Annotations
D'Ancona, Alessandro – Bacci, Orazio	901
Vogt, Henri	156
Fiori, Annibale	127
Kant, Immanuel	102
Manzini, Gianna	60
Bonsanti, Alessandro	59

Rüssel, Herbert Werner	52
Bacchelli, Riccardo	48
Malerba, Luigi	40
Croce, Benedetto	38

As anticipated, the results between the two—most annotated books and most annotated authors show a close correspondence in terms of annotation quantity. This similarity suggests that Gadda's annotations were consistently distributed across both specific books and their respective authors. His penchant for annotating certain works aligns with his emphasis on particular authors, highlighting a consistent pattern in his literary preferences.

To show the results we utilized two simple horizontal bar charts, where each bar's length is proportional to the value it represents (Fig. 25).

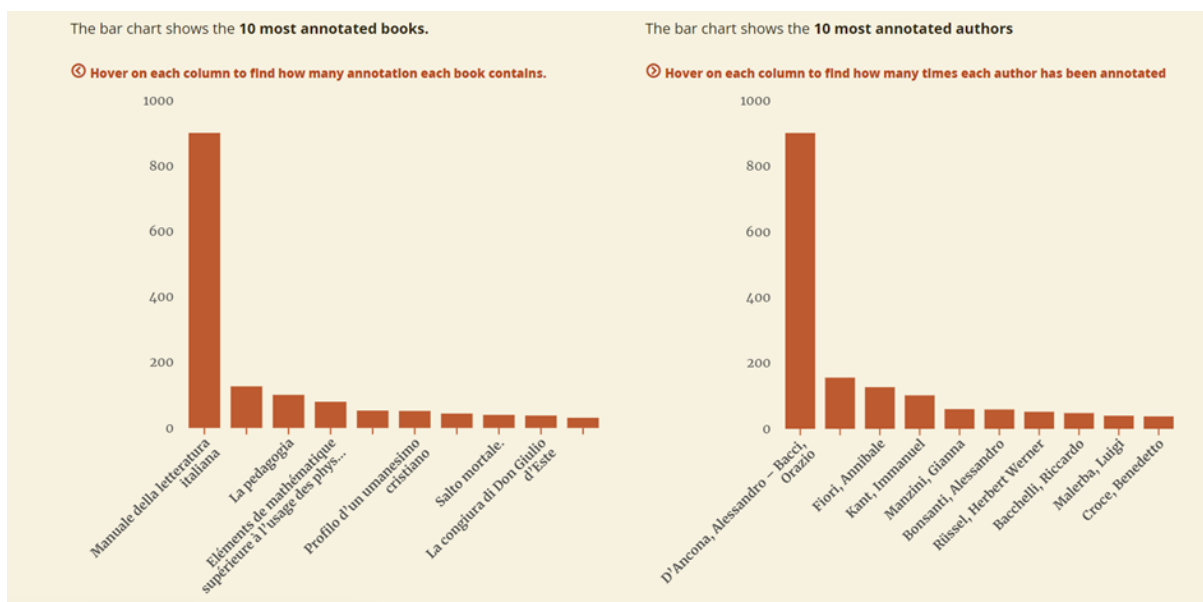


Fig. 25



This particular graph takes into consideration the first 250 words. These are the 20 most frequent:

Word	Occurrences
bene	48
pag	44
ma	39
firenze	34
cristianesimo	32
anche	30
vedi	28
sono	21
fu	18

sopra	17
torraca	17
empio	16
perchè	16
vita	15
gadda	14
bello	14
parte	14
nome	14
vero	14

The majority of the words mentioned show Gadda's engagement with the text, clear examples are the recurring use of: "pag", "bene", "ma", "vedi". Interestingly enough is the prominent presence of terms such as "cristianesimo" and "Firenze".

## 4.5 Future Implementations

In the future, a wide number of enhancements could be added to improve the digital edition: a downloadable primary bibliography of the author, a comprehensive and up-to-date repository of all the digital resources around the writer, and the integration of a LOD system that could expand the network of the project.

In Gadda's specific case, a first implementation could concern the integration of the catalogue section dedicated to the magazines contained in the author's library. We purposefully decided to neglect this section for various reasons. First of all, the study of magazines, and academic journals in particular necessitate a peculiar set of skills to be able to properly choose the correct visualization approach. Moreover, the one involving the philological studies of magazines would offer a granular overview that we deemed appropriate to not investigate.

Secondarily, using computational techniques we would have obtained partial results, being then forced to check the content of each magazine separately. We also considered how each newspaper adheres to different publication and editorial standards and, because of this, doesn't have a unitary image to which we could have conformed.

Finally, the OpenGadda project, at its current state, is guided by a *treat d'union* that is a sort of authorial path, a path to which the newspapers would have struggled to fit in. The only possible solution at the moment would have been to proceed to a quantitative analysis, rather than a qualitative one, even so, it would have probably been insufficient, seeing the standards used for the rest of the media employed.

For all these reasons we decide to respect the magazines' dignity as a detached documentary material, hoping to be able in the future to develop a proper platform for their particular needs.

Focusing again on Gadda's specific case, another precious tool that could be used is the *Indice dei Nomi*,<sup>144</sup> a small issue compiled by Dante Isella, collecting all the names, fictional and non-

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<sup>144</sup> ISELLA, LUCCHINI, ORLANDO 1993.



fictional, present in all of Gadda's literary production. Through the study of the *Indice*, we could be able to locate the names of some authors that, although not present in his physical library, are, nevertheless, known to Gadda.

This course of action could lead to the construction of the immaterial library of the author, to be further associated with the material, tangible one. The databases containing the two libraries could then be joined by the AUTHOR key, allowing us to gain a deeper understanding of the intertextual connections.

To sum up, the comparison of material and immaterial libraries could grant a new vision of the author's approach to knowledge and allow us to come up with new and original connections between the novelist and his books.

For what concerns the frontend side of the project, the website could be implemented to offer a more optimal user experience. In particular, the search interface could be developed to provide more options, and, possibly a dedicated "advanced search" section for a more targeted search. Similarly, an auto-complete function could give users suggestions about the content of the edition, without necessarily limiting their query as the parameters currently do.

Finally, the Annotation page could benefit from the incorporation of the images of the annotated manuscripts, and a text-image view to enhance the intelligibility.

## Conclusion

The main research question leading us through the development of this project was finding an alternative way to study an author whose documents and/or texts are under copyright. The first step of the research was the study of the state of the art of authorial libraries, and their digital solutions present online at the moment. This preliminary research led to a series of terminological and epistemological problems linked to the concept of private and authorial libraries, opening a series of interrogatives that still remain unanswered and complex enough to deserve to be treated separately.

We then moved on to developing a suitable platform that could be both reproducible for other authors in the future and also applied to our specific case. The solution we came up with was the OpenAuthor platform, pioneered by our project, The OpenGadda, a collaborative effort between my colleague Martina Pensalfini and me.

Through the study of the specific case of Carlo Emilio Gadda, we were able to develop a web service suitable to the necessities posed by the materials freely available to us: a digital catalogue and a digital archive, able to exchange information between themselves guaranteeing a high level of interoperability.

The entire process is thoroughly documented, respecting the FAIR principles. The website is findable through specific metadata and identifiers, accessible, interoperable through different software, and reusable by reproducing the source code available in the repository.

In conclusion, OpenGadda represents a transformative venture in the realm of textual scholarship, offering a dynamic and open avenue for the exploration of an author's literary universe. By pioneering the OpenAuthor paradigm, we have tried to transcend the limitations posed by copyright laws, reshaping the focus from media-centric to data-centric approaches. Through meticulous data extraction and web communication, the platform provides an accessible gateway for scholars and enthusiasts alike to delve into the intricate details of Carlo Emilio Gadda's works.

Nevertheless, the project, at its current state, could be furtherly enhanced, incorporating the concept of immaterial library, and the use of images of the annotated manuscripts in order to maximalize intelligibility.

The innovative use of data visualization adds depth to our understanding of Gadda's literary preferences, creating a rich narrative that transcends traditional study methods. As we gaze into the future, OpenGadda envisions further enhancements, ensuring a seamless integration of digital tools, collaborative efforts, and a deeper exploration of the interplay between material and immaterial libraries. This project not only opens up new avenues for digital criticism but also sparks a broader discourse on the optimal ways to construct knowledge sites around an author's work.

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### RRII 1989

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*Saggi giornali favole e altri scritti I*, edited by L. Orlando, C. Martignoni, D. Isella, Milano, Garzanti.

### SGFII 1992

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