Music theatre and digital archives

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ABSTRACT

This article focuses on setting up a comprehensive digital repository (roadmap) capable of capturing the collective memory of music theatre, enabling sustainable access to performing arts works in Portugal and abroad, and thereby also enhancing their study, re-performance and visibility. This development spans three phases: proposing a terminological resource based on a literature review, existing knowledge organisation systems, and specialist inputs; selecting and producing ontological classes and properties for a case study, deploying recognised ontologies, such as Dublin Core, RiC-CM, and DOREMUS; developing a conceptual data model incorporating the semantic web and Linked Open Data principles to provide contextual information on music theatre composers and creators, including their biographies, work lists, and archive contacts. Interconnected by defined ontologies, this conceptual model provides users with a holistic view of these works. Representing music theatre works in digital archives challenges musicology, archival science, and digital humanities through requiring new approaches to ensure system interoperability. This digital archive helps to preserve unseen performing arts works while also strengthening Portuguese archives by interconnecting them with their international counterparts, enabling new scientific knowledge, historical narratives, and repertoire renewal able to reach wider audiences.

1. INTRODUCTION

I begin this article by briefly contextualizing the emergence of music theatre and thereby explaining the need to create a digital archive dedicated to the preservation of this performative genre. The appearance of music theatre lies at the origin of several intersecting events. Between 1955 and 1975, music theatre became a core focus of European composers as a result of the revolutionary experiences in musical language arising shortly after the end of World War II. Music theatre is associated with various composers, including Luciano Berio, Luigi Nono, Dieter Schnebel, Georges Aperghis, Sylvano Bussotti, György Ligeti, and Constança Capdeville, among others. In 1955, Berio and Bruno Maderna founded Italy's first electronic music studio, Studio di Fonologia Musicale, at RAI Milan. In this studio, composers were able to experiment with the interactions among acoustic instruments and electronically produced sounds as well as exploring new relationships between sounds and words [1].

Furthermore, composer John Cage's notions on the theatricalisation of electroacoustic music were key to establishing the foundations for music theatre. As Makoto Mikawa describes, in an interview with Roger Reynolds, Cage said that electroacoustic music needed to become theatrical through the introduction of live performance elements, people should do things and music should be visible [2]. These words profoundly impacted on Mauricio Kagel, whose first work already featured facets of theatricalization. The work is entitled *Antithese für einen Darsteller mit elektronischen und öffentlichen Klängen* (1962), and with the composer specifically portraying the piece as 'instrumental theatre'. In turn, Kagel's instrumental theatre influenced many of the aforementioned composers, all committed to various aspects of music theatre. Music theatre has since undergone multiple and significant transformations and helped to experimentally rethink theatrical traditions, artistic genres, performance conventions and the relationships between composers and society. This paradigm raises important questions regarding the relationship between music theatre and both earlier and more contemporary theories of drama, including: the usage of new technologies; the role of new venues and environments; the proposition of new conceptions for performers; and the challenges posed by music theatre for music analysis.

Music theatre works are inherently complex given their combination of the various artistic expressions specific to music, theatre, and dance with facets such as recordings, images, lighting, and scenery, all interacting as heterogeneous counterpoints [3]. Organising music theatre documentation thereby challenges traditional archival practices and requires new approaches. Music theatre sources are often scattered across institutional and personal archives, with some performative aspects missing entirely. Accordingly, to better understand the internal structures of music theatre works, it would be preferable to produce additional documentation. In some cases, only the testimonies from performers of past productions can provide the information necessary to completing particular aspects of the performance, but which also needs archiving. In addition, the representation of notation is idiosyncratic and non-conventional, with typically graphic scores including prescriptive indications rendered unclear by the lack of context. This requires evolving a taxonomy putting forward definitions for concepts still under debate in the performing arts. Most of the technological resources are already obso-

lete and require digitisation with this process also requiring documentation for preservation purposes. All of these records must be incorporated into the archive to present these works comprehensively. The description of all related documentation improves our understanding of the structure of a work without, however, fixing it. Archivists, though experts in their field, often lack musicological terminology, hindering their ability to organise music theatre documentation effectively. Therefore, archives must include complementary documentation and list all relevant information. Organising music theatre works coherently thus requires collaboration between archivists and musicologists, addressing both terminological and methodological issues.

There still remains no publicly available digital archive interlinking the composers involved in music theatre productions either in Portugal or internationally. Consequently, this online platform aims to comprehensively preserve the collective memory of this performative genre of music theatre with a finalised digital archive representation. Developing this digital archive methodologically divides into three phases. A first phase proposing a terminological resource based on a literature review, existing knowledge organisation systems, and input from domain experts. Secondly, the process of selecting or designing ontological classes and properties, incorporating facets from recognised ontologies, for example from Dublin Core, RiC-CM [1] and DOREMUS. A third phase implies shaping the digital archive data model in keeping with the ontologies developed and applying the semantic web and Linked Open Data (LOD) [2] principles.

This archive will provide contextual information on music theatre works, including composer biographies, their works, and archive contacts. Each resource is to be described and interconnected to ensure a comprehensive view of these works, both in Portugal and internationally. This also aims to highlight the reality of Portuguese archives and position them side by side with their international peers, thereby exploring the practical implications of this archive, such as how it may serve educational purposes, support academic research and increase public engagement with the music theatre genre. This article showcases the platform's development through sketches and prototypes, focusing on the work *Double* (1982) by Constança Capdeville as a case study.

2. ONLINE PLATFORMS AS THE TOOL FOR PRESERVING MUSIC THEATRE HERITAGE

The design of this digital archive was inspired by the TKB platform that "allows for the construction of personal collections by the artists themselves, as well as the curation of various materials, which together create a network of relationships between the participating artists. The artists are able to import their materials and tag them according to their own idiosyncratic taxonomies, establishing ontologies and an interconnection between the various artists, thus expanding the network of connections between them" [4]. Within this same framework, Cristina Pattuelli et al. reflect on how building an ontology may support the evolution of knowledge representation on the Internet as well illustrated by the following quotation: "Ontologies can effectively serve as the knowledge backbone for integrating information, as their constructs, from class and property hierarchies to domain and range constraints, ground the mappings to heterogeneous data in a cohesive model. In general, the advantages of having our linked dataset defined through a sound and unified schema go beyond the task of supporting data integration. An ontology facilitates the parsing of the data, the automated processing and reasoning, and the detection of errors and inconsistencies" [5].

According to Alain Bonardi: "[t]he musicologist is at the same time a listener and a composer, since analysing a piece of music leads to 'rewriting' it" [6]. I regularly bear this idea in mind in keeping with how assembling the internal structure of any music theatre work does entail reshaping it even while retaining the relationships between the wide-ranging component parts. One simply cannot approach the internal structure of a music theatre work as one would a musical work inscribed in a score as the former incorporates various documents with dissimilar natures that interrelate as heterogeneous counterpoints. In music theatre works, "[t]here are traces of the composer's collaborative creative process in a wide variety of sources (scores, scripts, audio or video recordings, composer/musician sketches, notes, press reviews, images, slides, lighting directions, musical assistants) [. . .] and works are "characterized by the use of specific compositional processes and performance practices, and by collaborations with a multiplicity of authors, performers and technicians from different artistic fields. This complex process raises problems in terms of preservation" [7].

Thus, establishing a digital archive or roadmap capable of preserving music theatre involves three phases. The first relates to the terminological work, which involves reviewing the specialist literature, the knowledge organisation systems, and drawing on the contributions of experts in the field. The main outcome is a terminological resource that facilitates communication among performing arts experts and supports database construction. The second phase incorporates the development of the conceptual data model to establish access points that interlink different document types (e.g., scores, scripts, texts, audio/video recordings or images) to structure each work. This model captures the internal structure of works from a holistic perspective and is designed to assist archivists, composers, performers, choreographers, and other interested parties, while also facilitating research. Achieving this implies applying metadata schemas and web ontologies such as Dublin Core, RiC-CM and DOREMUS. The Dublin Core metadata standard focuses on simple and generic elements for describing resources, such as: 'Title' (creator or publisher), 'Author or Creator' (person or organisations responsible for the intellectual content), 'Description' (tex-

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[1] More information available at: https://www.ica.org/en/records-in-contexts-conceptual-model (accessed on 22 February 2024).

[2] Further information available at: https://www.w3.org/DesignIssues/LinkedData.html (accessed on 5 March 2024).

tual description of the content), 'Date' (the resource available in its current form), 'Relation' (connections to other sources) and so forth. Certain archival sources reflect interconnected layers of past, present, and future contexts, with documents displaying dynamically accumulated orders. In turn, the RiC-CM model addresses these needs by improving archival descriptions and enriching them with cultural, social, and material contextual information. RiC-CM also overcomes the limitations of the classic hierarchical ISAD(G) [3] model, deploying a network structure to better manage the production, management, and safeguarding of documents. The DOREMUS ontology serves to describe and relate, for example, 'Events' (Expression Creation) or 'Works' (Complex or Individual). These tools help link data across the web using LOD and an interoperable framework. This conceptual model should also extend to other similar works that face similar preservation problems (e.g., installations). The third phase concerns the construction of the digital archive (roadmap), an interoperable online platform developed through Omeka, free and open-source software that serves as both a data management system and a web-publishing platform. By resorting to web ontologies, this platform will integrate resources from music theatre composers, mapping the relationships among them and connecting their key aesthetic approaches, practices, and methods (the arrows depict these links in Figure 2). The digital roadmap allows access to contextual information about music theatre including composer biographies, their respective lists of works/productions and contacts for both the institutional and personal archives containing these sources. Additionally, this helps preserve previously unseen performing arts works, enabling new scientific knowledge, historical narratives, and repertoire renewal, thereby reaching broader audiences.

There is below a representation of the digital platform through recourse to sketches and prototypes, adopting *Double* (1982), a music theatre work by Constança Capdeville, as a case study for structuring and interrelating digital archive documentation.

3. DIGITAL PLATFORM REPRESENTATION

3.1 Sketching

The digital archive (online platform) interface is then depicted on paper but only to communicate the core idea in keeping with the principles suggested by Bill Buxton [8] in his book *Sketching user experiences* (2007). The goal is to quickly sketch hand-drawn ideas that in no way represent the final solution but rather to communicate the earlier stages of an evolving idea.

The Figure 1 (on the left) broadly conveys the representation of music theatre composers as well as the relationships among them differentiated by colors; the second (on the right) depicts how, after clicking on Constança Capdeville, one accesses contextual information: her biography and list of works (still incomplete); then, in the third picture

Figure 1. Sketching phase.

Figure 2. Prototyping: some music theatre composers.

(below right), by clicking on *Double*, there appears information on this music theatre work, which is not exemplified in this sketching but later features in the prototype.

3.2 Prototyping

The online platform is here represented in the form of a Prototype. Although the initial illustration may resemble the sketches, the prototyping displays a more conclusive shape with clearer and better organised results for presenting to users. This prototype is graphically represented in PowerPoint. [4] Figure 2 displays some of the composers linked with the music theatre genre and their respective relationships (with the arrow direction indicating who influenced who); while Figure 3 features contextual information on the composers and their works, including biographies and lists of works, in this specific case for the composer Constança Capdeville, with *Double* (1982) serving as a case study following its previous in-depth study in an archival context by the author [3] [7].

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[4] Prototyping may contain interactions that are best portrayed by specific tools such as, for example, Figma (https://www.figma.com) or Justinmind (https://www.justinmind.com), among others.

Figure 3. Prototyping: Capdeville's biography, context and list of works.

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[3] General International Standard Archival Description, for more information see: https://www.ica.org/resource/isadg-general-international-standard-archival-description-second-edition/ (accessed on 23 February 2024).

By clicking on *Double* (1982) by Constança Capdeville, as indicated in Figure 3 (via the blue button with an arrow), a general description of the work appears. Figure 4 refers to a proposal by researcher Ana Caeiro, which intersects the ISAD (G) + RISM [5] archival standards. Caeiro's proposal seeks to combine both standards due to the limitations of the ISAD(G) guidelines for describing sacred repertoires and establishing points of access while retaining a perspective on musical works as a whole. Despite consisting of several sections, these form a composite document [9].

The fields featuring in the table (in Figure 4), despite the influence of Caeiro's proposal, align more closely with the ISAD (G) archival standard due to its better adaptation to the needs of music theatre works. In my proposal, the fields borrowed from the RISM guidelines are the 'Composer's name standardised', instead of 'Producer' [as suggested in the ISAD (G) archival standard]; the option for 'Date of composition', instead of 'Date of the manuscript', as it is easier to identify composition dates for contemporary music from the 1960s onwards; and finally, instead of 'Musical Incipit' (as put forward by the RISM guidelines), I opted for the incorporation of an audio or video excerpt. The purpose of the 'Musical Incipit' interrelates with the scope for this to be represented in and recovered from digital repositories by automated information retrieval systems. The 'Extent and medium of the unit of description' field, in turn, describes the list of materials relating to the work *Double*, in this case, mostly held by the National Library of Portugal (BNP).

However, as music theatre works combine different forms of artistic expression, embracing scenic-visual elements, recorded sounds, text, and so forth, and with some of these features serving as heterogeneous counterpoints, it becomes difficult to grasp their internal structure. In my opinion, the scope for visualising the work would perhaps therefore be more useful to understanding its structuring. This also opens up insights into how to curate information in music theatre works, given the nature of their relationships, and how such data information might best be stored in digital repositories. Caeiro's proposal, though relevant, does not meet the needs of music theatre works. Therefore, integrating various existing ontologies allows for the future aggregation of collected data and enriches archival descriptions. This requires new theoretical and practical approaches that traverse the fields of musicology, archival science and digital humanities.

Hence, to summarise, the table (Figure 4) describes the work *Double* as a compound document made up of several sections (simple documents). The 'Musical Incipit' is replaced by a video excerpt indicated as Intervention 2, but as the Prologue and Intervention 1 are analysed in this particular case, the link in the footnote corresponds to these two sections), given the complexity of portraying a work made up of heterogeneous sources, and not based only on a score as mentioned above. The 'Custodial and Archival History' field was added to facilitate the inclu-

Figure 4. Table containing an archival description of the work *Double* deploying the ISAD(G) + RISM archival standards with adaptions for contemporary music.

sion of relevant aspects about the work's conception and thereby describing the trajectory of the documentation in terms of its custody. For this type of work, it makes no sense to include a 'Uniform and Personal title(s)', or 'date of the manuscript' and 'date of composition' (as suggested in RISM) as, in contemporary music, this information is commonly inscribed in the score and/or programme notes (and thus precisely known), therefore the work's title and date was included; the standardised composer's name corresponds to the producer, who, in this particular case, was Constança Capdeville herself [9]. The 'Audio/video excerpt' field, referenced in the same table (see Footnote) represents the Prologue and Intervention 1 of the work *Double* (1982) by Constança Capdeville. [6] This representation provides a sort of listening guide, then produced by iAnalyse, [7] a software developed by Pierre Couprie.

4. UNDERSTANDING THE INTERNAL STRUCTURE OF MUSIC THEATRE WORKS

This section emphasises RiC-CM as this conceptual model overcomes the limitations of the classic hierarchical standards for archival description, ISAD(G), ISAAR, [8] ISDF [9]

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[5] A specific guidance for the description of primary musical sources, see: https://rism.info (accessed on 22 February 2024).

[6] https://drive.google.com/file/d/1xu2suD23KNgaLTLdZukY7NNfFu2wGxy6/view

[7] For further information, see: https://logiciels.pierrecouprie.fr (accessed on 23 February 2024).

[8] ISAAR (CPF): International Standard Archival Authority Record for Corporate Bodies, Persons and Families, 2nd Edition, see: https://www.ica.org/resource/isaar-cpf-international-standard-archival-authority-record-for-corporate-bodies-persons-and-families-2nd-edition/ (accessed on 23 February 2024).

[9] ISDF: International Standard for Describing Functions, see: https://www.ica.org/resource/isdf-international-standard-for-describing-functions/ (accessed on 23 February 2024).
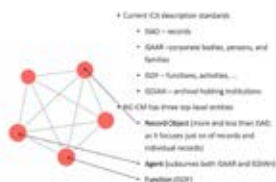
Figure 5. RiC – CM integrating current ICA description standards.

and ISDIAH, [10] by incorporating a network structure to better manage the production, handling, and safeguarding of documents. Thus, this consists of depicting a schematic representation based on the RiC-CM conceptual model, describing the internal structure of a music theatre work in conjunction with the relationships prevailing among the various components and audio and video notes/excerpts, which correspond to additional documentation. This builds up a holistic perspective on the respective work while nevertheless maintaining interoperability between information systems. As described in the RiC-CM manual published by the International Council on Archives (ICA), this conceptual model is "intended to serve as a foundation for describing records to facilitate their near- and long-term preservation and use. It provides a conceptual framework based on archival principles for designing and implementing standardised systems for the intellectual control and description of analogue and digital resources in records management and archival programs, including description of the contexts in which the resources originated and were used, as well as the contexts of ongoing subsequent management and use". [11]

Furthermore, and also according to the ICA, through its reconciliation and integration, the RiC conceptual model is designed to overcome the limitations of the existing archival standards, the aforementioned ISAD(G), ISAAR, ISDF and ISDIAH, precisely because there is still no common and consistent archival description model able to reflect the contextual complexity of documents, and particularly important for collections in the performing arts (see Figure 5). The ICA also issued the Records in Contexts-Ontology (RiC-O), an OWL ontology to describe archival record resources and their contextual entities.

4.1 Case study: *Double* (1982) by Constanca Capdeville

Double (1982), by Constança Capdeville, was selected as the case study given the internal structure of this music theatre work had already been extensively studied as part of the author's doctoral research. In turn, *Double* presents numerous challenges to its archiving and preservation. This work is divided into ten parts [Prologue, Intervention 1, 2 (...) and 8, Epilogue] but, in this specific case, I focus only on the Prologue and Intervention 1. [12] Most of the materials belonging to *Double* are currently stored by the BNP, although there is also a tape recording of the 1982 premiere stored in the Calouste Gulbenkian Foundation Archives (named as FCG tape). Some graphic and prescriptive scores, containing specific indications for the performers, remain the personal property of the respective performers. For example, pianist João Paulo Santos holds a score with the piano section he performed at the premiere. Furthermore, Carlos Alberto Augusto, responsible for editing and operating the tape recordings during the premiere, retains his own score detailing the specific indications given to him by Capdeville.

As mentioned above, prior analysis of the internal structure of *Double* took place through recourse to the following documents: "1) scores from Capdeville's collection and those belonging to the performers containing their specific instructions; 2) scripts for the sound, lighting, and mute choir; 3) magnetic tapes 5 and 6, both used in the original performance; 4) the composer's notes, excerpts from texts, programme note, images, and other documents; 5) a recording of the live performance from 1982 (hereafter: the FCG tape). Even following access to these materials, I still encountered various difficulties in retrieving widely dispersed documents; understanding the various and diverse layers of information they contain, including the distinction between acoustic and electronic sounds; and ascertaining what the gestures and movements were due to the lack of information, especially for the mute choir." [3] The mute choir was made up of seven dancers from Dança Grupo.

The systematisation of the existing information on the structure of *Double* covered the following: "1) to retrieve documents and audio sources and then transfer them to current formats; 2) to analyse the score in relation to the recording of the live concert, resolving inconsistencies by referring to the sound, light, or mute choir scripts, themselves often dispersed and incongruous; 3) to study the two tape recordings (tapes 5 and 6), identifying each sound to understand the tape inputs throughout the live performance; 4) to interview performers involved in the original 1982 performance. The aural structure of *Double* was reconstructed from the recordings (tapes 5, 6 and FCG tape), and by comparing documents. As a preliminary step, I analysed the waveforms of the sounds, particularly those moments when live sounds were mixed with recorded sounds." [3].

Figure 6 below describes in detail the beginning of *Double* (1982), thus, the Prologue and Intervention 1 as both are interconnected. To explain the conceptual model, I analysed the original score [13] from pages 1 to 4, which mutually interrelates several different types of documents (au-

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Figure 6. Describing the interactions between the *Double* (1982) documents: Prologue and Intervention 1.

dio recording script, lighting script, mute choir script, and additional documentation). The mute choir script sets out gestural instructions for the dancers who only performed gestures and did not produce any sounds that were all performed by audio recordings. The photograph included in Figure 6 is the only one extant of the original performance and particularly important because, given there is no video of this performance, we at least gain an idea of how the performers, instruments and other objects were located on stage. Below, there is a brief explanation of the interactions occurring across the different documentation. In the Prologue, at 'Partitura [14] p. 2' the soloists on stage and related documents are indicated, for example, in the mute choir script, the audio recording S1A (Tape 5) and the lighting script; then, in 'Partitura p. 3' only the S1B (Tape 5) audio recording is indicated, as it is a different sound, and all other documents are equal for both score pages (with arrows indicating this association). The same connection arises between the Prologue and Intervention 1, with both sections amalgamated with this logic applied to interrelating the information provided by the several documents. Subsequently, there is a description of the contents of each document, such as: image, sounds, visible notes and links.

Double (sources from the BNP archives)

Prologue Score p. 2: Soloists on stage: cello, piano, voice

- Image of performers on stage

- Audio recording S1A (Tape 5) – Maracas `https://drive.google.com/file/d/14Um9BznUtzxd3ExhGyFyv7sEzfMk3xDp/view?usp=share_link`

- Mute Choir Script: Crossing figures on stage; go discreetly behind the panel; shake maracas violently.

- Note: The Choir is a group of 7 dancers who belonged to the Dança Grupo and who, in this work, make only movements with their voices reproduced by the recording.

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[14] The Portuguese word for score.

- Lighting Script: Beginning without light 1) Mute Choir in backlight 2) a) Tenuous general light; - b) Projector 1 over the singer at the beginning of the monologue. 3) Projector 4 on chess players 4) Projector 2 on a shelf with 5) Light generating a glow effect on the gong (at the end of the monologue there is only general light) Score p.3: Monologue - piano reproduces recording sounds; cello performs gestures, pretends to touch; singer moves on stage (follows sheet music drawing)

- Audio recording S1B (Tape 5) - Monologue: Voice reciting the Manifesto (Picasso) and vocal effects; Tuning fork bottom (continuous sound); Gong sound; Wood sounds; Screw effect (piano) and pizzicato (cello) `https://drive.google.com/file/d/16ZHgWAMorj2YK4HGQZkxrsNvLaw8Z5aG/view?usp=share_link`

Intervention 1 Score p.4: Pianist and cellist perform only gestures; the singer moves like singers on stage (e.g., rehearsal, recital, reading, etc.); Pianist reacts to the recording by pulling screws; Cellist mimes pizzicato and bow; Cellist and singer perform movements with their hands; pianist plays crotales inside the piano's resonance box

- Mute Choir Script: Gestures with both hands (Capdeville indicates: "birth of man" (Michelangelo); Gestures with both heads looking at each other (Capdeville indicates with: "question mark look"; cue: "But you don't know what it is...")

- Audio recording S2A (Tape 6) - Voice: "Voi Ch'Entrate"; Crotales `https://drive.google.com/file/d/1ZoBd34cOTMV5xO19M9-B2xsvT1AYSLMZ/view?usp=share_link`

- Lighting script: 6) (Capdeville indicates with: "sound sequence of engraved screws") a) Light most present in the piano area b) Light on the panel c) Light most present in the cello area d) Projectors 1, 2 and 3 (Projector 3 illuminates a second shelf with music) - Projector 4 (chess game) remains the same 7) (Capdeville indicates with: "et facta est..." in his voice) a) Golden light invades the scene b) Intensity light dims slowly.

5. RESULTS

This section presents the results of a survey carried out with two colleagues, who were shown sketches and prototypes designed to represent the digital platform in order to obtain their feedback. This task took place in the context of the curricular unit 'Introduction to Virtual Environments and Web Interfaces', part of the Master's Degree on Digital Curation and Digital Humanities run by the Faculty of Social Sciences and Humanities, NOVA University of Lisbon, Portugal, on 4 January 2024, taught by Professor Armanda Rodrigues. Colleague 1 felt the idea remained

somewhat confusing for someone who did not know the respective scientific domain, in this particular case, contemporary music and archives. Colleague 1 stated that users would certainly not be someone from the field of literature as was their particular case. According to this colleague, a future user must understand the terminology applied in this scientific domain and that required a particular interest in the subject (in practice, the target community for this platform are researchers, archivists, composers, performers, choreographers and other interested parties). Colleague 1 considered one of the limits of the project to be the fact it is very specific. Graphically speaking, Colleague 1 also reflected that the biggest problem stems from the excessive processing of data necessary for adaptation to an eventual platform. The colleague considers it an excellent idea but a monumental and overly ambitious project. For the purposes of the prototype, Colleague 1 noted that it should stick to representing only one part of the work as an example. After questioning this overly ambitious scope of the project, Professor Armanda Rodrigues intervened to say that it would be interesting to understand how these components are mapped and represented digitally. In fact, this project is still a work in progress. After explaining the project concept to Colleague 2 when still in the sketching phase, the latter stated that it lacked something more interactive. Colleague 2 also felt that this was a very specific area, and he did not quite know how he could be of assistance. However, he added it might make sense to build a vertical (in-depth) prototype, as he considered this model more interesting, and that musical components should be inserted, such as audio, video and images, as well as additional notes, in order to facilitate visualisation and emphasise the relationships between the various component parts. In fact, as this constituted the initial idea, this was incorporated into the final prototype design.

6. CONCLUSION

To conclude, a digital repository capable of envisioning the previously hidden collective memory of music theatre composers will provide sustainable digital access to previously unknown music theatre works, enhance historically informed performances; undertake terminological work in the performing arts; and organise the knowledge necessary to designing this digital roadmap. This will benefit researchers, archivists, performers, composers, stage directors, choreographers and other interested parties while also serving educational purposes, supporting scholarly research, and deepening public engagement with the music theatre genre. Additionally, this digital platform seeks to strengthen the Portuguese archival landscape in the performing arts and establish links with international archives for mutually beneficial exchanges. Moreover, the digital archive serves as both a relational and interoperable database and a website display platform, highlighting overlooked composers in the performing arts and boosting the profile of their works. Thus, this represents a valuable resource for society in general.

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