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The VRA Core in a Digital Library of Artistic Production

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The VRA Core in a Digital Library of Artistic Production

Abstract

The database Digital Library of Artistic Production contains images of artistic works created in the Visual Arts courses at the School of Communications and Arts of the University of São Paulo, including engravings, drawings, photographs, artist books, photobooks, sculptures, and three-dimensional objects. The VRA Core was chosen to develop the database because it is a standard created especially for works of art and their images. In two years of cataloging tests, it has already been possible to verify that the VRA metadata is suitable for artists and contemporary art researchers.

Keywords

Image management, data standards, cataloging, metadata, databases, artwork, contemporary art, VRA Core 4.0, image database.

Author Bios

Vânia Mara Alves Lima is a PhD Professor, Department of Information and Culture, University of São Paulo, in the Librarianship course. She develops research in art librarianship, architectural image indexing, knowledge organization, and controlled vocabularies. She has been collaborating on the translation of the Getty Research Institute's Art and Architectural Thesaurus into Portuguese and has been a member of the Art Libraries Society of North America (ARLIS/NA) since 2015.

Marina Macambyra is a librarian who graduated from the School of Communications and Arts at the University of São Paulo. She has worked in the library of that same school since 1982 in information processing and reference services. Her main area of activity is audiovisual documentation, having worked on organizing collections of films, still images, and musical documents. She currently heads the Reference and Circulation Service of the Library of the School of Communications and Arts, where she coordinates the training program.

Introduction

This work seeks to detail the successes and limitations of implementing a digital collection of artistic works produced in the context of a visual arts course for an academic library, including decisions related to cataloging and the selection of technological tools to meet the needs of our users.

The collection of practical works generated in the visual arts courses at the School of Communications and Arts of the University of São Paulo consists of engravings, drawings, photographs, artist's books, photobooks, sculptures, and three-dimensional objects in the form of course completion works, masters theses, and doctoral theses. They constitute the artistic production of the community and are sent to the institution's library where they are available for consultation.

When you describe an image of an artwork for specialists, it is necessary to provide complete and accurate information about the original work. The image acts as a surrogate for the original for those who do not have access to it directly, so it is important not to confound the metadata of the original work with the metadata of its surrogates.¹

Students and teachers search for inspiration and knowledge about materials and techniques for creating their own artistic works when they look for images of art. They thus need a database that presents the work in high-quality images, is fast loading and offers the possibility of displaying details, and is cataloged with adequate metadata for the description of images.²

In light of this context and the community demand for images of artworks that are found in the physical collection, we began the construction of the Artistic Production Digital Library (BDPA) of the School of Communications and Arts in 2017.

Project

When registering works of art in a digital library, it is necessary to find tools that meet demands such as: the description of original works and their photographic records; metadata suitable for describing works of art; and fast and versatile online viewing of high-resolution images. One of the tools recommended by Ferreira et al.³ is the VRA Core metadata standard, identified as the most suitable for describing images of artwork. Several databases of images of works of art that use VRA Core or very similar metadata were analyzed, including: Artstor Public Collections,⁴ which brings together open access collections from several international institutions; Getty Museum Collection;⁵ and Harvard Art Museums.⁶

VRA Core 4.0⁷ was chosen because it is the only standard developed to describe works of art and their images, and it allows the cataloging of works and images in separate registers that can be logically related. This structuring of records is important for cataloging works that have many images and also those works that do not belong to the library's collection but whose images were included in the texts of the artists. Relationships between two distinct works may be described with this standard, for example versions, studies, precursor works, etc. In association

¹ Francisco Carlos Paletta, Marina M. Macambyra, Sarah Lorenz Ferreira, and Vânia Mara Alves Lima, "Digital Library the Artistic Production of ECA/USP," paper presented at IFLA World Library and Information Congress, Athens, August 2019, <http://library.ifla.org/id/eprint/2489>.

² Sarah Lorenzon Ferreira, "Acervo de Fotografias de Obras de Arte em Ambiente Eletrônico: um Estudo Exploratório sobre os Desafios para sua Criação e Manutenção" (PhD dissertation, Universidade de São Paulo, 2014), 155-174, <https://teses.usp.br/teses/disponiveis/27/27151/tde-17122014-155850/pt-br.php>.

³ Sarah Lorenzon Ferreira, Marina Marchini Macambyra, and Vânia Mara Alves Lima, "Imagens interoperáveis: uso do VRA Core e da estrutura IIF na construção de bibliotecas digitais," *Informação & Tecnologia* 5, no. 1 (2018): 4-17, www.periodicos.ufpb.br/ojs/index.php/itec/article/view/38194/22104.

⁴ "Artstor Public Collections," *Artstor*, accessed October 16, 2023, <https://library.artstor.org/#/browse/commons>.

⁵ "Getty Museum Collection," *Getty*, accessed October 16, 2023, <https://www.getty.edu/art/collection/>.

⁶ "Harvard Art Museums," *Harvard College*, accessed October 16, 2023, harvardartmuseums.org/collections.

⁷ "VRA Core: A Data Standard for the Description of Images and Work of Art and Culture," Visual Resources Association, accessed October 16, 2023, <https://www.loc.gov/standards/vracore/schemas.html>.

with the VRA Core, we also use the Cataloging Cultural Objects (CCO).⁸ The use of the CCO as a guide for filling in the fields ensured consistency in the description work.

In two years of cataloging and indexing tests carried out by students, librarians, and teachers, it has already been possible to verify that the VRA metadata is sufficient for artists and contemporary art researchers. The images extracted from academic works were selected based on the following criteria:

- works by the first generation of artists who graduated from the School of Communications and Arts;
- works by teachers at the School of Communications and Arts;
- works by other main artists who graduated from the School of Communications and Arts.

Among the works of these artists, the following were selected first:

- original works, presented as theses and dissertations;
- artist books and object books;
- works that could offer complex and interesting cataloging problems.

In parallel with the cataloging work, the team is writing the database's cataloging and indexing manual. As not all images selected during the tests were of the quality necessary to be displayed in the digital library, they will be replaced by professional photos with due authorization from the photographers and artists. Only then will the database be made available for public consultation.

To exhibit the digital collections, the software Omeka was selected. Omeka is an open-source web publishing platform for sharing digital collections and creating media-rich online exhibits.⁹ The quality of the description is particularly important because we will be dealing with original works generated within the institution itself, of which the Library of the School of Communications and Arts is the sole repository institution and privileged data source.

Currently, the digital library has 131 registered documents from a total of 200 items, mainly theses, dissertations, and final graduation works within the Visual Poetics area. This area features approximately 5000 images, specifically original artworks, artists's texts about their own work, and photo albums.

Since the mid-1980s, the Library of the School of Communications and Arts has had extensive experience with the documentary treatment of images of artworks due to the work of forming a collection of slides and analog photographs for didactic use in the classroom. Due to the lack of specific instruments for cataloging art images, the library developed standards to do so. The VRA Core metadata replaces the local cataloging rules perfectly, as we can see below.

Library Metadata	VRA Core
Author (work)	Creator
Title	Title
Date (work)	Date
Measurements (work)	Measurements
Collection (work)	Location
Location (architecture or public monuments)	Location
Technique	Technique Material
Description	Description
Notes	Description
Source	Source

⁸ Murtha Baca, Patricia Harpring, Elisa Lanzi, Linda McRae, and Ann Whiteside, *Cataloging Cultural Objects: A Guide to Describing Cultural Works and Their Images*, Chicago: American Library Association, 2006,

<https://www.vraweb.org/cco>.

⁹ "Omeka," accessed October 16, 2023, <https://omeka.org/>.

Subject	Subject
Genre / form	Type
Author (photograph)	Creator
Date (photograph)	Date
Support (photograph)	Material

Table 1: Library metadata (left) versus VRA Core (right).

Challenges

Although our experience with the VRA Core and CCO was fundamentally positive, we identified the absence of two types of metadata that would be useful for the library's work: advisor and history of the work. The absence of the advisor is an important gap in an academic context.



Figure 1: Record of an engraving by Evandro Carlos Jardim at the BDP.A.

In Fig. 1, we see a record of one of the prints from the collection, presented as part of Evandro Carlos Jardim's masters thesis supervised by Aracy Amaral, an important researcher in the Brazilian visual arts scene. As there is no specific field for advisors in VRA Core, one option would be to use the Agent field, whose description¹⁰ does not seem entirely appropriate for works of art, as the contribution of the advisor to dissertations and theses in the work itself is not clear. We have not yet ruled out the possibility of using the Agent field, but as we are dealing with a collection of works of art created as academic works or strongly related to the artist's research activity, we think that a specific field for the advisor would be better.

¹⁰ "An individual, group, or corporate body that has contributed to the design, creation, production, manufacture, or alteration of the work or image" (VRA Core).

In cases where the advisor also has works registered in the database, the problem of linking them to the work of their advisees is solved by the Relations field, which allows relating the biographical record of an artist to the records of other artists.

Figure 2: Biography of artist Ana Tavares in BDPA.

In Fig. 2, we see how it is possible to make a connection between Ana Tavares’s record with her advisor, Regina Silveira, and one of her students, Yiftah Peled, both of whom have works registered at the BDPA. When the advisor does not have works in the database, either because they are not an artist or because they are not linked to the College’s courses, the information cannot be registered in the BDPA. As an example, Aracy Amaral (Fig. 1) does not have works registered with the BDPA, therefore she does not have a biographical record in the database. It is not possible in this situation to adopt the same solution shown in Fig. 2.

We are recording in the description field extracted information that does not, strictly speaking, fit in the concept of description, such as historical information or details of the work’s creation process. We call the data related to the origins and history of the work “historical information,” such as:

- a) “A manhole in the central region of the city had six fluorescent lamps installed inside and remained lit for three days” (*Manholes*, installation by Rubens Mano, Fig. 3).

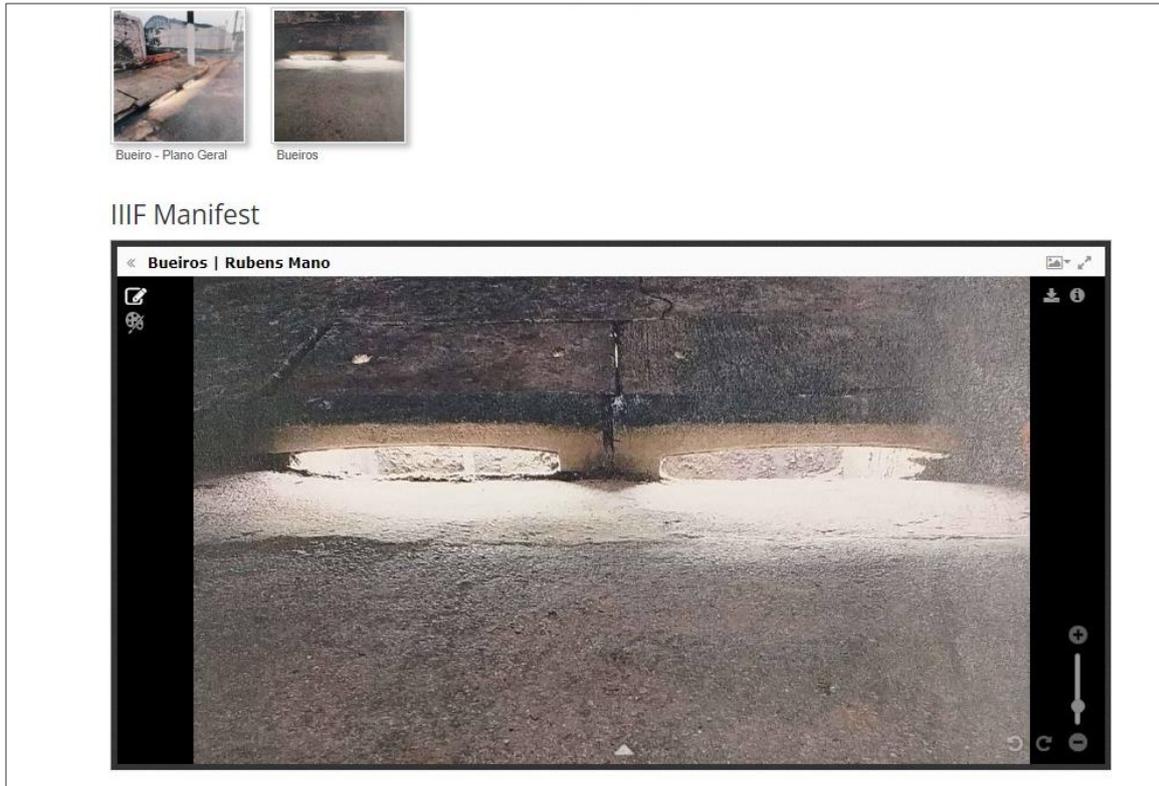


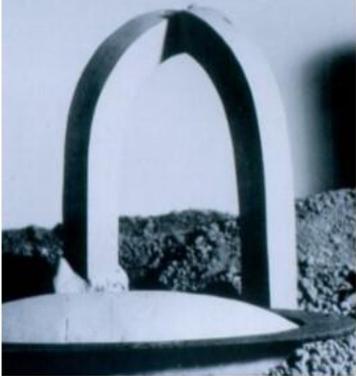
Figure 3: “Manholes” by Rubens Mano (record detail in BDP.A).

b) “*Humanoids* are monolithic figurative elements inspired by Cycladic art with an elongated shape without a base, reproduced in ceramic material through a process that leaves them hollow like shells. Initially presented horizontally, in large sets. They were later verticalized and received spaces to live in” (*Humanoides*, installation by Norma Grinberg, Fig. 4).

i n s t a l a ç ã o

Humanóides: transmutações da forma e da
matéria

- C O L E Ç Ã O -
Norma Grinberg



Título	Humanóides: transmutações da forma e da matéria
Autor	Norma Grinberg
Identificador	001
Tipo de Trabalho	instalação
Data da Criação	1995?
Localização	Museu de Arte Contemporânea da USP

Figure 4: “*Humanoides*” installation by Norma Grinberg (record detail in BDP.A).

The creative process of the artists, their intentions, and their aesthetic choices can be included as historical information too, as in the following examples:

- a) “The intention was to reverse the usual condition of ‘passive capture,’ transforming a place underlying the movements printed in the city into a light transmitter” (*Manholes*, installation by Rubens Mano, Fig. 3).
- b) “It is the work that revealed the possibility of attributing to sculpture the function of a device for the field of the body and a trap for the gaze” (*Those in flight*, sculpture by Ana Maria Tavares, Fig. 5).

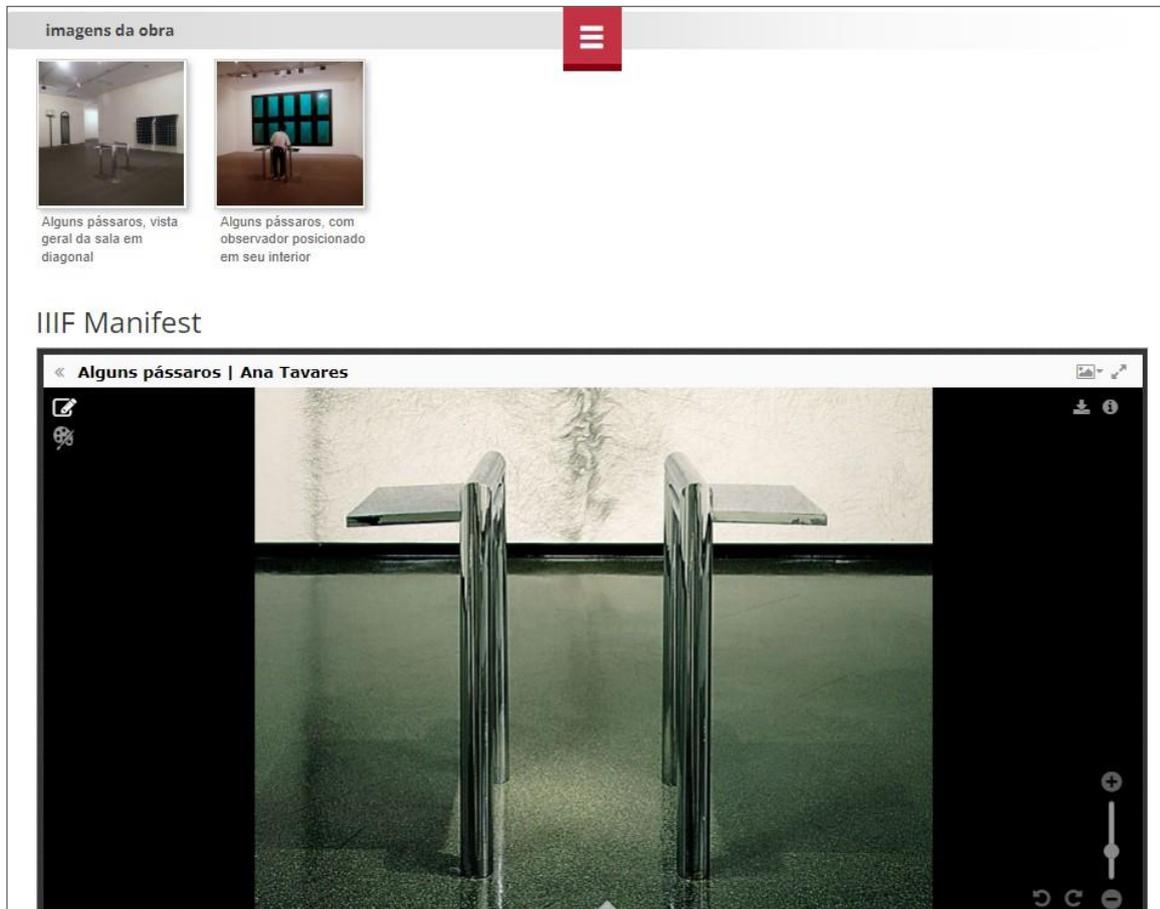


Figure 5: “Those in flight” sculpture by Ana Maria Tavares (record detail in BDPA).

- c) “The biblical myth of the *Tower of Babel*, which deals with the moment when a supposedly single language given to men is fragmented into many, is seen in this work as a metaphor for human knowledge” (*Babel Tower* installation by Geraldo Souza Dias, Fig. 6).

i m a g e m d i g i t a l

Torre de Babel na FAU, vista geral (1)



Título
Torre de Babel na FAU, vista geral (1)

Autor
Geraldo de Souza Dias Filho

Identificador
8737

Tipo de Trabalho
imagem digital

Agente
Flávio Magalhães

Data da Criação
2006

Localização
Acervo da Biblioteca da ECA

Descrição
Vista geral da torre completa, tomada na diagonal do vão livre da Faculdade de Arquitetura e Urbanismo da USP.

Técnica
Imagem registrada por câmera digital

Medidas
1 MB

Assunto

Figure 6: “Babel” installation by Geraldo Souza Dias (record detail in BDPA).

Including this type of information in the Description field is technically simple, as it is a free text field. However, it would be better to have separate fields for information of different natures, since the images are endorsed by academic texts from the artists themselves. Unfortunately, the current version of Omeka does not offer the possibility of creating fields different from those already defined in VRA Core.

We believe that having a specific field for this type of information would provide more clarity to the records of the works since the BDPA has considerable didactic potential. In the text by Carlos Fajardo (Fig. 7), for example, we have a description:

Composed of four spatial interventions: a wall with graphite deposited by surface tension in all its extension (4.5 in height by 17 in length); a wooden plane, inclined and crooked, at the back of the rectangular room; a clay object on the floor of the gallery, occupying the entire length of it diagonally (this work has the shape of a cylinder deformed by the action of compressing the palm of the closed hand over its surface); a small sphere of glycerin with an approximate diameter of 40 cm.¹¹

¹¹ Carlos Fajardo, “Poéticas Visuais: a Profundidade e a Superfície” (master’s thesis, Escola de Comunicações e Artes, 1988), 42.

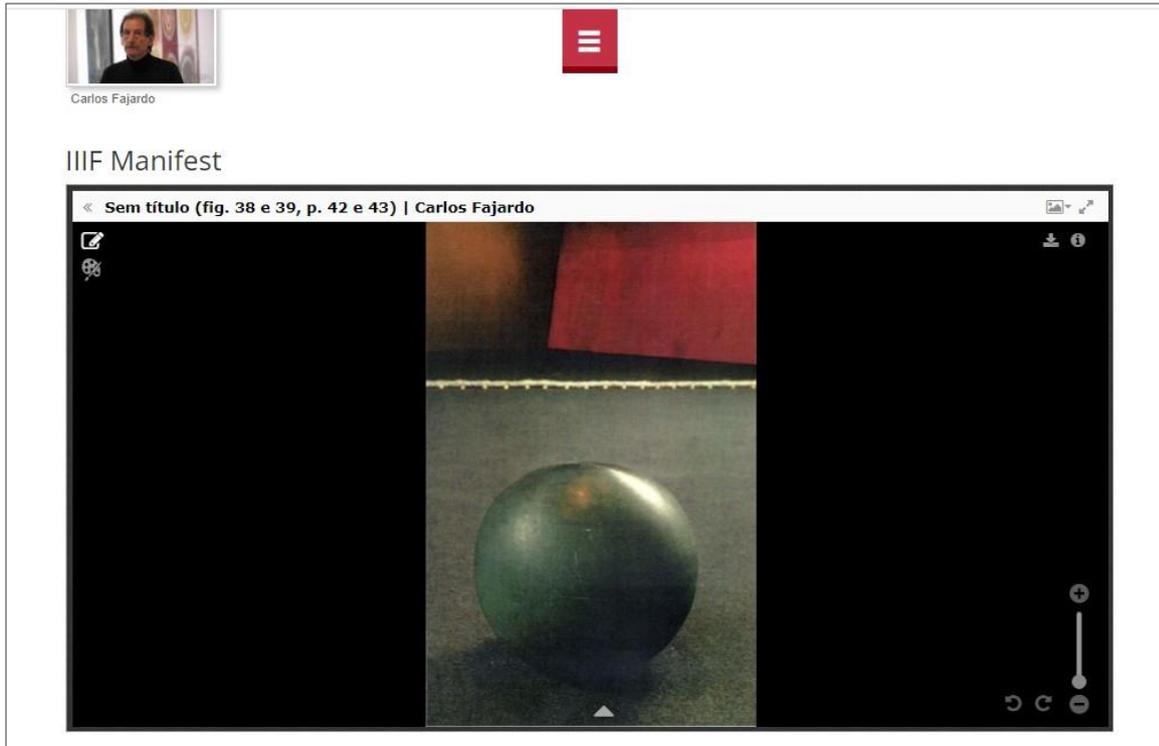


Figure 7: Installation by Carlos Fajardo (record detail in BDPA).

The same occurs in the following excerpt, which explains phenomena that are not present in the images of the works but are the artist's impressions of the meaning of his work:

These last two works, due to the hygroscopic nature of the materials, change their shape due to the loss of water (the sphere is a work whose modifications take place over a long period of time). In the case of clay, the loss of water causes its rapid rupture at several points, giving it its definitive, fragmented aspect. These are works that explicitly deal with duration; the passage of time is recognized in your physical transformation.¹²

We also found difficulties related to Omeka Classic plugins. Fields in Omeka's VRA plugin do not contain subfields, which limits the application of metadata in the BDPA. The Mirador image viewer plugin, which supports IIIF, does not display more than one image in the same record (within the Omeka Classic theme that was chosen for the BDPA). This limitation makes it difficult to include multiple images of the same work.

Omeka allows more than one image to be associated with records. However, when we have several photos of the same object, it is necessary to create a record in the database and relate them to the work record so that each one is displayed with the IIIF resources. To view each image, you need to click on the thumbnails (Fig. 8).

¹²Fajardo, "Poéticas Visuais," 42-43.

TÍTULO
Lugar com arco

AUTOR
Norma Grinberg

IDENTIFICADOR
002

Tipo de Trabalho
escultura

Data de Criação
2000

Localização
Universidade de São Paulo (Cidade Universitária) - Escola de Comunicações e Artes - SP

Descrição
Obra monumental instalada nos jardins da Escola de Comunicações e Artes da Universidade de São Paulo, no campus da Cidade Universitária, arremate de um percurso iniciado com a instalação "Humanóides - transformações da Forma e da Matéria" (Museu de Arte Contemporânea da Universidade de São Paulo, 1994). Realizada como tese de doutorado da autora.

Materiais
Argamassa armada

Medidas
9 metros de comprimento, 6,20 metros de altura, 2,16 metros de largura (informação da autora)

Contexto Cultural
Arte brasileira

imagens da obra

- Lugar com Arco, vista geral diurna (2)
- Lugar com arco, vista geral diurna (1)
- Lugar com arco, vista geral diurna (3)
- Lugar com arco, vista geral diurna (4)
- Lugar com arco, vista lateral

Figure 8: Record of the work "Place with an Arch" with five associated images.

Navigation through the database and consequently the user experience would be better if all photos taken on the same day by the same photographer (i.e. those with the same metadata) were associated with a single record and visible with the Gallery View feature (Fig. 9). We hope to resolve the incompatibility between the plugin and the Omeka theme by implementing the new version of Omeka S as soon as possible.

IIIIF Manifest

« Lugar com arco | Norma Grinberg

Image View
Book View
Scroll View
Gallery View

Change

Manifest URL
<http://200.144.255.48:8001/oa/items/124/manifest.json>

Figure 9: Mirador and IIIIF plugin.

When used with a plugin that follows the IIF protocols and VRA metadata, Omeka Classic offers several technical resources that provide the cataloger with several treatment options for each document.

Cataloging does not have to be limited to just items. It can make explicit various types of work-to-work and artist-to-artist relationships. Some examples include: an exhibition and the works included in it; different stages of execution of the same work; a series of the works that integrate it; a work and its precursors; or an artist to her mentors. These possibilities enrich cataloging but require the cataloger to research and analyze academic texts to identify all the necessary information, a process that tends to consume a lot of work time.

The Mirador plugin has the feature of direct image annotation, which can be used to highlight and explain image details, insert terms to index specific points in the image, and relate details of a work to other works registered in the database. These are resources that should be used at the discretion of the cataloger, taking care not to overload the records with unnecessary information. The annotations are retrievable in the search, which allows for very detailed indexing, ensuring that the terms used point exactly to the aspect of the image that you want to highlight. When viewing, annotations can be displayed or hidden according to the user's needs.

Omeka Classic offers two possibilities for grouping records according to the characteristics of the works or their authors: collections and exhibitions. It is up to the cataloger to decide which collections and exhibitions to create, remembering that these groups play a fundamental role in ways of browsing, consulting, and viewing records.

Access to artists's texts, combined with the intelligent use of Omeka and IIF's technical resources, in addition to the excellent quality of VRA Core metadata, allows for the creation of rich and detailed records. The cataloging, built from the analysis of academic works, will show aspects of the works that were not explained in other sources, not even on the artists's own websites. Logical relationships between records, visible to the user through links, will show, for example:

- previous works that gave rise to the one being viewed;
- previous or subsequent phases of the same work;
- exhibitions in which the work was displayed;
- works of the advisor and students;
- other relationships that may be identified.

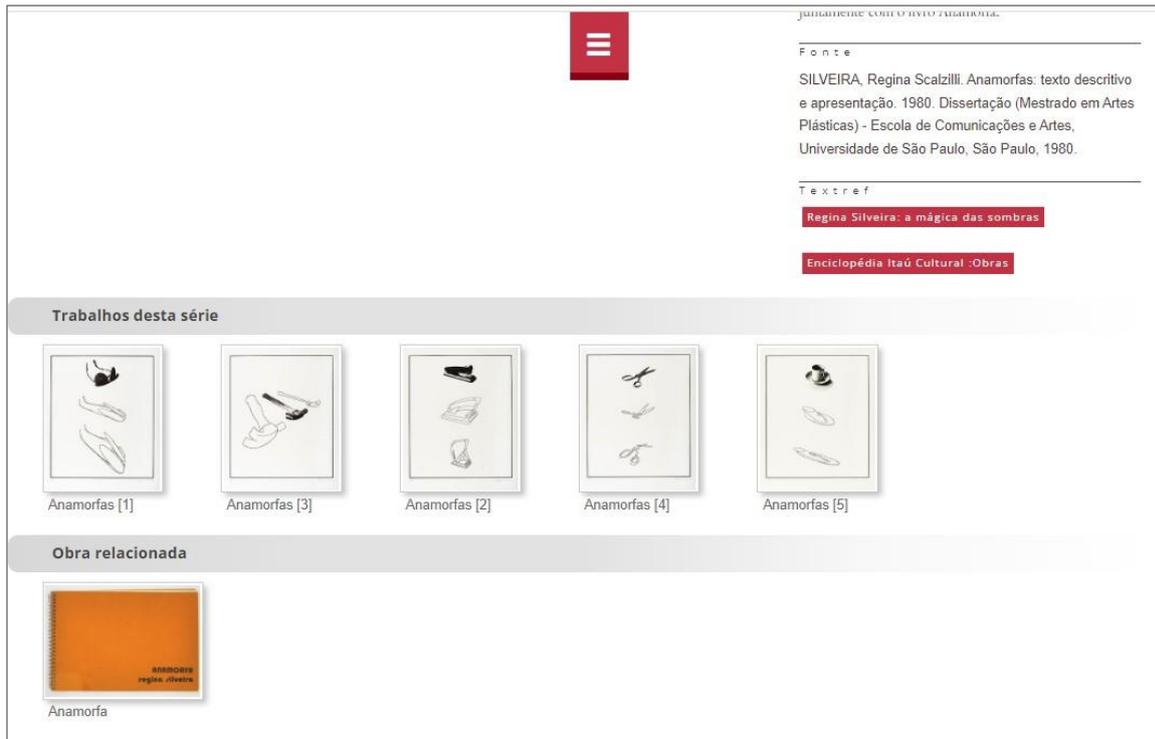


Figure 10: Relationship between the series of engravings “Anamorfas” by Regina Silveira and the artist’s book “Anamorfa.”

Most importantly, the researcher’s access to this information occurs through viewing the works in a database created especially for processing and displaying images. When consulting the BDPA, art students and non-specialized audiences have the opportunity to discover aspects of the works elucidated by their authors in a playful and pleasant way.

Conclusion

The conclusions of the preliminary study of the image user needs of the School of Communications and Arts visual arts courses – carried out by Ferreira in her master’s thesis¹³ – have been confirmed by daily practice in the reference service. Undergraduate and postgraduate students from the visual arts courses search for images of the work of artists linked to the School, asking for information about these artists and looking for inspiration when creating their own work. These images must be of high technical quality and fast loading, and the database needs to offer different forms of visualization and show the images in detail. It will be necessary, however, to carry out a new study to assess user satisfaction with the developed product after releasing the database for public consultation.

The purpose of the BDPA is to disseminate concepts and relationships established between the works of art in the collection, in addition to enabling users to establish new relationships between these artistic productions. It is up to catalogers to describe these concepts and relationships using the most consistent tools for this task. The VRA Core is a consistent tool to enable the cataloging and indexing of the works and images to clarify concepts and relationships between the works that otherwise would remain circumscribed to the texts of theses and dissertations and the small circle of their readers. Alongside all this, it is still necessary to seek to understand the specialized language of the artists, but this is another discussion.

¹³ Ferreira, “Acervo de Fotografias,” 141-150.

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