

Exhibition Spaces in Digital Format: The Presence of Museum Architecture in Europeana Collections

Extended abstract

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Since the end of the 20th century, the world has witnessed the rising dissemination of digital technologies, impacting the communities' daily lives, as well as museum spaces. The digitalisation of cultural institutions' collections and the globalisation of the Internet allowed museums to make their collections available online. These platforms, alongside with social networks have become one of the main channels for dissemination and communication with the public. At the same time, the beginning of the millennium witnessed the development of transnational platforms used for promoting cultural heritage, such as Europeana which currently provides more than 54 million digital objects, including photographs, artworks, artefacts, videos, texts, audio recordings and 3D models from over 3700 cultural institutions. This extensive online archive has distinguished itself, namely by gathering reproductions of artworks from prestigious museums. Less numerous, as well as less studied, has been the visual documentation concerning the architecture of those and other European museums. This paper aims to summarize the main points studied in the respective thesis, focusing on the investigation of the communication potential of museum architecture in Europeana through the identification and critical reading of the content related to museum buildings available in the platform. Thus, the Prado Museum is analysed as a case study, because of the diversity and relevance of the contents related to its building.

Keywords: museum architecture; digital transformation; Europeana; online databases

1. Introduction: Museums and Digital Transformation

The museum definition recently adopted by ICOM emphasises the institutional mission that, with the rise of technology, allowed the museum to promote its role as a cultural, social and economic entity in the domains of tangible and intangible heritage conservation and their corresponding documentation and interpretation, together with the exhibition of collections and the communication with the public and other institutions (ICOM, 2022). As a result of the technological evolution, new practices were developed and introduced in the museum context, starting with the invention of Photography in the 19th century, the creation of the first computers and the first virtual museums inspired on the concept of database, which were accessed through CD-ROM and “were conceived as virtual visits to existing art museums such as Le Louvre or the Hermitage” (Huhtamo, 2010, p. 122). However, these virtual experiences were seen as a complement to the physical museum and not as an alternative space (Huhtamo, 2010, p. 122).

The creation of the Internet and its globalisation in the late 1990s led museums to create their first websites to disseminate and promote their spaces and collections online, but these were perceived as informative pages which contained limited low-quality images, resembling a “mere compilation of

institutional brochures or exhibition guides” (Barranha, 2011, p. 180) in a digital format. At the same time, different national databases became available online, as happened in Portugal with two main Portuguese databases for documenting and preserving cultural heritage: SIPA, the Information System for Architectural Heritage, and Matriz3.0/MatrizNet, focusing on museum collections (Costa, 2016, p. 164). The emergence of the Web 2.0, in 2004, also allowed the audiences to create their own narratives, thus becoming active participants, interested in producing and sharing content through dynamic and interactive digital platforms.

With the wide dissemination of digital technologies and social media, in the first decades of the 21st century there was a shift from object-centred museum exhibitions to user-focused displays, tailored according to the audiences’ necessities and expectations (Giannini & Bowen, 2022, p. 193). As Joana Carvalho points out, social networks play a vital role in the relationship between museums and visitors, by reaching an “increasingly vast and heterogeneous audience” (Carvalho, 2014, p. 65) and fostering interaction and free sharing of personal contents. In the museum context, social networks have a substantial impact on every characteristic that is included in its institutional mission (Drotner & Schrøder, 2013, p. 12). Out of all available networks, Instagram is currently the most popular for art museums as it allows them to disseminate content that surpass the physical space, either through institutional or visitors’ publications, thus increasing museums’ visibility and recognition. It is important to mention how the COVID-19 pandemic forced cultural institutions to react to the situation, thus rushing “many of the changes driving museum transformation” (Giannini & Bowen, 2022, p. 192). Once again, Instagram, Facebook, Twitter and YouTube were the main communication platforms chosen by museums.

Definitely, the digital transformation associated with participatory culture led to an increasing architectural diffusion on digital platforms and social networks, particularly in the last decades with the creation of “monothematic architectural portals that emerged with web 2.0” (Cimadomo, Rubio & Aswani, 2021, p. 158), such as *ArchDaily*, *Divisare*, *Designboom*, *Dezeen* and *Architizer*. Despite their preference for “more participative and dynamic” platforms (Cimadomo, Rubio & Aswani, 2021, p. 167), namely social media, many users choose to search for inspiration and information on these thematic websites that, having pioneered the promotion of architectural projects, materials and events, became “a real repository of architectural production on a global scale” (Cimadomo, Rubio & Aswani, 2021, p. 158). *ArchDaily* is undoubtedly the most useful for architecture professionals and students, due to the variety of projects and the type of content it provides, allowing “for a global diffusion of information on projects and the possibility to search for them far more efficiently than monographs and paper magazines afforded previously” (Petit & Infante, 2020, p. 22).

2. Digital Platforms for Museum Dissemination: The Case of Europeana Collections



Fig. 1. Europeana Collections homepage. Screenshot [01.09.2022].

With the globalisation of digital cultures and of museum collections, the concern for the preservation of cultural heritage and the digitisation of museum, library, archive and gallery collections became a priority. In this context, the Europeana Collections were established as one of the main initiatives for the democratisation of European cultural heritage (Valtysson & Holdgaard, 2019, p. 165).

Europeana emerged through a proposal for the creation of a digital library that aims “to become the central portal for heritage in Europe” while promoting the “access to digitized and digital cultural heritage” and the unrestricted dissemination and usage of the European culture (Hagedorn-Saupe, Kampschulte & Noschka-Roos, 2013, p. 183). Thus, in 2008, the Europeana portal was launched, giving direct “access to 4.5 million digital objects from more than 1,000 contributing organisations” available in 25 different languages (Valtysson & Holdgaard, 2019, p. 163). Its content ranged from photographs, digitised documents, videos and audios to metadata related to these contents, provided by several cultural institutions. Currently, Europeana provides access to more than 54 million of objects from 3700 different cultural institutions and its mission for 2020-2025 foresees the reinforcement of the infrastructures, the improvement of metadata and data quality, as well as the support of “institutions in their digital transformation”, while promoting the reuse of the available cultural heritage contents (Europeana Pro, 2020, p. 5).

Since 2008, Portugal has been contributing to the development and expansion of Europeana Collections. According to the report “Portugal and Europeana: an overview”¹, in August 2021, there were 150 401 items in the platform that were submitted by Portuguese institutions, but in August 2022, this number decreased to 143 831². It is also important to mention that from the 57 Portuguese institutions featured in Europeana Collections, only 23 are museums. Therefore, given the recognised importance of the platform in mobilising and renewing content and preserving the plurality and diversity of the cultural heritage, it is relevant to analyse the representation of museum architecture in Europeana Collections.

2.1 The Representation of Museum Architecture in Europeana Collections

Prior to the analysis of the collections, it was expected that some of the most important international museums would have architectural content about their buildings in Europeana. The research revealed a few distinct types of museums with architectural representation in the platform: regional and municipal, open air, military, art, history, natural history, archaeology, science and technology museums. The majority of these museums are located in Germany, Spain, France and Italy, the first one being the country with the highest number of museums in every search, which is not surprising since it is one of the geographic areas with more providing institutions in the platform.

The analysis regarding the presence of museum architecture in Europeana was based on the search for the keywords architecture, building, exhibition and museum, combined with each other in different queries and in four languages: Portuguese, English, Spanish and French. Afterwards, a second search was made by the names and architects of the museums that previously produced the most results. As a result of this methodology, it was disclosed that approximately 300 museums had information about the architecture of their buildings, which represented a relatively small number when compared to the thousands of providing institutions. In most cases, the obtained results included images, a few texts and

¹ Available at:

https://pro.europeana.eu/files/Europeana_Professional/Europeana_Foundation_Governance/Member_States/Country_Reports/CountryReport_Portugal_January2022.pdf [29.10.2022].

² Information gathered from the Europeana Collections website. Available at: <https://www.europeana.eu/pt/search?page=1&qf=COUNTRY%3A%22Portugal%22&query=&view=grid> [06.08.2022].

videos and a very small number of 3D objects. While looking for architectural content, six different situations were observed: 1) museums that only provide content related to their collections and do not have any kind of architectural representation in the platform; 2) museums that only contribute with content related to their collections, but contents about their buildings are provided by other institution(s); 3) museums that present architectural content about their buildings and may or may not feature objects of their collections; 4) museums that provide content related to their buildings, whereas also other institution(s) contribute with information about those same buildings; 5) museums that do not provide materials to the platform, but whose buildings' architectural contents are provided by other institution(s); and 6) museums which are not represented in the platform in any way. Throughout the research it was verified that the most common situations were those described in 2) and 5) while 3) was the rarest.

Regarding European museums which are widely popular for their architecture, only the Louvre Museum, Alte Pinakothek (Leo von Klenze, 1826-1836), Prado Museum (Juan de Villanueva, 1785-1819), Georges Pompidou Centre (Renzo Piano & Richard Rogers, 1971-1977), Rijksmuseum (Pierre Cuypers, 1875-1885), and the Guggenheim Bilbao Museum (Frank Gehry, 1991-1997) appeared in the combined keyword search. Other possible examples, such as the Van Gogh Museum (Gerrit Rietveld, 1963-1973) or Tate Modern (Giles Scott, 1947-1963; Jacques Herzog & Pierre de Meuron, 1995-2000, 2005-2016) also revealed a few architectural contents, but they were only found by specifically searching for each museum. In addition, it was possible to find other museums with fewer architecture related content, such as the Munich's Glyptothek (Leo von Klenze, 1815-1830), Vienna's Secession (Joseph Olbrich, 1896-1898), Leopold Museum (Ortner & Ortner, 1986-2001), MUMOK (Museum Moderner Kunst Stiftung Ludwig Wien) (Ortner & Ortner, 1986-2001), MAXXI (Zaha Hadid, 1999-2010) and the Vatican Museums.

The Louvre Museum presence in Europeana was verified by searching the keywords "architecture" and "museum", combined with each other, "Musée du Louvre" and "Louvre Museum", returning 141 items related to the architecture of the building, most of them being images of its exterior throughout the years and a few technical drawings (figs. 2-3). Louvre's institutional page on the "Organizations"³ section also links to a blog, where one can identify other elements related to the building. The Alte Pinakothek of Munich was also found in Europeana via the search terms "museum", "museo", "architecture", "arquitectura", combined with each other, and "Alte Pinakothek", returning 163 images of both the exterior and the interior of the building, and some technical drawings (figs. 4-5). In this case, the German institution Architekturmuseum der Technischen Universität München played a crucial role in the dissemination of these documents. Amsterdam's Rijksmuseum appeared on the platform through multiple combinations of the keywords "architecture" and "museum", "Rijksmuseum Cuypers" and "Rijksmuseum", returning images of the exterior of the building, some of them regarding the building's restoration between 2001 and 2013 as well as some interior spaces (figs. 6-7). However, by searching for "Rijksmuseum", the number of results skyrocketed to 369 806, not allowing the visualisation of every result.



Fig. 2. Louvre Museum, Pavillon de l'Horloge, 1857.



Fig. 3. Louvre Museum, 2005.

³ See: <https://www.europeana.eu/pt/blog/happy-birthday-to-the-louvre> [25.09.2022].

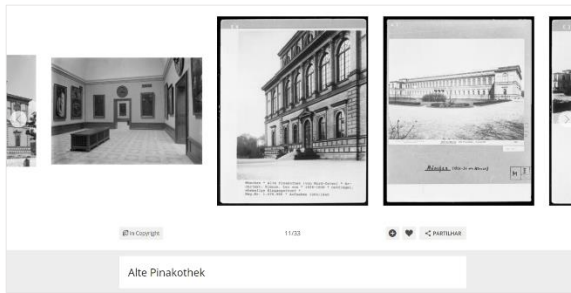


Fig. 4. Alte Pinakothek Munich in Europeana, 1826-1985. Screenshot [21.09.2022].

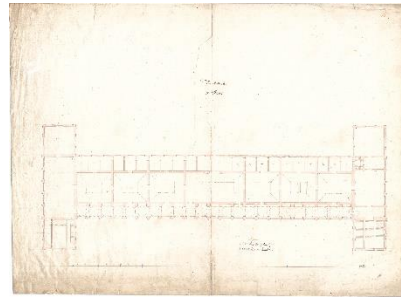


Fig. 5. Alte Pinakothek, first floor plan, 1877.



Fig. 6. Rijksmuseum, 2007.



Fig. 7. Rijksmuseum, Gallery of Honour, 2013.

Regarding Georges Pompidou Centre emerged through a few searches with the combination of the words “museum”, “architecture” and “building”, “Centre Pompidou”, “Pompidou”, “Renzo Piano” and “Richard Rogers”, resulting in a few images where the exterior of the building was shown, some videos, an image of a glass model from the museum architectural project and two 3D models of the building which, unfortunately, were not available to see (figs. 8-9). Guggenheim Bilbao Museum appeared throughout several searches in the platform, associated with a set of 23 images related to the exterior of the building (fig. 13) and three videos, even though only one of them partially presents the exterior and interior spaces of the museum, while briefly discussing its construction.

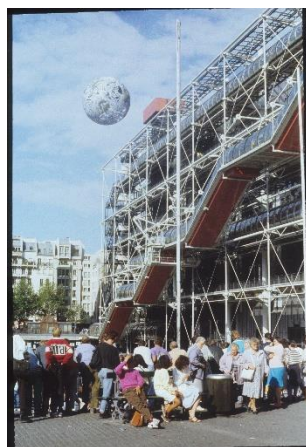


Fig. 8. Georges Pompidou Centre, façade and stairway, 1989.



Fig. 9. Image of one of the 3D models of the Georges Pompidou Centre.

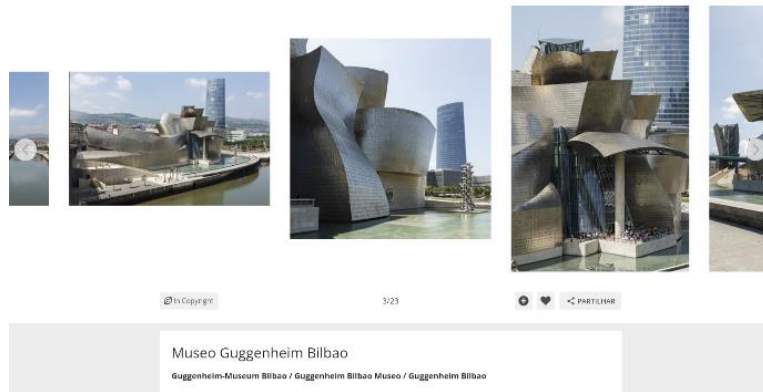


Fig. 10. Guggenheim Bilbao Museum, 2015. Screenshot [21.09.2022]

Regarding Portugal, architectural content was found in only six museums: Municipal Ecomuseum of Seixal, Machado de Castro National Museum, Grão Vasco National Museum, Archaeological Museum of Carmo, Aveiro City Museum and the Museum of Art Nouveau also in Aveiro. However, in the course of this research, all the content about architecture of these last two museums disappeared from the platform and it is now only possible to see one image of the Aveiro City Museum. It should be also mentioned that the Machado de Castro National Museum, the Grão Vasco National Museum and the Archaeological Museum of Carmo were introduced in the platform by the German Documentation Center For Art History - Marburg Picture Index. Furthermore, the Archaeological Museum of Carmo does not have a title that allows its identification, being simply labelled as “Museum”.

2.2 Case Study: The Prado Museum



Fig. 11. *Vista del Real Museo de Pintura de Madrid*. Illuminated litograph by Leon-Auguste Asselineau (original by Fernando Brambila, c. 1833).

The Prado Museum was the case study chosen for a deeper analysis of museum architecture in Europeana Collections due to the variety and relevance of elements related to the architecture of the building that were available on the platform. Given the kind of contents that emerged through the searches by the museum’s name or by the combined keywords, it was decided to carry out an analysis of the evolution of the museum building, illustrating it with the found items, with the oldest elements going back to the 18th century while the most recent date to 2018. Most contents found in Europeana Collections about this museum presented its exterior, especially the north façade, possibly because it was one of the most intervened parts of the building.

The Prado Museum was originally commissioned to the architect Juan de Villanueva, in 1785, to house the Natural History Cabinet, the Academy of Natural Sciences and a meeting room, with its construction starting the following year (Museo Nacional del Prado, n.d.-a). The French Invasion forced the interruption of the project's construction in 1808, delaying its opening to 1819 (Serraller, 2019, pp. 59-60). It was possible to find a few technical drawings of the original project on the platform, of which the plans enhance the linearity and extension of the building, reinforcing the architect's concept of longitudinal circulation scheme using galleries (fig. 12).

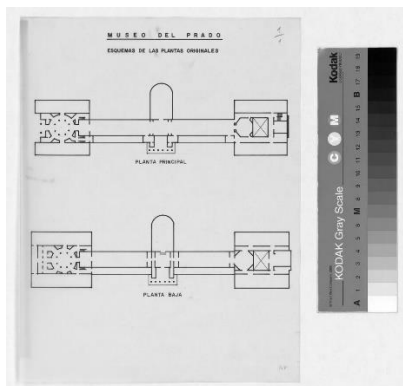


Fig. 12. Prado Museum, schematic plans of Villanueva's original project.



Fig. 13. Prado Museum, north façade, c.1870.

The first renovation of the museum building took place between 1847 and 1853 and was authored by Narciso Pascual y Colomer, consisting in the creation of the *Sala de la Reina Isabel* (fig. 14), located in the apse of the east façade. In Europeana Collections there is an image of this room which reveals the spatial quality of the exhibition room. Between 1880-1892, the architect Francisco Jareño modified the north façade of the building by creating a new entrance for the museum, through a monumental staircase (Museo Nacional del Prado, n.d.-a). About this intervention, there was a lot of images that showed the new northern entrance and its insertion in the surroundings (fig. 15). From around the same period, the platform included a few images about the Central Gallery (fig. 16) and a plan for the first expansion project of the museum (fig. 17). These works, carried out due to the lack of exhibiting space, were designed by Fernando Arbós y Tremanti in 1918-1921, and included the construction of two linear and symmetrical volumes on the east façade of the building, separated from the Central Gallery by two courtyards (Museo Nacional del Prado, n.d.-a). Some images of interior spaces were also found, dated from the period between 1910 and 1950, featuring the sculpture rooms, the landing space of one of the staircases and one of the Italian painting rooms (figs. 18-19).



Fig. 14. Prado Museum, *Sala de la Reina Isabel*, 1860-1886.



Fig. 15. Prado Museum, 1860-1886.



Fig. 16. Prado Museum, Central Gallery, 1880-1906.

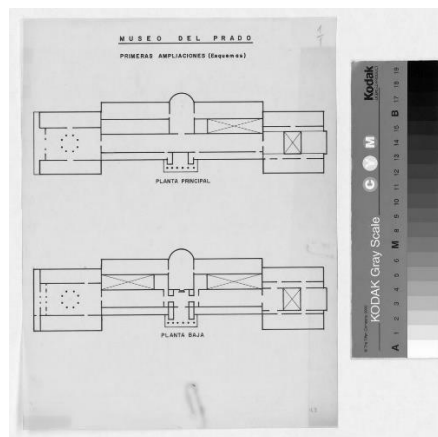


Fig. 17. Prado Museum, schematic plans of Fernando Arbós' expansion project.



Fig. 18. Prado Museum, roman sculpture room, 1910-1950.



Fig. 19. Prado Museum, Italian painting room, 1910-1950.

One of the most dramatic events in the history of the museum is also documented in *Europeana*, the 1936 to 1939 Spanish Civil War. The platform contains several images revealing protection strategies taken to save the building and its collection, as well as images about the damages it suffered during the war (figs. 20-22). The latest modification of the north façade, by the architect Pedro Muguruza, in 1943-1946, which consisted in the creation of the new staircase of the north façade that allowed the establishment of a new entrance at the floor level, is also documented in the *Europeana* Collections with a few images (fig. 23) (Museo Nacional del Prado, n.d.-a). The plans for the expansion project of 1964, where José María Muguruza proposed the enlargement of the museum by covering Arbó's courtyards were also found on the platform (fig. 24). This image allows the visualisation of Fernando Chueca and Manuel Lorente's duplication of the east wing in 1953 (Serraller, 2019, p. 62).

Between 1981 and 1983, José María García Paradas developed the project for the *Salón de Actos*, however, this modification did not appear on the platform. In the following years, there were no significant modifications associated with the museum building, which is why the information found on the platform pictures some photographs of the exterior of the building between 1988 and 1995.



Fig. 20. Prado Museum, Italian painting room, 1936.



Fig. 21. Prado Museum, protection strategies, 1936-1939.



Fig. 22. Prado Museum, Room IL used as storage room for artworks, 1939.



Fig. 23. Prado Museum, north façade after Pedro Muguruza's intervention.

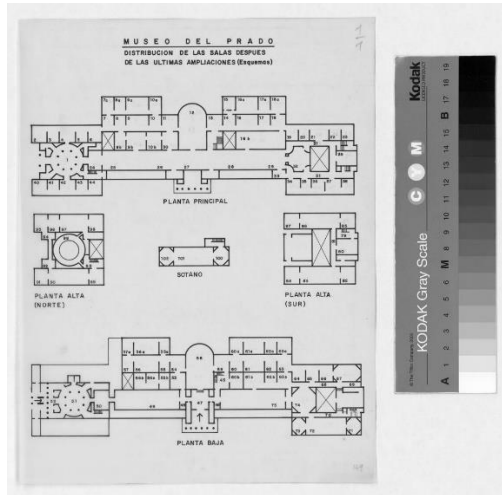


Fig. 24. Prado Museum, plans of José Muguruza's expansion project.

Concerning the latest extension project for the museum, by the architect Rafael Moneo in 1998, the searches on the platform returned a few images from 2018 (figs. 25-27), about the new volume and its relationship with the Villanueva's building and its surroundings, where it is possible to observe some of its features, such as the combination of the old and new materials and a new entrance by the east façade, provided by a connecting element (fig. 27) that "evokes 18th-century gardens and creates a landscaped area that joins up with the Botanical Gardens located next to the Museum" (Museo Nacional del Prado, n.d.-c). Related to this project, the platform also provides the *Trabajo Final de Grado en Fundamentos de la Arquitectura, da Escuela Técnica Superior de Arquitectura de Valencia, El dibujo del pensamiento: análisis en diez obras de Rafael Moneo*, pp. 63-68, by Álvaro Cremades Monserrat⁴. Regarding the Villanueva's building, the Deutsches Dokumentationszentrum für Kunstgeschichte - Bildarchiv Foto Marburg, added two pictures of the old building of the museum in 2018, in which it is clear that, even 200 years after its opening, the original concept of Villanueva is still well preserved.

⁴ Available at:

https://proxy.europeana.eu/355/https___hispana_mcu_es_lod_oai_riunet_upv_es_10251___116194_ent0?view=https%3A%2F%2Friunet.upv.es%2Fbitstream%2F10251%2F116194%2F1%2Fmemoria_22599315.pdf&disposition=inline&api_url=https%3A%2F%2Fapi.europeana.eu%2Fapi



Figs. 25-26. Prado Museum, Jerónimo's building, 2018.



Fig. 27. Prado Museum, new main entrance, 2018.

3. Conclusions

The study and research carried out on the Europeana Collections allowed the acknowledgment that most of Europeana's provider institutions only shared contents related to their collections, neglecting the information about their buildings, which was alternatively taken care by other institutions, and the recognition that the most part of museum architecture content found on the platform were associated with non-providing museums. Moreover, a prevalence of the use of the image for the representation of architectural contents was identified, followed by video and 3D objects. Regarding the European museums analysed on the platform, most objects found throughout this study documented their exterior, there were not many images of interior spaces or technical drawings. It is important to point out that of the six analysed museums, only the Georges Pompidou Centre was associated with two 3D models, and the Alte Pinakothek was the institution which provided more technical drawings, contrasting with the Georges Pompidou Centre and the Guggenheim Bilbao Museum which presented none. The Rijksmuseum was one of the few studied museums that contributed with content related to its building, however, the volume of search results did not allow the visualisation of most of the objects, making it possible to realise the existence of more relevant content on the platform. In the Portuguese context, the information about museum architecture was practically non-existent and, moreover, some of the content was not even introduced on the platform by Portuguese institutions. On the other hand, the Prado Museum had a significant amount of images from the exterior, as well as of interior spaces, and some technical drawings that helped to understand the successive changes that the building went through over time.

Although Europeana is a fundamental and reliable source of knowledge, the platform still faces many obstacles which difficult its optimal use and the full realisation of its mission. Some of the problems observed throughout this dissertation are related to Europeana's multilingual nature and with the absence of relevant metadata to allow the identification of the items. Furthermore, the scattering of information on the platform and with its user-unfriendly search function are also problematic. Therefore, standardising search results, regardless of the used language, organising the presentation of results with a clear logic for the user, creating more adequate filters to ensure the consistency of results and checking the quality of metadata associated with the digital content should be treated as high priorities. These developments will certainly be crucial for curators, museum professionals, architects and architecture students who are among the main users of Europeana.

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Fig. 1. Europeana Collections. Available at: <https://www.europeana.eu/pt> Screenshot [01.09.2022]

Fig. 2. Rijksmuseum, Public domain image. Available at: https://www.europeana.eu/item/90402/RP_F_1999_143_2 [25.09.2022]

Fig. 3. Uwe Gerig, 2005 – Deutsche Fotothek. Available at: https://www.europeana.eu/item/437/item_F5SENZDQ7BHOHYMMEPJSMRGNFGY2JAYA [25.09.2022]

Fig. 4. Europeana Collections. Available at: https://www.europeana.eu/en/item/199/item_2K6LYGTX TIC2W4JF24SDESHWDMZRAUNN. Screenshot [01.09.2022]

Fig. 5. Leo von Klenze, 1877 – Architekturmuseum der Technischen Universität München. Available at: https://www.europeana.eu/item/211/item_2IM2IARNR6OB2GG5VZK2X3SDOQNMYUOR [30.08.2022]

Fig. 6. Rijksmuseum, Public image domain. Available at: https://www.europeana.eu/item/90402/HA_0024315 [26.09.2022]

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