

Between Visual and Digital French Example of Digitization and Digitalization of Ecclesiastical Artefacts

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Abstract

The present paper is focused on the French solutions for digitization and digitalization of artefacts. France is one of the world leaders in providing new perspectives, working tools and introducing advanced technologies (AI) to the cultural heritage field. Seeking to satisfy the constant need of improvement, French specialists have developed a specific work model which serves as example for many others. Since 1970s an appropriate software has been developed and integrated into the daily work of museum specialists, helping to improve the process of digitization of cultural heritage. A large database was therefore created largely supported by the French Ministry of Culture.

Through retracing the main lines in the history of digitization and digitalization process, we will conduct a brief study on how nowadays software and platforms for cultural heritage look like and what they offer. The comparison with the local Bulgarian situation seems inevitable in the process of identifying good practices in the cultural heritage field. The particular example of ecclesiastical collections software shall present a complete product intended for managing, digitization and digitalization of collections at the same time.

History in Dates:

The Goal of Digitization and Digitalization of Collections

When talking about digitization and digitalization of artefacts, one can easily get confused. If the digitization refers to creating a digital inventory file with detailed information about

any artefact, digitalization is related to the process of making visible and accessible the artefact with its information to a larger audience. By this meaning the two notions are closely related but not necessarily inseparable.

One of the main purposes when digitizing an artefact's information is to create a long lasting copy of the latter. The paper copy is always appreciated but the digital one presents multiple advantages: 1. It can be saved on multiple devices which insures the preservation of information; 2. It offers the possibility of modifications at all time and also to keep trace of previous versions which presents a facility to every user; 3. Digital files can be password protected so that one could obtain appropriate access to multiple levels of information; 4. Each digital file can serve to create a new file with less private information and intended for large public. Either paper copy or digital one, the importance of the inventory file is certain: besides the historical and scientific value, it insures legal basis for property or insurance related problems.

Since centuries, people in France developed a particular sensitivity when it comes to cultural heritage and its preservation. Thus there is no surprise when in a closer look at the history of digitization and digitalization of artefacts, France is the first to mention. In 1959 the French minister of culture André Malraux presented his mission to make accessible the major artefacts of humanity, starting with the French ones, to numerous French people and to insure the widest possible audience for French cultural heritage. His statement served as basis for the digitization process which started in the 1970s. In 1970 was born the first documental research software *Mistral*. Five years later was created the *Joconda* database which focused on museum collections. In 1978 started the *Merimée* database intended for historical monuments. About a decade later, in 1989, the general inventory database *Palissy* englobed previous entries. The next year 1990 marked a new stage for the digitization of French cultural heritage when all databases went online. In the 21st century with the new digital era came the need of a new modern tool to combine all information in one place. The result became visible in 2018-2019, when the POP-culture platform was born.

The POP-culture Platform

The Open Platform of Cultural Heritage (Plate-forme ouverte du Patrimoine) is a web-based platform which provides free access to reliable information, both textual and visual about French public collections. One of its main advantages is the open licensed content, encouraging every user to explore, download and share the information. The French cultural heritage was made therefore widely accessible, not only to French people but to all over the world exceeding in this way the vision of Malraux.

In a closer look to the platform, its advantages are easily recognizable. On the start page of the website (<https://pop.culture.gouv.fr/>) the visitor is invited to make a research on his own or to make a choice by different criteria: among the databases inside the plat-



Figure 1 POP-culture Platform, General View

form or by a particular topic. Once the action taken, the user is redirected to results page which content is divided in two. On the left side there are multiple criteria to define the research results and on the right are the artefacts results presented either in a list, or by their geographical position or in a selection of those including image.



Figure 2 POP-culture Platform, Research Results Page

When an artefact is chosen, an information file is opening. The user has two choices that are both free of charge: to download the file as a PDF or to add it to the basket. The latter offers the possibility to collect multiple files in the basket and then to download them at a time. The generated file contains the exact same information as shown on the platform page, including artefact's image. Further use of the file or any content from the platform requires particular attention in respect with French and European regulations on Intellectual

property and Rights of usage of content and images: officially granted permission by the owner institution is mandatory.

At first glance, the platform is easy to work with both by different users and on different devices. In a deeper approach, the POP-culture is related both to digitizing and digitalizing of cultural heritage. Most of all it offers an innovating and enriching experience with French public collections assembled at one place. There are multiple further possibilities to use the information on different artefacts: museum visitors and tour guides can prepare their physical visit or explore different collections online; people with disabilities can also enjoy the selection of artefacts; when it comes to scholars, the platform offers a nice starting point for any research topic. Thus the POP-culture platform presents an interesting digitalization tool providing an innovating experience for different audiences. It can therefore be considered as a good practice for digitizing and digitalizing museum collections, contributing to promote, give more visibility to artefacts and reach wider audiences.

Museum Inventory and Management of Collections in the Digital Era

There are various regulations regarding cultural heritage and its management (Pantalony, 2013). Each country has proper regulations (e.g., in France: *Méthode d'inventaire*, 1995; *Méthode d'inventaire*, 2007 (2005)) but common regulations also exist. International organizations like the International Council of Museums (ICOM) or the World Intellectual Property Organization (WIPO) have established a list of prescriptions related to this topic (Benhamou, 2019). The local Bulgarian policy on cultural heritage runs far behind the French example and even behind other countries that have developed their own model based on the French one. Furthermore, Bulgarian prescriptions seem somewhat irrelevant to the actual situation. According to article 27, order N6 of the Ministry of Culture from 2009, museum funds should be managed by specialized unified software approved by the Minister of Culture (https://mc.government.bg/files/1252_NAREDBA_N6.rtf). The same document contains annexes with precise prescription on how an inventory file should look like and what type of information should contain. Contrary to that reality is different: in Bulgaria this kind of software has not been developed and the well-known Microsoft office Word and Excel programs are in use for every type of museum documentation. Without leaving a comment on the here presented situation, one can easily arrive to the conclusion that in contemporary society the elaboration of appropriate software to digitize and digitalize museum artefacts appears essential.

In fact, each museum software presents two basic advantages: it simplifies museum work and contributes to the promotion of collections by giving access to bigger audience. Furthermore, this type of program is closely related to public and thus should always be updated to every novelty related to its content but also to its interface. Fact is that nowadays software's appearances have been adapted to be user and mobile friendly. Various

products were developed by different countries or cultural institutions in respect with their own needs. We will take a closer look into two of them that are used in France.

ActiMuséo, MuseumPlus and Digital Museum Collections

ActiMuséo is software developed by the A&A Partners, a French company offering solutions for collection management to cultural institutions. The product has been developed as an inventory tool to serve and facilitate museum specialists in their everyday work with artefacts. Back in 2011 the interface of the program was adapted to the needs of the time, until 2016 when there was a considerable evolution which resulted in today's user and mobile friendly view of the database. A major improvement: while the content stayed relatively intact regarding artefact's inventory file, the possibility to connect to user's account and this through different devices appeared.

Figure 3 ActiMuséo, General View before 2016

ActiMuséo is simple and easy to work with program. Its homepage presents a grid with six fields to choose from, defining different types of access: Utilization, Express; Register; Medias, Bibliographies, Biographies; Events, Movements, Condition report, Restorations; System, Login; Exit.



Figure 4 ActiMuséo, General View today

When selecting Utilization, new window is opening containing multiple fields and sub-fields to fill in by the user. One can easily understand that information is organized into three main themes with subthemes. In the first theme is presented the general information about the artefact: name, inventory number, field, type and observations.

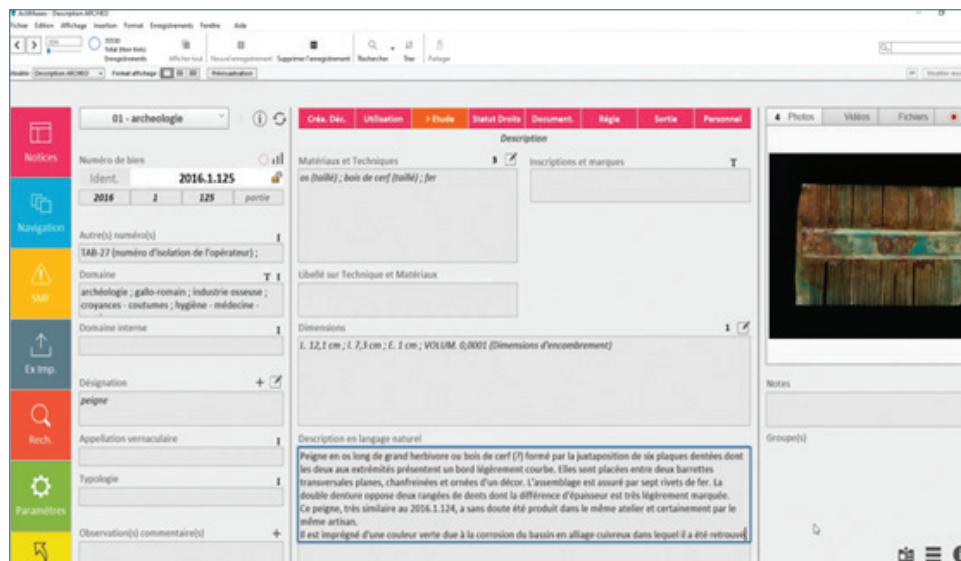


Figure 4b ActiMuséo, Inventory File

The other software intended for collections managing and known among French museum professionals is MuseumPlus. The product is widely spread: among its clients (mainly museums and galleries) are the Louvre Museum, the Benaki Museum, the Acropolis Museum etc.



Developed by Zetcom, a Swiss based company with multiple offices in Europe, the United States and others, MuseumPlus offers similar solutions to its users as ActiMuséo. A related product is eMuseumPlus: a platform with online content for museum visitors. Comparable to the POP-platform this product represents another good example for digitalization of museum collections. Similar is the website of the Louvre Museum developed on their own: <https://collections.louvre.fr/>.



Figure 6 Louvre Collections Website, General View

The first appearance of the website seems very similar to the POP-culture platform: it offers to the user possibility to conduct a precise research or a random one guided by multiple themes to choose from. When artefact is selected its inventory file is opening. It contains artefact's basic information, followed by a detailed entry and, most important, multiple images, showing the entire object or small details where needed.

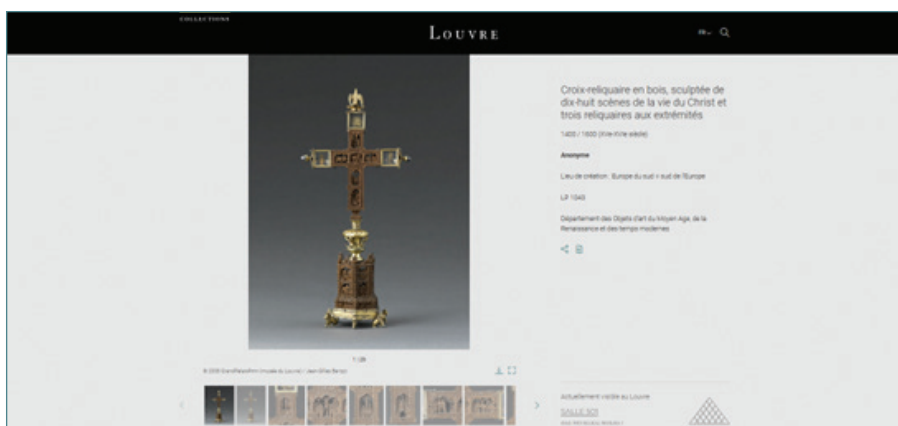


Figure 7 Louvre Collections Website, Artefact View

The information seem very similar to the entries from the ActiMuséo software although adapted to large public usage. Here is the detailed description of the artefact with its physical characteristics, its history, the date of its creation and its entry in the collection, also its actual emplacement. At the end of the document is placed a list of bibliographical references when the item has been subject to publications. The file can be downloaded freely and it is good to know that all of its content is subject to French and European regulations about Intellectual property and author's rights when it comes to the images.

Creating software for museum inventory and managing of collections is one part of the process when speaking of digitization and digitalization. And rendering this information online and freely accessible to a greater audience for various purposes is one of the concluding parts in the digitalization process. As mentioned above, the online content of these platforms of inventory files offers to the public the possibility to create multiple types of interaction between collections and users (both specialists and non-specialists). In this way is completed one of the main goals of any museum: to share and promote cultural heritage.

Index Patrimoine: all-in-one product

In 2020 two museum professionals created the startup company *Expertise art et patrimoine* (<https://www.eap-expertise.fr/>). As specialists in Ecclesiastical art they developed a particular web based software application intended for these artefacts. Their product *Index Patrimoine* is designed exclusively for the needs of ecclesiastical collections and can be applied to any collection including a private one. This part of their offer is similar to the other software solutions presented here above. What is actually particular is that the team

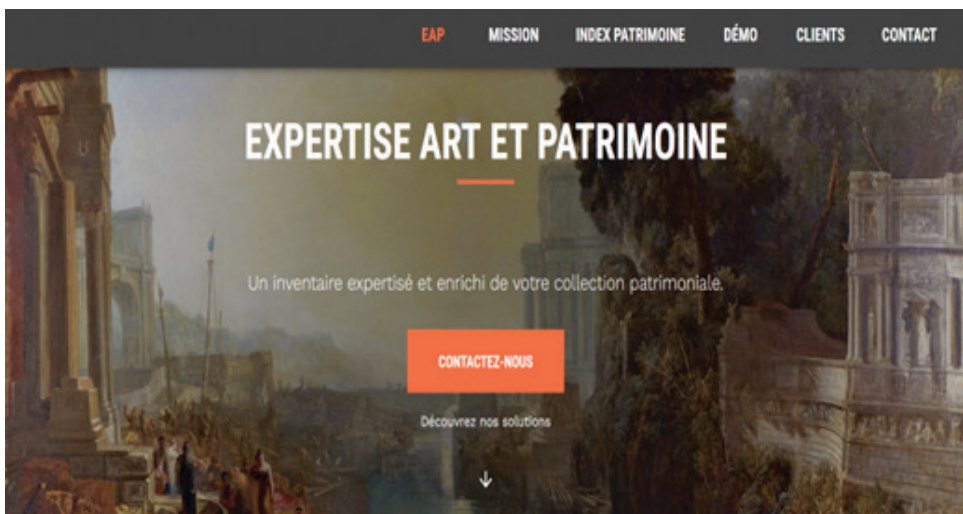


Figure 8 Expertise Art and Patrimony Homepage

offers a complete product: software to work with, specialized equipment (if needed) to make 3D-images of the artefacts and an expert to take care of the inventory files and to participate in every step of the collection managing. The latter is especially needed when speaking of artefacts estimation and insurance policies.

Until now the expertise team has gained the trust of ecclesiastical institutions like the Notre-Dame Basilica in Lyon and the Notre-Dame sanctuary in Lourdes. A note to make is that these specialists are aware of every sensitive aspect that the work with ecclesiastical collections imply. The advantages of the process are certain: creating a virtual collection database and keeping trace of every artifact and every detail insures the protection of the collection and also the owner's property, not to mention the public measure.

Index patrimoine is easy to use password protected application which offers multiple actions similar to those from the databases we mentioned above. Thanks to the personal credentials every user is granted different level of access (e.g. administrator, curator, insurance agent etc.) regarding his role in order to insure that every modification in the inventory is made by the correct person. Also the application is accessible on multiple devices, including a smartphone permitting to modify to the content at every time and at every place.

Compared to others, the interface of *Index Patrimoine* is easier to use platform developed with a website view. When entering one's personal credentials to the application, user is redirected to the homepage with multiple fields. On the left side is the user profile image followed by a list of the main pages: Dashboard, Actualities, Expertise, Movements, Research, Profile, and Logout. The four windows in a row on the upper side present a brief information about the content of the database but only for professionals from the same institution:

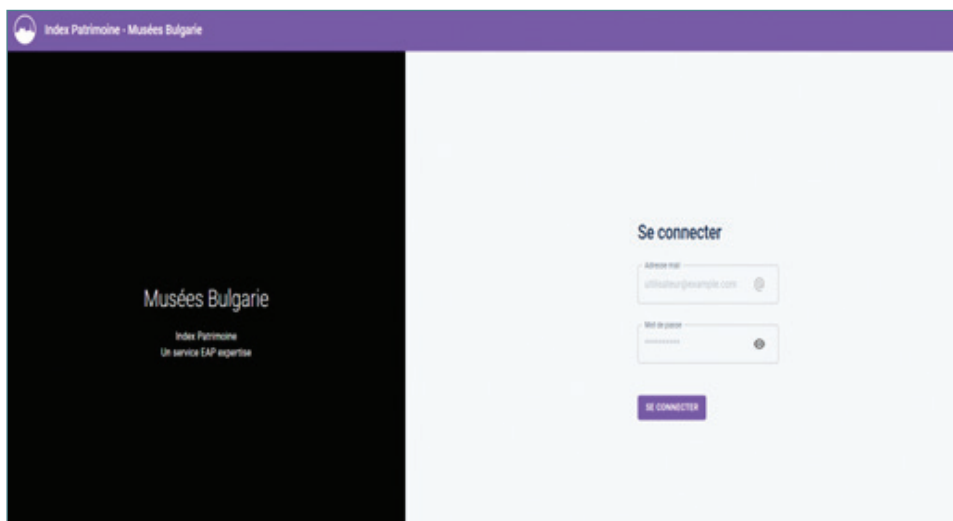


Figure 9 Index Patrimoine, Login Page

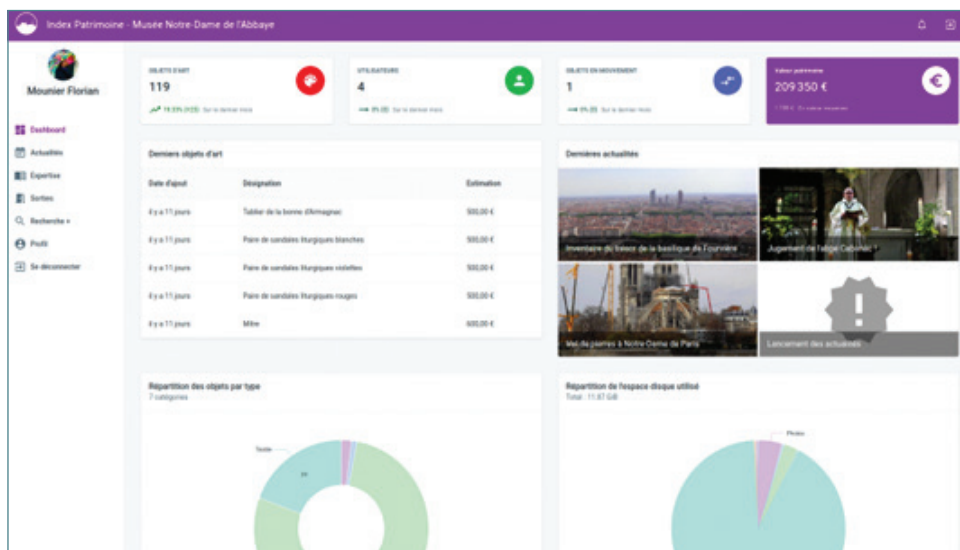


Figure 10 Index Patrimoine, Homepage

number of artefacts entries, number of users, and number of objects in movement and total estimation of the values in the collection. Below are listed the last entries in the inventory. Next to it are presented web news with recent information about church collections, a field managed by the team provider of the software. For any further interactions, a choice needs to be made either from the list on the left or from the windows on the screen.

The two schemes with divisions present the type of objects and the total memory space of the hard drive. The latter can be managed at any time by the team provider of the product and thus depends on the needs of each institution.

When choosing *Expertise* from the left list, on the right opens a page with several fields related to the inventory information. In the upper part, user can manipulate one inventory file: the latter can be created, exported, saved as draft, or stored in the recycle bin.

Below on the same page is shown a list of inventory files and on the top of it user can make a selection of objects by their type. When an artefact selected, its inventory file appears on the screen with information and attached files. Thanks to the QR code that one object obtains when an inventory file is generated, this entry can be used in various manners: if exhibited, the QR code can be presented next to the artefact thus to provide additional information. Legal regulations and restrictions are respected so that not all the record of one artefact is made public.

In the inventory file entries are similar to these from the ActiMuséo software but are distributed in a different way. A great example is the movement's field which contains all information about one artefact: exhibitions participation, insurance policies and other legal details. In this manner user access can be easily limited to different fields according to their role in the managing of the collection.

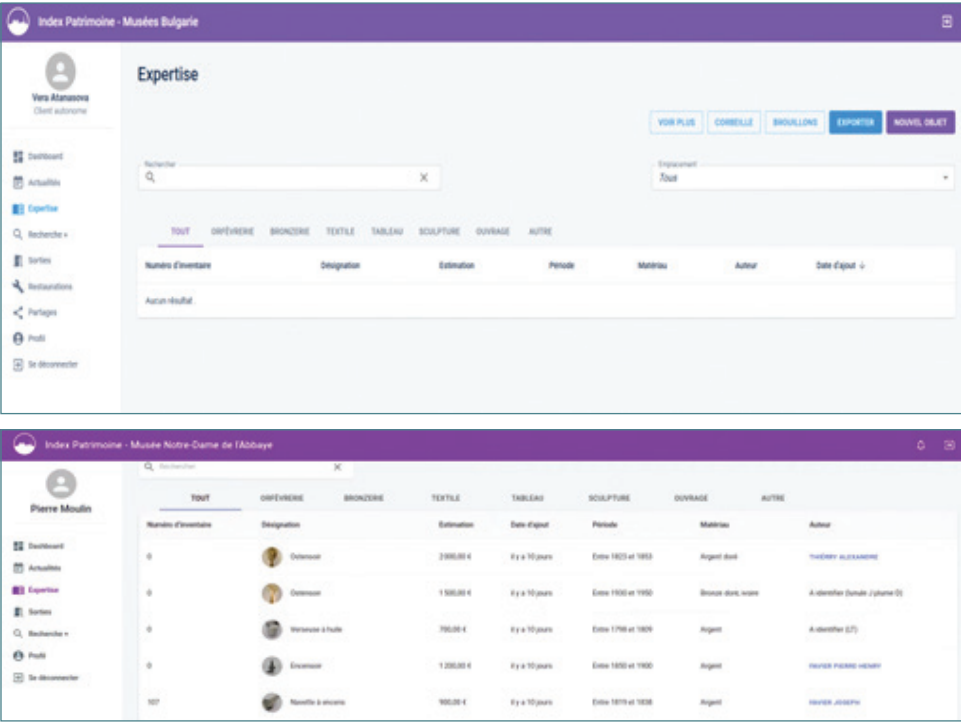


Figure 11 Index Patrimoine, Expertise Page

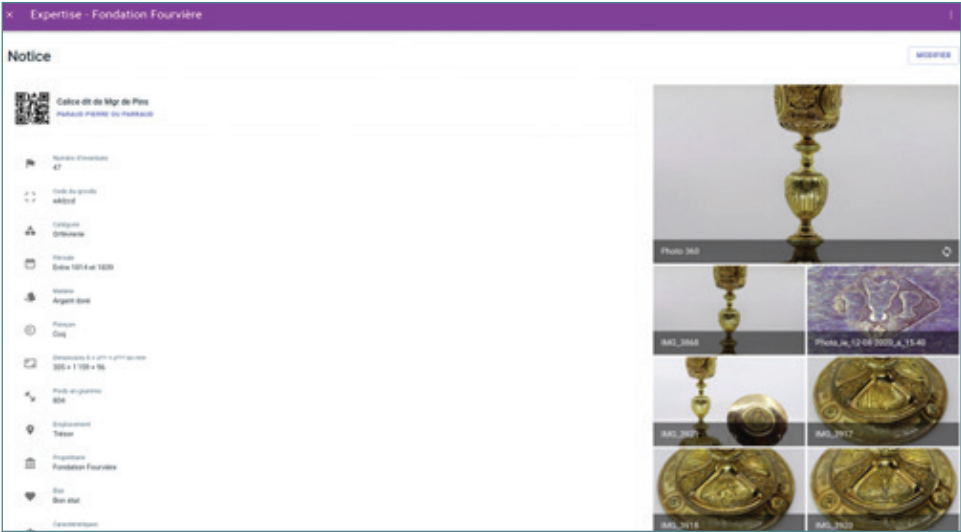


Figure 12 Index Patrimoine, File of an artefact

Finally *Index Patrimoine* offers the possibility to retrace every modification in the inventory file and to conduct a research among the artefacts in the collection by different criteria, a characteristic which relates the application to other products from the field. In the same time its content can be made publicly accessible in many ways: files can be published on a proper site of the institution owner similar to Louvre collections, or in the social media or elsewhere since the inventory files and the QR codes are exportable. Thus this solution provides an unlimited possibility to share collections and make them as accessible as possible to the public.

Index Patrimoine of the French startup *Expertise Art et Patrimoine* relays on past achievements of other products intended for collections management. Although the application makes an important difference compared to other solutions: thanks to the all-in-one product developed by museum experts in ecclesiastical art, it offers a simple software with user and mobile friendly interface, QR code generated for every artefact, a 3D image made with specialized equipment provided by the team and most of all a professional expertise on ecclesiastical artefacts and collections. The product represents a good example on how ecclesiastical collections should be managed and what are the future goals of every person working with the similar type of objects.

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