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Future heritage and heritage futures. A design perspective on the activation of Digital cultural heritage stored in archives.

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Abstract | This contribution aims to investigate what role archives of digital cultural heritage can have for the creative industries, and to understand the inverse relationship: how design culture can foster the activation of digital archives aggregators in order to stimulate the production processes of new cultural expressions. This research was conducted with the aid of a specific case study: the Europeana platform, the multi-thematic aggregator of European Cultural Heritage. If Heritage is to be considered as a process and result of a relationship with the past and attributing it social and cultural meanings in the present; and if the objects contained in the digital archives are Heritage themselves, considerable research efforts should be made to develop project proposals relating to the use of those objects.

KEYWORDS | **DIGITAL HERITAGE, ARCHIVES, CULTURAL PRODUCTION, CULTURAL PARTICIPATION, DESIGN FOR DIGITAL CULTURAL HERITAGE**

1. Cultural process of heritage

In its current meaning, Cultural Heritage is identifiable as a broad term whose value is mainly of use, and it is rooted in the ability it can have to generate new culture.

GLAMs (Galleries, Libraries, Archives and Museums) have been overwhelmed by a profound change already in the way of understanding heritage, which has shifted from protection of cultural assets by their conservation to a vision of protection intended for use. With the Faro Convention (European Commission, 2005), attention turns from the object -cultural heritage- to the subject - citizens and communities - and participation becomes the key to increasing the value of heritage. This value is mainly expressed in the use and in the ability that society has to introduce it into the processes of creating new culture.

In this transition, Heritage protection is needed to be also meant as attention to the process that allows its creation (Bortolotto, 2007). Thus, consumption and production of culture are part of the same process that is historically fluid and can be identified in a *Continuum*. Cultural heritage, therefore, becomes an "umbrella term" which incorporates material objects, rites, traditions and know-how, closely connected to each other. Tangible and intangible cultural heritage are interdependent; they no longer represent something circumscribed and concluded but are part of a fluid process.

From an idea of heritage firmly rooted in the monument, in the document, we are witnessing a shift towards a process-oriented approach. "There can be no folklore without the folk, no traditional heritage without living participants" (McCann et al., 2001).

This type of approach considers heritage deeply rooted in the contexts that generate it, according to a dynamic vision of a culture that continuously produces its expressions. In this perspective, heritage is not only symbolic but is alive and needs the communities of heirs to appropriate and use it.

Moreover, digital technologies have had a significant impact on GLAMs, prompting them to rethink their role and functions completely. The grouping of cultural institutions under an acronym, in fact, already suggests almost imperceptible differences and blurred boundaries. This contribution aims to investigate what role digital archives can have for the creative industries, and to understand the inverse relationship: how design culture can foster the activation of digital archives aggregators in order to stimulate the production processes of new cultural expressions. This research was conducted with the aid of a specific case study: the Europeana platform, the multi-thematic aggregator of European cultural heritage.

Hence, if heritage is the process and the result of a relation with the past and attributing it social and cultural meanings in the present (Smith 2006; Harrison 2013); and if objects contained in the digital archives are heritage themselves, considerable research efforts should be made to develop project proposals relating to the use of those objects.

2. Archives of digital cultural heritage

Digitization of the historical-artistic heritage concerning safeguarding, activation, and enhancement today has a widespread role, and it is possible to state that in its emergence, it has assumed the features of a sort of invasion that is anything but gradual. The progressive digitization has dramatically enriched the archives and, together with essential initiatives for Open Access, has made a large amount of digitized cultural objects freely available online. However, it happens that digital archives do not find sufficient response in public in terms of consultation and even less of use; moreover, in many cases, the alleged recipients of the service do not even know its existence.

Technological evolution has affected every aspect of our lives, including the dynamics of heritage. However, the irruption of new technologies does not represent a wild colonization of heritage territories (Burdick, A., Drucker, J., Lunenfeld, P., Presner, T., & Schnapp, J. 2012), but is a result of changes in cultural paradigms that have led to making also digital reproductions rightfully part of heritage (UNESCO, 2003).

Therefore, digital archives need to be placed in that continuous process of creation of which heritage becomes a vehicle and interpreter. Digitized and accessible online cultural objects potentially represent an "open-ended knowledge system" (Sennett, 2008), composed of forms, processes and cultural contents to be used as tools to build a "collective memory" (Halbwachs, 1992) (as traditionally happens), and above all as resources for the production of new cultural contents.

GLAMs have progressively digitized their collections, and many institutions have chosen to make them available online, not as a surrogate for the physical museum, but as a digital archive that can be consulted anywhere. Then, cultural institutions have begun to wonder whether the internet could become a tool for disseminating evidence of preserved knowledge. In this new scenario, some pioneering institutions join the Open Access and Creative Commons movements and "free" their collections by renouncing reproduction rights. Thus, it is possible to perceive a matured awareness of an archive heritage that need to circulate, be used and re-used, all actions that are finally possible thanks to the new digital dimension.

The archive, therefore, assumes an active role in the present and is part of every cultural institution, extending its meaning: no longer an institution dedicated exclusively to the conservation and cataloguing of obsolete documentary material, out of the everyday use, but potentially dedicated to the activation. Thus, it is possible to observe a conceptual shift also in the field of archives, an emerging role in the process of building memory.

2.1 The archival turn

Heritage in digital format leads the archives towards a substantial change in functions and purpose, the "archival turn" (Bearman, 1991, 1994, 1999; Cook, 1994; Duranti, 1997, 2001): archives are no more considered as places of passive storage, on the contrary they had become containers of information ready to be used.

Terry Cook argued that digitization required a great change in the role of the archivist: as a creator and custodian of "physical things", now is called to make sense of electronic information in relation their context, structure and content (Cook, 1994).

The scenario is of a lively, animated archive (Schnapp, 2013) and digitization fosters two types of transformations: the first, quantitative, concerns the abatement of the space-time constraints that allow access to information in a short time and remotely. The second one is purely cultural, since being able to consult the archives digitally modifies "the forms of knowledge production" (Vitali, 2011). The growth of digital archives, therefore, affects the way in which it is possible to approach the past, explore it, know it, process it and transmit it. The "archival turn" lead to numerous initiatives aimed at access to DCH material, giving life to "invented archives": the aggregator that collects material belonging to different institutions under a single website, as Europeana.

Moreover, thanks to the Open Access movement, a conspicuous number of DCH material is now available with Creative Commons 0 (CC0) licenses, or Public Domain: freely reusable for any purpose, ready to be reworked and transformed, representing an important unexpressed resource for project cultures.

Recognizing the process also in archives brings changes in the concept of the archive itself. If (traditionally) the term presupposes a closed inheritance, a sort of "memory delivered", the documents are no longer preserved, but "buried" in an archive. However, according to these reflections, the archive can no longer be understood as a warehouse but as a factory that allows, in its continuum, to (re) write history, (re) write the present and the meaning of the present before it appears (Barnet, 2001): it is a project tool.

3. The Europeana case study

Europeana is an aggregator of digital archives of European heritage, and in this research, is taken as the main case study. It was born in 2008 and declares to address scholars, GLAMs, and cultural and creative industries (Europeana, 2015).

The case study analysis consists in a first phase of desk research, and a semi-structured interview submitted to internal individuals and experts from Europeana. Then, to verify the starting hypotheses, a questionnaire was developed to be disseminated to designers and creatives in order to understand how their creative process works and what tools they use. Subsequently, the current model was analyzed according to how Europeana relates to its users, taking into consideration the semantic evolutions of the catalogues (Bianchini 2015), which aim to improve the archives, but are rarely strengthened by studies on the satisfaction of end-users (Felicati, 2016).

In more of a decade, Europeana made considerable efforts to collect a mass of digital material that is currently almost impressive (about 58 million objects from all over Europe). Moreover, together with the crucial Open Access and Open Culture initiatives, Europeana allowed much of this material to be available with Creative Commons 0 (CC0), or Public Domain licenses, representing an essential resource for cultural and creative industries.

Among the main successes of Europeana is data standardization. The portal offers standardized procedures and APIs (Application programming interfaces) in order to offer GLAMs the tools to continue digitizing, and to introduce qualitatively better data into Europeana. Free access to standardized APIs also allows professionals to develop digital products and services that directly access Europeana content.

Current practices are still strictly focused on the quantity of digitized content and quality linked exclusively to the attributes of the information entities and mostly to their system of connections (metadata). At the same time, less attention is paid to the purpose and method of access and of use (re-use) of the contents.

The Europeana platform proves to be a tool with potentially extended opportunities, but due to the more considerable attention paid to the quantitative aspect of the collection of an increasing number of records, compared to the dissemination, knowledge and encouragement of initiatives aimed at re-use, still presents significant conceptual problems. From the analysis emerged that the development of Europeana was rooted in the idea that by building the infrastructure, the platform would help create opportunities and these, in turn, would generate value (Fallon, 2018). However, in recent times the the platform seems to have noticed that it has achieved "too much": too much material, too generic, too many records to improve, too large the target audience, etc.

Despite a large amount of digital material collected, the development of standardization systems for the collection and management of data, Europeana still cannot reach the people it wants and above all not in the way it wants. In this regard, it is believed that the IT structure should be considered as a means, not as the end: the end is the experiences, knowledge and combinatory actions that the aggregator can generate.

The independent assessment on Europeana (Enumerate, 2018), shows that the project still has significant criticalities that are not only of a technical-technological nature.

The most critical aspect lies in the knowledge and use of the portal by the primary recipients and stakeholders. The report shows that more than 50% of respondents do not consider themselves satisfied with the results of their Europeana research, particularly regarding the relevance and accuracy of the results. Moreover, more than 50% of the respondents admit they were visiting the platform for the first time, or they visit it once in a while. There is, therefore, an obvious problem of engagement and participation.

In the face of the analysis carried out, a lack of focus is therefore identified in the progressive change of objectives which has not led to an evolution of the strategies, but rather from time to time to adaptation. Indeed, since it is an immense project and the outcome of financing programs, it is possible to understand how difficult it is to make substantial changes in such complex contexts.

In the case of creatives, the situation is even more critical. From the results of the questionnaire, it emerges that among 100 designers no one had ever heard of Europeana and, of course, no one had never used it before.

Technical problems related to the data structure are partly solved and certainly far from the competences identifiable in design research. Efforts concerning the participation of the users and ways to use and reuse the material in order put it into processes of creating new culture

seems to grow in importance, and that is a matter of design research.

In the wake of Jeffrey Shnapp's reflections, what happens when we move from a selected collection to the immense? from tens or hundreds of cultural objects to hundreds of thousands and tens of millions? "How do we navigate, describe, analyse", but above all interpret cultural heritage "with, on and through these enormous aggregates?" (Shnapp, 2013). It is precisely here, in the relationship and in the mediation, that design can and should take action.

4. Design and digital archives of cultural heritage

Cultural heritage and archives have experienced a profound conceptual transformation that has led both domains to be no longer static and custodian, but processes dynamic and continuously evolving. Both the heritage and archive processes in the digital context tighten a relationship so close as to sometimes overlap (Gibbons, 2014): layers and contexts, assumptions and relationships make the cultural heritage and the archive highly integrated. However, when it comes to the relationship with information technology, the traditional training of the archivist still has some gaps and highlights the need for deep interdisciplinary collaborations (Hölling, 2015). Often, digital archives fail to make themselves explicit in this new role that emerges since it is not sufficient to translate the physical object on a screen to allow it to become something new. The exploration of how and where in this translation values and meanings can be added and not subtracted grows in importance.

In other words, it is a question of knowledge design (Shnapp, 2013) but also of strategic design. The archive today has the potential to allow the creation of new visions, to become an entity no longer static but dynamic and directed towards the future.

New interactions emerge, enter the archive and transform it. On the basis of these observations, the research starts from the hypothesis that through a project action on the archive, which is not reduced exclusively to a design of the interfaces but involves a project of a strategic type, of the meaning, of the information and of the relationship between the archive and the designers, these aggregators can truly emancipate themselves and become an instrument of design and creation of the heritage of the future. The action of design can generate different impacts by improving visibility and engagement but also drastically changing the role that the archive plays today and its meaning by extending it to a use that is not exclusively specialized.

Recognizing the relational need of heritage, the need it has to be in relationship with people to be interpreted and manifest its value, every action of design in this direction is a "relational project of cultural heritage" (Lupo, 2007). In this case, the action of design can convey the relationships within and around the heritage, triggering construction and generative processes of new heritage by moving away from mere enhancement to achieve activation.

This happens for the development of the technologies of which design has always become a vehicle. We are in a time when design and cultural heritage do not meet only within

museums, therefore the unexplored area that this research intends to occupy concerns precisely this space of relationship outside museums. The focus is on the relationship that design and cultural heritage can have thanks to digital archives, or in the context of digital archives.

The field of application of design to the territories of the heritage today concerns more the relational and visual aspect than the material one, and digital technologies propose the exploration of new interpretative models also in the context of archives. Hence, it is possible to argue that design can play an essential role in this translation, in this threefold relationship that over time it has built between technology, cultural heritage and design. What emerges is a vaguely paradoxical picture in which the action of design makes its way into the development of strategies or proposals aimed at bringing people closer to heritage while the product of design, being part of the cultural and creative industries, is itself recognized as heritage. It follows that design is both an active actor and a result of this process of continuous creation which identifies itself with cultural heritage; design helps to produce the cultural heritage of the future by interpreting the present and the past and at the same time designs the relationships that can allow this construction.

Conclusions

This contribution adopts an approach that aims to remove disciplinary barriers between the tangible, intangible and digital dimensions of heritage. It wants to stimulate to look at creation and conservation as aspects of a single cycle, of a single process. Taking care of the digital cultural heritage also means promoting its regeneration, supporting contemporary creativity.

Continuous use and active participation in heritage dynamics can trigger a whole series of impacts and externalities, both positive and negative (Sacco, 2018). Heritage can identify as a set of social and cultural processes that are mutually interconnected, interacting with each other and with the external environment, which reacts and evolves as a whole, in short, as a system.

Material, immaterial or digital, it is heritage in its past being that is handed over to the future to be an active part of it and to help build it. Design has the ability to connect, to act as a catalyst to lead to the desired change that sees the material contained in the aggregator genuinely become part of the heritage process of creation and construction.

To do this, design needs to work with its skills and competences in interdisciplinary projects that deal with the organization and activation of archives. What therefore emerges is that design can begin to deal with these archival contexts, first of all by working on meaning. In conclusion, design can begin to deal with the heritage creation dynamics that can be triggered thanks to the archives by offering its expertise, at several levels and in several stages.

"Creativity does not happen inside people's heads, but in the interaction between a person's thoughts and a socio-cultural context. It is a systemic rather than an individual phenomenon

"(KEA, 2006)

Even the art world, for example, has always turned to the past to produce the new: Manet could not have painted the *Olympia* without having Titian's *Danae* as a reference, Andy Warhol uses objects symbol of mass culture such as the Brillo boxes, and Jeff Koons has repeatedly reworked the sculptural works of the classical world in his works. Copying, pasting, inspiring, quoting, reproducing and scrambling are terms that have always belonged to the vocabulary of the creative industries. It is precisely in the very nature of the heritage that the ability to implement new realities through contingent processes of assembly and reassembly of bodies, technologies, materials, values, temporality and meanings (Harrison, 2016).

The digital material contained in the archives represents an essential resource for creative industries such as design or fashion design as well as for contemporary artists. Those are among the areas that can benefit most from Digital Cultural Heritage to introduce it into new processes of creation of what will be the culture of the future.

This study is rooted in the awareness that DCH materials acquire value only if they are understood, interpreted and used: they need to be involved in the continuous process of creation and construction thanks to a design action. Hence, relationship and contamination that has always existed between the culture of the past and contemporary creativity, seems to be essential to explore the 'future heritages' and 'heritage futures'.

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