Design visions for the Cultural Heritage sector in the post-pandemic crisis: designing for "CH and museums of proximity"

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Abstract:
This paper presents an ongoing national research project in the field of Design for Cultural Heritage and Museums. The project aims to respond to pandemic crisis as an occasion to rethink and re-design, in an innovative and long–term perspective, the role, competences and modes of operation and collaborations of museums, cultural institutions and organisation and of the whole ecosystem of stakeholders and infrastructures of cultural heritage, linking them to the digital revolution, in order to help them to embrace a sustainable transformation and re-organisation to build a cultural resilience in the post-covid recovery.

Keywords: design for cultural heritage; museum of proximity; phygital experience; museum innovation

The context of crisis and opportunities of the CH and museums sector after the pandemia: from digital experimentation to a phygital model of strategic agility for museums

The COVID-19 pandemic has dramatically impacted on the cultural sector: it has been a "culture shock" (Sacco, Travkina, 2020) that had a social and economic dimension.
Museums, cultural institutions and organisations have been affected at many levels: closure and cancellations, loss of income of visitors and revenues, fire of employees. The crisis has also affected the cultural and creative sector and all the myriad of small and medium enterprises, whose productive system is extremely fragmented and difficult to support with financial measures. Finally

the impact of COVID-19 has considerably limited the access in presence to cultural heritage for the public (ICOM, 2020; Nemo, 2020; Unesco, 2020).

Nonetheless, this crisis constitutes a great opportunity, as it makes space for innovation in a sector (Cultural Heritage -from now, on, CH- and Museums) that is already undergoing a profound discussion and structural revision, pre-existent from Covid, that has simply made it more explicit and demanding. The most of this existing revision relies on the digitisation of the patrimony: In Italy, i.e., according to the idea of "a roadmap for digital innovation in culture" that goes beyond the mere use of technology, in 2019 MIBAC- Italian Ministry for CH, published the "Piano Triennale per la digitalizzazione e l'innovazione dei musei" to start also a National Museum System. The EU project Mu.SA, Museum Sector Alliance, is a best practice on the individuation of the digital competences for museum professionals and the development of MOOCs and Open Educational Resources.

Therefore, the existing trend of digital-based innovation of CH has been taken into account as the first solution to maintain and offer essential activities and services during the pandemic crisis too. Anyway, while some institutions reacted promptly to the unexpected situation providing alternative ways for the public to access their collections and contents, just a few of them opened really to new innovative approaches and changed their business and organizational model (Agostino, Arnaboldi, Lorenzini, 2020).

The mere approach towards digitization in fact is not sufficient. The digital dimension needs to be integrated to the physical one, in a hybrid *phigital* model, that is imperative to assure really incisive and long-lasting innovative actions to create stable relationships between museums, their audience and community, and to make culture and CH a lever for inclusion, cohesion, equity, wellbeing, social and economic development. The New European Agenda for Culture (EC 2018), the EU Work Plan for Culture 2019 (EC 2018) and the European Framework for Action on CH (EC 2019) give directions to strengthen its social and economic dimension (cultural based creativity, new professions, etc). But this has to be reframed in the context of the post-pandemic crisis, and in a scenario of collective advanced digital literacy and familiarization with digital technologies, but with still existing digitization gaps.

Several CH organizations have already published documents with indications to address the challenge of the post-pandemic (the European Commission, ICCROM, Europa Nostra; "A Cultural Deal for Europe", UNESCO) or organised webinars on the topic (OECD- Culture, Creative Industries and Local Development section).

Specifically on Museums, ICOM- International Council of Museums is looking for short-term solution and medium/long-term opportunities , and NEMO-Network of European Museum organization, reports the impact of COVID-19 on museums in Europe, giving some indications to adapt to the new (digital) normal, among which the necessary investment in digital cultural heritage. The Museums Association launched a survey to track the impact of pandemic on the museums sector.

Consequently, there has been a considerable effort in producing different projects and actions that are principally based on digital tools to maintain the dialogue with the public.

In this paper we will focus specifically on the Italian situation. Following are some examples from the Italian context.

They range from:

- short term solutions: contents on the museum's social media (here the examples range from the simple increasing of number of post on the social media, to the creation of new dedicated content for spreading culture, i.e. the Museo Egizio Torino has on youtube video pills o on single pieces of the collections or video walks with the Museum Director Christian Greco, the Museo nazionale Scienza e tecnologia Milano has everyday new

contents on facebook and instagram; Accademia di Brera Milano has launched the online program BreraOnAir showing by video the backstage work of curators, restaurators …);

● medium term solutions, virtual tours or temporary digital exhibitions (the Museo Egizio Torino has a virtual tour and a temporary exhibition;…);

● long term vision: consultation of the full collection on line (the Museo Egizio Torino online collection , …).

These experiences differ in approaches and objectives (communication, education…), type of relationship (one-way, from the museums to the public or two-ways, asking for audience contribution), lengths of use and time and space/place of interaction (asynchronous or synchronous, web or physical world) and therefore open to reflection at many levels.

It is evident that only a low percentage of Italian cultural institutions went beyond the short term solutions, because only few of them (the biggest and most used to) were able to promptly respond to the situation with an overall digital strategy, thanks to a pre-existent culture and experience on it (Colombo 2020): this makes clear that exploiting the digital dimension of collections requires adequate expertises and resources to not be done superficially, or in a urgency driven manner focused on a one-way communication and publication of content from the museum to the public (Orlandi, 2020). Finally, none of them (because of the temporary lock-down) went beyond the digital dimension, looking for a phygital approach.

But, as we previously stated, the sole digitization is not a comprehensive solution: in the post-lock down and museum re-opening, it has to be integrated to the physical dimension, in order to create interaction opportunities that overcome the sterile contraposition between the physical and online experience in a blended way (Agostino, Arnaboldi, Lampis, 2020), that is a hybrid phygital experience of CH. Galani and Kidd too talk about the hybrid materiality of the museum experience to come, addressing particularly the not neutrality of digital infrastructures to shape inclusionary or exclusionary practices (Galani, Kidd, 2020). Material interaction (i.e interactive experience with CH by means of smart objects) has been already fully explored and acknowledged to create a tangible experience with digital patrimony (Petrelli et al., 2013; Damala et al. 2016; Hornecker, Ciolfi, 2019), but in relation to a post-pandemic condition this issue needs to be re-defined and implemented: i.e. specific interesting and inspirational cases in the time Covid-19 on creative approaches and collaboration in CH by the use of technologies can be seen in the EuropenaPro website, but they need to be looked at in an overall strategy.

Many aspects therefore need to be rethinked in the post pandemic re-opening: the lesson learnt from closure and the digital experimentation let think to a blended model of public engagement, timing and personalisation of visit (Agostino, Arnaboldi, Lampis, 2020). The concept of proximity tourism too has recently emerged as a key issue for the post-covid recovery (Ramagosa, 2020), but it needs to be reshaped, in its meanings and forms, in this phygital scenario (as this paper - and in general the project-seeks to, in the following sections).

In conclusion, there is still a noticeable gap between the policies and indications from CH organisations (somehow abstract) and their concrete translation and feasibility into real projects and applications (the examples are often very specific and customized and lack scalability and replicability). What is still missing is a cultural turn towards organizational changes in cultural institutions and museums to train them to have strategic agility and resilience.

In this wide and complex context there is the urgent needs of design recommendations, and therefore, a more specific and operative proposal of good practices and design guidelines needs be designed at a national scale too, in order to help local museums and CH sector organisations and enterprises to address the challenge of post-pandemic, in a both short and long-term perspective, bridging the gap from theory to practice.

The (emerging) role of design in building a cultural resilience

Design is, especially in Italy, fully acknowledged as a leading actor in the innovation of the CH sector and museum (Celaschi, Trocchianesi, 2004; Maffei, Parente, Villari, 2006; Author, 2009; Irace et al. 2013; Spallazzo, 2012). The plural and open ended concept of 'design cultures' makes design a plural discipline, which, in its emerging meanings, focuses on designing *for* a purpose, problems and challenges with which it is called to confront (Sanders, Stapper, 2008). Design for CH and museums already brings, based on multidisciplinarity and co-design, innovation in museums and cultural institutions and organisations in a groundbreaking, yet sustainable (culturally, socially and economically), way. In fact design operates towards an '*extended chain of the enhancement of CH*', in an interconnected model of the various phases of safeguarding (such as identification, documentation, archiving, conservation, protection, interpretation), with the necessary '*activation*' phases such as transmission, use, reproduction, promotion and development, as well as innovation. Beside to amplified narration, connections, and interpretations of CH through exhibitions within the museums and cultural institutions, design is moving forward by enabling performative practice and the re-writing and re-use of CH, in the so called '*culturally driven innovation*', acknowledging the ability of CH to facilitate inclusion, social cohesion, equity, well-being, social and economic development (Author, 2019). The *culturally driven innovation* guided by design promotes a sustainable change towards creative practices based on CH, in which to involve, in dialogue with the safeguarding disciplines, the entire chain of stakeholders (institutions, policy makers, Cultural and Creative Industries-CCIs), to discuss new policies and strategies for heritage, to deal with accessibility, authority of contents and IPR issues in the phygital age.

The topic of design for CH is strictly intertwined with the one of design for local development (Maffei, Villari, 2006) and design for territory (Villari, 2012; Parente, Sedini, 2019) as well as the concepts of development and innovation based on culture and CH (Jelinčić, 2017; Borowiecki, Forbes, Fresa, 2016). Anyway, there is not enough space here to review all these well established issues; what we want to underline is that only recently the creative orientation of national and international institutional and governmental policies on CH involves explicitly design. The H2020 conference "Innovation and Cultural Heritage", held in Bruxelles in 2018, proposed different innovation layers (technological, social, policy, entrepreneurial, economic or methodological innovation). These layers need to be condensed in a holistic approach in which even digitization needs to be culture-driven instead of only technology-driven (Sonkoly, Vahtikari, 2018). The recent launch of the latest EC call initiative on the "New European Bauhaus" is emblematic of establishing the role of design and co-design approaches as a lever of development and innovation. This scenario makes it clear that the design and creative approach towards CH is expressed through bottom-up processes and actions in which design competence is recognizable and codified, but is also promoted with a top-down approach, thanks to guidelines and institutional and governmental policies.

These are the conditions that make spaces for a holistic design-driven approach for CH and institutions in the post-pandemic scenario, proposing design interventions and management changes, supported by digital technologies, for exploiting the political vocation and durable impact of culture for a more resilient society.

Some examples of design contributions for the COVID-19 global emergency not in the CH sector have been reviewed in two special issues of the Strategic Design Research Journal (Rossi, Di Nicolantonio, Ceschin, Mincolelli, Santos, Kohtala, Jacques, Cipolla, Manzini, 2020 and 2021) and they range from specific design responses to the ongoing crisis (from physical artefacts e.g. PPE, field hospitals, to

digital solutions, e.g. apps to monitor the pandemic) to visions on the design processes to respond to the pandemic crisis, among which the need to reimagine space and place.

This paper presents therefore an ongoing national research project carried out by four Italian Universities, three in design and one in management, in the field of Design for CH and Museums. The project aims to respond to pandemic crisis as an occasion to rethink and re-design, in an innovative and long–term perspective, the role, competences and modes of operation and collaborations of museums, cultural institutions and organisation and of the whole ecosystem of stakeholders and infrastructures of CH, linking them to the digital revolution, in order to help them to embrace a sustainable transformation and re-organisation to build a cultural resilience in the post-covid recovery.

Research questions, project framework and methodology of inquiry: the museum of proximity model

According to the tentative ICOM definition of museums advanced in 2019, museums can (and need to) be completely re-imagined as active agents in the civic society and re-designed from space of conservation to both spaces of discussion, production and re-use or 'activation' of CH. They can become 'innovation labs' that employ digital technologies to reconnect with the physical dimension of CH, to re-create engagement and affection for their audience and community continuously.

The ongoing project aims at responding to the following research questions.

Can be museums, cultural institutions and CCIs, engaged, through co-design and co-creation approach, in processes of transformations and capacity building for the post-covid recovery?

Can design make them able to proactively design their long-term strategies, in the age of pandemic, in the following areas?

- new modalities of valorizations of the museum collections (accessibility, digitization, re-use);
- new modalities of CH offering and audience engagement;
- new modalities of advanced training in digital literacy for museum professionals;
- new modalities of networking and impact on community and territory involving neighborhood associations;
- new models of management, business and organization.

The leading hypothesis of the project is to design for the 'museum of proximity', meant as a cultural local 'ecosystem' for its community, in which the idea of proximity refers both to closeness and impact (physical and metaphorical) to the audience and to the networking with other institutions and organizations in the surrounding.

Proximity, that has been considered an opportunity of sustainable tourism and development due to increased awareness of the impacts of climate change (Bertacchini, Nuccio, Durio, 2019), has recently emerged as key concept for the post-covid recovery (Ramagosa, 2020), linking proximity from simply close-distance destinations to a deeper connection with one's human and ecological community (Rantala et al., 2020). Proximity tourism in fact challenges the definition of distance on the basis of 'nearness' and 'farness' in kilometres, and therefore can be related to concepts like otherness in tourism, or alternative tourism: tourists perceive distance in terms of travel costs, time and the (cultural) novelty or familiarity of a destination (Salmela et al., 2021). The phygital scenario problematises the notion of cultural proximity too, that becomes encompassing from a closeness due

to common roots, to a sense of fascination and curiosity, for what is made accessible and reachable by digital tools in a physical environment.

The challenge of the project therefore is not only bringing back the audience to the museum with renovated interests, purposes and cultural needs (i.e. by new formats of engagement and participation that innovate the value and meaning of a visit into culture sharing and co-creation). The main challenge is rethinking the connections (in-person and online participation) between museums, the audience and the territorial/urban/public networks and partnerships to create a cultural proximity for museums' communities, based on a phygital approach.

The consortium is composed by 20 partners among museums and cultural institutions, that have been selected at three different and emblematic scale of CH. These are representative of the Italian peculiarity of diffusivity of the cultural patrimony, that bridges the local dimension with extended networks: small museums in a city (Milano); local/territorial museums in a region (Marche-Abruzzo); nautical heritage at regional (Liguria) and national scale.

The project is based on a holistic design-driven approach based on action-research, a practice based research pursued thanks to a set of design experimentations that could become replicable as design formats. It is expected to develop, during its 3 year length, an in-depth recognition of the state of art and several design-driven pilot projects, to generate real design interventions and management changes, and to support them by adequate digital technologies development and design recommendations.

Methodologically, the project adopts a multilevel approach and an articulated framework based on different targets and a complementary set of typologies and areas of interventions for museum innovation. Targets are both the whole value chain for CH (museums and CH stakeholders) and museum audience and community. The areas of intervention are 5: collections, audience, competences, local development, management, among which the use, experimentation and development of new digital and social technology is a transversal lever (see figure 1).

The framework has been envisioned after an initial state of art recognition and refined progressively once it has been completed, therefore both literature review (principally on the topics of post covid recovery, museum innovation and technologies in CH) and case studies of recent successful projects informed it, helping to individuate and define the most promising areas of intervention and the constellation of potential stakeholders.

"MUSEUM OF PROXIMITY" FRAMEWORK		CH sector stakeholders chain	Audience/ Community/ Society	CH organisms	CH sector stakeholders chain	Audience/ Community / Society	CH organisms
PILOT EXPERIMENTATIONS		*Short/medium-term intervention*			*Long-term intervention*		
1. new modalities/formats of valorizations of CH collections (accessibility, digitization, re-use)	Digital technologie s	X	X		X	X	X
2. new modalities/formats of audience engagement for CH experience/ fruition/re-use		X	X		X	X	X
3. new modalities/formats of training/advanced learning (digital literacy, curatorship) for CH institutions/ museum professionals/SME		X			X		
4. New models/formats of networking and impact on community and territory (social development and innovation based on the CH value chain)		X	X		X	X	
5. New models of management, business and organization		X	X		X	X	
DESIGN RECOMMENDATIONS							

Figure 1. The project framework (Author)

The framework shows how the pilot experimentations that will be conducted, in spite of being all-encompassing, will individuate and select, by specific and contextual conditions, the most promising intersections among the 5 areas of intervention and the different stakeholders, addressing proximity both in a short term vision at the end-use level (i.e. *Mobile Content and Delivery* or *Participatory Experiences*) to mid-long term at the management level (i.e. *Cross-Institution Collaboration* and *New Roles for Museum Professionals*) (Freeman et al., 2016) trying also to generalise them in some spreadable and transferable principles.

The framework in fact allows to see the potential and unfolding connections of stakeholders with the museums activities, contributing to generate a 'continuum of proximity' that goes beyond the usual knowledge of the participatory approach (Simon, 2010) at end user level, but i.e, engaging the audience or involving CCI and CH organism not only in the design of the fruition of the collection, but management activities (such as in safeguarding, training, local development) too with a long-term perspective.

First insights, expected results and contribution to knowledge

Since the project is just at early stages, only the first theoretical actions have been initiated and accomplished:

1.   an in-depth recognition of the state of art, focused on both top down indications and existing projects/case studies, that have been filtered according to the coherence

with the design approach, in order to critically inform the project framework and the pilot experimentations (some examples have been presented in 1.the context of crisis and opportunities of the CH and museums sector after the pandemia);

2. the elaboration of the project framework which defines the design-driven approach, individuating the five areas and typologies of intervention for museum innovation (shown in fig. 1);

From the state of art analysis (especially considering successful yet particular cases) two key concepts emerged to better support the development of proximity:

● CH can be observed and therefore designed as a *heritage continuum*, an ecology of contents that connects the collections of museums, cultural institutions, archives, online repositories, territories and users in a fluid and stratified space between physical and virtual, offering a hybrid experience of meta-materiality, that is not dematerialised, but always more extended, augmented and enriched in the physical space thanks to the digital dimension. It's always more a *smart* heritage, offering phygital experiences (Ballina, Valdes, Del Valle, 2019). This can help to design a new hybrid idea of proximity;

● the proximity to CH is maximized where design for CH makes this heritage continuum always more accessible and usable in a widespread, customizable and shared way, which implies appropriation and creative re-use, thanks to the e*xtended value chain of enhancement*, which sees as an inseparable unicum the various phases of safeguarding with the activation phases such as transmission, use, reproduction, promotion and development, and above all innovation.

These two key concepts led to re-design the museum innovation by a creative and hybrid closeness to CH, that is not only spatial but relational and based on co-creation and new applications of CH. Specifically, it is a question of and supporting creative practices based directly on culture, or on the creative re-use of the heritage, linking culture and impacts in a cause-effect relationship. This happens re-imagining the entire value chain of cultural heritage, designing not only cultural offers for end users, but also enabling opportunities of re-use for the various actors and stakeholders of the system. Pursuing proximity among players belonging to different cultural and creative sectors (Sacco, 2018), the project aims at strong levels of cultural participation and cultural capability building among stakeholders in a 'participatory continuum' between primary activities and in support activities of the museum value chain (Porter, 2006), to transform it into a virtuous value constellation and ecology of stakeholders.

This also requires a shift in museums and cultural institutions organisational models and set of competences that need to be improved to enable opportunities for transformation. The ambition is to design a new model of proximity museums as cultural service. According to the blurring of the boundaries between museums and other public service agencies (Gurian, 2006), museums can become a diffuse network of innovative services, that are intended not as traditional cultural services (Unesco, 2009) but as transformative cultural experiences (Nielsen, 2014; Bull, 2020) rescinding the traditional notions of collecting, preserving, and protecting in favour of gathering, stewarding, and conversing (Matar, 2015).

In this frame the expected contribution to knowledge is to envision innovative museum models, competencies, novel functions and organisation models, in order to underline the potential of the social resilience of culture and bring design for CH and museums at the core of social and economic development.

The expected real impact in the CH sector is to test and validate processes, project guidelines and, above all, design recommendations that could become an international reference and result in

relevant cultural policies, in order to bridge the gap from theory to practice with original and innovative proposals.

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