Accessibility to Cultural Heritage, some project outcomes

Marinella Muscarà[*], Chiara Sani[**]

Abstract

In this paper the authors have analysed what has been done to promote accessibility to cultural heritage in Europe and, more specifically, in Italy. Some projects, activities and initiatives aimed at reducing, if not eliminating, physical, sensorial and intellectual barriers will be presented in order to give an overview on the efforts already made in this direction. On the basis of the key elements of cultural heritage and accessibility, the projects will be briefly evaluated in order to reflect upon the direction in which the issue of accessibility is being addressed in terms of design.

Keywords: accessibility, cultural heritage, universal design, European Union, Italy, projects.

Introduction

In recent years we have witnessed what could be described as a revolution in terms of accessibility. In several fields, from the performing arts to the cinema, from buildings to technologies, there has been a great deal of progress, with the development of strategies, techniques, tools and infrastructural solutions specifically designed with the intent of making such products and/or services accessible to all. This tendency, which is called universal design, is described as

«*The design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of their age, size or disability. This includes public places in the built environment such as buildings, streets or spaces that the public have access to; products and services provided in those places; and systems that are available including information and communications technology (ICT)»* (Disability Act, 2005; as cited in Neves, 2018, p.416).

[*] Professore Ordinario di Didattica e Pedagogia Speciale, Facoltà di Studi Classici, Linguistici e della Formazione, Università "Kore", Enna. E-mail: marinella.muscara@unikore.it.
[**] Dottoranda di Ricerca in Inclusione Sociale nei Contesti Multiculturali, Facoltà di Studi Classici, Linguistici e della Formazione, Università "Kore", Enna. E-mail: chiara.sani@unikorestudent.it.

Following this tendency, greater attention is being given to the rights of people with disabilities, in particular the right to access culture. In fact,

«Galleries and museums are increasingly interested in new audiences and look for opportunities within projects that will allow them to to reach them. This has required us to better understand who visits, who doesn't and why. Considerable attention has been given to the identification and understanding of the many and varied barriers to museum visiting and to develop ways of creating access to overcome these. Access is now much more broadly understood to encompass the removal of, not only physical, but also intellectual, emotional, financial and cultural barriers» (Dodd, Sandell, 2001, p.73).

The concept of museums and, in general, of cultural heritage is shifting from simple exposition and preservation of the history and traditions of a culture, to that of a participative and inclusive space where culture is not only "consumed", but also collectively created through the experiences and points of view of the public. As confirmed by Carrara, in fact,

«il museo viene chiamato a rinnovarsi mettendo la propria autorità culturale al servizio di un'idea diversa di società, ponendosi come luogo di incontro e scambio e come spazio neutro per affrontare problematiche attuali e controverse, ma soprattutto aprendosi e includendo coloro che precedentemente erano stati esclusi dalla rappresentazione e dalla fruizione» (Carrara, 2014, p. 175).

As a consequence, the concept of public is evolving accordingly, embracing the complexity and variety of situations, exigencies, expectations and interests of the people who are part of it. Many projects have been launched in recent years to ensure accessibility to cultural heritage in the spirit of universal design, trying to face the challenges posed by the physical, sensorial, intellectual and cultural barriers that need to be overcome.

With this in mind, the aim of this work is to give a first report on some projects concerning accessibility to cultural heritage realised in Europe and, more specifically, in Italy, in order to assess what has been done in this direction so far. The aim is to analyse the level of interest on the subject and the relevance given by institutions to all publics, including people with different abilities and needs. To do so, some of the most interesting realities and projects realised on the European and Italian territory will be presented.

A brief definition of cultural heritage

The first element which constitutes the interest of this article is cultural

heritage. Before analysing the projects on accessibility, it is important to define what we intend when we speak about heritage and why it is important for our society. Even though the literature on the subject is quite rich and there is a multitude of descriptions, it is impossible to give a precise and comprehensive definition of heritage. Therefore, we will identify the key elements that constitute such concept. A first interesting description is the one given in the context of the Faro Convention:

> *«For the purposes of this Convention,*
> A) *cultural heritage is a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time;*
> B) *a heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations.»* (Council of Europe, 2005, Art. 2).

These descriptions can be integrated with the one proposed in occasion of the *European Year of Cultural Heritage*, in 2018:

> *«Cultural heritage has a universal value for us as individuals, communities and societies. It is important to preserve and pass on to future generations. You may think of heritage as being 'from the past' or static, but it actually evolves though our engagement with it. What is more, our heritage has a big role to play in building the future of Europe. That is one reason why we want to reach out to young people in particular during the European Year. Cultural heritage comes in many shapes and forms:*
> - *tangible – for example buildings, monuments, artefacts, clothing, artwork, books, machines, historic towns, archaeological sites.*
> - *intangible – practices, representations, expressions, knowledge, skills - and the associated instruments, objects and cultural spaces - that people value. This includes language and oral traditions, performing arts, social practices and traditional craftsmanship.*
> - *natural – landscapes, flora and fauna.*
> - *digital – resources that were created in digital form (for example digital art or animation) or that have been digitalised as a way to preserve them (including text, images, video, records).*
> *Through cherishing our cultural heritage, we can discover our diversity and start an inter-cultural conversation about what we have in common. So what better way to enrich our lives than by interacting with something so central to who we are? Cultural heritage should not be left to decay, deterioration or destruction. This is why in 2018, we search for ways to celebrate and preserve it.»* (European Year of Cultural Heritage, 2019).

From both definitions a series of key elements constituting heritage emerges: identity, memory, sharing, transmission and conservation for future generations. These are the elements that characterise us as individuals and as members of a community. That is why great importance is given to the preservation and conservation of heritage against damage from environmental factors. Nevertheless, in recent years, a new perspective has emerged concerning its valorisation: in fact, there has been a shift from the traditional conception of museums as mere art repositories to that of interactive places where the collections are not only exposed, but also adapted to the public:

«Conventional relationships between galleries, museums and their audiences are changing. The traditional, authoritative, and elitist model of the museum is increasingly unstable. Today, museums and galleries are beginning to see themselves within a bigger picture and recognise their potential to engage with issues previously perceived as irrelevant. New relationships are emerging – relationships based on active participation, mutual understanding and shared decision making with audiences.» (Dodd, Sandell, 2001, p. 74).

Culture is not acquired passively anymore: it is actively constructed by the public, who contributes in the shaping of it. In this perspective, museums become «una istituzione permanente, senza fini di lucro, al servizio della società e del suo pubblico, aperta al pubblico, che compie ricerche sulle testimonianze materiali dell'uomo e del suo ambiente, le acquisisce, conserva, comunica e soprattutto espone a fini di studio, educazione e diletto» (Montella, 2003, p. 24). It is within this new conception of museums and, more in general, of heritage, that the discourse on accessibility has been gaining relevance: with the shift of attention from the cultural product to the end users of culture, the necessity of granting access to cultural heritage has become not only mandatory, but also urgent.

A brief definition of accessibility

Accessibility is the second concept we are going to investigate in this article. As Grassini underlines,

«Il problema dell'accessibilità nasce come un'esigenza sociale: garantire a tutti, anche ai disabili, l'esercizio di un diritto universale, il diritto a poter fruire dei tesori della cultura e dell'arte, come sancito dall'Articolo 27 della Dichiarazione dei Diritti Umani del 1948.» (Grassini *et al.*, 2018, p. 21).

Even though the discourse on accessibility can be referred to many different

fields (performing arts, audio-visual products, transport, education, just to cite a few), for the sake of this article we will focus on the accessibility of cultural heritage and heritage sites. An exhaustive definition of cultural accessibility has been given by Sarraf and Bruno:

«Cultural accessibility (...) is defined as the adaptations, measures, and actions taken that aim to be welcoming, and to provide welfare and access to cultural activities for people with disabilities and other audiences.

Accessibility in museums can be understood as the right to reach, perceive, use, and participate in everything that is offered for general visitors with respect, dignity, without physical barriers, and without barriers of communication, information, and attitude. It means that museums need to create accessible exhibitions and adapt common spaces as gardens, restaurants, classrooms, and auditoriums.» (Sarraf, Bruno, 2017).

As it was said in the previous paragraph, in recent years there has been a shift of focus. The path taken is that of a user-centered design, which can be defined as follows:

«User-Centered Design, as mentioned above, is at the heart of all universal accessibility and integral to present day thought. In the context of accessibility to culture, this will mean foreseeing all possible profiles of potential visitors and creating ideal conditions to make them feel welcome, safe, comfortable and, above all, to make them feel that there is something there to enjoy, learn and do that has been created 'especially for me'.» (Neves, 2018, pp. 421-422).

To achieve this goal, the first step is to include persons with disability in the decision processes. As Montani underlines in her reflection on socio-cultural integration, in fact, «for a museum, that also means viewing disabled people not only as "animated", but also as "animators". The disabled are no longer "supernumeraries" yet "actors" in the organisation of and participation in cultural experiences promoted by museums» (Montani, 2013, p. 84). Confronting and discussing with the final recipients of accessible practices is compulsory in order to create a product, a service or an environment which can be actually considered accessible. It is the basis of universal design. There is, in fact, a distinction to be made between the concepts of accessibility, usability and inclusion. One of the European projects that will be presented in the next paragraphs, the *WAI-DEV project*, aimed at creating an internationally accepted standard of web accessibility, together with educative material on the matter. On their website they present an interesting definition of the three concepts:

«Accessibility: addresses discriminatory aspects related to equivalent user experience for people with disabilities. Web accessibility means that people with disabilities can equally perceive, understand, navigate, and interact with websites and tools. It also means that they can contribute equally without barriers.

Usability: is about designing products to be effective, efficient, and satisfying. Usability includes user experience design. This may include general aspects that impact everyone and do not disproportionally impact people with disabilities. Usability practice and research often does not sufficiently address the needs of people with disabilities.

Inclusion: is about diversity, and ensuring involvement of everyone to the greatest extent possible. In some regions this is also referred to as universal design and design for all.» (W3C Web Accessibility Initiative WAI, 2019).

This distinction is very important and should be kept in mind also when it comes to heritage. Granting accessibility to a museum does not imply that the museum is accessible. Even accessibility solutions can create forms of exclusion, especially if they imply a "special" treatment for physically and sensory impaired people. Some examples, in this sense, would be the need to access the building from the back entrance, or the need to contact the museum well in advance to be able to visit it, among many others. Instead, accessible solutions should be studied and designed in an inclusive optic. In fact, accessibility benefits all, not only the impaired. As Neves underlines,

«desenhar para todos significa encontrar soluções que sejam uteis a todos, incluindo os deficientes, assumindo a convicção de que ao integrar estes públicos especiais estaremos a criar melhores condições para todas as outras pessoas que, embora menos marcadas pela diferença, são, na sua essência, também únicas, diferentes e especiais, e que irão igualmente usufruir de tais condições especiais.» (Neves, 2010, p. 108).

It was demonstrated that if a building can be accessed through both a staircase and a ramp, the majority of the users will use the ramp instead of the stairs, even if they do not have mobility issues. What is necessary for a person with disability can still prove useful and make situations easier for all the others: «(…) developing inclusive destinations and accessible tourism experiences also benefit other groups in the community. Hence, it contributes towards a greater social sustainability of the industry by including and, hence, providing for a much broader cross-section of consumers that has previously been considered by the industry» (Michopoulou *et al.,* 2017, p. 181). It is within this context that accessible tourism becomes the most desirable evolution in the field of cultural heritage, especially if we keep in mind its definition:

«Accessible tourism is a form of tourism that involves collaborative processes between stakeholders that enables people with access requirements, including mobility, vision, hearing and cognitive dimensions of access, to function independently and with equity ad dignity through the delivery of universally designed tourism products, services and environments. This definition adopts a whole of life approach where people through their lifespan benefit from accessible tourism provision. These include people with permanent and temporary disabilities, seniors, obese, families with young children and those working in safer and more socially sustainably designed environments.» (Adapted from Darcy and Dickinson, 2009, p. 34 in Buhalis and Darcy, 2011, pp. 10-11).

Jiménez Hurtado, Sibel and Soler Gallego suggest that

«museum accessibility can be divided into two main areas: (1) accessibility to the museum's physical environment; and (2) accessibility to the museum's contents, namely, by using appropriate exhibition techniques and by elaborating accessibility resources to adapt such techniques to different types of visitors'» (Neves, 2018, p. 422).

Nevertheless, as Neves continues,

«most often, when someone refers to 'accessibility', one thinks of disability and then, most probably, mobility and physical access come to mind. (...) A reflection of this most basic notion is the symbol representing access: a person on a wheelchair. Despite the clarity of such a symbol and its dynamic upgrade, it fails to account for the numerous disabilities that do not fit the wheelchair stereotype, ad in the case of blindness, deafness, intellectual or learning disabilities.» (Neves, 2018, p. 415).

This observation is shared by Trescher, who also argues that

«the same narrow concept of accessibility predominates on a political level: "Policy-makers engaging with the agenda of disability rights frequently adopt a discourse of access, but there are dangers of a reductionism in the concept – access being solely about ramps in public spaces and better signage" (Nind & Seale, 2009, p. 273). For people with cognitive disabilities, however, barriers present themselves in a myriad of ways and contribute to a (further) exclusion from a shared life world.» (Trescher, 2018, p. 60).

Fortunately, in recent years there has been an in crease of interest in sensorial barriers and a lot has been done in order to start addressing the problem. Nevertheless, many barriers are still present and, very often, misunderstood or underestimated or, more simply, unseen by the majority of institutions and stakeholders. This is a further confirmation of the importance of involving the interested parties in the processes of decision making and

implementation of accessible solutions, in order to better recognise, understand and address barriers.

Accessibility and Heritage: why is it important to make heritage accessible to all?

In his preface to the book *L'arte contemporanea e la scoperta dei valori della tattilità*, Fabio De Chirico argues that art does not exist without a public, and the public should have all the necessary tools to approach it consciously. The purpose of the museum is, in fact, to meet the new artistic languages and rewrite them to make them accessible to all kinds of public (Grassini *et al.,* 2018).

As reported in the website of the Directorate-General of Museums, physical, sensorial and cultural accessibility are fundamental conditions to grant the fruition of places of culture to all heritage visitors (Ministero per I Beni e le Attività Culturali – Direzione Generale Musei, 2016). From an ethical perspective, it is important to remember that, even though not stated by the law in most countries, accessibility to culture in all its forms, and therefore to cultural heritage, is a fundamental human right for all individuals, regardless of their condition. As Sarraf and Bruno underline, in fact,

«According to article 27 of the Universal Declaration of Human Rights, the construction of cultural heritage is a civil right. (...) "Everyone has the right to participate freely in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits." It can thus be stated that all individuals, regardless of origin, social class, prior experience, disability or any other socio-economic factor that may classify them as minorities or belonging to socially excluded populations, have the right to enjoy and participate in the creation of cultural heritage.» (Sarraf, Bruno, 2015, p. 94)

Nevertheless, the majority of cultural institutions and cultural heritage sites is not accessible. This might be explained, in part, by the expensiveness of accessibility interventions. Especially when it comes to physical barriers, most infrastructural actions require great economical investments which, in many cases, can't be afforded without external funding. The same can be said for solutions to cognitive impairments: the technologies required to create accessible solutions for the blind and visually impaired or for the deaf and hard of hearing are not always affordable. However, such barriers can still be overcome. First of all, by starting to think new expositions, museums and other cultural places in a universal design perspective, including accessible strategies and practices already in the design stage. Accessible solutions, in fact, have

proven to be beneficial for all individuals, not only for the ones they were implemented for. The only limit is the creativity of architects, curators and other stakeholders involved in the cultural environment. In this way, the economic investment would be less costly and more effective in terms of exploitation of the spaces, resources and energies.

A different approach is needed, instead, when it comes to existing monuments, historical buildings and other heritage sites. In fact, the amount of accessible solutions that can be adopted in these cases, especially to grant physical access, is drastically limited by the conditions and situation of the sites and by the need to preserve their historical and cultural value. Even though this might prove extremely difficult, it is not impossible. That's the reason why research and innovation in this field are fundamental: thanks to the awareness campaigns and the projects realised on this subject, many innovative solutions are found everyday to face all possible barriers. It is therefore equally fundamental for cultural institutions to invest as much as possible in accessibility research, not only because participation in the cultural life is a fundamental right, but also because it is the most effective way of promoting and valorising cultural heritage. On this matter, an interesting insight on what valorisation and promotion of cultural heritage actually mean is given by the Italian legislation, as reported by Massimo Montella:

«Della "valorizzazione" l'articolo 148, D.lg. 112/98, dà la seguente definizione: "ogni attività diretta a migliorare le condizioni di conoscenza e conservazione dei beni culturali e ambientali e ad incrementarne la fruizione". Il comma 3 del successivo articolo 152 specifica inoltre che "le funzioni e I compiti di valorizzazione comprendono in particolare le attività concernenti: a) il miglioramento della conservazione fisica dei beni e della loro sicurezza, integrità e valore; b) il miglioramento dell'accesso ai beni e la diffusione della loro conoscenza anche mediante riproduzioni, pubblicazioni ed ogni altro mezzo di comunicazione; c) la fruizione agevolata dei beni da parte di categorie meno favorite; d) l'organizzazione di studi, ricerche ed iniziative scientifiche anche in collaborazione con università ed istituzioni culturali e di ricerca; e) l'organizzazione di attività didattiche e divulgative anche in collaborazione con istituti di istruzione; f) l'organizzazione di mostre anche in collaborazione con altri soggetti pubblici e private; g) l'organizzazione di eventi culturali connessi a particolari aspetti dei beni o ad operazioni di recupero, restauro o acquisizione; h) l'organizzazione di itinerari culturali, individuate mediante la connessione fra beni culturali e ambientali diversi, anche in collaborazione con gli enti e organi competenti per il turismo. (...) La "promozione" è costituita, sempre ai sensi dell'articolo 149 del D.lg. 112/98, da "ogni attività diretta a suscitare e a sostenere le attività culturali". Meglio sarebbe stato dire che la promozione include ogni attività che, oltre alla valorizzazione, è volta a far conoscere meglio agli utenti effettivi e potenziali l'esistenza. L'interesse e i benefici d'uso del patrimonio culturale.» (Montella, 2003, pp. 53-57).

It is noteworthy that in its definition of the practices and actions for the valorisation of cultural heritage, the legislation includes in the second place the improvement of accessibility to cultural goods and their dissemination, followed on the third place by the facilitated fruition of such goods by less-favoured groups in society. Therefore, accessibility to cultural heritage is recognised not only as a basic human right, but also as a fundamental strategy for the valorisation and promotion of heritage, which would benefit all. Similarly, on the MiBACT website it is stated that

«*La valorizzazione, come definita dal Codice dei Beni Culturali e del Paesaggio, si riferisce infatti a tutte le attività dirette a promuovere la conoscenza del patrimonio culturale e ad assicurare le migliori condizioni di utilizzazione e fruizione pubblica del patrimonio. L'Atto di Indirizzo del 2001, al riguardo, considerava come requisito preliminare ad ogni altro la raggiungibilità del bene culturale, attraverso l'analisi dei percorsi, come pure le condizioni dell'accesso. In particolare l'accessibilità fisica e culturale appaiono requisiti rilevanti per rendere pienamente fruibili i siti culturali ad una ampia fascia di pubblico, che può presentare condizioni di disabilità temporanee o permanenti. L'abbattimento delle barriere architettoniche ha rappresentato, infatti, negli ultimi anni uno degli interventi di maggiore spessore messo a frutto dal Ministero per i Beni e le Attività Culturali, anche attraverso l'istituzione di una Commissione Ministeriale che nel 2008 ha pubblicato le linee guida per il superamento delle barriere architettoniche nei luoghi di interesse culturale. Il bene culturale, infatti, è oggi chiamato dalla collettività a rispondere costantemente delle proprie finalità. Non è più sufficiente - com'era tradizione – limitarsi ad esporre. L'impegno è riuscire a comunicare adeguatamente, essere al servizio dell'utenza e provvedere ad identificare e a soddisfare i bisogni espressi dai fruitori, specie laddove vi siano esigenze specifiche. Diventa prioritario cioè definire ed esplicitare una capillare "politica dei pubblici".*» (Ministero dei beni e delle attività culturali e del turismo, n.d.)

Keeping this in mind, as was said at the beginning of this paragraph, there can be no art without a public and, in the same way, there can be no collective memory, nor cultural heritage, if it is not made accessible to all its possible users.

Cultural Heritage and the European Union

This work wishes to be a preliminary analysis of what has been done to promote accessibility to cultural heritage in Europe and, more specifically, in Italy. Some projects, activities and initiatives aimed at reducing, if not eliminating, physical, sensorial and intellectual barriers will be briefly presented in the next paragraphs, in order to give an overview on the efforts already made in this direction. One of the elements that emerged during this

research is the active involvement of the European Union on the preservation and conservation of cultural heritage. In fact, 2018 has been the European Year of Cultural Heritage, during which cultural heritage has been celebrated across Europe with a series of initiatives and events at national, regional and local level. The intention was to encourage more people to discover and become involved with heritage, reinforcing their sense of belonging to a common European space (European Year of Cultural Heritage, 2019). This involved European institutions such as the European Commission, the European Parliament, the Council of the European Union, the European Economic and Social Committee and the Committee of the Regions. To make sure that the benefits of this initiative last, the EU is funding projects supporting cultural heritage within a series of programmes (Horizon 2020, Erasmus+, among others), and is collaborating with the Council of Europe, UNESCO and other partners to run long-term impact projects focused on engagement, sustainability, protection and innovation in relation to cultural heritage. The involvement of the EU is attested also by its collaboration with organizations such as Europa Nostra. Founded in 1993 with the aim of protecting and celebrating cultural and natural heritage, it is recognised today as the most representative heritage organization in Europe (Europa Nostra, 2019).

Nevertheless, when it comes to accessibility, the amount of projects and initiatives is still limited and most of them only take account of physical barriers. In the next paragraph we will provide a list of some of the most interesting and active projects dedicated to the accessibility of cultural heritage.

Some projects on accessibility realised in Europe

One of the first initiatives to be mentioned in the European context is the European Day of Persons with Disabilities, organised by the European Commission in collaboration with the European Disability Forum, to raise awareness on the challenges faced everyday by persons with disabilities and to promote the integration of disability issues. The conference sees the participation of politicians, experts and self-advocates, who are given the opportunity to discuss the ways in which the European Disability Strategy could be implemented. Having 2018 been the European Year of Cultural Heritage, the 2018 edition of the conference was a great occasion to shift attention to the matter of accessibility to cultural heritage. Indeed, it was the occasion to discuss what has been done already and what strategies can be adopted in order to allow persons with disabilities equal access to cultural wealth, including heritage. In this sense, one of the many interesting actions undertaken is the *Access City Award* (European Day of Persons with

Disabilities 2018, 2018; Edsa – European Down Syndrome Association, 2019). Organised by the European Commission and the European Disability Forum, the three awards, given to the three most accessible European cities, «recognise and celebrate cities for their efforts to make it easier for disabled and older people to gain accessibility to public areas such as housing, children's play areas, public transport or communication technologies» (Vita International, 2016/30/11). The awards are handed out by Marianne Thyssen, Commissioner for Employment, Social Affairs, Skills and Labour Mobility. The winner of the 2017 Access City Award was the city of Chester (UK), thanks to its efforts to enable people with disabilities to enjoy its historical and cultural heritage and to take part in all aspects of life in the city and the long-term approach of its initiatives on accessibility. Other cities awarded were Rotterdam (Netherlands), Jūrmala (Latvia), and special mentions were given to Lugo (Spain), Skellefteå (Sweden), Alessandria (Italy), and Funchal (Portugal). The cities awarded in 2018 were Lyon (France), Luxemburg (Luxemburg) and Ljubljana (Slovenia), while a special mention was given to the city of Viborg (Denmark). Finally, during the last edition, in 2019, the Award has been handed out to the city of Breda (Netherlands) for its continuous improvements in facilitating accessibility for people with disabilities. Other winning cities of the last edition were Évreux (France) and Gdynia (Poland), together with Kaposvár (Hungary) and Vigo (Spain), which both received the special mention (European Commission – Employment, Social Affairs and Inclusion, n.d.; Vita International, 30/11/2016).

Another step towards accessibility has been made thanks to the *EU Disability Card project*. The conditions and procedures to obtain concessions on fees, services and support for accessibility to places of culture, leisure and transport are fragmented and change from country to country. To face this situation, as well as the lack of a mutual recognition of the disability status among member states, the European Union is developing a European Disability Card with the aim of helping people with disabilities travel more easily between EU countries. The project, launched within the European Disability Strategy 2010-2020, «is aimed at introducing a card that allows access to persons with disabilities to a series of free or reduced-cost services in the field of transport, culture and leisure throughout the national territory in a reciprocal regime with other EU countries» (EU Disability Card, 2018). The Card is mutually recognised by the countries that voluntarily decide to participate in the system. A first group of eight countries kick-started the Card in 2016: Belgium, Cyprus, Estonia, Finland, Italy, Malta, Slovenia, Romania (European Commission – Employment, Social Affairs and Inclusion, n.d.). The aim of the project is to define some shared criteria of eligibility for the Card, outlining a homogeneous set of benefits and defining clearly who assigns it, who prints it and the way in

which the Card is to be distributed. Among the stakeholders that collaborated in the implementation of the project are the Ministry of Culture and Heritage, the Ministry of Transport, the Council Presidency, the Department for Regional Affairs, Autonomy and Sport, ANCI, the Conference of Regions, INPS, AGIS, ANEC and Assomusica. In Italy the project is implemented and managed by the Italian Federation for Overcoming Disabilities (FISH), in partnership with the Federation of National Associations for Persons with Disabilities (FAND), following the EU guidelines for the construction of the required structures and the operational sharing of common protocols (EU Disability Card, 2018).

The *ARCHES (Accessible Resources for Cultural Heritage EcoSystems) project*, launched in 2016 within the EU Horizon 2020 Framework Programme for Research,

> «*aims to create more inclusive cultural environments particularly for those with differences and difficulties associated with perception, memory, cognition and communication. It will achieve this through in-depth research analysis and the development of innovative applications, functionalities and experiences based on the reuse and redevelopment of the aforementioned digital resources.*» (Arches, n.d.).

The project has four research objectives: firstly, the development and evaluation of strategies aimed at exploring the value, form and function of mainstream technologies; secondly, the development and evaluation of the use of such technologies to enable the inclusion of persons with disabilities as museum visitors and consumers of art; thirdly, the identification of sources which can provide digital cultural resources and be taken advantage of, with the purpose of integrating content into innovative tools, applications and functionalities; finally, the validation of the technological outcomes in operational environments based on a participatory research methodology which entails three pilot studies in museums. The partners involved in the project are VRVis Zentrum für Virtual Reality und Visualisierung Forschungs-GmbH, Austria's leading institute for application-led research in visual computing, the Thyssen-Bornemisza Collection Foundation (Spain), the Victoria and Albert Museum (UK), the KHM-Museumsverband (Austria), the Lázaro Galdiano Museum (Spain), the Wallace Collection (UK), the Fine Arts Museum of Asturias (Spain), the Open University (UK), the University of Bath (UK), Signtime (Austria), COPRIX Media (Serbia) and *ArteConTacto*, a project initiated by Moritz Neumüller, which involves artistic practice, inclusion, and multisensorial experience (Artecontacto, n.d.). *ARCHES* seeks, on the one hand, to develop an online accessible software platform and applications for handheld devices, and, on the other, to promote multisensory activities (touch tours, amongst others), by exploiting innovative technologies such as

augmented reality, avatars, relief printers and models, context-sensitive tactile audio guides, metadata and advanced image processing techniques. To do so, museums will also become active stakeholders by adapting their content and reinterpreting cultural heritage in a more inclusive way, embracing the needs of different target groups. One of the most innovative aspects of the project is the creation of inclusive working groups where people with and without disabilities interact in a non-judgemental environment, deciding and testing together which are the most effective solutions to their own needs in the museum environment (Arches, n.d.).

Even though it is not directly related to accessibility for people with disabilities, the *REACH (RE-designing Access to Culture Heritage) project* has been included in this article due to its interest in participatory approaches aimed at fostering social integration in Europe. Funded under the European Union's Horizon 2020 research and innovation programme, the project's main objective is the creation of a platform, the REACH social platform, aimed at promoting the debate on how participatory approaches can contribute to the dialogue among different cultures and approaches. Moreover, the platform seeks to foster a deeper engagement in the research and establishment of innovation processes in the cultural heritage sector. As described in the project website, the platform has a double scope: on the one hand, to map and provide insights on research results achieved in previous programmes, to identify research trends (both existing and emerging), and to offer new knowledge concerning the cultural heritage field; on the other hand, to expand knowledge of complementary research domains and of innovative research methodologies, generating opportunities for cooperation and offering pathways to foster user engagement. The activity of the project will be developed in three main areas: the development of a network including audiences and stakeholders aimed at offering concrete participatory experience; the implementation of a programme of public encounters focusing on participatory approaches to preservation, use, and management of cultural heritage; the publication of an online portal, the Open-heritage.eu. The project is managed by the universities of Coventry, Budapest, Granada, and Prague, in partnership with Promoter Srl, a SME based in Pisa (Italy), the Foundation for Prussian Cultural Heritage and the Italian Ministry of Economic Development (Reach, 2019).

The *COME-IN! (Cooperating for Open access to Museums – towards a widEr INclusion) project*, launched in 2016 under the Interreg CENTRAL EUROPE Programme funding, aims at valorising the cultural heritage of central Europe by increasing the capacities of small and medium sized museums by making them accessible to a wider public. The project's main objective is to improve the capacity of Central Europe countries to make their cultural heritage accessible for people with permanent and transient disabilities.

In doing so, it will contribute to the sustainable long-term socio-economic development of the area. The expected result should be the realization of a set of guidelines for organising an accessible collection/exhibition and a training handbook for museum operators, which will be tested within the network of partners of the project. Furthermore, a promotional tool based on the experience gained, the COME-IN! label for awarding museums complying with its accessibility standards, will be developed and initially conferred to the museums of the network. Such label will then be promoted at transnational, national and local level in order to guarantee its sustainability and transferability. The museums taking part in the project are the Central European Initiative of Trieste (Italy), the Civic Museum and Galleries of History and Art of Udine (Italy), the Regional Council of Associations of the People with Disabilities and Their Families of the Friuli Venezia Giulia Region (Italy), the ACLI Vocational Training Body of Friuli Venezia Giulia Region (Italy), the Maritime Museum Sergej Mašera Piran (Slovenia), the Museum of the Working World of Steyr (Austria), the Archaeological Museum of Istra (Croatia), the Austrian Civil Disabled Association (Austria), the BBRZ Vocational Training and Rehabilitation Centre (Germany), the University of Applied Sciences Erfurt (Germany), the Archaeological Museum Weimar (Germany), NETZ Media and Society (Germany), the Archaeological Museum of Krakow (Poland) and the Municipality of Piran (Slovenia) (Interreg Central Europe, 2019).

The *LHAC (League of Historical and Accessible Cities) project*, launched in 2010 by the European Consortium of Foundations on Human Rights and Disability and winner of the 2014 International Design for All Award, focuses on improving the accessibility of historical towns and, at the same time, promoting the development of sustainable tourism and the protection of cultural heritage. The project seeks to accomplish several objectives: the implementation of innovative accessibility solutions aimed at allowing people with disabilities and their families to fully enjoy leisure and cultural activities; the promotion of tourism and social development of the cities involved; the development of pilot projects which may serve as an inspiration for other foundations, local authorities and stakeholders; the exchange of best practices and know-how; a raising of awareness, the exchange of ideas and more actions taken in the direction of accessibility. Such objectives are expected to have an impact on the long-term cultural and social development of the cities involved and to foster tourism among people with disability in Europe. To date, 6 accessible tourist routes have been created in 6 European cities: Avila (Spain), Lucca (Italy), Mulhouse (France), Torino (Italy), Viborg (Denmark), Sozopol (Bulgaria). The tourist routes include buildings of interest, museums, restaurants and shops, parks, and tourist information centres and are conceived

taking into account the needs of people with both physical and sensory disabilities. Nevertheless, the routes are intended to benefit anyone, from residents to tourists. The presence of accessible information signs such as tactile billboards, sign language and audio guides, and other interactive tools throughout the route allows everyone to explore the townscape independently. The diverse characteristics of the cities involved require the accessibility solutions to be adapted to each case. Therefore, each country is free to implement the project adopting the most suitable solutions. A guide showcasing the best design and practice of each individual project will be produced by the *League of Historical and Accessible Cities* (League of Historical Accessible Cities, 2013).

The *TANDEM (Tools and New Approaches for people with Disabilities Exploring a Museum) project* was launched in order to support better understanding of inclusivity in education and ability to creatively deal with diverse groups of learners with and without disabilities. The project's objectives include the development of inclusive programs of educational activities; the training of museum staff to improve their competences and to develop innovative and inclusive educational programs; a better comprehension of the problems connected with inclusion and a deeper understanding of the specific needs of each group; the exchange of expertise on methods, tools and approaches among staff members; the inclusion of more people with disabilities in the activities of the project, giving them the chance to experience and improve their competences. Partners of the project are the Museo de Arte Contemporáneo de Castilla y León (MUSAC), the MU-ZEE-UM, an Art educative organization, the Museums of South Trøndelag (MiST), the Istituto per i beni artistici, culturali e naturali (IBACN) of the Region Emilia Romagna, the Estonian Maritime Museum, the Calouste Gulbenkian Foundation and the Berlin Wall Foundation (Tandem, 2017).

The *EMEE (Eurovision – Museums Exhibiting Europe) project* (EuroVision – Museums Exhibiting Europe, n.d.), launched in 2012 by the Chair of History Didactics of the University of Augsburg (Germany) and funded by the Culture Programme of the European Union, developed, tested and evaluated an innovative concept of museum mediation, the Change of Perspective (COP). The COP aims to increase awareness and understanding of cultural heritage both from a regional and national perspective through a re-interpretation of museum spaces and objects as well as new participatory approaches to different groups of museum visitors. Other partners of the project were the Atelier Brückner (Germany), the National Museufm of History (Bulgaria), the University Paris-Est Créteil-ESPE (France), the University Roma Tre (Italy), the National Museum of Archaeology (Portugal), the National Museum of Contemporary History (Slovenia), the Art Association Monochrom (Austria).

The project's outcome was a series of five toolkits, to be combined with workshops and study modules, «designed to ensure the successful integration of the central concepts of Change of Perspective (COP) in education and training for museum experts and other related roles working in the field of cultural heritage» (Schumann *et al*., 2016, p. 47). The first manual, *Making Europe Visible. Re-Interpretation of Museum Objects and Topics*, is dedicated to the reinterpretation of the museum's objects in order to deconstruct linear interpretations and help reveal the links between local, regional, national and European levels of meaning through the use of multi-perspective forms of presentations. The second toolkit, *Integrating Multicultural Europe. Museums as Social Arenas*, suggests that taking into account the visitor's perspective on the local cultural heritage is necessary for the museum in order to become a vibrant social space where cultural identities can be discussed and negotiated. The third manual, *Bridging the Gap. Activation, Participation and Role Modification*, is the most interesting for the purposes of this study, since it includes strategies aimed at enabling museums to create more attractive approaches to cultural heritage for those who usually don't visit museums. It provides an overview on existing barriers hindering accessibility to the museum and suggests possible ways to overcome such barriers by presenting examples of good practice, suggesting the importance of including the visitors and encouraging them to actively participate. The fourth toolkit, *Synaesthetic Translation of Perspective. Scenography – a Sketchbook*, advocates the importance of scenography for strengthening the European dimension of cultural heritage, introducing parameters, tools and strategies for presenting objects in a museum in a way that encourages visitors to reflect on their own perspectives interconnected with different levels of meaning. The final manual, *Social Web and Interaction. Social Media Technologies for European National and Regional Museums*, presents the importance of employing communication channels such as social media (Facebook, Twitter, etc.) for the development of the museum, in order to «share and spread knowledge and also to facilitate open and effective communication with museum visitors and non-visitors» (Schumann *et al*., 2016, p. 47).

The *AMBAVis (Access to Museums for Blind and Visually Impaired people through 3D technology) project*, funded by the European Union, relies on 3D technologies and multi-sensory methods to enable blind and visually impaired people to participate in museums' educational services and exhibitions. After having examined existing innovative technical solutions for the realization of affordable tactile models, a comprehensive approach that addresses the economic and legal aspects will be adopted in order to improve accessibility to museums for blind and visually impaired people. The technologies investigated for the realization of tactile models will be 3D replication and digital touch,

virtual haptics and relief printing and finger-tracking prototype. The objects will be analysed during focus group experiences, with the aim of evaluating their cost-effectiveness and affordability for museums. The partners of the project are the Economica Institute of Vienna, the Manchester Museum, the Austrian Federation of the Blind and Partially Sighted (BSVÖ), the German Association for Blind and Visually Impaired People (DBSV e.V.), Trnka n.o., a non-profit organization based in Bratislava dedicated to the research and production of audio description of audio-visual works, the Österreichische Galerie Belvedere and the Center for Virtual Reality and Visualisation (VRVis) (Access to museums for blind and visually impaired people through 3D technology, 2019).

The *Zero Project*, started in 2009 after a preliminary study in 2008, aims at contributing to the creation of a world without barriers, following the UN Convention on the Rights of Persons with Disabilities, through research on the most innovative and effective policies and practices that can improve the lives of persons with disabilities. The project was launched by Essl Foundation MGE gemeinnützige Privatstiftung, an Austrian foundation established in 2007 by Martin Essl, his wife Gerda and their children, whose «mission is to support social innovation, social entrepreneurship and persons with disabilities» (Zero Project, 2019). Each year, the *Zero Project* focuses its research on one of the key topics of the UN Convention on the Rights of People with Disabilities (employment, accessibility, independent living, political participation and inclusive education), and publishes a report in which innovative policies and practices, selected according to the criteria of innovation, impact and scalability, are presented. The results are then put forward at the Zero Project Conference, where the people behind such policies and practices are given the chance of presenting their solutions to other stakeholders, government representatives and key influencers involved in the world of disabilities. They are also awarded with the Zero Project Award. The solution-oriented approaches resulting from the research work of the project are also put forward at national and international conferences, including conferences of UN organizations, among others. Since 2017, the project has partnered with the worldwide network of social entrepreneurs Ashoka to launch the Zero Project-Impact Transfer, for which the ten innovative practices with the highest potential are selected and supported in developing their expansion strategy (Zero Project, 2019).

The *Greenways 4ALL (Accessible Tourism on European Greenways: Greenways For All) project,* co-funded by the COSME programme of the Executive Agency for Small and Medium-sized Enterprises (EASME) of the European Union, aims at improving accessibility to and around greenways, the non-motorized routes providing access to nature and open-air leisure activities,

as well as the quality of tourist services, resources and infrastructures for persons with disability. The project has a completion period of 18 months, during which two fully accessible tourism products will be realised: the first one on the Vía verde de la Sierra (Cadiz-Seville) and the second on the Ecopista / Vía verde do Dao (Viseu, Portugal). The actions of the project include, on a first phase, the preparation of a methodology for the implementation of accessibility routes, the creation of databases of accessible resources in the two areas, the organization of workshops and technical visits, the signature of agreements on local accessibility with the stakeholders in the area, the design of offers and accessible products. These activities will then be complemented by the training of enterprises on accessible tourism practices and by the assessment of the final products by testing groups of people with special needs. The activities will be supported by a promotional campaign over the web and on social media, as well as published materials (such as brochures), newsletters and presentations at public events (conferences in Madrid and Viseu). The project is coordinated by the Spanish Railways Foundation and partnered by the European Greenways Association (EGWA), together with the Plataforma Representativa Estatal de Discapacitados Físicos, the Comunidade Intermunicipal da Região Dão Lafões, and the Fundación Vía Verde de la Sierra. It is also supported by three SMEs specialised in accessible tourism: Movilidad Ampliada - Accessible Madrid, AstroAndalus and Turismo Vivencial (Greenways 4ALL, n.d.).

The *WAI-DEV (Web Accessibility Initiative - Ecosystem for Inclusive Design and Development) project*, launched in 2014 and co-founded by the European Commission as a Specific Support Action under the IST 7th Framework Programme, had three main goals: first of all, the development of strategies aimed at supporting mainstream production of inclusive services; secondly, the demonstration of the potential economic value of inclusive design, showcasing good practice; thirdly, backing enhanced policy strategies for the consistent adoption and implementation of accessibility. It built upon the fact that accessibility benefits everyone, regardless of their physical and mental abilities, age, gender, digital skills, social and economic situation and language. It was set to «facilitate more mainstream market adoption of accessible and inclusive design-for-all practices throughout the production chain, and support implementation of accessibility policies and targets set by the European Commission and EU Member States» (W3C Web Accessibility Initiative WAI, 2019). The activity of the project consisted mainly in the development of guidelines aimed at establishing an internationally accepted standard for Web accessibility, and in the creation of support materials for a better understanding and implementation of the guidelines. Moreover, education and outreach activities were conducted, as well as the coordination

of research activities for the development of Web accessibility strategies in the future. Different stakeholders were involved, among which industries, disability organizations, accessibility research organizations, and governments (W3C Web Accessibility Initiative WAI, 2019).

The *NEMO (Network of European Museum Organizations) project* is an independent network of museums representing the museum community of the member states of the Council of Europe. Founded in 1992, it encourages European policies aimed at promoting the importance of museums in safeguarding cultural heritage. It also fosters networking and cooperation among museums, helping them better communicate with European institutions. *NEMO*'s mission is to enable museums to exploit their potential to contribute to a social agenda, to be recognised for the economic value they produce and as knowledge deliverers, and to be as widely accessible as possible to all citizens. It was actively involved in the activities of the *European Year of Cultural Heritage 2018*, collaborating with other members of the European Commission's stakeholders' committee in the development activities and formats concerning accessibility. In particular, one of the outcomes of the project was the publication of *Des musées accessibles à tous - Informations et suggestions*, a booklet on accessibility practices and standards by the Swiss Museums Association, with the aim of encouraging and sustaining museums in their efforts to eliminate existing barriers and to avoid creating new ones (NEMO - Network of European Museum Organisations, 2019; Museums.ch, 2016).

The *SWICH (Sharing a World of Inclusion, Creativity and Heritage) project* is a network of museums that share the common goal of increasing the role and visibility of Etnography and World Culture Museums in a society which is more and more differentiated and globalised. The network is composed by ten European museums: the Weltmuseum Wien (Austria), the National Museum of World Cultures (Netherlands), the Royal Museum for Central Africa (Belgium), the Musée des Civilisations de l'Europe et de la Méditerranée (France), the National Museums of World Culture (Sweden), the Linden-Museum (Denmark), the Museo delle Civiltà/Museo Preistorico Etnografico "Luigi Pigorini" (Italy), the Museum of Archaeology and Anthropology (UK), the Slovene Ethnographic Museum (Slovenia), the Ethnological and World Cultures Museum (Spain). They collaborate with Culture Lab, a private agency based in Belgium, which serves as link between cultural organizations and the policies and funding programmes of the European Commission (CultureLab, n.d.). Within this context, in 2009 the staff of Gothenburg's Museum of World Cultures (MWC) started to develop participative and accessible curatorship projects to attract new audiences, including schools and families with young children. This resulted in *Earthlings*, the first accessible exhibition created with

a participatory approach. It involved thirty children (between five and six years old) from different regions of the city. The project team was formed by Lina Malm, in charge of developing the exhibition, Eva Tua Ekstrom, specialised in education, and other museum professionals. All elements of the project were built in collaboration with the children: the theme, the design of sensory resources, the selection of the elements of the collection and the texts and videos explaining them and their meaning. The children were also involved in the promotion of the exhibition. The result of this experience was so positive for the museum that it was followed by a second exhibition created with the same participatory and accessible methods. The new exhibition, *Together*, was created in collaboration with a group of families who had children with and without disabilities. Opened in 2015, it occupies the main MWC gallery space (Sarraf, Bruno, 2017; Swich – Sharing a World of Inclusion, Creativity and Heritage, 2015).

The *Unlimited Access project*, co-funded by the Creative Europe Programme of the European Union, seeks to profile the best disabled-led performing art works in Europe. At the same time, it promotes accessibility to the arts of both audiences and artists with disabilities. The project takes into account the needs of deaf and disabled artists, working, on the one hand, to remove barriers and make further steps towards true equality, and, on the other, developing and promoting a narrative around their art work. The project was delivered by the British Council and can count the expertise of three more arts and cultural institutions from other EU countries: VoÁrte (Portugal), the Onassis Cultural Centre (Greece) and the Croatian Institute for Movement and Dance (Croatia). The most important outcome of the project is Disability Arts International: launched in 2013, it is a website developed and coordinated by the British Council with the scope of «promoting the work of the exciting generation of excellent disabled artists, disabled-led companies and inclusive arts organisations. It also aims to share the ways arts organisations are increasing access to the arts for disabled people as audiences and visitors» (British Council – Disability Arts International, 2016).

The *Accessibility of Cultural Heritage to Vulnerable Groups project* is another interesting example of research and implementation of a variety of accessible practices. As introduced by Vida Koporc Sedej, minister of Culture of the republic of Slovenia, «the purpose of the "Accessibility to Cultural Heritage to Vulnerable Groups" project was to establish good practices in three areas of museum work: job training, accessibility of museum collections and education» (Valič *et al.*, 2015, p. 8). A fascinating aspect of this project is the fact that it sought to include people from vulnerable groups in the training activities on museum public service in order not only to create new working opportunities, but also to allow them to acquire specialised knowledge, improve

their competences and skills, and gain useful experience for their career prospects. Alongside with the training of specialised and inclusive staff, accessible and inclusive contents and solutions for the presentation of the collections were developed. The project, launched in 2013, was led by the Slovene Ethnographic Museum (SEM) alongside with the National Museum of Slovenia, the Natural History Museum of Slovenia, the National Museum of Contemporary History, the Slovene Theatre Institute, the Technical Museum of Slovenia and the National Gallery. It was funded by the European Union (European Social Fund) and by the Ministry of Culture of the Republic of Slovenia. The outcomes of the project were, among others, improvements in accessibility for persons with reduced mobility, for the deaf and hard of hearing, and for the blind and visually impaired in the museums which took part in the project; a raise of awareness, knowledge, tolerance and openness towards equal opportunities and accessibility to cultural heritage; the integration of people belonging to vulnerable groups, including persons with disabilities, in the labour market, thanks to the training activities which contributed to their professional qualification and competitiveness (Valič *et al.,* 2015).

In spite of not being a EU funded project, the *Prospelasis Project* is a positive example of inclusive intervention on cultural heritage in Greece. It was coordinated by Aristotelis Naniopoulos, Professor at the Aristotle University of Thessaloniki, and partnered by the Transport System Research Group at the Aristotle University of Thessaloniki, and by the 9th Ephorate of Byzantine Antiquities. The project was funded both by a grant from Iceland, Liechtenstein and Norway through the EEA Financial Mechanism, and by public investments of the Hellenic Republic. It's main objectives were two: on the one hand, to provide accessibility for all visitors, including those with physical disabilities, to archaeological monuments; on the other hand, to give visitors the necessary information to orient themselves moving from one monument to another in complete autonomy, creating an integrated route connecting six Byzantine UNESCO monuments (Archeiropoietos, Saint Demetrios, Saint Nicholas Orphanos, Rotunda, Hagia Sofia, Heptapyrgion Fortress). The activity consisted primarily in the identification of the monuments and of the barriers that needed to be faced to make them accessible. Then, after the identification of possible and, most importantly, feasible accessibility solutions, the implementation of such interventions followed, together with the training of the personnel involved in the monuments. Finally, all information on the accessibility levels of the sites was made available on the project website, which is also accessible. Together with specific architectural interventions aimed at persons with reduced mobility, a Wi-Fi application was created for visitors with sensory disabilities including information in Greek, English, Russian, both in text and audio format, as well as in sign language. Moreover, Braille panels

containing information on each monument can be found in situ, as well as tablets for those who do not dispose of a Wi-Fi compatible mobile phone (Naniopoulos *et al.,* 2015; Naniopoulos, Tsalis, 2015; Prospelasis, n.d.).

In conclusion, despite not being specifically aimed at people with sensorial disabilities, especially the blind and visually impaired, there are three more projects worth mentioning due to their possible application in the field of accessibility to cultural heritage. The first two, in particular, may prove extremely useful for physically impaired persons. The *Google Art Project*, in fact, is a network composed of 345 museums and institutions throughout the world whose main objective is to make art accessible to all through the implementation of a digital platform where over 63 thousand works of art can be virtually explored in high definition, and where galleries can be created, personalised and shared by individual users. One of the museums of the network is the National Museum of 21st Century Arts (MAXXI) in Rome, managed by a Foundation constituted in the July of 2009 by the Ministry for Cultural Heritage and Activities and headed by Giovanna Melandri. The idea behind the project is to "democratise" accessibility to culture and promote its preservation for future generations (Google Art Project, 2019; Maxxi – Museo nazionale delle arti del XXI secolo, 2019). The same idea is at the basis of the *DigiArt project*, funded under the European Union's Horizon 2020 Research and Innovation Programme. Through the use of new 3D capture systems and methodologies (aerial capture via drones, semantic image analysis, augmented/virtual reality technologies among others) the project aims at providing innovative and cost effective solutions to the capture, processing and display of cultural heritage. Partners to the project are the Scladina Cave Archaeological Centre (Belgium), the Museum of the Royal Tombs of Aigai (Greece), Vulcan UAV Ltd, Pix4D, the French National Centre for Scientific Research (CNRS, France), Liverpool John Moores University (UK), the Centre for Research and Technology-Hellas (CERTH, Greece) (DigiArt, 2019). Also funded within the Horizon 2020 framework is the *Easy Reading project*, launched with the intent of making it simpler for people with cognitive disabilities to read, understand and use webpages. To do so, the project envisages the development of a software tool and a set of guidelines for cognitive web accessibility (Easy Reading, n.d.).

Some projects realised in Italy

From the analysis of the European projects in the previous paragraph has emerged a strong presence and participation of Italian museums and institutions. Italy is, in fact, not only one of the European countries with the

highest amount and variety of cultural heritage sites, but it is also one of the countries where the interest on accessibility (both physical and sensorial) is strongest.

One of the most interesting projects implemented in Italy is *A.D. Arte: An informative system for the quality of use of cultural heritage by people with specific needs*. After having been approved in 2007, the project was launched in 2010 by the Directorate-General of Valorisation of Cultural Heritage. The aim of the project is to map and provide information on the actual accessibility conditions of cultural heritage sites in Italy through the implementation of a system for the detection and analysis of the areas. As Ragusa explains, in fact,

«il Ministero per i Beni e le Attività Culturali ha promosso una iniziativa per migliorare i servizi di accesso al patrimonio culturale dello Stato in favore di tutti quei soggetti che presentano specifiche esigenze dovute alla loro condizione di disabilità. (…) L'obiettivo era quello di concepire e realizzare un sistema di analisi e rilevazione delle condizioni di accessibilità di siti culturali italiani e la successiva immissione in rete (sul sito istituzionale del Ministero per i Beni e le Attività Culturali e del Turismo) di un sistema informativo atto a garantire, attraverso l'adozione di una metodologia condivisa, la completa disponibilità al pubblico dei livelli di fruibilità del sito. L'iniziativa del Ministero è ispirata al principio secondo cui la fruizione rappresenta l'obiettivo finale delle attività di tutela e valorizzazione del patrimonio culturale.» (Ragusa, 2015, pp. 173-174).

The project was carried out by a team of Italian experts with the collaboration of associations of disability representatives and the participation of several European organizations. As explained by Ragusa, the expected outcome of the project was the publication on the website of the Ministry of Culture and Tourism of an information system made up of sheets giving detailed information on the accessibility levels of the monuments and sites analysed. The first 80 accessibility sheets are already available for consultation on the website www.accessibilitamusei.beniculturali.it and cover monuments and cultural sites in thirteen different Italian regions (Abruzzo, Basilicata, Calabria, Campania, Emilia Romagna, Lazio, Lombardia, Marche, Piemonte, Puglia, Toscana, Umbria, Veneto) (Valorizzare il patrimonio, n.d.; A.D. Arte, n.d.).

The interest of the Directorate-General of Valorisation of Cultural Heritage in the accessibility of heritage sites is also reflected in the funding of a series of pilot projects and interventions aimed at improving the accessibility of some of the most visited sites throughout the country. Among these, *Un ascensore per Michelangelo* (A lift for Michelangelo) in the Medici Chapels in Firenze; the *Percorso accessibilità Tarquinia*, an accessible route in the Etruscan necropolis of Tarquinia; the elimination of barriers in the archaeological area of the

Palatine Hill and the Roman Forum; the *Hendrik Andersen e Olivia Cushing: tra utopia e realtà* (Hendrik Andersen and Olivia Cushing: between utopia and reality) *project*, which wished to give more visibility to the life and works of the Norwegian sculptor and artist Hendrick Andersen; the project *La memoria del bello* (The memory of beauty), coordinated by the Directorate General together with the Superintendence of the Galleria Nazionale di Arte Moderna e Contemporanea of Rome, which envisages a series of guided tours specifically intended for people with Alzheimer's disease and their caregivers; the *Ostia Antica città senza età project*, which realised an accessible and environmentally friendly itinerary throughout the Ostia Antica archaeological site for people with physical disabilities (Valorizzare il patrimonio, n.d., Accessibilità al patrimonio culturale statale, 2016).

Nevertheless, one of the most interesting projects funded by the Directorate-General is the *Cultura senza barriere* (Culture without barriers) *project*, launched in 2012 in occasion of the International Day of Persons with Disability, which promotes the valorisation of cultural heritage through the organization of events and activities specifically dedicated to people with sensorial and physical disabilities. In 2014 an online consultation was launched and, among the seventeen museums selected, the National Museum of Cagliari (MARC) received the most votes thanks to its "Liquid Museum" accessibility project. In their report of the project, Marras *et al*. give the following definition of a liquid museum:

«The word "liquid" (…) means "mobile", as in ready to receive new content. At the same time the technologies used are not fixed, but they are ready to adapt and change. "Liquid" suggests a museum for children, the elderly, foreigners, the disabled, and is thus chameleon-like, a museum that can take different shapes and sizes to suit the needs of any visitor.» (Marras *et al.*, 2016, pp. 101-102).

The Liquid Museum project followed the Design for All approach and included in the rethinking of the museum all the key elements for accessibility: reference points, signage, maps, reduced distances and height differences, and equipment (ramps) in order to remove both physical and sensorial barriers. In fact, 3D models and original pieces have been made available for the blind and visually impaired visitors to be touched. Moreover, following the example of the British Museum, the museum uploaded its collection online by digitising the artefacts and making their 3D models downloadable/visible in the museum's website. Drawing on systems such as Quick Response Codes (QR) and Near Field Communication (NFC), the website allows users to download or consult online video guides, images and insights of the collection. Finally, the last aspect covered within the project was the training of the museum staff,

aimed at improving their competence on matters such as welcoming and greeting the visitors, their expertise in using specific devices, their knowledge of the English language and other abilities (Marras *et al*., 2016).

Other realities which received funding from the *Cultura senza ostacoli project* were the National Gallery of the Marche region, in the city of Urbino (second place) and the Miramare Castle with its park and museum in Trieste (third place). Both sites realised interventions aimed at promoting the inclusion of persons with sensorial disabilities. For what concerns Urbino, an audio-video guide was included, offering the translation of the pieces in Italian Sign Language and subtitles for international visitors; additionally, sensory and touch tours were made available. As for Trieste, a smart guide was developed, whose interface is specifically aimed at blind, visually impaired, deaf and physically impaired persons, allowing them to engage with the environment of the museum and the park (Accessibilità al patrimonio culturale statale, 2016).

Another interesting proposal is the one behind the *C.A.R.E. (Città Accessibile delle Regioni Europee – Accessible City of the European Regions) project*. By sharing strategies of urban development that entail the participation of citizens with different needs in the life of the city, the project seeks to create a network of accessible services and structures among European cities by promoting a common standard of accessibility and by involving both citizens and tourists. The creation of a network of specialised services including both leisure activities and facilities is one of the expected outcomes of the project and is expected to improve the attractiveness of the cities involved. The project is promoted and carried out by the region Emilia-Romagna, the Municipality of Bologna, the Municipality of Ferrara, the Municipality of Forlì, the region Lombardia, A.I.A.S. Milano onlus, the region Umbria, the province of Ancona, the province of Pesaro-Urbino, the association "Si Può", Venice Cards – City of Venice in Italy. Furthermore, it can count on the support and participation of institutions and associations from other European countries: Bildungsinstitut Pscherer (Germany), the city of Gera (Germany), the association Atempo (Austria), the Prefecture of Thessaloniki (Greece), the North-East regional development agency (Romania). To date, the activity of the project has consisted of a series of publications, including a trimestral newsletter, dedicated to accessible tourism in Italy and Europe, and four pilot projects carried out in Italy. The first one, *L'accessibilità ai disabili del sistema di trasporto pubblico in Lombardia*, took place in the region Lombardia and consisted of an investigation on the accessibility level of urban transport. The second project, *Parma provincia per tutti,* was launched in the region Emilia-Romagna and entails the creation of an inventory of 450 reception facilities offering services with specific needs (allergies, food intolerances, temporary or permanent mobility problems). The *Venice Card project* was conceived to help elderly or

disabled people better move around the city of Venice: the card offers access to public transport, both on land and on water, public toilets, museums, and discounts on other leisure and cultural activities, as well as a map of the barrier free routes around the city. Finally, the *Vengo anch'io project* proposes the realization of a public garden accessible to all in the Municipality of Rimini, with a special attention to the needs of blind and visually impaired persons (CARE – Accessible Cities of European Regions, 2004).

There are many accessible realities throughout the country, some of them even specifically designed for persons with sensorial disabilities, which not only offer a truly inclusive service, but also actively participate in the awareness-raising campaign on the importance of breaking down physical, sensorial and cognitive barriers in the field of culture. One of these is the Museo Tattile Statale Omero, in the city of Ancona. Established in 1993 and directed by Aldo Grassini and his wife Daniela Bottegoni, who are both blind, the main purpose of the Museum is to foster the cultural growth and integration of blind and visually impaired persons, allowing them to enrich their knowledge of reality. Nevertheless, the museum is an inclusive space, open to anyone and ready to meet specific needs. The idea behind the museum is that tactile perception can expand and enrich the aesthetic evaluation capacity of anyone, not only the blind and visually impaired, who must rely on their touch to "see", but also those who can rely on more sensory channels to get to know the world surrounding them (Grassini *et al.,* 2018, p. 84). This is why the Museum promotes an inclusive approach and allows everyone to experiment and touch its collection, which includes more than 150 sculptures and architectural models accompanied by explanatory panels in braille. The pieces exposed are a selection of some of the most famous artworks from the Classical period to modern and contemporary works. Most of them are artful replicas made of plaster and resin, but there are also many original works, especially in the modern art section. The Museum offers free guided sensory tours of the collection, as well as thematic cultural and historical experiences and events. Moreover, it organises regular art and aesthetic classes for the blind and visually impaired, as well as training and further education curses. In fact, the Museum houses a specialised documentation centre and TACTUS, a centre for contemporary arts, multi-sensoriality and interculturalism. It regularly hosts projects, expositions, collaborations with other institutions and educational workshops for people with and without disabilities, teachers and students. Finally, it organises auditory expositions matching the collection and workshops of visual music in LIS, as well as other activities and multisensorial workshops for schools (Grassini *et al.,* 2018, pp. 83-101; Museo Omero, 2018).

A similar experience is offered by the Museo Tattile di Pittura Antica e Moderna Anteros, in the city of Bologna. The Museum, founded by the Istituto

dei Ciechi Francesco Cavazza in 1999, houses a collection of around 40 three-dimensional reproductions in perspectival bas-relief of the most representative paintings from classicism to contemporary art. Each reproduction presents a historical and artistic description which includes information on the content, style and iconography of the artwork, guiding the user in the tactile exploration. One of the main activities of the Museum is the organization of free classes on the History of Art and interpretative methodology offered for free to people of any age, condition, and education level. The goal of this service is to foster a greater inclusion of persons with visual impairment into school and social life by helping them better develop their perceptual, cognitive and intellectual abilities. Nevertheless, the classes are open also to normally sighted people wishing to refine their senses. Alongside the educational aspect, the Museum also offers individual and group visits of the collection and makes available the expertise of its staff for the planning and realisation of accessible tours and training courses for educators, museum operators and other people working in the field of cultural heritage (Rovidotti, 2004; Museo Tattile Anteros, 2015).

As regards the activities of education and outreach, it is worth organised every year by the non-profit foundation Megamark. The project aimed at fostering art fruition for people with visual disabilities by realising a tactile reproduction and audio description of the Rosone of the Basilica di Santa Croce, one of the cultural symbols of the city of Lecce. The creation of the tactile replica was the occasion to raise awareness on the difficulties encountered by the blind and visually impaired by involving citizens and operators in the process. In fact, free training activities were offered during the project to anyone interested. Among the topics covered there was a module held by Andrea Sòcrati, responsible of the special education section at the Museo Omero, who explained the methods and tools for the creation of tactile reproductions of bi-dimensional artworks, contemporary tactile art and sensory experiences; Aldo Grassini and Annalisa Trasatti, both from the Museo Omero, gave a lecture on accessibility to museums and cultural heritage; a lesson on accessibility in university museums was given by Grazia Maria Signore, Francesco Meo and Corrado Notario, from the University of Salento, with the support of Giovanna Spinelli from the Union of Blind and Partially Sighted People of Bari; Grazia Maria Signore, from the University of Salento, Valentina Terlizzi (Poiesis) and Gian Maria Greco (Autonomous University of Barcellona) delved into audio description; finally, Gian Maria Greco and Fabrizio Martina, from Poiesis, gave a lecture on accessible communication (Arte per Tutti – Poiesis, n.d.).

Another noteworthy reality on the Italian territory is the Education Department of Castello di Rivoli, directed by Anna Pironti, for its constant engagement in organising projects aimed at encouraging the participation of all

publics and at granting them accessibility to the museum environment. The activities proposed include, among others, regular multisensorial tours of the Castle and its collection, thanks to the collaboration with the Italian Union of Blind and Partially Sighted People started in 2005. Moreover, by virtue of a collaboration with the Turin Institute for the Deaf, the Education Department is one of the first places in Italy where a trial project was launched in order to enrich the Italian Sign Language with 80 new terms specific to the world of art. This project resulted in the publication of the first *Dictionary of Contemporary Art in Italian Sign Language* in 2011. The interest of the Castle in the accessibility services for deaf and hard of hearing is testified also by the fact that it is the first Italian Museum of Contemporary Art where the activities in LIS are conducted by deaf professionals. This is an example of good practice, since relying on deaf professionals improves the quality of the service offered, as was demonstrated during the *Accessibility to Cultural Heritage to Vulnerable Groups project* carried out by the Slovene Ethnographic Museum:

«Participants' opinions revealed that guided tours with a deaf guide were more efficient than guided tours with an interpreter. Deaf visitors found it easier to follow a deaf guide who was familiar with their needs and culture, allowing them more time to talk and to see the exhibition; in addition, there was no unnecessary communication gap between the curator and interpreter.» (Valič *et al*, 2015, p. 113).

Finally, one of the most stimulating initiatives of the Education Department is the organisation of a Summer School dedicated to the issues of accessible culture. Launched in 2012 thanks to the experience and expertise of ZonArte and the support of the Fondazione per l'Arte Moderna e Contemporanea CRT, the project is open to students, teachers, children, families, cultural operators and, in general, anyone interested regardless of their age. The school offers sessions on theatre, visual arts, music, and dance, in close contact with the works belonging to the Museum collection, as well as a series of leisure activities (Castello di Rivoli, n.d.; Grassini *et al.,* 2018).

Doppio Senso. Percorsi tattili alla Collezione Peggy Guggenheim is another very interesting project, launched in 2015 and curated by Valeria Bottalico, researcher and educator in the field of museum accessibility and member of the International Council of Museums (ICOM). The aim of the project is, on the one hand, to foster the circulation of modern and contemporary art, and, on the other, to encourage the growth of the museum community by attracting more and more citizens. On a monthly basis, an entire day is dedicated to the touch tours of the collection (a Saturday for adults and Sunday for children). The tour is guided by Bottalico herself and based on the in-depth analysis of an artist or a cultural trend. Following the touch tours, there is a series of laboratory

activities carried out by the blind sculptor Felice Tagliaferri in order to further impress in the mind the image of the artwork experienced (Peggy Guggenheim Collection, 2019).

Another noteworthy initiative is the *Videoguida LIS project*, winner of the first prize of the 2016/2017 national competition "Turismi accessibili – Giornalisti, Comunicatori e Pubblicitari superano le barriere", organised by the non-profit Diritti Diretti. The project consisted in the implementation of a platform that can be accessed through different devices (tablets, smartphones, etc.) or online as a web app, and that allows any museum to include a video guide in the Italian Sign Language among its informative materials. Having already underlined how important it is for deaf people to be able to access contents through the sign language, the relevance of this project is evident. As of today, the museums providing this platform in Italy are the Reggia di Caserta, the Museo Archeologico Nazionale di Reggio Calabria, the Museo Civico Mondragone, the Palazzo Nieddu del Rio, and the Parco Archeologico ArcheoDeri. The video guide was developed and implemented by digi.Art Servizi digitali per l'Arte e i Beni Culturali, in partnership with the Italian National Agency for the Deaf (Videoguida LIS, n.d.; digi.Art Servizi digitali per l'Arte, n.d.; IlLametino.it, 14/04/2017).

The *Musei SuperAbili project* was launched thanks to the collaboration between the cultural association Prisma and the non-profit HandySuperAbile. It involved the parks, monuments and museums belonging to the Musei della Maremma Network, distributed in 19 municipalities of the region Toscana. The activity of the project consisted of a series of on-site inspections aimed at verifying the actual level of reception and accessibility of the museums in the Maremma area. The inspections were made by professionals and experts, who produced a series of accurate reports which will constitute the starting point of accessibility interventions in the future. Within the activities of the project there was also the organisation of a training course on accessibility and on the tools and communication systems to welcome disabled visitors aimed at the directors and operators of the museums. Finally, some tactile reproductions of the Tavoletta di Marsiliana were created through 3D modelling to give a practical example of the topics addressed during the course (Handy Superabile Associazione Onlus, n.d.; Prisma Cultura, n.d.).

A series of similar projects, with the support of the Italian Ministry of Cultural Heritage and Activities (MiBACT), has been taking place in the city of Rome. In fact, Roma Capitale, Assessorato alla Crescita culturale – Sovrintendenza Capitolina ai Beni Culturali, together with Zètema Progetto Cultura, organised a series of initiatives (including tactile tours) and training activities aimed at removing physical and sensorial barriers in the Museum System run by Rome City Council, within the project *Musei da toccare*. One of

273

the first initiatives is Art For the Blind, a pilot project implemented at the Museo dell'Ara Pacis by and for visually impaired people, which consists of a multisensory experience granted by the innovative technology of a sensory ring connected to the artwork through sensors, which plays the audio description when activated by the touch. Other devices are: braille descriptions of the artworks and/or the replicas; a tablet playing anecdotes and stories connected with the artwork; a thermoform, which is a tactile map containing information on possible physical barriers and on the location of the artworks, allowing users to move around autonomously. Other partners of the project are Antenna – Connecting the world to culture, Tooteko – Talking tactile and SIFI. Launched in 2015, the project *Musei da toccare* involves four museums of the System: the Museum of Contemporary Art of Rome (MACRO), the Museo di Roma, the Galleria d'Arte Moderna, and the Museo Napoleonico. The project consists in the realization of tactile tours and training activities, organised with the collaboration of the Sovrintendenza Capitolina ai Beni Culturali, the Museo Tattile Statale Omero and the Istituto Statale per Sordi di Roma. In 2016, more than 50 sensorial tours involving adults and children took place. This confirmed the success and sustainability of the project, which is going to offer more services and activities and to be extended to other museums, such as the museum of the Centrale Montemartini. Concerning the Museum of Contemporary Art of Rome (MACRO), a multisensory room has been installed and offers a permanent collection integrated with descriptive panels translated in LIS. The creation of the room was made possible by the collaboration of the MACRO with the blind sculptor Felice Tagliaferri and three professors of the Accademia di Belle Arti of Rome: Gabriella Bernardini, Nicoletta Agostini and Cecilia Casorati. A similar experience can be made at the Capitoline Museums, where a series of typhlological tools (reproductions of sculptures, tactile panels, braille books among others) allow users to experience the collection. Moreover, the Museums actively cooperate with the Museo Tattile Statale Omero, the Roman Institute for the Deaf and the Italian Union of Blind and Partially Sighted People. A permanent tactile tour is also available at the Museum of Trajan's Market. Other museums of the network which took part in the project are the Museo Carlo Bilotti, the Museo di Roma Palazzo Braschi, the Galleria d'Arte Moderna, the Museo Napoleonico, the Museo del Casino Nobile, the Museo della Casina delle Civette, the Museo della Scultura Antica Giovanni Barracco, the Museo di Casal de' Pazzi, and the Museo della Repubblica Romana e della Memoria Garibaldina (L'Arte ti accoglie: progetti di accessibilità nei musei civici di Roma, 2017).

Finally, in occasion of the European Year of Cultural Heritage 2018, the Archaelogical Park of Pompeii and the Municipality of Pompeii, with the collaboration of the Ministry of Cultural Heritage and Activities and Tourusm,

launched the project *Pompeii for All. Accessibility of Archaeological Sites*. The project seeks «to tackle the topic of accessibility for people with motor, sensory and cognitive disabilities, as well as the theme of inclusion, in order to give everyone the opportunity and right to be citizens in all respects, without any kind of distinction» (Pompeii, n.d.). An accessible itinerary throughout the park, including the House of the Geometric Mosaics with the Courtyard of the Moray Eels, was presented, together with an experimental system of "ConMe" bracelets aimed at ensuring the safety and security of the visitors (Pompeii, n.d.).

Conclusions

This work sought to give a preliminary overview of some projects and initiatives implemented in Europe and, more specifically, in Italy in relation to accessibility to cultural heritage in all its forms: sensory, physical and cognitive. A keen interest in finding solutions to allow all citizens to access culture freely emerged, despite, at least on a European level, most of the projects dedicated to cultural heritage focus on its preservation only, leaving the valorisation apart. Nevertheless, it was possible to pick out many positive examples of good practice on several levels: first of all, many of the projects mentioned in this article involve a participatory approach in the decision making processes concerning accessible solutions and practices to be implemented. It is the case of the *ARCHES project*, for example, which involved people with different types of impairment in the same working groups in order to gain a more comprehensive and inclusive approach; similarly, the *SWITCH project*, the *EMEE project* and the *Accessibility to Cultural Heritage to Vulnerable Groups project* adopted a participatory approach. On the other hand, there was also the case of projects limited to a specific impairment, such as blindness and low vision in the case of the *AMBAVis project,* or deafness in the *Videoguida LIS project*, which do not entirely fit in the universal design approach, being dedicated to a specific category of people, but are still important in that they provide solutions that can be integrated with other accessibility strategies.

An aspect that has emerged during the research is the fact that very often not having physical barriers is sufficient for a museum or heritage site to be considered accessible. Despite physical accessibility is undoubtedly one of the basic prerogatives of an accessible museum, it is not the only condition to be satisfied for it to be truly open to all. In fact, people with sensory disabilities need a series of interventions which are generally non invasive and can fit within the environment of the museum without altering its atmosphere. It was

interesting to note that in the last decade many projects have been launched to address the problems encountered by people with sensory disabilities wishing to visit museums and other places of culture. Some positive examples in this direction are the *Musei da Toccare project* in Rome, or the *Greenways For All project* and the *Pompeii for All project*, among others. Therefore, it is noteworthy that, at least on a design level, the tendency of reducing the concept of accessibility to physical access to buildings is slowly making space to a more comprehensive and inclusive practice which takes into account the needs of all individuals.

Another interesting aspect to be considered is an improved sensibility on the matters of education and training of the staff working in heritage sites. The most interesting outcomes, in this direction, were the ones of the *TANDEM project* and, most importantly, of the *Accessibility to Cultural Heritage to Vulnerable Groups project,* which provided training courses not only to the existing staff, but to persons with disability, who were thus given a chance to be involved and integrated in the professional field.

In conclusion, these best practices have not yet been deeply examined at an academic level but they can open new opportunities and ways for educational research in this field of studies, which is still confined to a niche within the context of research on the cultural heritage. Even though much has been achieved on a European and national level, there is still a lot that could be said and, most of all, done at the local level: in fact, there are huge differences, especially in Italy, from a region to another one. For these reasons, it is extremely important to keep the discussion on accessibility and inclusion alive.

References

Carrara E. (2014). Verso un museo inclusivo: presupposti e prospettive in risposta al cambiamento sociale. *Il Capitale Culturale. Studies on the Value of Cultural Heritage*, IX: 169-188.

Dodd J., & Sandell R. (2001). *Including museums: perspectives on museums, galleries and social inclusion*. Leicester: RCMG.

Giaconi C. (2016). *Qualità della vita e adulti con disabilità: percorsi di ricerca e prospettive inclusive*. Milano: FrancoAngeli.

Grassini A. (2015). *Per un'estetica della tattilità: ma esistono davvero arti visive?* Roma: Armando.

Grassini A., Sòcrati A., & Taratti A. (2018). *L'arte contemporanea e la scoperta dei valori della tattilità*. Roma: Armando.

Keaney E., & Institute for Public Policy Research (London E). (2006). *From access to participation: cultural policy and civil renewal*. London: IPPR.

Marras A. M., Messina M. G., Mureddu D., & Romoli E. (2016). A Case Study of an Inclusive Museum: The National Archaeological Museum of Cagliari Becomes "Liquid". In K. J. Borowiecki, N. Forbes, & A. Fresa (A c. Di). *Cultural Heritage in a Changing World* (pagg. 99-109). Doi: 10.1007/978-3-319-29544-2_6.

Michopoulou E., Darcy S., Ambrose I., & Buhalis D. (2015). Accessible tourism futures: the world we dream to live in and the opportunities we hope to have. *Journal of Tourism Futures*, 1(3): 179-188. Doi: 10.1108/JTF-08-2015-0043.

Mitsche N., Vogt F., Knox D., Cooper I., Lombardi P., & Ciaffi D. (2013). Intangibles: enhancing access to cities' cultural heritage through interpretation. *International Journal of Culture, Tourism and Hospitality Research*, 7(1): 68-77. Doi: 10.1108/17506181311301381.

Montani R. (2013). Un museo per tutti è per ciascuno. Verso una cultura museale inclusiva a partire dai documenti internazionali sui diritti umani. *Museologia Scientifica e Memorie*, (10): 83-87.

Montella M. (2003). Musei e beni culturali: verso un modello di governance. In *Electa per le belle arti*. Milano: Electa.

Montella M. (2009a). Il capitale culturale. In *EUM x Beni culturali*. Macerata: Eum.

Montella M. (2009b). Valore e valorizzazione del patrimonio culturale storico. In *Electa per le belle arti*. Milano: Electa.

Mouga Po-cas Santos M. da G. (A c. Di). (2010). *Turismo cultural, territórios e identidades*. Porto: Afrontamento : CIID.

Muscarà M. (2007). Scuola, memoria, oblio e identità culturale in Sicilia. In *Linguaggi dell'educazione e paradigmi possibili in pedagogia:* Convegno Università Kore : Enna, 16-17 maggio 2007 (pagg. 65-76). Troina: Città aperta.

Naniopoulos A., & Tsalis P. (2015). A methodology for facing the accessibility of monuments developed and realised in Thessaloniki, Greece. *Journal of Tourism Futures*, 1(3): 240-253. Doi: 10.1108/JTF-03-2015-0007.

Naniopoulos A., Tsalis P., Papanikolaou E., Kalliagra A., & Kourmpeti C. (2015). Accessibility improvement interventions realised in Byzantine monuments of Thessaloniki, Greece. *Journal of Tourism Futures*, 1(3): 254-268. Doi: 10.1108/JTF-03-2015-0008.

Neves J. (2010). Museus Acessíveis... Museus Para Todos? In *Turismo cultural, territorios e identidades* (pagg. 107-121). Porto, Afrontamento: Instituto Politécnico de Leiria.

Neves J. (2018). Cultures of accessibility. Translation making cultural heritage in museums accessible to people of all abilities. In *Routledge handbooks in translation and interpreting studies*. *The Routledge handbook of translation and culture* (pagg. 415-430). New York, NY: Routledge.

Papadimitriou N., Plati M., Markou E., & Catapoti D. (2016). Identifying Accessibility Barriers in Heritage Museums: Conceptual Challenges in a Period of Change. *Museum International*, 68(3-4): 33-47. Doi: 10.1111/muse.12134.

Persson H., Åhman H., Yngling A. A., & Gulliksen J. (2015). Universal design, inclusive design, accessible design, design for all: different concepts – one goal? On the concept of accessibility – historical, methodological and philosophical

aspects. *Universal Access in the Information Society*, 14(4): 505-526. Doi: 10.1007/s10209-014-0358-z.

Ragusa A. (2015). Persone disabili e accessibilità: il progetto A.D. Arte per i musei statali. *Educare.it*, 15(12): 172-175. Recuperato da https://www.educare.it/j/attachments/article/3183/2015_pp.172-175_Ragusa_Persone%20disabili%20e%20accessibilità%20ai%20musei.pdf.

Rovidotti T. (2004). Multisensorialità come chiave di accesso al Museo per persone con limitazione visiva. *Tifologia per l'Integrazione*, (4): 258-265.

Sarraf V. P., & Bruno M. C. O. (2015). Cultural Heritage, Participation and Access. *Museum International*, 65(1-4): 93-105. Doi: 10.1111/muse.12031.

Sarraf V. P., & Bruno M. C. O. (2017). Accessible curatorship: exhibition development based on relationships with different audiences. *The Museum Review*, 2(1). Doi: 10.33139/tmr.v2i1.7.

Schumann J., Popp S., Mayer-Simmet O., Schilling S., & Wolf D. (2016). *The EU project «Museums exhibit in Europe» (EEME): ideas, results, oulooks*. Wien: edition mono.

Sørmoen O., Arenghi A., & Garofolo I. (2016). *Accessibility as a key enabling knowledge for enhancement of cultural Heritage*. Milano: FrancoAngeli.

Terlizzi V., Imperiale F., & Signore G. M. (2015). Musei inclusivi. L'audiodescrizione come esperienza partecipata. *DiCeT: Living Lab Di Cultura e Tecnologia. Il progetto formativo*, pp. 126-131.

Trescher H., & Habil P. (2018). Accessibility for People with Cognitive Disabilities: An International Literature Review and Empirical Interview Study. *Journal of Education & Social Policy*, 5(3). Doi: 10.30845/jesp.v5n3p7.

Troyer V. D., Rynck P. D., & Castelli G. P. (2005). *Patrimonio culturale in classe: manuale pratico per gli insegnanti*. Antwerpen, Apeldoorn: Garant.

Valič U., Palaić T., Kotnik B., Pavlica I., & Turk T. (2015). *Accessibility of cultural heritage to vulnerable groups: study on the availability and provision of technical conditions to provide vulnerable groups with access to cultural heritage*. Ljubljana: Slovene Ethnographic Museum.

Websites

Access to museums for blind and visually impaired people through 3D technology: https://www.ambavis.eu (last accessed 05/04/2019)

Accessibilità al patrimonio culturale statale: http://musei.beniculturali.it/progetti/ad-arte (last accessed 05/04/2019)

A.D. Arte: http://www.accessibilitamusei.beniculturali.it (last accessed 05/04/2019)

Arches: https://www.reach-culture.eu/open-heritage-eu (last accessed 05/04/2019)

Arte per Tutti – Poiesis: http://www.poiesis.it/artepertutti/progetto/ (last accessed 05/04/2019)

Artecontacto: https://artecontacto.wordpress.com (last accessed 05/04/2019)

British Council – Disability Arts International: http://www.disabilityartsinternational.org/about-us/ (last accessed 05/04/2019)

CARE – Accessible Cities of European Regions: https://www.interreg-care.org/progetto.htm (last accessed 05/04/2019)

Castello di Rivoli: https://www.castellodirivoli.org/en/educazione/ (last accessed 05/04/2019)

CultureLab: https://culturelab.be (last accessed 05/04/2019)

DigiArt: http://digiart-project.eu (last accessed 05/04/2019)

Digi.Art servizi digitali per l'Arte: http://digi-art.it (last accessed 05/04/2019)

Easy Reading: https://www.easyreading.eu (last accessed 05/04/2019)

Edsa – European Down Syndrome Association: http://www.edsa.eu/european-day-of-persons-with-disabilities-2018/ (last accessed 05/04/2019)

EU Disability Card: https://ec.europa.eu/social/main.jsp?catId=1139&langId=en (last accessed 05/04/2019)

Europa Nostra: http://www.europanostra.org (last accessed 05/04/2019)

European Commission – Employment, Social Affairs and Inclusion: https://ec.europa.eu/social/main.jsp?catId=1139&langId=en (last accessed 05/04/2019)

European Day of Persons with Disabilities: https://ec.europa.eu/social/main.jsp?catId=88&furtherEvents=yes&eventsId=1352&langId=en (last accessed 05/04/2019)

European Year of Cultural Heritage: https://europa.eu/cultural-heritage/about_en (last accessed 05/04/2019)

EuroVision – Museums Exhibiting Europe: https://www.museums-exhibiting-europe.de/project/emee-consortium/ (last accessed 05/04/2019)

Google Art Project: https://www.maxxi.art/en/google-art-project/ (last accessed 05/04/2019)

Greenways 4ALL: http://greenways4all.org/project/ (last accessed 05/04/2019)

Handy Superabile Associazione Onlus: http://www.handysuperabile.org/progetto-musei-superabili-accessibilita-nei-musei-della-maremma/ (last accessed 05/04/2019)

Il Lametino.it: http://www.lametino.it/Ultimora/marrc-concorso-turismi-accessibili-primo-posto-a-video-guida-lis-per-il-superamento-delle-barriere-percettive.html (last accessed 05/04/2019)

Interreg Central Europe: https://www.interreg-central.eu/Content.Node/COME-IN.html (last accessed 05/04/2019)

L'Arte ti accoglie: progetti di accessibilità nei musei civici di Roma: https://www.beniculturali.it/mibac/export/MiBAC/sito-MiBAC/Contenuti/MibacUnif/Comunicati/visualizza_asset.html_1493216720.html (last accessed 05/04/2019)

League of Historical Accessible Cities: http://www.lhac.eu (last accessed 05/04/2019)

Maxxi – Museo nazionale delle arti del XXI secolo: https://www.maxxi.art/en/ (last accessed 05/04/2019)

Ministero dei Beni e delle Attività Culturali e del Turismo: http://www.valorizzazione.beniculturali.it/it/progetti-e-interventi-2/accessibilita-e-fruizione-del-patrimonio-culturale.html (last accessed 05/04/2019)

Ministero per I Beni e le Attività Culturali - Direzione Generale Musei: http://musei.beniculturali.it/progetti/ad-arte (last accessed 05/04/2019)

Musei in Comune – Roma: http://www.museiincomuneroma.it/en/musei_in_comune/il_sistema_museale (last accessed 05/04/2019)

Museo Omero: http://www.museoomero.it/main?pp=museo&idLang=3 (last accessed 05/04/2019)

Museo Tattile Anteros: https://www.cavazza.it/drupal/it/museoanteros (last accessed 05/04/2019)

Museums.ch: https://www.museums.ch/fr/publications/standards/accessibilite.html (last accessed 05/04/2019)

NEMO - Network of European Museum Organisations: https://www.ne-mo.org (last accessed 05/04/2019)

Open-Heritage: https://www.reach-culture.eu/open-heritage-eu (last accessed 05/04/2019)

Peggy Guggenheim Collection: http://www.guggenheim-venice.it/doppio-senso/percorsi-tattili.html (last accessed 05/04/2019)

Pompeii: http://pompeiisites.org/en/projects/day-of-disability/ (last accessed 05/04/2019)

Prisma Cultura: https://www.prisma-cultura.it/progetto-musei-superabili/ (last accessed 05/04/2019)

Prospelasis: http://www.prospelasis.com/en/project/subject-objectives (last accessed 05/04/2019)

Reach: https://www.reach-culture.eu/project (last accessed 05/04/2019)

Swich – Sharing a World of Inclusion, Creativity and Heritage: http://www.swich-project.eu (last accessed 05/04/2019)

Tandem: https://www.tandem-eu.com (last accessed 05/04/2019)

Valorizzare il patrimonio: http://www.valorizzazione.beniculturali.it/it/valorizzazione-del-patrimonio-culturale-statale-2.html (last accessed 05/04/2019)

Videoguida LIS: http://www.videoguidalis.it/#servizio (last accessed 05/04/2019)

Vita International: http://www.vitainternational.media/en/article/2016/11/30/chester-wins-the-access-city-award-2017/625/ (last accessed 05/04/2019)

W3C Web Accessibility Initiative WAI: https://www.w3.org/WAI/DEV/ (last accessed 05/04/2019)

Zero Project: https://zeroproject.org (last accessed 05/04/2019)