
List of Editors and Contributors

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Contributors

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Trilce Navarrete is specialist in the economic and historic aspects of digital heritage. Her work merges theories of economics, heritage and information science to support understanding of digital heritage production, distribution and consumption. She has contributed to the creation of the European statistics for digital heritage (ENUMERATE) and has served as adviser for the creation and evaluation of (national) digital infrastructures. Her research has been driven by an interest to understand the processes involved in the (re)use of heritage materials and their role in the transfer of knowledge across time.

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Section 1: Introduction

It is axiomatic that every age in the course of history experiences change to a greater or lesser extent. In the twenty-first century, however, it hardly seems an exaggeration to suggest that the world faces epochal changes which affect every part of society, including the arenas in which cultural heritage is made, held, collected, curated and exhibited or simply exists. It is the intention of this book to reflect critically on the relationship between cultural heritage and the impact of these changes, whether they be economic, social, demographic, technological, cultural or in fact a complex intertwining of multiple forces. Further, in this context of a set of dynamic influences that are moulding change at a rapid pace, this study contends that cultural heritage has a particularly important role to play.

Broadly defined, cultural heritage encompasses the extraordinarily rich and valuable tangible objects and materials in the collections of cultural institutions; the heritage represented in landscapes and in the built environment; and also intangible, living heritage such as customs and traditions. Heritage may be mediated through, for example, the exercise of institutional practice or it may be unmediated in nature, as is the case with traditional practices carried out day by day.

Cultural heritage has enormous potential in terms of its contribution to improving the quality of life for people, understanding the past, assisting territorial cohesion, driving economic growth, opening up employment opportunities and supporting wider developments such as improvements in education and in artistic careers. Given that spectrum of possible benefits to society, the central purpose of this collection of essays is to make a creative addition to the debates surrounding the cultural heritage domain in general; the range of studies that follow here are intended to be a resource and stimulus to help inform not just professionals in the sector but all those with an interest in cultural heritage.

In a world that appears to be characterised both by difficult, and sometimes threatening, change and by great opportunities for development, one element stands out: the digital factor. While digital technologies and digital applications are profoundly influencing and shaping the environment of change in contemporary society, they also open the way to new, distributed, ways of working, communicating and investigating new products and services in the cultural heritage sector, as in other sectors.

Fundamental change of this kind necessitates the recalibration of the relationship between institutional, cultural heritage practices and individuals. The application of digital technologies to the different forms of transmission of heritage demonstrates enormous benefits in terms of effectiveness, cost reduction, visibility and social, cultural and educational inclusion. But the use of any technology always gives rise to very real challenges: these need to be recognised, understood and managed by all involved in heritage-related work. More and more people are, for example, assuming the role of archivists and work with their own collections of cultural content and thus have a stake in how cultural content is made available; immediate access, reuse and reproducibility are more important to them than sustaining access to the more static and stable records of the past. The ease of transmission and reproduction also helps to open up a new marketplace for content providers, including cultural institutions, to create new opportunities for the enjoyment and consumption of cultural heritage. Yet, at the same time, there is a looming tension: because of a lack of custodianship based on the traditional methods of archiving, there is the risk that digital cultural heritage may be mislaid, lost or be rendered irretrievable.

During their long history of interacting with objects and visitors, cultural institutions open to the public—museums and galleries, libraries and archives—have undergone many stages of reinventing their function and role in society. The museum's crucial role as a keeper of cultural heritage and a location for hands-on, instructional learning is generally recognised. But views on the museum's role have altered significantly since the nineteenth century: as society has changed, the role of the museum in society has been in motion as well. Most museums started out by preserving cultural (historical) knowledge, building on the object as a container of cultural information, and as a result, museum collections have inevitably become the cumulative result of past collection policies and past managerial decisions. In recent decades, however, museums have been transforming themselves from rather exclusive, dusty and dark spaces to strong community anchors that strive for inclusivity to enhance civic engagement, cultural opportunities and economic vitality. Museums have come to realise that they are not merely keepers of cultural heritage, nor are they solely places of learning where the public comes to be educated and learns from a voice of authority. The traditional division of roles between supplier and customer, as well as between citizen and government, is changing. New technologies make it possible for members of the public to express themselves and to be linked one to another. Current generations of visitors want to take part and to contribute actively to what goes on inside museums and are less inclined than previous ones to play a passive role in this respect. The percentage of 'prosumers', or consumers who are co-producing, is rising. Museums seek to be bridges between cultures and instruments of societal transformation, both forgers of new futures and society's storehouse of memories (Saldanha 2008). To do so, museums need to explore ways to connect to a greater variety of stakeholders.

Ever-evolving and increasingly powerful information technologies have fundamentally changed the nature of global relationships and have turned the world of the twenty-first century into an increasingly interconnected network of individuals,

subcultures, groups and governments. The pace at which such multivarious cultural institutions are making their collections of cultural heritage accessible online through open access is accelerating. Similarly, projects like *Europeana* have taken these efforts to a new level, and millions of objects are being made accessible for the world to enjoy. Nonetheless, merely placing collections online in their entirety does not necessarily help to make connections with and between diverse user communities. New tools are required, therefore, that will allow for the sharing of curatorial authority.

For the museum sector to truly assume its role as an instrument for achieving social cohesion and inspiring global cultural competence, its praxis needs to revolve around facilitating co-creative knowledge production. Analytical frameworks based on multivocal, multi-methodological approaches offer a way to greater cultural enrichment—new museological vocabularies and grammar in order to facilitate connections with a range of audiences and enable museums to take on their roles as catalysts of social change.

Libraries, too, have been strongly influenced by societal changes and the advent of digital technologies. Essential resources for information retrieval, they must provide highly effective services of good quality. Central to this and to the development of services which are able to adapt to different user demands, and hence to the expansion of the user base, is a full understanding of the needs and characteristics of all potential readers. If libraries are to respond with customised services, the relationship between individuals, the information required and related behaviours must all be evaluated. While digital technologies offer enormous opportunities for the growth and sustainability of libraries, some degree of foresight in planning skills development for specialist staff who are able to take advantage of innovations in infrastructure is also required (Fresa 2013).

The emergence of new media technologies and associated social networks has driven a massive transfer of expressive power towards young people. The authors of *Video Republic* argue that this matters for the mainstream media, decision-makers and other institutions because it offers a new place to debate, a new basis for citizenship and a new model of change (Hannon et al. 2008). People have always wanted to tell stories about their experiences and to connect to shared meaning and values. Under the influence of new technologies and with the availability of tools for (collaborative) media creation, the possibilities for the public to capture and access collected information, to express themselves and voice opinions, have drastically increased.

Though the relation of such informal and dynamic processes that happen ‘now’ to future developments is yet unclear, it seems obvious that the construction of living media and its connection to the notion of future heritage is happening mostly outside the walls of heritage institutions. The possibilities new technology offers for co-creation, transmedia storytelling (or better yet story creation) and user engagement open up new areas of participation—that people see themselves and their experiences as part of history rather than as mere observers of it. Citizens may then better understand their own role in the creation of civil society and see this reflected in their own representation in media and cultural institutions while on the other

hand facilitating cultural institutions with tools or models on how the anthropologic aspects of new media can be utilised to integrate museums and other forms of curated heritage, such as historic gardens, more effectively into the daily context of society.

This book also aims to encourage reflection on the transmission of cultural heritage and people's sense of individual and collective identity and belonging. For example, measures of wellbeing and life satisfaction show that feeling part of a community and having good social relationships is important. Conversely, not having a sense of shared cultural heritage can lead to a sense of 'cultural homelessness' (Navarrete and Jenkins 2011). A sense of shared heritage is very often expressed through relationships to particular locations. Places and identities are often experienced or remembered as stable and unchanging, but a close examination of the geographies and histories of place reveals the apparent stability to be a product of processes which attempt to 'fix' particular identities to places through the construction of stories, or what has been described as 'geographical knowledges' (Cook and Crang 1996). These can emerge organically or can be constructed for particular purposes which could include political projects to establish collective identities (such as nation states or the European Union) or commercial projects to add value to commodities by creating distinction in the marketplace (such as the creation of markets for 'authentic', 'traditional' or 'ethnic' foods).

Recognising that 'place identities' are forged and reforged through the interplay of numerous human and non-human agents is not to deny how important place identities are to people: they can be a significant well-spring of resources from which individuals or groups develop a sense of self-identity. For many people, a sense of belonging to a particular place—or of being displaced through exile or migration—is a crucial part of how they understand who they are. For others, a feeling of not belonging, and not having a 'home place', can be equally important in shaping their sense of self. The digital transmission of cultural heritage can contribute to sense of place and social and territorial cohesion through enabling access to—and ownership of—shared cultural resources.

The cultural heritage sector is also witnessing an increasing level of explorations in the virtual world—the interplay of digital technology, virtual spaces and material and embodied experiences of place (Affleck and Kvan 2008). Virtual environments have allowed for the development of new forms of art and interaction. Performances are increasingly moving into unconventional spaces and simultaneously using digital technologies to devise new methods to document the 'live' as well as creating new tools to increase audience engagement in and enjoyment of events by exposing something of the artist at work.

The creation and production of cultural artefacts and the distribution and consumption of cultural heritage are closely related not just to issues around the use of digital technologies but also to questions of fiscal and economic policy, such as the effect of taxes and subsidies that operate at the national level (O'Hagan 2011). According to Ray, the culture economy can be seen as an attempt to '(re)valorize place' and 'localize economic control' through the commodification of resources such as traditional foods, regional languages, crafts, folklore, landscape systems

and so on (Ray 1998). Many of these resources depend on the continuation of traditional, artisan skills, such as the production of speciality foods or crafts. These in turn often draw on localised knowledge which has been transmitted over generations. Such resources, and the skills and knowledge required to maintain them, contribute to the construction of distinctive place identities which can be used in tourism and other place-based development strategies.

The emergence of digital technologies can present both threats and opportunities for place-based development, social and territorial cohesiveness and economic development. For example, given that digital technologies operate to construct ‘virtual’ territories and environments, they can contribute to the commodification and exploitation of cultural heritage resources for the purpose of local economic development. This may give rise to issues around the ownership and control of heritage resources: the cultural economy emphasises local ownership and control by communities, but the impact of digital technologies focuses debate on the nature of ownership and how to support distinctive connections between products and places. Cultural economic policy must therefore take account of the need to be both efficient in fiscal terms and also sensitive to developments in how cultural heritage is produced and consumed.

Similarly, at a time of considerable economic and social transition across the world, the cultural heritage of specialised knowledge and skills associated with hand-making and manufacture deserves to receive greater attention. One of the major problems currently associated with the heritage of advanced manual skills embedded in the craft-related manufacturing sector is that knowledge about them is generally fragmented. More should be done to quantify directly their overall economic significance, document their varied contribution or trace their historic and cultural origins.

The international community comprises legal entities characterised as states, but the identity of the population that lives within the boundaries of any one state is often far from homogeneous. Indeed, it is problematic even to speak of ‘community’ at the level of the nation state. Naturally, the power a state is able to exercise both within its borders and in the outside world rises and falls. In the aftermath of the First World War, aspirations of nationhood were given recognition as the legitimate right of groups who shared a common ethnic or linguistic identity to determine their own future. Yet, in addition to the majority population, various minority populations were also swept up within the borders of the newly created states. It is even possible to argue that Europe is witnessing the unwinding of the last stage of imperialism with the rise of nationalistic aspirations of regions or ‘countries’ within unitary states, such as the United Kingdom or Spain, that were, formerly, imperial powers.

The Western world proclaims its adherence to the universalism of a doctrine of inalienable human rights—a constitutional settlement enshrining, among other things, the principles of democratic governance, freedom from arbitrary arrest, equality before the law and religious tolerance. Where the concept of the nation state comes into conflict with such universalist principles is over the question of citizenship. In a technical, legal sense, those migrating to European countries may

become citizens but may identify themselves as belonging to a minority community or be identified as such by the established citizenry and, as a result, may experience a degree of exclusion from mainstream society.

The linkages between Europe's historical cultural and political influence overseas (constructive and destructive) are key factors in framing how issues of migration, identity, individual freedoms and conflict are perceived and responded to in the modern era of multicultural European societies. The means by which some of Europe's ethnic minority populations are influenced by Europe's history and self-perception imply that the framing of cultural heritage will, of necessity, continue to undergo change. Ambivalence about interpretations of heritage has significant implications for discussions on the political uses of heritage and who owns and experiences shared cultures, particularly in a modern European environment of contested identities and social tensions.

Legacies of conflict between and within countries, held consciously or unconsciously, help to explain the multiple identities contained within nation states. Societies' relationship with physical reminders of past conflicts is intrinsically dynamic, subject to perpetual reformulation by perpetually reformulated societies. The way this social landscape is perceived, engaged with and sometimes appropriated towards political ends changes over time. In the years following the Second World War, Western states have become increasingly heterogeneous not only because of ethnic diversity but also because societal structures can no longer be characterised so easily in terms of class and, for example, collectivism no longer commands support as a way to organise the economy.

In contemporary political discourse, it has become fashionable to refer to initiatives devolved to the local level as 'community-led'. Yet, frequently, it is the geographical or administrative unit which defines the community concerned, not demonstrable social cohesion. There continues to be considerable scholarly discussion on how heritage values can be defined and assessed and how methods of participatory governance might allow for a broad spectrum of views, including issues related to gender, to be taken into account in decision-making (Reading 2015; Smith 2008). As Rodney Harrison has suggested, cultural heritage is as an assemblage of things that we hold up as a mirror to the present, associated with a particular set of values that we wish to take with us to the future. He argues that 'dialogical models' of heritage decision-making provide a productive way to use uncertainty, with controversy and crisis foregrounded as the very crucibles within which the ideal collectives for decision-making are formed (Harrison 2013: 229–230).

The book is divided into four interrelated parts: context of change (Chapters 'Cultures and Technology: An Analysis of Some of the Changes in Progress—Digital, Global and Local Culture', 'Interdisciplinary Collaborations in the Creation of Digital Dance and Performance: A Critical Examination', 'Sound Archives Accessibility', 'Technology and Public Access to Cultural Heritage: The Italian Experience on IT for Public Historical Archives' and 'Copyright, Cultural Heritage and Photography: A Gordian Knot?'); mediated and unmediated heritage (Chapters 'A Case Study of an Inclusive Museum: The National Archaeological Museum of Cagliari Became "Liquid"', 'The Museum as Information Space: Metadata and

Documentation’ and ‘The Museum of Gamers: Unmediated Cultural Heritage Through Gaming’); co-creation and living heritage for social cohesion (Chapters ‘Change of Museums by Change of Perspective: Reflecting Experiences of Museum Development in the Context of “EuroVision—Museums Exhibiting Europe” (EU Culture Programme)’, ‘Technologies Lead to Adaptability and Lifelong Engagement with Culture Throughout the Cloud’, ‘The Place of Urban Cultural Heritage Festivals: The Case of London’s Notting Hill Carnival’, ‘Tools You Can Trust? Co-design in Community Heritage Work’ and ‘Crowdsourcing Culture: Challenges to Change’); and identity and belonging (Chapters ‘The Spanish Republican Exile: Identity, Belonging and Memory in the Digital World’ and ‘Growing Up in the “Digital” Age: Chinese Traditional Culture Is Coming Back in Digital Era’). The first part—context of change—begins with a chapter on the changes associated with the use of digital technologies in contemporary Western societies. The chapter reviews occurrences of recent past and what is happening in social and individual experiences today. Here, Mariella Combi begins the part by providing general reflections on the role of digital technologies in the past and present and discusses what questions, expectations and characteristics associated with digital technologies have interested scholars over time. The chapter further looks at the problem of people who were born after 1980, the so-called digital natives.

The second chapter, written by Sarah Whatley and Amalia G. Sabiescu, explores the convergence between performance-based cultural heritage and new technologies, with a focus on interdisciplinary collaborations in creation and making processes. These interdisciplinary work spaces present high potential for innovative art making, because they bring together deep knowledge of the arts and artistic sensibility with a sound understanding of technology languages and possibilities. At the same time, being situated at the confluence of different fields of practice and research dwelling on diverse epistemologies and approaches, interdisciplinary collaborations do more than configure new ways of making art. They contribute to synergies between arts and technology fields, marking places of cross-fertilisation, blurring boundaries and influencing the evolution of forms, theories and practices. Together, interdisciplinary artscapes and knowledgescapes contribute to opening up and pushing the boundaries of thinking and art making, reconsidering taken for granted assumptions and coming up with radically new art forms.

The third chapter addresses the impact of the computational era on web portals containing digital audio archives. Silvia Calamai, Veronique Ginouvès and Pier Marco Bertinetto characterise digital audio archives as the final outcome of several disciplines, from oral history to linguistics, from anthropology and ethnography to social sciences. The chapter presents the relationships between digital audio archives and intangible cultural heritage as well as describes case studies that shed some light on developing archiving and retrieval of data while also respecting the rights of others.

Across Europe many programmes have been carried out involving the use of digital technology to promote a larger access to cultural heritage. This has been through the collection of metadata on cultural products preserved in the country and

the provision of digital cultural products. In chapter four, Calogero Guccio, Marco Ferdinando Martorana, Isidoro Mazza and Ilde Rizzo analyse some of these programmes by assessing how digital technology is used to promote a larger access to cultural heritage in Europe. Investigating the production of cultural goods, use and valorisation of cultural heritage as well as the costs of preservation, the authors explore further how digitisation techniques and web infrastructures affect activities carried out by Italian public historical archives.

Chapter five explores the complexities of copyright as it applies to digital photography. Frederik Truyen and Charlotte Waelde refer to a project aimed at digitising photographic collections from museums, libraries, archives and photograph agencies and outline the challenges faced and what solutions have been suggested. The authors propose that cultural heritage institutions should consider their digitisation programmes by focusing on the human rights lens to culture and cultural rights, before asking how copyright may be used to meet strategic goals related to privacy protection, safeguarding authenticity of cultural heritage or protecting existing business models. While the suggested focus does not resolve all of the copyright conundrums that arise in this sector, it could help stakeholders to think differently about issues involved.

The second part—mediated and unmediated heritage—which begins with chapter ‘A Case Study of an Inclusive Museum: The National Archaeological Museum of Cagliari Became “Liquid”’, opens by presenting the experiences and outlining the main guidelines gathered during a project aimed at increasing museum accessibility, which was financed by the Italian Ministry for Cultural Heritage and Activities and Tourism and applied to the National Archaeological Museum of Cagliari. Anna Maria Marras, Maria Gerolama Messina, Donatella Mureddu and Elena Romoli outline the features of a ‘liquid museum’ by focusing on adaptability and inclusivity. The approach presented is replicable and also sustainable over time, both in terms of economic costs and for the technologies that it uses.

Although museums vary in nature and may have been founded for all sorts of reasons, central to all museum institutions are the collected objects. These objects are information carriers organised in a catalogue system. Chapter seven outlines the concept of a museum as an information space, consisting of an information system related to different methods of reasoning. Trilce Navarrete and John Mackenzie Owen discuss the new possibilities offered by digital technology and the changes brought about by the way in which visitors come into contact with objects. Their central claim is that the visitor is moved from being onsite within the museum’s information space to being outside the museum in the online information space of the Internet. This has fundamental implications for the institutional role of museums, our understanding of metadata and the methods of documentation. The onsite museum institution will, eventually, not be able to function as an institutional entity on the Internet, for in this new information, space, objects, collections and museums all function as independent components in a vast universe of data, side by side at everyone’s disposal at anytime, creating the future potential for users to access cultural heritage anytime, anywhere and anyhow.

In chapter eight, Serdar Aydin and Marc Aurel Schnabel present the concept of the Museum of Gamers, which sits at the convergence of contrasting realities. On the one hand, there is a cultural artefact that has a concrete value attached to its authenticity. On the other hand, its digital interpretation has its own systems of values. As information is now available everywhere, people expect new standards from museums that go beyond mere object exhibition accompanied by explanatory texts. The Museum of Gamers is a conceptual proposal not only for the dissemination of cultural heritage information but also for its production through contemporary media technologies.

In a changing Europe, museums need to adapt to become places where all members of society feel represented and are stakeholders in their cultural heritage. Part III—co-creation and living heritage for social cohesion—follows up these needs and begins with a chapter by Susanne Schilling on the museum development project ‘EuroVision—Museums Exhibiting Europe’. The chapter outlines a three-tiered concept framework which encourages multilayered meanings in museum objects to become more visible, aiming to renegotiate the roles of museum experts and visitors and to strengthen international networking between heritage institutions in order to broaden national perspectives on heritage and overcome Eurocentric views. Ideas as well as statements from the executive museum partners provide an insight on how the changes can be implemented in the museum work to contribute to presenting cultural heritage in a contemporary European way.

Cultural heritage represents one of the most important drivers for personal development, social cohesion and economic growth in Europe. Although the general population is aware of this fact, cultural heritage is still underexplored and cultural activities are not incorporated into citizens’ lifestyle. Technology offers a potential to increase awareness about cultural offerings and create a public engagement with culture. The current digital solutions adopted by cultural heritage institutions fail to achieve a lifelong engagement and thus do not support institutions in increasing the number of visitors and retaining them. In chapter ten, Silvia de los Rios Perez, Maria Fernanda Cabrera-Umpierrez, Maria Teresa Arredondo, Shanshan Jiang, Jacqueline Floch and Maria Eugenia Beltran illustrate how cloud-based technologies can be exploited to increase a cultural lifelong engagement. The cloud is used to support technologies that enable adaptive and personalised cultural experiences according to individuals’ interests, co-creation of cultural heritage experiences and active user contribution to social storytelling.

Chapter eleven moves towards a consideration of urban cultural heritage festivals and explores whether they become catalysts for the promotion of community and territorial cohesion, especially in an age of heightened diversity. In the midst of reduced inhibition, social mingling and jollification, urban cultural heritage festivals offer a space in which ideas of belonging and togetherness are embodied. Despite being mass gatherings where representations are virtual and somewhat fleeting, the intensity and intimacy of human interactions generated at events can initiate new social relationships, induce social equilibrium and create strong bonds. By building on the example of London’s Notting Hill Carnival, Europe’s largest street festival, Ernest Taylor and Moya Kneafsey explore how

the event promotes a sense of belonging and cohesion in an urban space, particularly among younger age groups in the community and among the festivalgoers.

Then in chapter twelve, Simon Popple and Daniel H. Mutibwa examine the role of co-design methods in relation to the recent Pararchive Project that took place at the University of Leeds. The chapter describes curatorial tools that were designed and tested by communities in conjunction with technology developers. Using co-design methods in combination with innovative storytelling workshops and creative technology labs, the chapter demonstrates the necessity of co-creation approaches to the problems of digital curation, democratic encounters with official culture and developing new partnerships able to consider the challenges of the digital archive. The project resulted in the creation of the new storytelling tool Yarn and offers a series of insights into co-creation methods, the role of institutional voice, concepts of democratisation of institutional culture and how to crowdsource public expertise.

In chapter thirteen, Dora Constantinidis highlights some of the challenges of engaging people with crowdsourcing cultural heritage and the requirement of designing appropriate engagement strategies. The need to crowdsource Afghan cultural heritage is considered given that it is currently facing many threats to its preservation for future generations. Constantinidis suggests that since the public can play a greater role in preserving their heritage, authoritative control is reconsidered and adapted to align with heritage that has been deemed important by people. Irrespective of these challenges, the opportunity to digitally preserve heritage should take precedence, especially in high-risk countries facing conflict and sociopolitical unrest.

Beginning with chapter fourteen, the fourth part, identity and belonging, provides an analysis of how the memory of exile grows through the Web and changes over time. In recent years there has been an increasing number of websites dedicated to providing information about the Spanish Republican exile. These are generally created by exile descendants' associations, research groups or private individuals. The recent growth of social networks, especially Twitter and Facebook, has simplified the exchange of this information and allowed the culture of the Republican exile to spread through the Internet and beyond, also influencing the scientific literature on this topic. Lidia Bocanegra Barbecho and Maurizio Toscano examine the channels of communication that have become places of identity and belonging for the exiles, creating and enhancing a culture that permeates not only communities interested in the subject but also people not directly linked to it. At the same time, the chapter aims to lay the foundations for the study of the memory of the exile in the digital domain.

Finally, chapter fifteen provides an important extension to our geographic focus, by exploring how going 'digital' has had a continuous impact on Chinese culture. After a period in which Chinese tradition and culture was undermined, and since the rapid economic development of the 1980s, the development of culture and education has not always equally kept pace. Situ Xiaochun outlines how the rebuilding of a culture and revival of traditions is desired and may be pursued through digital technology. From the perspective of his own personal journey, he shows how new

technologies let people understand tradition faster, enhance education and enable protection of cultural heritage. The chapter also investigates how Chinese artists work with the ‘digital’ and how Chinese people are experiencing the cultural changes of this digital era.

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