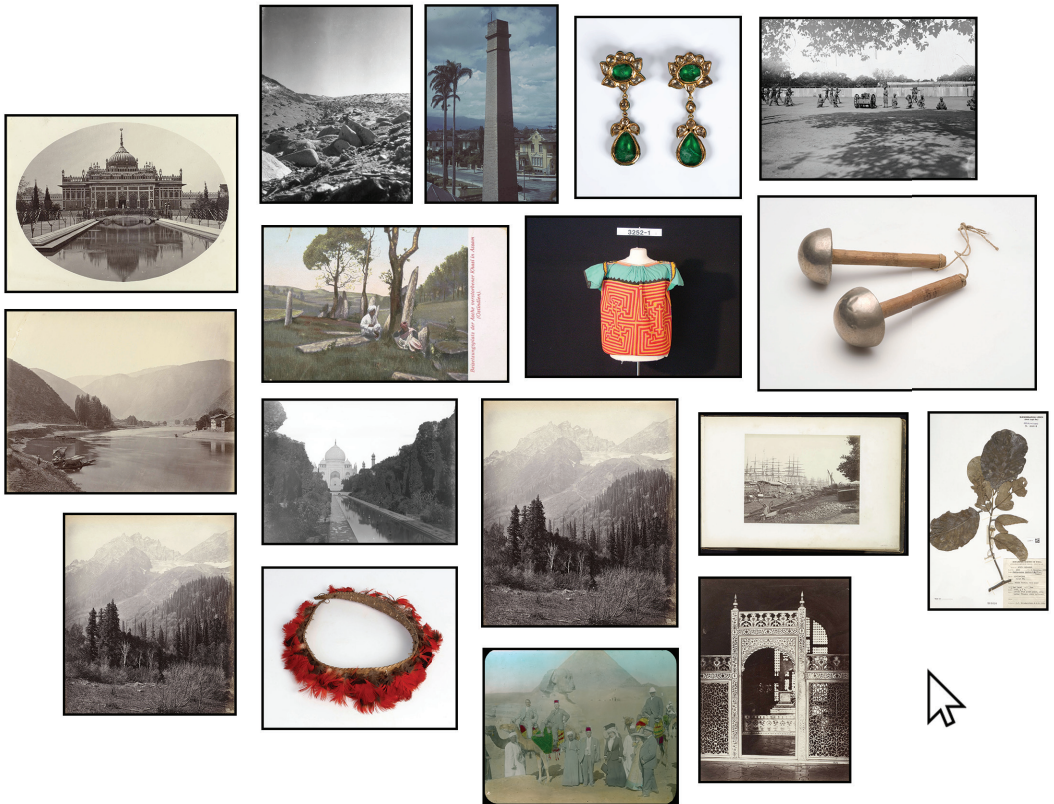


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Creating Online Access to  
Cultural Heritage

KATJA MÜLLER



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# Digital Archives and Collections

*Creating Online Access to Cultural Heritage*

Katja Müller



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# Abbreviations

1947PA	1947 Partition Archive
AAMHC	A:shiwi A:wan Museum and Heritage Center
AIC	Art Institute of Chicago
BMA	Basel Mission Archive
C-DAC	Centre for the Development of Advanced Computing
CIDOC CRM	The International Committee for Documentation's Conceptual Reference Model
CMS	Collection Management System
CSMVS	Chhatrapati Shivaji Maharaj Vastu Sangrahalaya
HCDC	Human-Centred Design and Computing Group
HCI	Human-Computer Interface
ICT	Information and Communication Technology
ICT4D	Information and Communication Technology for Development
IMP	Indian Memory Project
ISO	International Organization for Standardization
IT	Internet Technology
LAN	Local Area Network
LIDO	Lightweight Information Describing Objects

MAA	Cambridge Museum of Archaeology and Anthropology
NGMA	National Gallery of Modern Art
SLR	Single Lens Reflex
SNS	Social Network Sites
TRAI	Telecom Regulatory Authority of India
WOL	Weltkulturen Open Lab
XML	Extensible Markup Language



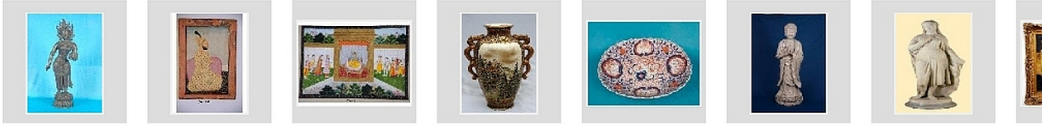


Museum

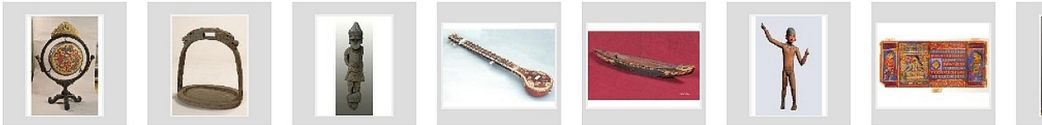
All Museums



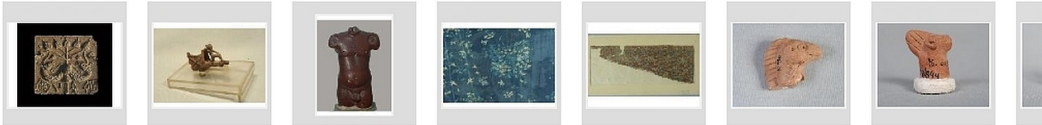
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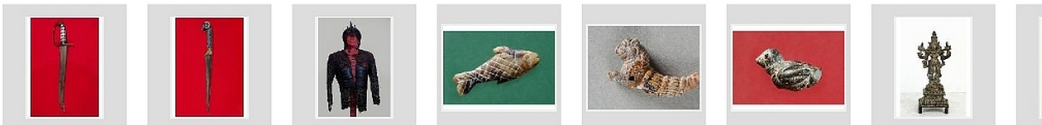
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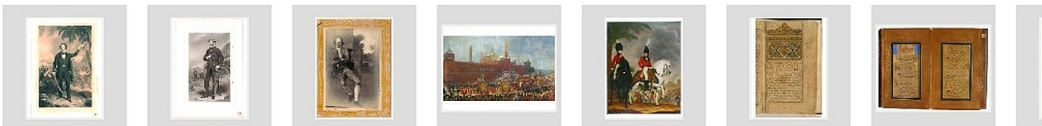
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# Introduction

Digitizing photographic archives and heritage collections has become a common phenomenon. Numerous databases have emerged in the last two decades that present objects and documents from the past in an ordered way, allowing their fast retrieval, usually in the form of a digital photograph or scan alongside metadata. One of the largest archives of historic Asian photography is the Alkazi Collection of Photography, comprising more than 100,000 photographs from nineteenth- and twentieth-century India, Sri Lanka, Burma and beyond. In a 2018 interview, Rahaab Allana, curator of the collection housed in New Delhi, said in response to the question of whether all the photographs of the collection were digitized:

It's true in one form or the other, the whole archive is digitized. There is someone in the office devoted to just doing that. Though we re-digitize material all the time, because when we have either a publication or an exhibition – which is quite common all the time throughout the year – we have to redo a lot of the work because it has to take various forms, naturally. And I think, as technology also changes, so are the formats that are available to us, so is the quality, so are the formats, which can increase the density of an image, increase the clarity, increase the dimensions, to which you can take it. Of course, we're thinking of using images in multimedia form. So augmented realities is something we're working on with another fora, with the photographs. Projecting heritage histories through apps is something that we're looking at as well, trying to develop our own app with the passage of time. Looking at two or three models for the development of these programmes. So naturally, digitization becomes essential to these processes. For reference purposes, the archive that has started in the 90s with people archiving it from them. Digital cameras

were very very simple. 1.2 Megapixels was considered a big thing. So you can't really zoom into those things. That means, all the work that was done between 1998 and 2006 has to be redone to a great extent. Because the technology was not available and now scholars and artists demand to see things up-close and literally into the photographs.

The Alkazi Collection's concept for digitization, and indeed Allana's answer, is paradigmatic for digitization in museums and archives. Digitization has become a given, albeit in different forms and for multiple reasons. It is a technology 'for reference purposes' that has been around for some decades. In the 1960s and 1970s, UK and US museums first adopted electronic infrastructure and connected databases for collection management, not without initial reluctance and the application of trial and error (Parry 2007). Subsequently, a new professionalism evolved that eventually led to databasing being an essential part of collection organization. In 2013, Ross Parry (2013: 24) even spoke of the 'postdigital' museum (referring to UK museums as examples), in which digital media has acquired a normative presence.

Allana alludes to the postdigital when talking about 'projecting history through apps' and other ideas for multimedia use, indicating that digital media have entered exhibition spaces. Digitizing collection artefacts becomes a prerequisite for everything from interactive tasks in exhibitions, to apps providing additional information for the visit, to virtual museums and digital art (Grau et al. 2017). Yet Allana also notes that they 're-digitize material all the time'. With digitization practically still going on, postdigital practices become difficult.

One reason for the Alkazi Collection's still ongoing digitization process is that 'technology also changes'. In contrast to digitization practices on the ground, academics have been arguing that debates about the merit and form of digitization are resolved (Terras 2010: 425). Programming, financing, protocols and standards for digital libraries have been available in compiled form for more than a decade (Deegan and Tanner 2002), alongside *Strategic Issues for the Information Manager* as a best-practice book for digitizing collections (Hughes 2004), laying out ways to deal with copyright issues, planning, finances and so on. With the increasing number of digitization projects and set standards (Terras [2008] 2016), digital archival studies increasingly turned to impact assessment tools, trying to numerically validate digitization (JISC 2013; Tanner 2012). However, these tools overlook the problems and glitches of digitization processes occurring during implementation. The reality of digitizing heritage is hardly ideal, but a process with hindrances, negotiations, challenges and different forms of execution and usage.



Allana (interview, 2018) describes the issues faced through digitization at the Alkazi Collection of Photography:

Müller: When you say most of the one lakh [100,000] images is digitized this means usually just the files, the tiff or raw file or whichever format you are using, but then only a very limited set of metadata?

Allana: Yes, the metadata is put together vis-à-vis the projects that we do. It's not that we start a random project and then let it go. And to work towards this, I wanted it to be random and I wanted it to be constant, and the only way I could think around doing that was – works that we do from the archive, including talks that we give. So I teach a course in Bombay at the Bhau Daji Lad [museum] every year. A diploma course on the history of photography. But I wanted those classes to become part of an accreditable course at Delhi University. That would have allowed me as part of an elective course to get students to come and archive the material and make that part of an accreditation that they could get from the university, that means work that they do with me: archive the objects, let's look at that. Sadly that didn't come through. The university grants commission denied us as an accreditable university participant. And they needed on our board of trustees individuals who would be dictated also by them. The other part of the problem was that any material that was going to be available to the university could be used in any way – publishing as well – by the university. Something the trustees would not agree to, not only with our institution but in any institution that runs a private archive and that has to commercialize at least a small part of it in order to sustain things. We're a charitable trust, you know, we're not an organization that has a corporate funding of any kind or government funding of any kind. Without that we're left pretty much to the philanthropy of the individual who started the archive. However, projects and publications are managed on a cost-sharing basis. That means we get in touch with the National Museum where we did a show on Sri Lanka and a book and they shared our costs, they brought out the book.

Digitization always requires a labour force, time and money, which are hardly ever abundant resources in the heritage sector. This leads to a discrepancy between aspiration and implementation. Furthermore, beyond rhetorical acceptance and best-practice books, digitization in its implementation depends on curators, archivists, technicians, museum staff and external stakeholders. They are the ones determining how to set up and introduce digital archives. They negotiate collection management systems (CMSs), not so much because there are no set parameters,

but because the introduction of CMSs confronts curators and archivists with the opportunity – and threat – to rethink established principles. They provide the chance for unconventional database architecture, something that Haidy Geismar and I (Geismar and Müller forthcoming) have identified as one of four postcolonial museum practices regarding the digital. The database becomes a new centre of attention, where Indigenous voices and divergent knowledge systems find their way into classificatory systems, whether in the form of a CMS, or created on top of it. A ‘postcolonial databasing’ (Verran and Christie 2014) can reorganize collections through the architecture, allowing a writing into the archive (Müller 2017b; Srinivasan et al. 2009). A CMS can prove to be a means to undo the colonial dominance of organization knowledge. Whether this potential is used or not, digital databases replacing analogue registers always require new technical skillsets for a new medium. They also imply shifts in access and control. Creating digital archives means intertwining numerically based ordering systems with established archival management mechanisms, leading to negotiations around what will be encoded and how. Relational mapping of cultural heritage adheres to international standards, yet is, in its status as an individual CMS, always an electronic reproduction of cultural conceptions – whether they are led by postcolonial thinking or not. The Alkazi Collection of Photography chose a comparatively conventional CMS, yet the way they produce meta-data is a way of letting outside stakeholders write into the archive:

And we do it [metadata entry] vis-à-vis our programming. That means if we have a book, which is now coming out for example on Bombay Modernism through Cinema, which is a recent acquisition we made last year, we have asked as we commissioned the book, we have asked the scholars to write the metadata. Which is usually the format we proceed with for any of our collections. (Allana, interview, 2018)

I will analyse this aspect of digital archives – the databank architecture – in more detail in this book’s second chapter, ‘Deciding on Digital Archives’, using the digitization strategies of leading Indian state museums as examples. In a recent government initiative, these museums created a collection management system for use as digital inventories of their collections and for disseminating this information online. This CMS is an example of how ideas of cultural heritage and archives, of development and improvement, are transformed into digital architecture. The idea of development can here be understood as a motivator for the government’s push for digitization. However, the construction of this CMS needed to include different concepts of development and

improvement, as well as deal with discrepancies in museum practice. Its eventual architecture reflects the fact that handling museum collections works with comparatively stable grammars for problem solving and recognition, which museum staff perceived as being under threat from digitization. A numerical representation through information and communication technology (ICT) always implies a new order, and the top-down introduction of a CMS can pose a threat to the usual scope of action. In this case study, the stakeholders involved eventually managed to incorporate the national agenda of development, the technological advancement of the heritage sector, a common anxiety about loss of control over heritage material and the anticipated needs of an Indian user in this CMS. They translated these notions into a single database that adheres to international standards and has been equipped with four approval/access roles. The chapter will demonstrate that at present it is not technical determinations that prevail in CMS construction, but sociotechnical considerations. Familiarity with digital databases, good internet coverage and sufficient hardware or data allowance are not necessarily at hand when digital archives are set up and introduced. However, extant expertise can take these parameters into account, responding to pre-digital database-recording schemes, and including current demands of visibility, internet accessibility and the new interlinking of information and data entry into CMS construction.

For the Alkazi Collection of Photography, Allana (interview, 2018) states that digitizing new acquisitions is a sociotechnical question as well as a question of resources:

I have to think seriously about what are the ramifications of what I will do with it [a to-be-acquired photo collection]. The most I can do with it right now, I know, is going to be a book that I can commission, that can be out there. An exhibition of material that can be out there, can be done in various cities ... And of course trigger some kind of a debate. And I think digitization, archiving is a debate that has happened, even last month at the American Institute in Delhi. As they struggle with their collection, we struggle with ours. They have digitized and made things available online, but they don't have programming [i.e. exhibitions, publications, seminars], because they don't have resources for that. So I think we focus a lot on programming and making our archive available through exhibitions, publications and seminars. They focus a lot on their online resources. [A programme] allows us to make a lot more people involved in the process. Curatorially, institutionally and so on. It just allows us to activate things, you know, in a selective way maybe, but in that selection also lies an art and a trajectory that the archive has developed over the last ten years.

Allana (*ibid.*) hints at priorities for the Alkazi Collection laying with exhibitions and book publishing. This, too, influences their advancement in digitizing the photo collection. Consequently,

there is a database that is available in house, which archives what is in every box. And then there is a database, which archives individual photographs. But the individual photographs is an ongoing project, it's not done yet completely.

Cultural conceptions like this one – the usual procedure to follow, the trajectory the archive has developed in the last decade – play a central role not only in introducing a CMS, but in all other phases of creating and running a digital archive. A main argument that runs through this book is that digital archives are culture encoded in digital form. Attitudes, preconceptions, habits or political entanglements all determine the different shapes a digital archive takes. How stakeholders are encoding culture into digital archives is of critical importance to understanding computational programming decisions, new order and retrieval options, content creation and curatorial practices, as well as appropriations and use of digital archives. When I say that this book is about encoding culture into digital form, I depart from Lev Manovich's (2001) understanding of culture as 'high culture' or 'popular culture', artistic expressions or human creation that can be received and/or consumed. Manovich's (2001: 69–70) concept of 'culture encoded in digital form' is important in as much as he draws attention to the fact that:

distribution of all forms of culture becomes computer-based [and] we are increasingly 'interfacing' to predominantly cultural data – texts, photographs, films, music, virtual environment. In short, we are no longer interfacing to a computer but to culture encoded in digital form. I will use the term cultural interface to describe a human-computer-culture interface – the ways in which computers present and allow us to interact with cultural data.

However, when I speak of encoding culture into digital archives, I do not so much refer to the obvious heritage artefacts subject to digitization, or to previously developed forms of 'cultural interfaces' such as film or the printed word (see Manovich 2001: 73–88) – although these are undeniably a resource for digital archives. Rather, 'encoding culture' here signifies the cultural practices within and behind the digitization process. I use culture in the broader sense of what people do, how they act, what determines their situational behaviour and their habits, their contexts and

surroundings – as this is what gets encoded. Digital archives certainly display cultural heritage such as photographs, objects, artefacts or historic texts, encoded in binary form, and written catalogues and card indices are previous interfaces that determine the human-computer interface (HCI) of digital archives. But this book shows that creating, running and appropriating digital archives means encoding political decisions, museum conventions, discontent, access policies, social media use and curatorial valuations. I turn to the complexities embedded herein, to the public and hidden transcripts (Scott 1990), the intertwining of decision makers, negotiations and directives that all influence decisions on the best way to circulate knowledge through digital archives.

Disentangling archives' or collections' competing interests, ambitions and constraints reveals a conundrum which archival studies thought to be resolved. Institutions worry about a diminishing of verified information and interpretative authority when making their collections available to everyone through the internet, fearing that they won't be able to contribute their expert knowledge to processes of cultural production. Hence, digital databases like the one the Alkazi Collection has been producing are not necessarily turning into online resources with freely circulating content accessible to everyone. For the Alkazi Collection, Allana (interview, 2018) notes that:

people can access things as I said. Apart from your experience [of finding it hard to get physical access to the archive in Delhi], people are accessing the archive all the time. Today, tomorrow and the day after there are people going to the archive to look at material. Half the people here have looked at the material, so they know the archive well. No, it's based on their... It's based on when they need to find something in the archive that they come. What we do ask of them, and I think this is important for us, is yeah, come to the archives [in person], spend time over there, help us sort of intellectually build our resources as much as we provide the information to you. [If people come and look at the images in house] they look at the digital versions. Very often, they are satisfied with that. But if there is a real need and necessity and they want to spend like a week doing what they need to do, there's not only that, there is a library of books on photography, which is growing. Extensive library. So they don't even need to move out of there. Yeah, we start with digital files and then we go to the original if it is required. Then we give them copies if they need it. That's usually the way in which we go about it.

The Alkazi Collection does not grant online access; its digital archive is not accessible on the website. Reasons for institutions to

refrain from online dissemination range from the risk of misinterpretation, unethical use and the increase of false information to lack of earnings, interpretative power and control. As I will analyse in more detail in chapter 1 of this book, ‘Theorizing Digital Archives’, digital archives that are accessible worldwide through the internet bear the potential of a wide circulation of museum and archival content, and of increasing range and relevance. Yet, as Anusha Yadav (interview, 2016), head of a digital online archive, says, when thinking about reasons for Indian institutions to *not* disseminate their heritage collections online:

Because knowledge is power. So they’d rather hold onto that power. If they have nothing to protect, then why are they powerful? They are in powerful positions because they guard these things. And also it’s easy to say that it’s the property of people but there are all kinds of people who are also destructive and who also might destroy things.

Yadav’s assessment and Allana’s statement that ‘now scholars and artists demand to see things up close’ – and online, I would add, as this decreases political, physical and economic barriers to access – relates to what Geismar and I (Geismar and Müller forthcoming) identified as another form of postcolonial digital museum practices: outside stakeholders with increased expectations to use digital heritage material voice their critique about limited access. They do so not only in academic discussions, but also in online communication. Activists’ takes on museum politics find a voice in/through online and social media, expressing demands to make use of the advantages of enhanced or extended views of objects or photographs and of the worldwide access potential. In short, the debate around digital connectivity and social media intertwines with activist postcolonial politics (Golding and Modest 2019).

Despite comprehensible concerns about online archives, heritage institutions need to take these requests seriously. They should also consider that in times of interpreting, (re)producing and communicating cultural heritage more and more in online formats and fora, those not participating in digitization and online dissemination may run the risk of sinking into oblivion. Archival theorist Terry Cook ([1994] 2007) raised this point more than two decades ago, drawing attention to the need for post-custodial reorientation, and a change in archival concepts and strategies. But while academics rarely debate the advantages or necessity of digitizing archives any longer (Euler and Klimpel 2015; Terras 2010), archival and museum practices do not always live up to these imperatives.

Established institutions' delay in implementing digitization is one reason for outside actors to create and run digital archives of their own. What I call community-based digital archives engage to an increasing extent in cultural production, as they set up websites that they decidedly call online archives, and that include many of the criteria required for digital archives: when it comes to ordered resources from the past available online – be it photographs, movies, life stories, film posters, fanzines or any other artefacts – community-based archives compete with institution-based ones. While it is debatable where to draw the line between content arranged on a website and digital archives, the administrative load and the above-mentioned concerns and issues make it harder for established museums and archives to release and publicize content online. New agents use this slowness and the perceived lack to set up their own digital archives as alternatives. As a consequence, when looking for digital archives with photographs from or historic references to India, for example, one finds few online archives stemming from established state and private museums, but numerous digital archives as new initiatives, created by amateurs-turned-professionals.<sup>1</sup>

This book introduces, in the third chapter, 'Community-Based Digital Archives', Indian Memory Project (IMP) and the 1947 Partition Archive (1947PA) as two examples of community-based digital archives. They concur with the general trend of cultural production shifting towards online space, and have individual circumstances in their founders' biographies to thank for their moments of creation. In their public statements and self-portraits, these archives make use of three scripts. One is that of lack and necessity, which adheres to a critique of state practices in documenting and distributing India's past. This critique rests firmly on internalized convictions that history can be written more democratically when amassed as a bottom-up oral history project. These digital archivists also assume that documenting and communicating the past can be done through digital memory practices, with the internet supporting participation in newly established archives.

The belief in the internet as a democratizing force also features in their second script of access and sharing. It is internet optimism that substantiates the 1947PA's and IMP's stressing of inclusivity and openness, collecting and distributing from everybody and with everyone. They take for granted the internet as a potentially empowering, equalizing medium, where its advantages clearly outweigh any potential threats. Sharing has become an important characteristic of online action, yet the shifting meaning of the term 'sharing' and its almost hollow, buzzword character is hardly reflected. Both IMP and the 1947PA use access and sharing as a script in verbal arguments, and do successfully manage

to 'share' in the sense of communicating and disseminating information online.

The third script that challenges archival conventions and archival power is less congruent in verbal and practical argumentation. While IMP and the 1947PA see issues with how museums and archives currently work and how history is constructed on their basis, they struggle to convert this criticism into practice. Eventually, both also aim at becoming new, additional actors in the networks of producers, consumers, objects, infrastructure and regulations that constitute heritage production. They express this not least visually through displaying an aura of nostalgia and creating a framework of historicity for their corporate films.

The 1947PA and IMP are but two examples of new agencies in digital collecting. New agencies constitute the third form of postcolonial digital collection practices (Geismar and Müller forthcoming). New technology in combination with diverse forms of content creation (from oral history to computer art) has evoked disputes about curatorial authority, collections in motion, and established standards. As Allana stated, 'digitization, archiving is a debate that has happened, even last month at the American Institute in Delhi'. Community-based initiatives take their place in cultural production, where the World Wide Web has become a conspicuous location. It is a space to interfere with 'a structurally neocolonial institution and profession' (Boast 2011: 66), where museum professionals – despite their intention to achieve meaningful and inclusive co-narratives through collaborative programmes – operate. The Alkazi Collection of Photography adheres to established structures when focusing on liaising with big heritage players from the Global North, both in exhibiting and in digitizing:

What we found is that there was this watershed in programming around nineteenth-century material, and so we tried to focus on that in the last ten years. Maybe the next ten years will be about just ways in which we can find resources to make things digital and online. As I said, Cambridge was interested in helping us do this. The Royal Ontario Museum has kindly offered scholars to come to us every year ... something which we'd like to explore. (Allana, interview, 2018)

By contrast, new actors encourage the rethinking of archival and museum authority, compelling more established heritage actors like the Alkazi Collection or governmental museums to negotiate established norms of collecting, accessing and exhibiting, reaching beyond the understanding of objects and the importance of materiality and



preservation, to the limits of social media and user-generated content (Geismar and Müller forthcoming).

These new actors in digital archiving are also at the centre of this book's fourth chapter, 'Creating and Curating Digital Archives', in which I investigate the active practices and motivation of those performing content creation at the 1947PA. The archive's Delhi office located at Cybercity is here symbolic for the way community-based digital archives work: physically situated at the centre of the IT business, yet also working at its fringes, both economically and thematically, when organized as a charitable trust concerned with cultural heritage.

The staff of digital archives are often part of a young, IT-savvy generation, and here they similarly belong to the so-called new Indian middle class. They are embedded in a new memory ecology, within which they create personal and work-related memories. They stress that they are doing something relevant for society, but are also embedded in conventions of success and class expectations. For their work, the staff draw on a narrative of eliciting and storing memories, but within a larger concept of 'creating history'. The archive format promises not single, free-floating accounts of the past, but the establishment of a large stock of memories assembled to impact how the past is perceived collectively. Here the idea of online, social and crowdsourced work intersects with the creation of something more permanent and political. On the one hand, community-based archives can be viewed as being created and structured horizontally. On the other hand, a vertical structure is displayed in the ambition to 'create history'.

The vertical structure also crystallizes in the editing processes undertaken as part of this archive's everyday practice. Before publishing content online, the staff summarize, cut, correct, check and edit the memories that have been collected and recorded. This vertically structured part of a digital archive's work can be compared to ample curatorial practices. As a result, the work of digital archives such as the 1947PA can be understood as dealing with both memories and the idea of a more permanent repository of the past. It is a digital context where everything is potentially a future memory, drawing heavily on individual narratives, which are presently important instances of the past, collaboratively created and heavily edited.

When subsequently turning to actual use of digital archives, I examine the fourth category of postcolonial digital practice termed 'digital objects and mimetic returns' (Geismar and Müller forthcoming). Digitizing existing collections permits not only a more open-ended online dissemination, but also a directional return of the digital representation of an object to, for example, 'source communities'. Most often,

ethnographic museums and archives in the Global North develop ambitions for such a return. Ethnographic collections embody the interests and points of view of at least two different stakeholders and can be located in at least two different contexts, due to their past relocation from mostly colonized to colonizing states. When objects and records originate from areas outside the present holding institutions, ethnographic collections pose questions of historical injustice and eurocentrism, of legitimate stakeholders and modes of remediation, return or repatriation. Digitization projects at heritage institutions have attempted to remediate the collections and to digitally return objects (Hennessy and Turner 2019; Hogsden and Poulter 2012), which contains the potential for a ‘respectful repatriation’ (Christen 2011), the ability to overcome political constraints and national borders. Digital archives may be a new form of multiple stakeholder interaction, taking the idea of the museum as a contact zone into the digital realm (Hogsden and Poulter 2012; Srinivasan et al. 2010). However, digital returns have also been subject to extensive critique, because the ideals of circulating and sharing can mask the upkeep of colonially grounded ownership over objects and an unwillingness or inability to repatriate the physical object itself.<sup>2</sup>

In the fifth chapter, ‘Using Digital Archives’, I hence include European ethnographic collections – here exemplified through the Basel Mission Archive, the Eickstedt Archive and Frankfurt’s Weltkulturen Open Lab – as digital archives that manifest encoded postcolonial visions of a digital return. European museums envision online archives as a way to foster encounters between current holding institutions and ‘source communities’. Different architectures are expected to facilitate online engagement with heritage material. However, relating these examples to IMP and the 1947PA allows an identification of users’ emotional involvement and social relations as relevant factors in online engagement. Similar architectural outlines of digital archives can produce very unequal results, and do not guarantee the production of ‘real contact zones’ (Hogsden and Poulter 2012). Taking Boast’s (2011) critique on museum institutions seriously, I juxtapose digital archives as postcolonial practices in established institutions with those appearing outside established institutions. The latter generate stories of impact, but the named examples fail to produce anticipated digital returns, while the former engender empathic exchanges and approving comments. Analysing the use of digital archives that are as diverse as the ones juxtaposed here consequently requires a rethinking of the postcolonial agenda of digital archives. It seems to fit less with the concept of digital return than with overcoming in-country heritage restrictions that stem from colonial times.

While incorporating European digital archives, the book's focus is on Indian examples. This is for several reasons. For one, archival and museum studies have largely ignored digitization taking place outside the Euro-American context and the Global North. This can be explained by the digital developments taking place in the heritage sector in the US, the UK and Canada, but seems inappropriate given the worldwide rise of online access and the international dispersal of museums and archives. The historic entanglement of colonizers and colonized – resonating here in collections linking holding institutions to 'source communities' – requires postcolonial digital humanities. Digital humanities provide 'the opportunity to intervene in the digital cultural record – to tell new stories, shed light on counter-histories, and create spaces for communities to produce and share their own knowledges should they wish' (Risam 2019: 5). As digital humanities scholar Roopika Risam (*ibid.*: 6–13) states, there is a danger of the Global North alone telling new, digitally framed narratives about humanity, and hence there is an urgent need for postcolonial digital humanities to shed light on these blind spots in practice and theory. We need to critically think about the divergences and build the objects that make up the digital record. Or, as Elizabeth Povinelli (2011: 152–53) puts it:

the postcolonial archive cannot be merely a collection of new artifacts reflecting a different, subjugated history. Instead, the postcolonial archive must directly address the problem of the endurance of the otherwise within – or distinct from – this form of power. In other words, the task of the postcolonial archivist is not merely to collect subaltern histories. It is also to investigate the compositional logics of the archive as such: the material conditions that allow something to be archived and archivable; the compulsions and desires that conjure the appearance and disappearance of objects, knowledges, and socialities within an archive; the cultures of circulation, manipulation, and management that allow an object to enter the archive and thus contribute to the endurance of specific social formations.

Combining Povinelli's appeal to engage with archives (in general) from a postcolonial point of view with Risam's urge to bring postcolonial thought and practice into digital humanities, I argue that an engagement with digital archives must include archives in the post-colony. We need to point to the blind spots, and bring postcolonial practice – both the investigation of prevailing logics and the postcolonial stakeholders' take on digital archives – into focus.

In the last ten to fifteen years, we have seen some remarkable contributions of digital anthropology to postcolonial thinking for archives and museums. Important impulses have come from, among others, Jane Anderson and Kimberly Christen (2013) on legal considerations, Christen (2008) on database structuring, and the 2013 double issue of *Museum Anthropology Review* (Bell et al. 2013), which investigated means and theories of digitization for ethnographic collections. Faye Ginsburg (2008) rightly argued that ‘rethinking the digital age’ from a postcolonial point of view needs to include Indigenous interests and knowledge systems. Ten years later, Geismar (2018: 11) urges us to question digital objects in museums as novel, stand-alone formats. Rather, their contexts and materialities ‘exist in a long-standing continuum or process of mediation, technological mimesis and objectification’.

To show these processes in a post-colony, rather than the better-represented settler colonies, I investigate Indian digital archives. Contemporary India is a key context when considering digitization as and for sociopolitical change. The colonial provenance of ruling people still resonates in the now independent nation. This can, for example, be traced in jurisdiction, where copyright rules have been amended several times since their formulation in 1957, but date back to British rule and are a colonial legacy of British/European concepts of intellectual property. Historical interlinkages between Europe and the subcontinent also resonate in the contemporary formulation and implementation of administrative ideals (see chapter 2).

At the same time, India has become a leading nation for the IT industry. Indian information and communication technology (ICT) industries have, particularly in the 1990s and 2000s, provided a highly valued export commodity, making India a global player in the information economy (Sen 2016). The country’s economic liberation after 1991 also led to widespread construction of IT infrastructure, allowing more than 718 million Indians today to be connected to the internet (TRAI 2020). India’s extensive digitization is governmentally supported, to the extent that it can be criticized as a hype about the power of digital media to transform all aspects of society (Sneha 2016: 4). India’s ICT success story has also prepared the ground for the country’s ICT for development (ICT4D) ambitions, culminating in the national government’s push for the digital distribution of government services and the introduction of Aadhaar, the unique identification number storing residents’ biometric and personal data in a digital citizenship archive. With Aadhaar being only the most prominent of its digitization projects, the Indian government has demonstrated that it intends to implement state power over its citizenry through digital technology, which is at the same

time a new market, a form of communication, access, surveillance and control (Nair 2018). As the Indian nation increasingly went online, the internet has had a serious effect on political, social and cultural life, as studies of social media in South India, or of the internet's role in the 2014 elections that brought Narendra Modi to power, demonstrate (Schroeder 2018; Venkatraman 2017).

This context compels us to think of postcolonial digital archives anthropologically, beyond Indigenous ontologies and knowledge systems, and outside leading heritage institutions. Despite India's nationwide efforts and developments in ICT, it still remains subject to the digital divide. Access to the internet and digital device penetration is significantly lower in rural areas (Kumar 2014; Pathak-Shelat and DeShano 2013), and Indigenous takes on digital heritage are sparse.<sup>3</sup> It comes as no surprise that digitization in India has a stronghold in the metropolises of the country. Despite not originating from the most marginalized places of Indian society, digital archives based in Delhi or Mumbai still qualify as postcolonial practice, albeit coercing us to attune our understanding of postcolonial demands from being foreign affairs or Indigenous issues to stressing national and heritage sector politics and its deficits (see chapter 5).

Anthropological accounts on archives are sparse, even more so on digital ones, which is surprising given the popularity of the archive as a trope and the continuous expansion of internet studies. Anthropologist Antoinette Burton (2006) edited archive stories, stressing that archival work is an embodied experience shaped by national identity, gender, race, class and professional training, and that ethnographic archival accounts have the capacity to move 'beyond naïve positivism and utopian deconstructionism, beyond secrecy and revelation, toward a robust, imaginative and interpretively responsible method of critical engagement with the past' (ibid.: 21). However, Burton (ibid.: 9) also agrees with Achille Mbembe that the archive needs a physical, architectural dimension to claim power and status, an idea I rebut.<sup>4</sup> Digital archives very much lay claim to power, as their contributions influence debates on the past – directed to the present and the future – in online and off-line form, and partake in the production of 'history'. Anthropologically analysing them can help unravel these claims, a point that archival science supports through appeals for more ethnographic work in digital archives (Gracy 2004; Shankar 2004).

What we do find, however, are anthropological accounts of the internet. Heather Horst and Daniel Miller (2012), for example, brought together anthropological takes on how online engagement and interaction frame everyday life, influence politics, gaming, communication

and social networking. Concerning the digitization of heritage material, internet studies' interest in the sociocultural impact of the internet on individuals and society at large, and archival and museum studies' notion of how order and access to collections change, still need to come together. There is a need for 'a broader inquiry and theorization based on an encounter with the diverse field of curatorial practices, knowledge regimes and communities of agency operating "in the wild" [of non-institutionally bound digital curation]' (Dallas 2016: 449). We still need to find answers to questions of how heritage institutions actually implement digitization processes and how digital cultural heritage is 'curated', answers that go beyond statistical enquiries and mapping endeavours. This is where this book comes in, as it brings the process of curating digital heritage into view. In this reading, curating is comprised of (digital) archival practices, from collecting, preserving and creating order, to online dissemination, exhibiting and accessing archival material. This reading thus differs from archival studies' more narrow understanding of curating as collecting and preserving a collection (Dallas 2016). The broader definition of curating is more in line with museum practice, where a curator's 'curare' – her care for the collection – comprises collecting, preserving, researching, interpreting, exhibiting and enhancing.<sup>5</sup>

Digitization in heritage collections has also altered the understanding of what constitutes an archive. In chapter 1 of this book, I examine these understandings of museum and archival collections as storing, preserving and digitizing their photographs and objects.<sup>6</sup> I reflect upon the current stage of research concerning archives, and show archival mechanisms of exercising power through order and access. I conceptualize archives in a wider sense as repositories of collected items, focusing on representations of museum objects and photographic collections. The concepts of archives and museum collections have been in a state of flux (not only) since digitization entered the scene, requiring in consequence an examination of what power mechanisms of knowledge production are scrutinized through digitization and which ones re-emerge.

Furthermore, and returning to a more theoretical take on digital archives, the sixth chapter of this book, 'Digital Archives' Objects', explores the transformation of objects through digital technology. Digital objects also become rematerialized when used, so that online photographs, for example, function in digital archives as the basis for paintings, art installations and printed publications. As a matter of fact, the digital archives I analysed in this regard – the India Photo Archive/Aditya Arya Archive, Indian Memory Project and the 1947 Partition Archive – all convey a longing for analogue prints, books or buildings. This longing relates

digital cultural heritage to Indian concepts of materialism and legacy building. However, they also raise copyright concerns that evolve into moral questions, which cannot currently be satisfactorily answered for all stakeholders. Furthermore, such (re)appropriations open up questions about the materiality and durability of digital objects. They scrutinize the assumption of defined borders for material objects and of the immateriality of digital objects, and digitized (more than born-digital) objects function as border crossers, fostering the permeability of lines drawn between material and ‘immaterial’ objects. They also blur the distinction between copy and original, which in times of digital reproduction no longer exists in a rigid form.

This scrutinizing of the duality of copy and original provoked by digitization has a precursor in photographic reproduction. This is most fitting for this book, because digitization in the heritage sector usually means creating a digital photograph along with additional information as metadata. Photographs are thus a backdrop of this book; their different valuations as three-dimensional objects, memory devices, records, originals or reproductions inform the chapters. The fact that digital archives focus on historical photographs is also a result of the human-computer interface of the internet being in large part visually based. This favours photographs’ quality as aesthetic and historical records. Roland Barthes (2009; Müller 2017a), in his well-known account of photographs as ‘studium’ and ‘punctum’, describes how we can not only trace information in a photograph, but also that seeing something – a person, a situation, fixed on celluloid or any other carrier material – that has been there at a particular place in time and is now here with the beholder can have a huge emotional impact. Photographs can and should be examined for their content and historical context, as Elizabeth Edwards (1992, 2011) demonstrates with her anthropological analyses of historical photographs. Photographs convey information, but are by no means objective visual representations of the past. Their position between reality (only something real can be ‘written with light’) and intention (the photographer decides how to frame and shoot) makes them easily graspable yet highly complicated at the same time. Taking different visual systems into account (Wendl 1996), photographs disclose themselves as more than mechanical reproductions. They are complex carriers of information, which in India, as Christopher Pinney (1997) argues, can also encapsulate visualizations of a dream world, applied in layers. Contemporary Indian photography still follows the visual systems Pinney noted in Indian photo studios, but has also developed massively along with the options that digital photography presents (Shah and Blaney 2018).

The digital archives that this book analyses operate everything from digitized historical photographs taken in India, to digital photographs taken of historical objects in Indian museums, to photographs of people taken during video interviews. All of these could be examined in detail as regards their form, function, relatedness to Indian visual systems and their online presence, which might substantiate Pinney's (2012) claim that all photography is part of a world system of photography. However, in these digital archives, the photographs do not stand alone, but are intertwined with extensive narratives or linked to a set of meta-data used to search through the archive, and enmeshed in the networks that the internet is able to span. Their aesthetic value and functioning as a potential punctum are without doubt, but the following chapters explore digital archives as online databases. This includes their position between copy and original, between binary code and materiality.

I undertook field research for this book primarily in Mumbai and Delhi's National Capital Region (NCR), grounding my analysis on a total of more than twelve months of anthropological fieldwork between 2015 and 2019. This fieldwork included participant observation in museums and archives in India (and complementary participant observation in Germany) in the form of internships and visits, as well as formal interviews and informal conversations with heritage practitioners, experts and users – again mostly in India, and additionally in Germany and the UK. In this way – always introducing myself as a university researcher and being female, German and white – I talked to more than four dozen directors and digitization stakeholders in the Indian heritage sector, and worked for several consecutive months helping three digital archives in Delhi and Bombay with their daily routines. I was an intern with the 1947 Partition Archive, Indian Memory Project and the India Photo Archive, being entrusted with everything from researching and visiting potential funding bodies, to proofreading. The internships allowed insights into the practical implementation and everyday challenges of making digital archives, of keeping them up and running, but also into the day-to-day challenges of working in small teams or individually in an area that sits at the fringes of both IT work and archival work. The semi-structured interviews and informal conversations provide more focused accounts of digitizing museum and archival material, albeit in an orally reproduced manner that allows narrators to interpret performed action before describing it, and also to modify or alter action through careful wording. Working anthropologically on the ground with digital archives sheds light on the rationale and established scripts as well as the glitches when actually digitizing and disseminating online.



Furthermore, this book is based on digital ethnography, which I conducted between 2015 and 2019.<sup>7</sup> This is less oriented around Tom Boellstorff's (2015) participant observation in an online environment, because I rarely actively participated in online conversations, but read and observed them instead. However, I examined online archives and used them as information repositories, and closely monitored new entries and the comments and conversation that emerged here and on social network sites. As digital media practices are inseparable from 'offline' practices (Pink et al. 2016), reading the online archives as shown on the websites allowed me to correlate their front-end appearance to the creators' work. The applied method is thus geared towards John Postill and Sarah Pink's (2012: 128) social media ethnography, as I traversed online/offline contexts and developed everyday online routines, yet without actually 'participating and collaborating in social media discussions'.

Overall, the book provides a novel account of what archives in digital times entail. While also dwelling on the questions of the effects of digitization in regard to a varied materiality, the book goes beyond philosophical theorizing of archives as a digital medium. It departs from the reasoning for, objections to and best-practice guidelines for digitization in the cultural heritage sector, and turns to the *practices* of digital archives. It understands digital archives as a medium in the making and consequently tries to understand the actors and processes involved in their creation, set-up, curation and use. With a focus on archives from India and born-digital, community-based archives, it broadens a view of digital archives that has for too long been centred on North America, Europe or a few remarkable examples in societies with strong Indigenous communities. Turning to India allows us to see both global tendencies as well as regional characteristics in digital archives, and the way cultural heritage in online repositories changes our ways of dealing with the past.

The book's chapters can be read individually, as each deals with a different aspect of arguing for, conceptualizing, implementing and using digital archives. However, as chapters 3 to 5 draw on the same case studies, reading these together provides a thicker description and a deeper understanding of Indian digital archives. Drawing on examples from the Indian subcontinent, and enhancing or contrasting these with European ones, the book neither provides a mapping nor functions as a best-practice manual. It rather investigates selected examples in depth, conceptualizes these as part of digital archival practices, and thus assists in building a more profound understanding of digital archives, portrayed as a means of encoding culture in digital form.

## Notes

1. For a list, see <https://www.indianmemoryproject.com/archivedirectory/> (accessed 16 May 2020).
2. This led Robin Boast and Jim Enote (2013) to argue against the term ‘virtual repatriation’.
3. However, some digital archives include Indigenous topics, for example [www.sahapedia.org](http://www.sahapedia.org).
4. Unless we include the programming of a digital archive as an architectural dimension.
5. See also the museum definition by the International Council of Museums, <https://icom.museum/en/activities/standards-guidelines/museum-definition/> (accessed 28 October 2019).
6. Digital archives can also refer to written documents or other formats, and many of the findings of this book can be applied to those. However, I will not draw on examples from text archives, and will omit particular features like full text search or the relation to libraries.
7. Here, again, my status as a female white German researcher played a role. Despite the idea of the anonymity of the internet (most prominently illustrated by Peter Steiner’s cartoon ‘On the Internet, Nobody Knows You’re a Dog’, published in *The New Yorker* on 5 July 1993), online interaction – not only in the context of research – inevitably requires a revelation of (parts of) your identity.

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# Theorizing Digital Archives

*Power, Access and New Order*

One of my first encounters with archives and collections took place several years ago. I was at a German ethnographic museum and an employee suggested I conduct research on an Indian photographic collection from the 1920s, recently acquired by the museum. Eager to see the collection, I sent a formal request to the head of the museum's collection and archives. However, I received no reply. After a few weeks, I called the head of collection and archives to see if they had received my request. They had, but I was bluntly told by the head that as she did not know me, and did not know what my intentions were, she could not allow a random (junior) academic to access this new and impressive collection. After all, had I ever been to an archive, she asked me, and did I even know how they function?

I subsequently landed a job at the Leipzig Ethnographic Museum in 2010, thereby granting me access to the archive and collections and allowing me to research the material. That meant making appointments with the archivist in charge, a very kind woman in her late fifties. These appointments were conveniently easy to schedule. On my archival days, the archivist would receive me and guide me along the museum's long administration and storage halls towards the large fire door. She would unlock the door and let me in, past numerous cabinets filled with museum objects, into a small, windowless room. The air-conditioned and humidity-controlled room was rather charmless, with bare concrete walls. Cabinets and drawers were lined up along two walls, and in the middle stood a large modern table. I needed to sign in in the visitor's book and was thereafter free to see the negatives and positive prints as I liked, albeit after being advised to handle them with care and ideally with gloves. I took drawers out and spread photographs on the table, always making sure to put them back in their original order. I spent

several long days in this room, looking at the photographs and the corresponding diaries of the so-called Eickstedt collection, taking notes, creating my own inventory, photo-documenting images and diary pages that would be relevant for my research. In the room it was just me and the photographs, no disturbance from the outside world, allowing me to acquaint myself with the photo archive. I would only emerge from this room and my immersion in the material for lunch, or when the archivist wanted to call it a day.<sup>1</sup>

Seven years later, in 2017, the archive became available online. In 2014, the Staatliche Kunstsammlungen Dresden, as the umbrella museum organization housing the collection, allocated funds to digitize the photo collection, along with several other expeditionary photo archives. From 2015 to 2017 they digitized, harnessed and publicized the photographic documents. The photo collection – called the Eickstedt archive and made up of more than twelve thousand photographs, stored in drawers as negatives and positive prints – was turned into a digital archive, with its own order and without access restrictions. Anyone with an internet connection could now see the photographs and access the metadata without asking for permission – yet also without physically immersing themselves in the archive.<sup>2</sup>

These two versions of the same photographic archive illustrate different options for accessing and ordering archives. Digitization not only yields a different format and interface for archival records, but changes modes of access and order. If archival orders face new options when information becomes digitized, how do digital databases stimulate diversified arrangements of information? If digitization offers new ways of accessing stored information, especially when it is tied to online dissemination, what do online archives imply for controlling collections and the knowledge embedded therein? The power related to access and order and its realignment through digital means takes centre stage in this chapter. I analyse modes of access and forms of order in digital and ‘conventional’ archives and how digital means stimulate diversified arrangements for information. Do digital archives bear the potential to undermine a pre-set order and thereby challenge established archival economies? If digitization offers new ways of accessing stored information, how does archival power executed through controlling access change with digitization and online dissemination?

Analysing these two modes of power in conventional archives and collections and in digital ones also allows me to lay out what a digital archive or online collection is. I draw on the historical development of the term ‘archive’ to demonstrate its characteristics as institutionalized information use. I use the term ‘digital archive’ when describing online



collections of information relating to the past because, firstly, a very narrow understanding of archives as paper records created by the government has been historically applied but is no longer appropriate when talking about archives. As I will demonstrate, the term has broadened significantly and can be applied to filed and ordered information in records of various material, to the institution or place preserving this information, or even to everything that can be said. Refraining from using ‘archive’ as a hollow phrase, I secondly use ‘digital archives’ to refer to online collections of information relating to the past because heritage actors – which I will examine in more detail in the following chapters – use ‘digital archive’ or ‘online archive’ as emic terms. Bringing together the historical broadening of the term, the emic use and digitization of collections, this chapter demonstrates how ‘digital archives’ refer to established notions of controlling information about the past and scrutiny of such notions.

To do this, I take to contemporary digital archives as well as their analogue predecessors as collected repositories. Investigating ideas of ordering and accessing information in depots and archives, and how they have changed over time, allows us to come to terms with ideas of what an archive is. I will demonstrate that ‘archive’ is an appropriate term that can be applied to websites that provide a searchable database of information about the past. Tracing the changing understandings of the term, and of archival power through access and order, allows me to carve out differences and commonalities between digital and analogue versions of what we call archives.

## Power through Order

An archive or a collection is more than a repository. Records stored are persistent representations of activities (Geoffrey Yeo, in Caswell 2016: 380). They relate to history production through four key moments of fact creation, fact assembly, fact retrieval and retrospective significance (Michel-Rolph Trouillot, in Caswell 2016: 378), of which the creation and assembly of ‘facts’ comprise ordering activities within an archive or collection. An archival order is determined by technology and materiality of the records, as well as the physical space for storing the records. If we understand an archive as a triad of place, institution and content (Horstmann and Kopp 2010: 9) to preserve and order documents, place encompasses the storage capacities, the rooms and the climatic conditions, the shelves, boxes and labelling devices. Simply put, the sheer quantity of archival material and limited storage space leads to

appraisal and selection and hence to the definition of what becomes an archival record. The architectural context – be it in physical or digital form – also defines what the archive literally looks like, and hence exercises power over what an archive is.

The archival institution – understood here in a wider sense as an acknowledged museum, archive or other *lieu de mémoire* housing a collection of records and equipped with political power, rights, duties and resources – is the most obvious holder and practitioner of archival ordering power. Its ordering processes relate back to historically developed archival standards. One of the main concepts for archives – in a narrow sense of the institution or the body of preserved documents that the state once used as registers but that are now no longer of practical use (Duranti 2001; Mbembe 2002) – was written down in the so called Dutch Manual (Muller et al. 2003). The manual pinned down theoretically substantiated terms for selecting and ordering, formulating a set of rules, regulations and best practices for retrieving archival material. First published in 1898, at a time when government records outpaced church records in importance (as they consolidated rule over vast lands), the Dutch Manual suggested ordering archives according to provenance and the Registratur principle, focusing on the context of the origin of records. Two decades later, the so-called Jenkinson's Manual vehemently stressed the importance and objective character of archives and denied appraisal and subjectivity (Jenkinson 1922). It consolidated the idea of the archivist as a professional, who orders and preserves according to set and objective standards. It took another thirty-five years for archival studies to question this agenda. In 1956, archival theorist T.R. Schellenberg argued in favour of appraisal (Schellenberg 1956). The sheer increase of records needing to be archived made it necessary to find new terms of reference for selection, to maintain the sense of order needed to make archives functional again. The underlying concept of archives, however, remained very much one of objective record-keeping. Even after Schellenberg, archivists remained keepers of truth, who make selected pieces available through their work. Their active role was acknowledged, but – being based on theoretical considerations such as an objective criterion of what to keep – the archive remained an objective institution (Ridener 2009).

This idea still serves as the *de facto* backbone of the on-the-ground reality of archiving. When the Leipzig Ethnographic Museum at first denied me access to the Eickstedt collection, it stemmed from the belief in the objectivity of an archive, of fact creation, fact assembly, fact retrieval and retrospective significance. Museum work as archiving relies on a conceptual framework of necessary tasks and ordering principles

determining decision-making processes of caring for and overseeing archival content, through creating, assembling as well as regulating retrieval of archival information. This applied form of archival record-keeping and protection derives from the notion of an objective archival task. Relying on seemingly objective criteria of what to keep and how to keep it makes a confident workflow possible. In this reading, the archive is acknowledged as a record-keeping, government-related corpus, with archivists performing the task of accepting material and preserving it, based on the recognition that records contain information and that preserving this has its own value. Ordering archives and collections is approved by society and legal mandates, accepted by the professional community and put into practice in individual museums or archives. The individual archivists act according to set standards. Their task is largely subject to intentions outside their sphere of influence, as they file what they receive and are here only marginally in a position to individually select, choose or refuse material. Archivists act in the context of the museum or *lieu de mémoire* and thus within the larger body of a controlling institution that comes with an agenda, a budget and ideally an acquisition strategy. This also provides for standards, which the larger entity sets, and which the professional community and national bodies define. Ultimately, it is policy makers and society at large that accept these standards. The institution exercises its power to more or less directly define what becomes part of an archive and how it is ordered. The single archivist acts in relation to larger bodies that make up the general agenda of archiving.

The Eickstedt photo collection entered the museum because it complements an object collection commissioned by the Leipzig Ethnographic Museum in the 1920s. The artefact collection here – as in many other ethnographic museums – is stored according to geographical provenance. The Eickstedt photo collection, in compliance with archival standards, was ordered according to expedition and photographer. Hence, the photo collection is registered as the ‘Eickstedt archive’, named after the anthropologist Egon von Eickstedt, who took the photos. When the relevant photo collection entered the museum in the 2000s – after a long odyssey (see Müller 2015) – it arrived in the form of two filing cabinets with negatives and positive prints containing all the photographs from one anthropologist’s expeditions to India, which were filed not under ‘India’ but under ‘Eickstedt’ (comprising as well a small selection of photographs taken during a later, second journey to India and other South/South East Asian countries).

Arguments can be found for both provenance ordering systems – by geography or creator – as they stress different perspectives on the

artefacts. When looking into a collection or single artefact/photograph, museums or museum archives usually provide a collocation of the time, place and people involved. When executing the principle of provenance, they try to preserve not only the material record, but the information about its generation, production or collection. The Eickstedt photo collection, for example, under the first-grade heading 'Eickstedt', contains a geographical ordering system ('South India', 'Chhota Nagpur', etc.) and a community-based classification ('Toda', 'Kurumba', etc.). The whole photo collection is furthermore divided into ethnographic and type photography, expressed in two numbered sections consecutively labelled E and T.

When tracing the origin of these filing principles of the Eickstedt photo collection, we not only see the ethnographic museum defining the order, but also Eickstedt himself. The different headings were most likely applied by Eickstedt and his archiving assistants at the university where he worked, and were inherited by the ethnographic museum, as they comply with the museum's archiving system. With Eickstedt being a European racial anthropologist working in the 1920s and 1930s on the Indian subcontinent, this archive also serves as an example of colonial dynamics of power through order.

## Archival Order and Colonial Power

Power in colonial archives operated as a form of knowledge production, or what Trouillot (2015) calls fact creation. As Nicholas Dirks (2001) and Bernard Cohn (1996) have stated, colonialism in India was made possible by cultural forms of knowledge that were simultaneously produced and enabled by conquest (Dirks 1996: ix). It was, among other things, the surveillance applied by the British on the Indian subcontinent that allowed for the production of knowledge necessary or at least beneficial for ruling vast territories. Whenever the British acquired new territory on the subcontinent, they launched a new survey, which not only geographically mapped the area but described and classified the respective flora and fauna, economy, history and sociology (Cohn 1996). The archives created here in the form of registers and documents fixed and ascribed traditions and customs, ranks and hierarchies, castes and classes, languages and characteristics. They delineate and constitute, and created categories between the colonizers and the colonized, as well as among them. The vast amounts of information gathered were compiled in surveys and encyclopaedias, in museum collections and paper archives. They ordered, fixed, bound and settled India.

Applying this power became explicit in colonial India. Counting and enumerating India in the form of censuses systematized the country for administrative purposes and made colonial rule possible. The census conducted in the aftermath of the Indian revolt in 1857/8 established a system of categorization for the whole population, compiled as statistical information, and became part of the archival corpus that became the primary site of state monumentality (Dirks 2001: 107). *The People of India*, an eight-volume photographic collection of Indians, was produced around the same time and with similar intentions. These archives ‘canonize[ ], crystallize[ ], and classif[y] the knowledge required by the state’ (ibid.). Producing, ordering, publishing and using these files facilitated the British administrative government of the colony, fixing its history as well as its social structure as canon.

The Eickstedt archive – the 12,000+ photographs – was complemented by a collection of two thousand objects and long lists of body measurements taken with the aim of documenting and classifying in particular the Adivasi, the subcontinent’s Indigenous population. Although, due to its German rather than British expedition context, it was never used for ruling the subcontinent directly, the Eickstedt documents were created within this framework of colonial power and its modalities of production demarcate archival power. Even though the explorative character of many of these records could be exerted to create seemingly neutral repositories of the past, today it is recognized that archives are sites of knowledge production and as such monuments to political conditions and hierarchies as well as sites of the rulers’ ethnography. ‘To understand an archive one needs to understand the institutions that it served’, claims Ann Laura Stoler (2002: 107), and one does so by addressing the contexts and contents of archives. Stoler, alongside other authors such as Natalie Zemon Davis (1995), Thomas Richards (1993) and Roberto Echevarria (1990), makes evident the extent of the colonial power exercised through gathering, ordering and storing knowledge in (archival) records. Contemporary (re-)readings of archival material not only scrutinize what can be said on the basis of archival material but question the very idea of archives as preserving authorities (Stoler 2002, 2009).

The third actor in the triad of place, institution and content determining the order in archives is the records themselves, with the content they provide. Collections of photographs, documents or objects do not come as blank sheets, but with inscribed information.

This content is anything but objective. The Eickstedt archive is the result of an only seemingly objective technical process: photography is a mechanical procedure, driven by the ‘objective’ technical body of the

camera and light. The lens (noticeably also called objective) captures rays of light, ‘writing’ that light onto a carrier material and making it last via a chemical process. Compared to painting, where the painter chooses and interprets what and how to paint through colours and brushstrokes, it is a less subjective act, and hence fits well with a positivist agenda of knowledge creation. Yet, in the twentieth century the view of photography changed from that of an objective medium to considering the construction of such images: the small adjustments the photographer can make add up to multiple points of interference. Eickstedt, for example, adjusted focal length, aperture and flashlight, and chose his equipment, providing him with a certain amount of control over the process. Even more subjective was his position as arbiter of what, when and how to photograph at all, as well as his position on photography as a social procedure. He arranged subjects, positioned people and attire and relied on status and hierarchy – giving commands and suggesting postures, or taking the liberty of taking a snapshot. Egon von Eickstedt photographed scenes and fixed them on paper, according to his preferences and his technical equipment. He had been commissioned in 1926 by the Leipzig Ethnographic Museum and adjunct research institute to numerically and photographically document the Indigenous people of India and to collect their artefacts. The museum staff, for example, advised him to send only used items for its collection, which Eickstedt did, not least since his funding came from the museum and research institute.<sup>3</sup> His status as a white male German researcher allowed him to photograph in prisons. In consequence, the photographs became recordings of the museum’s ambitions, Eickstedt’s views and intentions, the technical and political conditions and the *de facto* encounters in India. All this contributes to the making of a photograph as anything but an objective capturing of a given moment. It does refer to reality, capturing what existed in a particular time and place, but needs to be understood as part of a picturing culture (Müller 2017b), an interpretative process. It bears parallels to the process of writing culture, where the author might try to produce written words as neutrally as possible, but will never be able to shed the cultural imprint of him/herself as an individual being (Clifford and Marcus 2010).

The same accounts for artefacts or written paper serving as archival records in collection contexts. They need to be understood as descriptive media aimed at making statements and as records whose content was created in a non-objective production process. Writing, photographing, creating artefacts or putting these together in a collection are all processes of selection and framing, fed by creators’ preconceptions and ideas as well as larger societal discourses. Written notes are often

erroneous, and any source can misrepresent events or ideas (Lustig 2019). Any information can be kept in ways deemed more suitable or favourable to the ruler. With a view on archives of organizations, Theo Thomassen (2001: 384–85) notes:

Records and archives are not surrogates for the real world but not more (and less) than representations of what clerks and secretaries had in mind when documenting their part of the world more or less according to what they thought their masters wished to document. And many times, records and archives are not even such remote representations of reality, but only remnants of representations, mixed up, fragmented and decontextualised.

Individual intentions feed into the writing process (be it with light or pen) and hence the documents. Archives and the ordering systems applied to records are not objective practices. Yet archival content – created on the basis of historically developed methods of appraisal and selection – seems more trustworthy and prestigious than information that is not ordered and preserved by an acknowledged institution. When records enter an archive or museum, they not only enter a new chapter of their cultural biography (Kopytoff 1986), but their character as a record worth preserving comes to the fore, hence they seem to some extent ‘objective’. When objects are taken into museum collections, they are treated as representations of the past, as cultural heritage (Kirshenblatt-Gimblett 1995). They are valued and to some extent fetishized. Similarly, when records enter archives, they become institutional bodies representing a set and acknowledged way of preserving and dealing with the past. In reverse, not only do the records and the content gain relevance as the ‘official’ informational body referencing the past, but the institution and actors involved in constructing this ordered representation through collections and archival material gain importance (Hallam and Street 2013).

Thus, place, institution as well as content all contribute to power through order in archives. They form spatial and technical limits, historical circumstances inscribed in material, and set rules and regulations determining what and how to enter information into the collections, whether by object or paper, audio or visual. Exercising power in archives is more than an isolated task performed by an archivist. For the Eickstedt archive, the materiality of printed photographs and negatives and the climate-controlled storage conditions constitute the shape of this particular archive. The scenes photographed in India form the corpus of archival information, albeit shaped, interpreted and set in

scene by the photographer. Next to Eickstedt, there is the museum as an institution commissioning and integrating the photographs into the archive. Both appraised and ordered the material and hence, in a Foucauldian sense, exercise power through determining what becomes part of official discourse, that is, what enters the archive, and what can be said. People accessing, reading and interpreting the photographs are confronted with this pre-set structure and are subject to the ordering power of what and how things are included in an institutionalized archival corpus.

## Digitizing Archives and New Order

The shift to using digital tools to order archival content has created a space to reconsider these basic concepts of archival architecture. It offered the opportunity to rearrange or scrutinize established ordering principles. Computational data management allows for diversified ordering systems and specific enquiry and targeted data retrieval with an increasing number of variables. Even if the established order is not questioned, computer programmes and software bring about change. Registry books and index cards, often ordered under sequential numbers, or according to a limited set of categories (e.g. author, title, year), could now be significantly enhanced, as computers can handle and rearrange large amounts of data with ease. Full text search has taken data retrieval in document-based archives to the next level, and concurrently the possibilities of digital humanities fundamentally challenge the concepts of stored information.

The Staatliche Kunstsammlungen Dresden digitized all 12,000+ photographs of the Eickstedt archive between 2015 and 2017. It retained provenance categories such as the photographer and places where the pictures were taken, as well as persons portrayed. It added a description, the trustee, size and material of the photograph, and tagged the photograph with further keywords related to what is portrayed. The new order slightly differed from the one established previously, as it eliminates or defers the second- and third-class order. Furthermore, the digital archive does not establish and freeze a primary or secondary order but allows an instant ordering according to the above-mentioned enhanced set of categories. This digital archive also allows the connection of the records with similar categorized records of other collections.<sup>4</sup>

Yet overall, the Eickstedt digital archive displays a rather conventional concept of digital data order and retrieval. Other archivists have debated and developed more unorthodox structures for archival material,



especially its metadata. Designing and implementing digital databases means not only considering the interests of custodians, researchers and an unspecified larger public, but also taking the knowledge systems of 'source communities' or other stakeholders into account, for example India's Adivasi in the case of the Eickstedt archive. By reflecting different ontologies and consequently contesting existing power regimes, digital archives can become – to use James Clifford's (1997) well-known adaptation of Pratt's term for museums – contact zones.<sup>5</sup>

Carl Hogsden and Emma Poulter (2012), for example, have sketched what they call a contact network. Stressing that the stakeholders of the project, the Museum of Archaeology and Anthropology in Cambridge (MAA) and the Maori 'source communities' in New Zealand, deem diverging characteristics of an object important and worth referring to in an archive, Hogsden and Poulter proposed two separate hubs reflecting the ontologies as key, which can manifest in archival systems. Different approaches to ethnographic objects are, according to Hogsden and Poulter, best reflected in such hubs, placing distinct knowledge systems next to each other in an online environment. A network is thus created, where both hubs are part of the contact network, yet each 'is free to work in its own (locally) controlled way, and to make its own decisions about the management of information, the form it will take, and what expertise it will share with, and take in from, the network' (*ibid.*: 277). This digital archive displays the hubs, and in consequence constructs a digital contact network, shifting the balance of power away from the museum, towards the communities from which the objects originate. The contact network scheme theoretically has strong democratic tendencies, as users can choose between several interpretations offered by the hubs, and are respectively equipped with rights regarding access to the material. Nevertheless, the model still bears potential for reinstalling authoritarian voices.

This is not the case in Kimberly Christen's approach, which takes a stance towards a version of digital archives that forefronts the knowledge systems of communities from which the objects originate. Christen (2005) highlights the possibilities of making Australian aboriginal notions of images and audio recordings the focus in creating digital archives. In her reflections on these concepts, she delineates how the Warumungu, in contrast to English stakeholders, do not refer to a biased either/or proposition when it comes to public/private opposition, but situate objects and information in interaction with people. The Warumungu locate cultural heritage in a constantly negotiated concept of access based on responsibility, accountability and acceptability in relation to knowledge of country and kin (*ibid.*: 317), making this the

prime ordering principle. These local knowledge regimes have the capacity to influence national and global debates about how to collect and store cultural heritage within archives; the flexibility of digital technology offers a way to display these redefinitions.

Christen (2008) advanced the idea of creating a database rooted in Indigenous knowledge systems, developing the Mukutu archive as a content management system whose structure is substantially informed by these systems. Numerous conversations and test runs led to a database design that reflects the internalization of Indigenous cultural protocols regarding the viewing, reproduction and circulation of information.

Christen, however, in her method of foregrounding Indigenous ontologies, does not say much about the (remaining) influence of museums' information management systems, or how to include them in the creation of digital archives. It was Ramesh Srinivasan and his colleagues (Srinivasan et al. 2010) who developed an approach focused more strongly on museum-incorporated objects and the implications for the ethnographic objects oscillating between the museum's and the 'source community's' appropriations. Their argumentation is in many aspects similar to that of Hogsden and Poulter, and yet comes to different conclusions regarding the arrangement of digital archives. To reach a 'real contact zone' with mutable objects, the authors under the leadership of the Zuni tribal museum in New Mexico developed a digital archive that focuses on narrative meanings and meanings based on use and practice. The archive also includes a European museum's meaning, but what is striking in this case is that the project partners conceptualized a system that has direct access to the digital resources of the Zuni collections at the MAA, while allowing the A:shiwí A:wán Museum and Heritage Center (AAMHC) and the Zuni community to add and organize comments, resources, associations and accounts locally. These resources will be under the control of the AAMHC, and only certain resources will be shared with the MAA. The MAA will not be able to change or modify these resources without the permission of the AAMHC, but they will be associated directly with the objects in the collection at the level of the documentation system, having the same status as museum descriptions and accounts (Srinivasan et al. 2010: 761).

Srinivasan et al. go beyond the idea of separate hubs reflecting the distinct approaches of independent ontologies. They take seriously the demand to address hierarchical structures embedded in museums' institutional paradigms with regard to documentation. Enabling stakeholders with dissenting information management systems to contribute to the heart of immutable objects – their catalogue – not only allows for cultural production (helping to keep the social life of objects moving),

but dissolves, at least in part, the immutability of museum objects. It permits ontologies other than those of the traditional ethnographic museum to construct the digital archive, and thus to contribute to a canon of knowledge without the threat of being subsumed by re-implementing (prevailing) power regimes that privilege one knowledge system over another.

What the new-order digital technology brings about in archives can be closely related to conventional order forms – and hence can reinstall prevailing systems – or it decidedly challenges these power conventions through programming archival software, and granting and denying write and access control. These three unconventional examples show that there are ways to break up the economies embedded in archives. They go beyond writing comments, tagging or creating a particular version of the website's front-end, instead including diverse knowledge systems and archival ontologies in the back-end of digital archives. Considering digital archives as the core of contemporary documentation processes includes here the acceptance of multiple concepts into the programming, and hence provides a gateway for a polyphonic creation of knowledge and data handling. Digital technology shakes up established conventions of ordering records and documents, and the way material is stored and retrieved – it challenges the power of institutions as ordering entities. Digital archives as examples of postcolonial digital humanities highlight the limits and deficiencies of more conventional analogue systems. Still, digital means are not an abrogation of order and power, but denote a modification of the first and a shift in the latter.

A clear advantage of both conventional and progressive computational archiving is the arithmetic operations computers are able to perform. Collection management systems can handle ever-larger quantities of multiply interlinked archival data, making more specialized and faster retrieval possible. Yet the turn to the digital comes at the cost of replacing one ordering system with another, also implying the transformation of information into new format(s). As the new formats mean essentially a binary code of ones and zeros, a reducing tendency inheres in digital archives, where increasing amounts of data implies a tendency to form series. Digital archives thereby unsettle ways of interpreting material that have shaped historical research for a long time. Mechanization influences the cultural operations that historians and other archival users have applied, as they now also use advanced retrieval opportunities, where material is easily adjusted to specific needs. As archival order is accommodated to coded software, so archival data retrieval is subject to this numerical coding. In other words, the technological advancement in archival practice comes with a new impetus

of the technology's relevance, and in consequence with a reduction in the power of archivists in the conventional sense. Once the digital archive is set up, they only indirectly, if at all, determine how data are organized and arranged. These pivotal decision-making principles lay with database construction, and hence also with programmers and machines in charge. As Wolfgang Ernst (2009: 200) put it, 'Henceforth, to write the archive is to programme the archive'.<sup>6</sup> As science can only persist if it develops according to technical transformations (Derrida and Prenowitz 1995), archival science must adapt to new technology, even if that means new cooperation, new protocols and new order.

This requirement to modify and transform bears a contradiction for archives that have conventionally been conceptualized as stable and preserving entities. When viewing records in their material surroundings in the archive, such files generate authenticity from being part of a stable entity. When inhaling dust and preservatives in a brick-and-mortar archival building, visitors also breathe in the notion of perseverance and stability, and hence the trustworthiness of an archival record. Yet, as Cook (2001: 4) notes, this trustworthiness has been challenged: 'At the heart of the new paradigm is a shift away from viewing records as static physical objects, and towards understanding them as dynamic virtual concepts'. Digital technology accentuates the processual character of archives. Not only does digitizing existing archives mean a one-time transformation of archival records that comprises decision-making processes and hence foregrounds the agents involved in this process, but digital archives also require permanent modification in order to persist. Ways of archival ordering, geared in Europe towards provenance and saving, are expanded through a culture of permanent transmission. Ernst (2002) uses the metaphor of a ship for contemporary archives, in that they are always occupied with transport and navigation, that is, migrating data and updating programs.

Ernst (2002) goes even further and envisions the vanishing of conventional knowledge and cultural reservoirs through electronic storage media, and sees this not only in the needed migration of data<sup>7</sup> but also in the internet as the ultimate mutable online archive. Here, everything is filed as information; the internet has developed into a pure expression of both archival, encyclopaedic ambitions, and permanent mutability. According to Ernst, the internet replaces Foucault's historical *a priori* of archives. In the 1960s, Michel Foucault's *The Archaeology of Knowledge and the Discourse on Language* redefined the archive and set the standard for a broader, cultural scientific understanding of archives. Foucault does not see the archive as a place for retrieving facts, but understands the archive also as an active process of stacking, ordering, transforming

and creating facts. The archive does contain the real and hence has a relation to historical truth, and keeps it as a raw material. But Foucault was concerned with the *a priori*, the rules of what can be part of the archive. An archive develops from a set of relationships and according to the set regulations of discourse. There are things that can be said and things that cannot, and hence will never be part of the archive. Foucault (2010: 129) feeds this back into his definition of the archive, being ‘first the law of what can be said, the system that governs the appearance of statements as unique events’. But the archive is at the same time the ordering entity, warranting that all the things said do not expand endlessly in linear form but interrelate according to specific regularities. The archive differentiates discourses in their multiple existences (ibid.: 130). However, since nearly every discourse and its order in a particular form can be called an archive, there is no way to describe the archive of a society in total, not even that of one epoch. And being inside, or part of the discourse (and hence the archive) makes any attempt to do so even harder.

Foucault’s very broad understanding of the term ‘archive’ and his sophisticated analysis of societal discourse initiated further research into what archives and discourses really are. In the 1990s, archival theory experienced its heyday, but the term archive slowly developed into a mere metaphor for all kinds of things, leading to an undermining of a term that no longer had anything to do with records or collection keeping (Ernst 2002; Horstmann et al. 2010). Likewise, when Ernst states that the internet replaces Foucault’s *a priori* and determines a seemingly non-discursive reality – what can and what cannot be said – ‘archive’ becomes a term that has little to do with records or collection keeping. The internet should not – as Renée Sentilles (2006) put it – be regarded as the archive of the archive. To do so would imply an all-encompassing redesign of the term archive that obstructs the view from the cardinal changes that digital technology brings about for archival ontologies. The perceived velocity and abundance of digital archives is in stark contrast to conventional ideas of scarcity of resources that need to be saved and preserved for posterity. Yet, when thinking about the impact of digitization, we should not fall into the trap of expanding the frame of what comprises an archive to the point where the term becomes nothing but a popular trope used for any form of gathering or circulating information. The internet epitomizes the wish to gather everything, but its fragility and velocity do indeed distance it conceptually from the notion of an archive. The internet creates a meta-level of information allowing us to search for archival content, but it is not conceptualized as a lasting entity.<sup>8</sup> Its focus is on circulation of information, with

preservation being largely ignored. Digital archives, on the other hand, still strive for filing and ordering records when creating and assembling ‘facts’, imbuing them with significance and arranging for their retrieval. Conventional knowledge and cultural reservoirs might perish in the internet’s noise. Yet the internet is not abrogating the knowledge/power nexus that is expressed in ordered records. Creating, capturing, organizing and pluralizing the archive are parts of a continuous process, done interactively and in a circular fashion (Caswell 2014; Upward and McKemmish 2006), which remain in place with the shift to digital archiving. Records are no longer objects made once and interpreted in the same way ever after. They are a segment of knowledge and power production, as well as a result of it, making digital archives ordering systems that reflect both the wish to preserve, store, appraise and regulate, and the mutability and flexibility of digital technology and the internet.

### Power through Access

Information retrieval and access to records is the second major means of exercising archival power. Institutional power is echoed in contemporary practices of granting access to archives. The aforementioned difficulties in seeing the Eickstedt photo archive at the ethnographic museum are not merely a German phenomenon, but resonate with experiences described by other scholars. Aparna Balachandran and Rochelle Pinto (2011), for example, state that the Indian stories they have heard about gaining access against all odds could fill at least a year’s worth of newspaper columns. Access policies sometimes seem random at best and discriminative at worst. They are an expression of archival power.

While doing research for this book, I attempted to view several collections of photographs and objects in Indian museums and archives. Being a white foreign female and an outside researcher (i.e. not officially affiliated to an Indian institution), I faced numerous hurdles. On rare occasions, heads or staff of archives responded openly to my request to see and talk about their collections and digitization practices. Mostly, I was required to produce a letter of recommendation. The letter, complete with a letterhead and stamp from my university, explained my research in few words. The letter signed by my employer in his role as professor was often a *sine qua non* for access and interaction. When I attended an appointment with the head of the archive of an East Indian museum, for example, I was allowed to enter the office, but when she realized that I had not brought such a letter with me, I

was not allowed to talk to her. I apologized for my forgetfulness and was asked to come back two days later. I sent the letter the same afternoon via email, and when I returned to her office she printed it out for the director to approve and sign off. It turned out that the director was not in the museum at the time, so I was asked to return the next day. This time, the head of the archive managed to get hold of the director, who signed and approved my request for support and information. I was introduced to him and we used this occasion for an interesting talk about museum politics, including digitization. When we returned to the head of archives' office, I prepared to ask my questions about the museum's digitization programme. However, upon seeing my small recording device, she objected, saying that to record her answers I would need to get separate and explicit permission from the director. I should bring another formal letter the next day, which she would ask the director to approve. I decided to ask my questions anyway, without recording the answers, and to take notes during our conversation and the visit to the digitizing units.

The reasons for restricting access – to information about collections or to archives and collections themselves – while maintaining records and collections lie in political control and the value attributed to legacy, past and tradition. In government institutions like this Indian museum or the Leipzig Ethnographic Museum, there is a banality of power at play, where 'state power ... creates through its administrative and bureaucratic practices, a world of meanings all of its own' (Mbembe 1992: 2). Granting or denying access to archives is one of the many power processes that a state can apply. Doing so through its bureaucratic apparatus, it executes control over the circulation of knowledge and over the researchers or other individuals demanding admission. It thereby, in a process of negotiation, forms and transforms society, specifically the way in which society relates to its past. This power mechanism influences not only the content of written history, but also what remains unwritten. It also contributes to the valuation or even fetishization of historical documents. Installed and nurtured mechanisms of power hence contribute to their own functioning (Cheater 2003). Keeping information about what an archive contains within closed circles is still one of the best ways to impede access requests.

While an interpretation of documents happens when ordering them into the rubric of the archive, using and communicating the content is an important means of wielding power through archives. Archival material, even if published in numbers only, becomes the backbone of interpretation. Accumulated data is already a power-driven corpus and its analysis can be subject to scientific reasoning as well as to political aims.

Thus, who accesses the archival material is highly relevant. Through access and interpretation, archives again become, as Joan Schwartz and Terry Cook (2002) put it, part of the knowledge/power nexus. When the general public still accepts archival objectivity, retaining or obtaining sovereignty of interpretation is tantamount to speaking with authority. As Jacques Derrida (Derrida and Prenowitz 1995: 11) put it, ‘there is no political power without control of the archive, if not of memory’.

Other reasons to direct how and by whom archival content is accessed are conservational and financial concerns. The sensitivity or contamination of records can justify a restriction in accessing and handling them, as can financial obligations and economic resources. If an archival body invests time and money in preserving material and records, it might as well benefit from this work or obtain some remuneration for it. Political attitudes and moral agendas can play a role when portraying the past in a particular way – and consequently influence the present and the future. Such limitations of access to archives need to be transparent, for example through communicating established laws and obligations. For the Eickstedt photo archive, the laws are comparatively clear – if it is acknowledged as an archive. The state’s law on archives declares that anyone who can demonstrate a valid interest has the right to see the archival material of the state (subject to the user regulations of the particular archive). Museums, however, are not subject to the law on archives but define binding regulations in their house rules. The Staatliche Kunstsammlungen Dresden – the umbrella organization for the Eickstedt collection – codifies that they provide archival records for view on the grounds of professional interests, provided that no retention periods, third-party interests or conservational reasons prohibit such access. Yet, besides transparency of power through access, institutions should also aim to extend access. Derrida states in this regard that ‘effective democratization can always be measured by this essential criterion: the participation in and the access to the archive, its constitution, and its interpretation’ (Derrida and Prenowitz 1995: 11).

## Digital Archives and Online Access

While the straightforward democratizing impact of access to archives can be subject to debate, digitizing archives and their online dissemination significantly changes the knowledge/power nexus. Access is – once archives are online – granted on the basis of internet access and (unless password protected) anyone from anywhere in the world can view the archival records on a computer screen. When the Eickstedt collection



went online in 2017, the institution explained its motivation on its website and gave official reasoning for the project:

Even though these [photographic collections] are first-grade resources, they – as many such collections – live in the shadows. The relevant image repositories are in large part preserved in archives of public institutions, but they are generally not or only insufficiently indexed and therefore hardly accessible for research.

The digital presentation of selected photographic collections improves the structural preconditions for interdisciplinary research. The visual resources are important for the disciplines that once created them, but beyond that also substantial for research related to visual culture. ... This applies to research in Germany and Europe as well as to countries and regions once travelled to. The visual resources can be of great interest for researchers of countries of origin as documents of their past, and can now offer the basis for transcontinental discourses.<sup>9</sup>

This is a reasoning for access and encounters, which other institutions also invoke. Museums and archives see that digitizing collections can turn ‘this hidden archive into an online resource accessible to people across the world’,<sup>10</sup> or ‘foster encounters with, and prompt questions about, various kinds of transfer and circulation of ideas, knowledge and values around the globe through space and time’.<sup>11</sup> For collections turning digital and online, circulation of knowledge through access to stored information is a central issue. Digitizing collections and making them available online is also a way to decrease archival power and to allow access centred on internet access as the only criterion.

However, in practice there is still reluctance among many custodians to provide online access to collections. While implemented digitization projects stress the potential of it, it can also be seen as a threat. In numerous conversations with custodians, I heard very similar concerns. Firstly, publishing digital reproductions along with metadata may raise critique. Outsiders may find fault with the provision of incorrect or insufficiently detailed information about the collection. As digitizing often involves making an inventory, it may also involve drawing out obsolete or rudimentary information regarding the collection, its bad condition or fragmentariness. Launching websites with online digital archives hence makes an institution vulnerable. Secondly, expertise and labour are required to determine the appropriate mode of an online archive, to implement programming and data input, as well as update and maintain a digital archive. Doubt remains about whether competence

and resources are sufficient to ‘successfully’ launch digital archives. The money required for providing online access means digitization has to compete with other tasks that need to be financed – making the decision even harder. Money is also an issue, thirdly, when it comes to envisioning the users of online collections. Digital archives published online may invite digital free-riders who make use of the reproduction, whether they come with copy protection or not. In particular, the illegal use or commercial profit by third parties cause museums and archives quite a headache. When costs are incurred for preserving and maintaining an analogue and/or digital collection, expectations might rise that profits – if at all – are generated to refinance some of these costs. Fourthly, it is not to be forgotten that museums and archives often view their collections as their largest resource, whose dissemination they want to control and profit from, whether through social or economic capital. If museums curate and advertise exhibitions centred on singularity and for the first time, the uncontrolled circulation of the objects’ images – even more so when we talk about photographic collections – seems like a threat to this uniqueness. The fifth concern relates to the question of who will use the digital archive. This is not in regard to monetary matters but rather a fear of not reaching the users envisioned with the web portal. Digital gaps and divides persist, making it harder (or impossible) to connect to the internet for some sections of the population. While global mobile phone penetration has been increasing and access to the internet itself may not be an issue, the quality and bandwidth, electricity access, prices of data packages, digital literacy and social factors are certainly relevant for a persistent inequality in accessing online information. As a result, the digital divide may thwart (ethnographic) museums’ attempts to digitally return collections to Indigenous communities in the Global South, for example. Additionally, open online access allows for illegitimate or immoral use; custodians cannot prevent the ridicule, misuse or improper appropriation of heritage material.

As most of these concerns can be rebutted or outweighed by other arguments, assessing the assets and drawbacks tends to become a question of interpretation or belief. Online access can raise critique, but fair comments can lead to exchange and enhancement. Costs are always an issue, but digitization can pay off in multiple ways. It must be noted that the internet is and will continue to be an increasingly used medium to access and circulate information on the past. Without overestimating the internet’s importance, indications show that keeping a collection offline will lead to missing out on cultural production, as memory and history-making will happen on the basis of more accessible archival resources. It might be an exaggeration to say that if it’s not online, it

doesn't exist, but if collections are not disseminated as digital archives on the internet, many will not notice them. The same applies for the housing institution, which usually notices an increase in interest and visibility through providing digital archives, rather than the often-feared decrease in visitor numbers (see Euler and Klimpel 2015).

The concern about improper use takes the discussion about online access back to the very core of archival power. Providing information about collections online is certainly a form of parting with sovereignty of interpretation. It decreases control over the use and appropriation of preserved material. This can be highly problematic if the material is sensitive, if viewing it is considered impious or infringes upon cultural protocols. Human remains, secret/sacred objects and nude pictures are the most prominent of such sensitive objects to be found in museums and archives. Sensitive objects require special consideration before being disseminated in any visible form – whether in exhibitions or as reproductions in digital archives. Yet neither should we refrain from mentioning them as part of collections and archives, nor should their existence prevent institutions from making the majority of non-sensitive material accessible.

Eventually, and more generally speaking, online access to cultural heritage can be subject to a more optimistic or pessimistic take on open access. On the one hand, digital technologies bring about an advance in access in terms of numbers and spread. While analogue archives and collections include several hurdles to consulting documents and objects, their digital copies potentially allow for the largest number of users, from all over the world. Instead of needing social and economic capital to travel and physically enter an archive or depot, such costs are now reduced to internet access, a digital device and digital literacy. Digitization and online dissemination appear as a more democratic mode of using preserved content. The coding of the historical, which has always been an eminent aspect of producing order, is implemented in digital code, which allows for a flattening of previous visual hierarchies. The digital archive can enhance scholarship and broaden perspectives; it allows online access to resources across borders. In other words, cyberspace reduces geographical distances to infrastructural realities. It can foster new encounters and connections between people and across distances. Numerous examples show how the online dissemination of digitized archival material brings about novel interpretations of documents and objects, extended collaborations or new circulation of knowledge.<sup>12</sup> On the other hand, digitization projects pose challenges and do not necessarily democratize access to resources of the past in the anticipated way. With the digital gap persisting, online access may benefit fewer people

than envisioned, and information may circulate with limited reach. Online access to collections and repositories does not necessarily *abolish* archival power through novel access policies, but significantly changes the character of archives and creates new regimes of access.

## Digital / Archives

Having seen, worked with and talked about quite a few museum and photo archives, I return to the opening question of what an archive is. While a straightforward ‘yes’ as an answer to the question ‘Do you even know how archives function?’ would be an exaggeration, the above investigation allows me to draw some conclusions about what archives, and especially digital archives, are.

We have come a long way from the first systematic considerations of archives, where the term refers to the institution or the body of preserved documents that the state once used as registers but that are now no longer of practical use (Duranti 2001; Mbembe 2002). An archive is no longer only the result of a government agency’s or a court’s responsibility to document, where documents become archival records in a filing process. Neither is paper the only information carrier. Today we have a broad range of photographic, film and sound archives, with carrier material extending from wax cylinders to celluloid and vinyl. In other words, there is a more liberal understanding of where archival material comes from and what carrier material can be. Museum objects can also fall into the category of archived material, since objects contain information, and acquisition and preservation are two of the four main tasks of museums (International Council of Museums 2009).

With the postmodern questioning of the objectivity of archives and the focus on the characteristics of kept records, the distinction between information carriers of different forms as well as between institutions seems to shrink. Archives, museums and other institutions preserving, ordering and allocating collections with information relating to the past form part of a knowledge/power nexus that regulates and orders how the past is constructed and made sense of. While there are specific characteristics for archives, museums and private collections,<sup>13</sup> as well as individual markers for each and every one of their repositories, a clear demarcation of archives as separate places of collection and ordering has become increasingly difficult. French historian Pierre Nora (1989), for example, highlights the common characteristics of museums, libraries and archives when he talks about *lieux de mémoire* – places that gather references to the past but fail to successfully engage a larger audience

in an active commemoration process. Hence, archives are better understood as a triad of institution, place and content, preserving and ordering documents. These documents – of various formats and material – become archival records in a filing process.

Digital archives are numerically coded and often online repositories of cultural heritage collections. They display information about the past in an ordered form through an electronic database and make it available through the internet. A digital archive's content can be based on a previously existing collection in a museum or archive, or created anew through collecting. A clear advantage of computational archiving is the arithmetic operations computers are able to perform. CMSs' ability to link and reorder archival data instantly, allows faster and more specialized information retrieval.

The basic principle for all digital data is a binary code of zeros and ones, which implies a inclination to forming series and thereby also a tendency for reduction. Digital archives generate new modes of historical research with its ways of interpreting archival material, as multiplied retrieval options influence their cultural operations. Numerical coding facilitates not only an archival practice of data retrieval that gives new relevance to technology, but also flattens the archivist's relevance as regards prescribing order and granting access.

Digitization not only fostered changes in understanding the concept of archive already underway, but transformed archival practices and principles. Imparting archival knowledge in an online form is also a means of imparting power over content. There are good reasons both to do so and to refuse to take these steps. Demands can loom large, not least in ethnographic or colonial archives, to offset or reconcile previous injustices or imbalances. Archives as institutions, on the other hand, argue that preservation is resource intensive and hence should be compensated. They also bring forward the sensitivity of material (both physically and regarding content) and third-party rights. As early as 1994, Cook ([1994] 2007: 399) spoke of a commencing 'revolution in information management and archives' that would change archival work fundamentally. Archives already had to cope with too much rather than too little information, and digital tools had been introduced to help organize archival records. However, digital technology does not only mean supporting storage and retrieval, but comprises changes in all aspects of archival work, 'changing information technologies, changing administrative/organizational structures, new corporate information needs, new legislative frameworks, new perspectives on the value of information as a corporate resource, new awareness of the need for public and democratic accountability' (ibid.: 404).

Yet such a change in the very understanding of archives does not come about easily. Archivists – according to Cook’s ([1994] 2007: 409) own experience – tend to be sceptical about drastic realignments. Electronic records imply new workflows and threaten paper-minded people: they worry they might lose their jobs and/or credibility. Shifting from established practices and norms of material or even paper-based archival records to digital versions of the same, and hence to a seemingly machine-generated order, can put the accountability of archives in broader society and their financing at risk (ibid.: 406). The consequence of this threat, Cook argues, needs to be a more fundamental shift: one from the idea of archives as instances of physical record-keeping to conceptual management that necessarily includes digital technology. Only openness to such fundamental conceptual transformations bears the chance to shape the future of archives and archival practices.

It is questionable whether such a fundamental shift is taking place. Granted, the ordering of archival content and restricted access policies are negotiated against the background of the increased turn to digitization. The shift to computerized or computer-supported archiving and file generation has altered practices of archiving and increased reflections on the ontology of archives, leading to de- and reconstruction of the concept. Yet, digital means do not do away with the central archival characteristics of order and power. They rather modify the order and realign the power related to archives. The new order in digital archives can underline conventional order forms or resolutely scrutinize these. But digital archives, too, rely on ideas of access to ordered information. They are constituted as a means to provide resources for memory and history-making, and as such relate to ideas of power and access.

Furthermore, the internet has its own logic and inherent ordering principles, impacting access to archival material and consequently the power structures with which archives are imbued. Risam (2019: 10) urges us to see both sides of the coin:

Both a blessing and a curse, digital media and technologies have accelerated knowledge production and enhanced access to knowledge creation in digital humanities, producing a space where the digital cultural record can come into being. But because the digital cultural record exists in a media environment that is caught in a battle between corporate interest, academia and the cultural heritage sector, racial and cultural politics, and consumer power, that record itself has become a spoil of war.

New technologies make new forms of search and access possible, which are less restricted by conventional power mechanisms. These power mechanisms have not become extinct, however, but have been

replaced. What we find today are custodians who share archival content and thus also their power, albeit not necessarily with the users of archives. Rather, there are (at least) three stakeholders involved in digital archives today. Firstly, custodians or archivists are still in charge of which parts of the archive become part of its digital counterpart. Some argue for a holistic approach to collection digitization, while others decide to digitize and publish only selected pieces. Thereby the content and the power to decide the meaning, interpretation and use of the archive is shared with the second interest group, the outsiders, be they researchers or the general public who might take an interest in the resources. Defining what a collection or archive comprises through transforming data into narrative is – once the content is published – no longer limited through restricting physical access to records to selected people only. Nevertheless, technically – and this is the third party involved – the ranking and display principles of search engines and algorithms determine what content is accessed. Search engine optimization might improve the quantity of website traffic by raising the site's placing in web search engines, but the increased complexity of non-transparent web search engines limits the potential for individual or archival influence here to a minimum. One can positively argue that internet and archive are complementary to one another, as one is the public and living output for the rather static and preserving other (Assmann 2009). The internet augments the archive in so far as it provides an ever-changing multi-perspectivity on material that is subject to endurance.

However, technology also impairs, or at least directs, perspectives and access to information. Facebook's Free Basics initiative is a textbook example of these tendencies. Mark Zuckerberg introduced the mobile app in India in 2015 as a way of providing free internet access to the several million Indians still disconnected from it. Free Basics was announced as serving local needs and bringing people online for the first time. The app would refit websites to be datalight and provided the option to browse them without paying for mobile data. After running in small pilot projects, Free Basics (not the only such project in India, but the most publicly debated and advertised) was temporarily banned from operation in late 2015 by the Telecom Regulatory Authority of India (TRAI). After massive campaigning by Facebook and an equally vociferous information campaign by several actors in the media and civil society, TRAI banned Free Basics and comparable apps in early 2016. The major problem was that it provided free access to only a few websites, among them [www.facebook.com](http://www.facebook.com). TRAI rightly identified this as a violation of net neutrality and released the 'Prohibition of Discriminatory

This case demonstrates that access to information is a valuable good, and the internet is not *per se* a warrant for it. Actors involved in shaping its functioning instead demonstrate that archives, when defined as entities that exercise power through allowing access, need to carefully consider the stakeholders involved in providing the necessary infrastructure to do so. We also need to consider that liberal access policies can foster structural inequalities rather than benefit more marginalized stakeholders. The internet does not necessarily provide for a democratization understood as advancing the whole population, but might privilege only certain (already advantaged) parts of society. When thinking about archives and their renewed access policies, we need to ask about the whereabouts of archives in their digital format and online circulation. Povinelli (2011) urges us to consider the constitutors of these archives. What and who is left out, and what and who is included? Who continues to influence what we can see, and what technologies (programmed by whom with what interest) newly enter the stage? Digital literacy, the digital gap and the archival gap function as selective or exclusive factors. Colonialism and racism continue to play out online, something that can also be seen in archives, as for example white male American writers of the past are well featured in digital archives, while others are not (Singh 2015). This archival gap – the historical dimensions of which are largely out of our control, but its contemporary dimensions very much within our capacity – requires us to expand content and change archival orders and retrieval options.

Postcolonial digital humanities stress the culture-transforming capacity of digital archives, and hence urge for both a hack and a yack in creating them. We need to constantly ask who has an interest and is *de facto* involved in constituting what digital archives comprise and contain. The time is right for such a debate, and numerous digital archive projects are putting pressure on established archives. Digital archives open up a space for redefining what is worth preserving, in what form and order, how such conservation should take place, and how archival data are used to narrate history and transform material with mnemonic capacity into pieces of actively performed acts of remembrance. The following chapters engage these issues by taking a closer look at digitization practices.

## Notes

1. The archival recordings and the corresponding museum objects were the foundation for what would become my doctoral thesis (see Müller 2015).
2. Available at <http://www.deutschefotothek.de/cms/weltsichten.xml>.
3. On the Eickstedt expedition, the archive and collection, see Müller 2015, 2019, 2017a.



4. See <http://www.deutschefotothek.de/cms/weltsichten.xml>.
5. The following paragraphs comprising the three examples of digital archives have previously been published in a similar form (Müller 2017c).
6. 'Das Archiv zu schreiben heißt fortan, es zu programmieren.'
7. Migration to a different carrier material has happened before – think of microfiche or audio-archives in wax cylinders, tape or CD format – but has reached a new quality and especially velocity with digital file formats and required software adaptability.
8. This becomes obvious in the internet archive ([www.internetarchive.org](http://www.internetarchive.org)) that tries to periodically preserve all websites, making them permanently available.
9. <https://www.slub-dresden.de/ueber-uns/projekte/juengst-abgeschlossene-projekte/weltsichten/> (accessed 16 May 2020), translation from German by the author.
10. Führer-Haimendorf Archive, <https://www.soas.ac.uk/furer-haimendorf> (accessed 10 September 2020).
11. Basel Mission Archive, <http://www.bmarchives.org/about> (accessed 10 September 2020).
12. See the three examples mentioned above; see also chapter 5 of this book. More examples, especially for the Indian subcontinent, are the Citizen's Archive of Pakistan, the South Asian American Digital Archive, the Asian Art Archive and Sahapedia.
13. An archive in the narrow sense is the result of administrations, courts and other institutions responsible for documents generated in the process of governing, ruling and administering. It shares this notion with some of the museums that rulers established as supposedly encyclopaedic collections of a range of objects or as a chamber of wonder, assembling all the spoils a ruler received. Museums have long since internalized the task of exhibiting, which archives and libraries do not understand as a core task. A library, which at times is also referred to as an archive, is the result of a cultural discourse, of the writings, thoughts and ideas of authors who intentionally put those on paper.
14. [https://tra1.gov.in/sites/default/files/Regulation\\_Data\\_Service.pdf](https://tra1.gov.in/sites/default/files/Regulation_Data_Service.pdf) (accessed 11 November 2020).

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EMBEDDING  
METADATA  
WITH  
PDF

## Deciding on Digital Archives

*Improvement through  
Collection Management Systems*

I'm sitting in front of my computer screen, eager to find out more about Indian cultural heritage collections. While some British museums have online collections with Indian content, along with a few European and North American institutions, Indian museums themselves are comparatively new to the scene. The Indian government, however, has commenced a project aiming at digitizing and disseminating online all Indian museum collections. In the course of this digitization, it is not just a few highlights that will be accessible, or short descriptions of the collections (as many museums all over the world still have); the project strives to present complete inventories of every single object preserved in all large Indian museums.

My online search for 'museums of India' provides several suggestions from Sahapedia, Wikipedia, tour operators and Trip Advisor. A bit further down the search results, I find what I am looking for: [www.museums.ofindia.gov.in](http://www.museums.ofindia.gov.in). *Click*. 'National Portal & Digital Repository.' A large banner with a Radha and Krishna painting dominates the page, which changes to a photo of the temples of Khajuraho, to a Buddhist painting, to a photo of a stone statue, to a painting of a British nobleman. Below are ten large squares with photos and names of Indian museums: 'Allahabad Museum, Allahabad; ASI Museum, Goa; Indian Museum, Kolkata; ASI Museum, Nagarjunakonda; National Museum, New Delhi; NGMA, Bengaluru; NGMA, New Delhi; NGMA, Mumbai; Salar Jung Museum, Hyderabad; and Victoria Memorial Hall, Kolkata'. These are the museums participating in the first round of digitization. The right-hand upper corner offers what I was looking for: 'Search across museums'. This is the database, the core of a digital collection. I want an overview, not to search for single objects. 'Direct access' allows me to

click on either ‘Museum’, ‘Object Type’, ‘Material’, ‘3D Gallery’, ‘Artist’ or ‘Technique’. A small thumbnail for each of these.

I choose ‘Museum’. *Click*. ‘Salar Jung Museum, Hyderabad (Total:27958)’ and a line of eight colour photographs with objects from that museum appear as a preview: a statue on a light blue background, two paintings, a vase, a bowl, two more statues with dark blue and yellow backgrounds, another painting. ‘National Museum, New Delhi (Total:23978)’, with another eight photographs. ‘Allahabad Museum, Allahabad (Total:19156)’, also with a line of pictures. A fish image with a green background looks interesting. *Click*. The enlarged picture covers the left half of the screen, a column with metadata is on the right:

Title: Figure of a Fish.

Title2: Figure of a Fish.

Museum Name: Allahabad Museum, Allahabad.

Gallery Name: Archaeological Gallery.

Object Type: Bead.

Main Material: Stone.

Manufacturing Technique: Cutting.

Main Artist: Not Known.

Artist’s Nationality: Indian.

Author: NA.

Country: India.

Origin Place: Kaushambi, Uttar Pradesh.

Find Place: Kaushambi, Uttar Pradesh.

Scribe: NA.

Style: NA.

School: Not Known.

Patron/Dynasty: NA.

Period/Year of Work: Early Historic.

Inscription: No.

Tribe: NA.

Costume: NA.

Culture: NA.

Detailed Description: The fish shaped figure may have been used as bead because it is still perforated by the artist. It is made in soft stone. Fish is beautifully carved and polished with accuracy. Carving occurred on the both side of the fish in square shape with prominent eyes and mouth.

Brief Description: The fish shaped figure may have been used as bead.  
[*sic*]



The photo is to the left of the description. A yellow-brown fish photographed against a green background. The lower right corner of the photo shows a watermark in the shape of an official stamp, a circle with the national emblem of India – the lions from the Ashoka pillar – and the words ‘Ministry of Culture, Government of India’, ‘The Allahabad Museum’, ‘© Copyright. All rights reserved’. Below the photo are small icons. *Click. Click. Click.* I can zoom in and out. *Click. Click,* rotate the photo clockwise and anti-clockwise, *Click. Click. Click,* see it fit to the screen, original size and in full screen.

The online archive of the museums of India provides access to and information about museum objects, allowing a search across ten of India’s largest museums. Navigating through and looking at the entries on the website raises questions about the whereabouts of this digital archive. Why was the database constructed in this way, with photographs and metadata? Who decided on the comparatively old-fashioned design of the website, for format aspects and visualization? What were the reasons and motives behind assembling the collections of India’s largest museums into one digital archive?

To understand the appearance of this ‘Digital Repository’, this chapter looks at its construction. What we encounter online on [www.museumsofindia.gov.in](http://www.museumsofindia.gov.in) are the publicly available parts of a collection management system (CMS), recently developed for implementation in several Indian state museums. There are currently a number of CMSs on the market, ranging from free, open-source systems like CollectiveAccess and CollectionSpace, to commercial products like Axiell Collections, MuseumPlus and eHive.<sup>1</sup> This variety reflects the fact that there is no longer a one-size-fits-all approach, but that stakeholders in museums and archives have to make conscious decisions when choosing whether to use an already available CMS or programming their own. Since the first introduction of CMSs in the 1960s, technology has advanced significantly. An in-house assessment to select the right CMS can be helpful to determine the required add-ons and features (Kozak 2013: 17), and modified versions can cater to individual needs while making sure that data compatibility and other standards are met.

In this chapter I show that deciding on a CMS at all is in the first place driven by a belief in improvement. Wanting to introduce a CMS is tied to the conviction that digitization brings improvement, and that in a museum, characterized as an ordering institution, a digital collection management system is supposed to bring better workflows and working conditions. As digitization is believed to bring improvement in a wider sense, so a CMS is understood to bring improvement for museums and archives.

However, just as there are no uniform understandings of what the betterment through digitization looks like, there is also no homogenous agreement on improvement through a CMS for a museum. While a general notion of CMS equalling improvement prevails, the outline and details of the software needed are vague, and imagined benefits can differ from stakeholder to stakeholder. Since we are discussing digital technology, it seems reasonable to suppose that improvement is here above all technological. Indeed, CMS construction has advanced since its first introduction in the 1960s, to the point that, today, there are usually set technical standards for a CMS. *Jatan* – the CMS created for [www.museumsofindia.gov.in](http://www.museumsofindia.gov.in) – illustrates how these technical standards are incorporated into a CMS that at the same time must adapt to internal demands.

The technological aspects alone do not suffice to explain improvement. The shape of a CMS, including its programmed architecture, is also the result of social factors. One way to explain this is seeing technological changes as part of a technological frame (Bijker 2012). A technological frame manifests as the corollary of both technical state-of-the-art and social possibilities. Another way is to conceptualize improvement as being always specified by sociocultural and technical aspects. Programming a CMS follows available technical specifications, but it also pertains to the established practices, needs and understandings of museums and (digital) archives. The technical side continues to determine, but not dominate the way in which objects and documents are digitized. Resources and practices regarding effective information management are equally relevant, if not, as Darren Peacock et al. (2004) state, foremost in the interplay of technical and sociocultural factors. Tracing the construction of *Jatan* demonstrates how technical and sociocultural factors intertwine in decisions made about programming this CMS.

Within this process, however, the stakeholders involved do not necessarily foresee these factors. Neither do these stakeholders – in this case the Indian Ministry of Culture, the Centre for the Development of Advanced Computing (C-DAC), the Art Institute of Chicago (AIC) and the museum directors and staff – clearly articulate what improvement entails in detail. There was a consensus that improvement in the museums is desirable and wanted, and that a digital archive is an appropriate way to achieve this. In a general sense, there was unanimity that digitization as technical advancement means enhancing ordering and systematization, which are required in archives and museums. All actors agreed upon the need to improve museums through digital means. Yet the Ministry, C-DAC, AIC and the museums had no clearly defined or

coordinated conception of what this digital improvement might look like. Each of the partners brought their own vague concepts of improvement through digitization into the database construction process. This became, essentially, a process of negotiation, where sociocultural and technological concepts and ambitions – at times quite diverse – eventually codetermined Jatan. The unfamiliarity or uncertainty about what improvement signifies led to the process of constructing a digital archive becoming very much a process of political negotiation. The ambitions and hierarchically structured positions of the stakeholders eventually fed into the technical architecture and layout of this CMS. Technical restraints, data standards expectations and the visions and practices of museum work all played into the understandings of improvement and the construction of the database. Ultimately, Jatan took shape as the result of the Ministry's, the museums', the IT centre's and external advisors' standpoints and individual and collective ideas of improvement.<sup>2</sup>

## Improvement

The website [www.museumsofindia.gov.in](http://www.museumsofindia.gov.in) also features what the makers call the vision behind this online portal and digital repository:

The Ministry of Culture [of India] has embarked upon an ambitious project of the digitization of the collections of the Museums under it with the twin purpose of making effective utilization of technology in museum management and bringing the collections of these museums closer to the public by making them available for online viewing over the internet. In this endeavour, the Ministry of Culture, through the technical expertise of Centre for Development of Advanced Computing (C–DAC) Pune and the Art Institute of Chicago got standardized a software entitled 'Jatan' for implementation in its Museums.<sup>3</sup>

Meanwhile, the Minister and Secretary of State accompanied the introduction of Jatan with the following words:

*Message from Honourable Dr. Mahesh Sharma, Minister of State*

Museums are a repository of a nation's culture as they contain explicit examples of the development of a country's culture and heritage over a period of time. The strengthening of the country's museums is an important activity covered under the ambit of the Ministry of Culture. In this modern era of technological advances, Museums worldwide have undergone

major changes in terms of their management and presentation of the interpretation of their historical artefacts. Consequently, more and more emphasis is being laid on leveraging the advantages of advanced technology for improving their activities. One such important area where computers and technology are widely and gainfully being utilized is the area of management of the Museum collections. Computerized collection management ensures the availability of readymade database in the hands of the Museum management which could be accessed any time and from anywhere and is an excellent MIS tool. Further, it could also be utilized for preparation and analysis of condition reports of various objects and more importantly to access all the information about a particular object at a single location. ...<sup>4</sup>

*Message from Shri. Narendra Kumar Sinha, Secretary, Ministry of Culture*

India is home to exquisite art collections that represent five thousand years of Indian history, traditions and culture. Indian art is manifested in paintings and manuscripts, sculptures, ethnographic collections, costumes and textiles, coins and jewellery, photographs and prints. These collections are displayed in major national museums in Delhi, Kolkata, Mumbai, Hyderabad and Allahabad that are governed by the Ministry of Culture, Government of India.

... the Ministry of Culture embarked on a project to digitize the collections in its museums, whether on display or in stores, to provide better access and information on various themes, national and regional histories and the rich craftsmanship that is reflected in Indian art. ...

I am glad that the Ministry of Culture is involved in the work of modernization of our Museums and in bringing them closer to the public. ... The format of the website in particular will allow the public to enjoy collections online ...<sup>5</sup>

With words like ‘modern’, ‘technical advances’ and ‘improving’, the representatives of the Ministry of Culture see digitization in general, and the construction of Jatan in particular, as an improvement. Improvement is a concept prevalent in management, where the idea of a continual improvement process has become part of the capitalist system, building on continuing growth and advancement. A continual improvement process has even been made a managerial standard (included in the ISO 14000, for example). The Indian Ministry of Culture – and prospectively also the other stakeholders involved in creating Jatan – has taken to the idea that digitization will improve museum work. Constructing and introducing a

CMS is understood as an active, directed effort to make things, practices and workflows better.

Agreeing on the need for improvement is very common in contemporary capitalist societies, and it goes well beyond economics. A culture of improvement exists in every field of society; improvement feels like a given, like an aspect of human nature or an intrinsic human value. However, historically this is not the case. In Europe, ideas of improvement arose in the eighteenth century and in part replaced former prevailing norms of being at the mercy of god as creator (Tarlow 2007: 11). The concept and the term were used increasingly in the sixteenth and seventeenth centuries, ‘particularly in relation to husbandry ... but also in the moral sense of selfcultivation. The economic and moral meanings of the term became increasingly knitted together so that by the mid-eighteenth century “Improvement” meant both profit and moral benefit’ (ibid.: 12). It was only in the eighteenth and nineteenth centuries that improvement spread into all spheres of (European) society. It is hence an omnipresent societal feature, but not a given aspect of ‘human nature’.

## CMS Construction as Technical Improvement

For museums and archives, contemporary improvement entails, among other things, digitizing record-keeping and ordering systems. Improving collection records through electronic data processing is thereby very much a technical matter. In recent decades, collection staff, registrars and curators, fascinated by computational collection management, have initiated advancement and improvement in this sector. Technical tools are a means for a better ordering, a more adequate structure, more prompt retrieval or a more complex interconnectedness of objects and information, within and across departments and sections.

The history and development of CMS construction can be traced back more than five decades. In the 1960s, museum computerization took its first steps in US-American museums. In 1966, the Fort Worth Museum of Science and History in Texas collaborated with Ling-Temco-Vought to develop a computer for museum use. Only a few years later, the newly founded Museum Computer Network in New York celebrated GRIPHOS as the first collection management database, to be used by all US museums (Sully 2006: 22–23), while the Smithsonian Institution developed SELGEM as a prominent computer programme to manage collections (Parry 2007; Williams 2010). In opposition to national plans to computerize museums, IBM and the Metropolitan Museum of Art

in New York organized a conference on the topic in 1968, and small-scale solutions became more likely as computers became more affordable (Sully 2006: 24). The 1970s and 1980s saw a rise in the quantity of computers in many North American museums, and the beginning of a trial-and-error policy in developing appropriate software. Ideas prevailed that technical solutions could lead to better, improved versions, meaning a larger variety of CMSs, which would be suitable for museums with special needs as well as for different tasks.<sup>6</sup>

The 1980s also saw the introduction of computerized graphical displays. While file size and limitations in processing large data were initial major obstacles to picture display (Sully 2006: 34), today these are no longer issues when it comes to use of image files. However, technical specifications and limitations became of concern again when external online access to collections came into focus. Decisions about image size needed to be made again, and content management systems needed extensions and applications that allowed for external access and/or the migration of (parts of) its content to websites. These issues were initially resolved in trial-and-error projects that dominated the first years of the internet, when numerous projects were developed, particularly in the US, with 'early enthusiasm for new features, buoyed by an infusion of grants. This ... created inflated expectations on the part of users, a lack of critical examination by developers, and resistance within the institution's administrative structure' (ibid.: 40–41). Over time, the technical side of data processing and handling developed, and CMS construction asserted itself as usually consisting of metadata construction and digital reproduction in image formats. Internet access to digitized heritage material has also matured into a standard feature.

Internationally, CIDOC CRM and LIDO have become the standards for modelling documentation and cultural heritage information; and Dublin Core the standard vocabulary set, with further thesauri, cataloguing rules and procedure manuals being the current state-of-the-art in digital cataloguing and/or subsequent digitization (see Srinivasan et al. 2009: 268). The semantic format CIDOC CRM, developed by the CIDOC Documentation Standards Working Group in the 1990s and 2000s, became an ISO standard in 2006, providing 'definitions and a formal structure for describing the implicit and explicit concepts and relationships used in cultural heritage documentation'.<sup>7</sup> LIDO (Lightweight Information Describing Objects) can be regarded as a preliminary step for CIDOC, as it is an XML schema for describing museum objects and harvesting data. The development of these standards has improved CMSs regarding national and international compatibility.

Databank committees were important for these standardization processes. These national bodies for the development of data determination, category definitions and file or collection naming tried to ensure at least a computerized communication between collections. Associations such as the Canadian Heritage Information Network in Canada, DEN Kennisinstituut Digitale Cultuur in the Netherlands, the Fachgruppe Dokumentation of the Deutscher Museumsbund, the Nestor network in Germany and the Centre for Development of Advanced Computing (C-DAC) in India, to name but a few, have in the last two to three decades put a lot of effort into developing more and more refined data standards. Still, the application of these standards is voluntary and cannot be enforced. Its longevity or sustainment – what Robert Friedel (2010) termed the ‘capture’ of an improvement – depends on societal contexts, institutional networks and individual attitudes. Their application is still subject to debate.<sup>8</sup>

In sum, the technological development of CMSs has come a long way since their first introduction in the 1960s. Image and data processing have become routine. A standard XML scheme for heritage objects has been formulated, corresponding to Dublin Core and CIDOC CRM as the semantic format and reference model. They are a way of standardizing the electronic exchange of cultural heritage data, but are not binding. An understanding of digitization as constituting visual representations and corresponding metadata is now globally well established.<sup>9</sup> Further canonical technical parameters are the comparatively fast redundancy of digital data formats and the need to migrate and update digital data, as well as the internet as a medium of external exchange and communication on museum material. Technological advancement has led to CMSs being no longer simple collection inventory tools, but instruments for saving all kinds of information, including lending, restoration, storage, conditions and specifications. Today, CMSs are available in many forms, catering to the individual needs and ambitions of museums and the stakeholders involved (see Swank 2008 for a detailed technical review of various CMSs on the market). CMSs have also made concessions to the idea of the curator as an author of collections, in as much as they try to not only structure and order collections according to narrow frameworks and keywords, but also extend the software in such a way that it at least acknowledges the various forms of predigital database recording schemes, be they the register, the day book, index cards or ‘the curator’s head’ (Parry 2007). They are ordering systems adaptable to individual needs, and supposedly bring about a new quality of ordering, not least because standardization and compatibility are inbuilt features of CMSs, as in all digital media.<sup>10</sup>

In India, the development of national museum data standards took off comparatively recently, and C-DAC has been partnering with the government and heritage institutions to develop standards as well as software appropriate for the Indian sector since the 2000s. In 2002, the Indian government stated that museums should place more emphasis on digitization and the documentation of works of art (Government of India 2002). In its Tenth Five Year Plan (2002–07), the government also explicitly mentioned that the National Museum of India will undertake computerization work, including setting up a LAN connection and digitizing its collection. Computation for collection management in heritage institutions in India was, as in many other countries, at first mainly an option for libraries. It is not least the steadiness of books and their interchangeability (as compared to objects or original documents that seem to exist as unique specimens) that make content management systems for libraries a bit less challenging in terms of technological and institutional acceptance. So-called elite Indian libraries were among the earliest institutions in the country to receive microcomputers in the 1970s and 1980s, with automation gaining momentum here in the 1980s (Gulati 2004: 335). Software for books and other printed publications followed suit. In those decades, digitization was not on the agenda for museums and archives. Museums in India at first tried to emancipate themselves from their colonial past (Cohn 2015; Guha-Thakura 2015), establishing themselves as institutions in the context of nation building (Shivadas 2015; Singh 2015), and in the 1980s grappled to find their place between spectacle, entertainment, education and state power (Appadurai and Beckenridge 2015). Conventional national and state archives remained closely monitored and access restricted (Balachandran and Pinto 2011), or in a state of physical disrepair (Rajpal 2012). Describing the current situation in 2014, the British Council India (2014: ix) said, in its report on Indian museums:

The importance of digitization is recognised by most museums. However, most museums in India do not have a digital strategy. Very few museums have a website and an online presence and some are not even listed on any museum or travel site. However in recent years, some museums have turned to social media for attracting visitors to their museums.

Most museums have not actively marketed themselves beyond their small local audiences to increase footfall. Some museums have a website, either independent or under a mother organization. These sites are more like contact information pages. The purpose of these websites is to provide



the location, timings of the museum and in a few cases very basic information about the collection. They lack the dynamic nature required to attract and engage the contemporary online viewer.

Inventory systems used in most of these museums are out-of-date and give superficial information of their collections. While some museums have adopted digitization of their collections and upgrading of the inventory there is an urgent need to develop a detailed object information system for their collection to match standards seen in modern museums abroad.<sup>11</sup>

In contrast to this assessment, the Centre for Development of Advanced Computing (C-DAC), India's prime governmental IT research and development institution, released the following press statement when the website [www.museumsofindia.gov.in](http://www.museumsofindia.gov.in) went live in 2014. It explained its intentions with Jatan and the website:

Pune, March 18, 2014

JATAN: Virtual Museum Builder, a comprehensive software suite designed and developed by the Human-Centred Design and Computing Group of the Centre for Development of Advanced Computing (C-DAC) has been selected as the standard software for all Museums under the purview of the Ministry of Culture, Government of India. In the light of this new development, the HCDC Group of C-DAC has successfully deployed JATAN: Virtual Museum Builder in 10 national museums of the Ministry of Culture as under-

- National Museum, New Delhi
- Allahabad Museum, Allahabad, Uttar Pradesh
- Indian Museum, Kolkata, West Bengal
- National Gallery of Modern Arts (NGMA), New Delhi
- National Gallery of Modern Arts (NGMA), Mumbai, Maharashtra
- National Gallery of Modern Arts (NGMA), Bengaluru, Karnataka
- Archaeological Survey of India (ASI) Museum, Goa
- Archaeological Survey of India (ASI) Museum, Nagarjunakonda, Andhra Pradesh
- Salar Jung Museum, Hyderabad, Andhra Pradesh
- Victoria Memorial Hall, Kolkata, West Bengal

In this project, as specified by C-DAC, all museums have setup the JATAN software along with digitization facilities, computers, storage and network infrastructure. Human-Centred Design & Computing Group, C-DAC, Pune organized special training programmes for the museum curators and operators of these museums in which they were trained to use JATAN software and digital technologies. JATAN system, ICT infrastructure and training has truly empowered the museum staff in modernizing their museums.

Speaking about the deployment, Dr Dinesh Katre, Associate Director & HoD, HCDC Group, C-DAC said, ‘The standardized implementation of JATAN provides unprecedented benefits to the museums in terms of producing the national database of museum collections, enriching the visitor experience and knowledge through digital exhibits, preservation of India’s heritage and dissemination of information through internet for the tourists, scholars, teachers and students all over the world.’

JATAN: Virtual Museum Builder is a digital collection management system specially designed and developed for the Indian museums. The system is compliant with open source and standardized formats and helps in image processing, watermarking, unique numbering and managing the digital images with multimedia representations of the antiquities in terms of 360 degree interactive panoramic views, 3D models, audio and video clips.

JATAN provides a collaborative framework over the intranet for the museum curators, historian and scholars to describe and enhance the information about antiquities. It also provides the facilities like user administration, search and retrieval, access control for the portal, location identification, conservation reports, work reports, parameter based sorting, etc. JATAN allows the digital collections to be made online or accessed through mobile or touch screen kiosks. ...<sup>12</sup>

C-DAC and the head of the group constructing Jatan, Dinesh Katre, also present Jatan as an improvement, a ‘new development’ bringing ‘unprecedented benefits’. But Katre and his team also explain and stress the technical features of Jatan. They programmed a database allowing ‘user administration, search and retrieval, access control for the portal, location identification, conservation reports, work reports, parameter based sorting, etc.’. They designed Jatan – literally meaning nurturing or preserving – in such a way that museum staff entering data and creating the digital archives do so according to pre-set resolution and format standards. Digital photographing, scanning or otherwise capturing of objects, photographs or documents along with sets of metadata, thus

adhere to defined standards. Equipped with technical features and initially fed with data from ten Indian national museums, C-DAC envisions Jatan being beneficial for several user groups inside and outside the museums. Katre and his team at C-DAC provided the technical part of this first major effort from Indian government museums to digitize the country's cultural heritage.

Seen from this technical point of view, Jatan (as the CMS behind [www.museumsofindia.gov.in](http://www.museumsofindia.gov.in)) is a newly programmed software that adheres to the individual needs of its envisioned users. It thereby falls in line with a contemporary trend of individualizing databases for collection management while still referring to international standards. It embodies the state-of-the-art, showing how the technical and theoretical side of digitizing cultural heritage has by and large become consolidated.

### *The Sociocultural Side of Improvement*

Improvement is not just about technical specifications. Selecting and applying a technical device, inventing or enhancing a new entity, also comprise decision making, which is also a sociocultural process. Choosing which forms or aspects will be most beneficial is a sociocultural as well as technical process. Looking at historical inventions, we see that Edison was conditioned by both economics and coeval science. The domestication of electric light and electricity is evidence that there is a myth around technological developments. It is incorrect to assume that innovation is purely technologically determined. Social determinism and opportunity are the driving forces (Bijker et al. 2012; Green 2002).<sup>13</sup> It is individual and institutional ambitions, changes in policy, culture and society, as well as economic motivations and technical determinations that drive improvement and change in technology.<sup>14</sup> Sociocultural factors might not question the need for improvement, but very well its configuration. They determine the architecture of a CMS and might also threaten its implementation.

For Jatan, the sociocultural side of improvement was crystallized in the fact that all stakeholders brought their own vague ideas of what improvement through digitization entailed into the CMS construction process, and in retaining or pushing through their various interests within this process. As mentioned above, all stakeholders in general agreed that digitization brought improvement. But constructing Jatan illustrates how the diverse ambitions, expectations and interactions of the stakeholders played out as sociocultural facets of improvement in the process of digitizing cultural heritage.

The first relevant player in the creation of Jatan was the Ministry of Culture, which decided on and pushed forward with digitizing museum

collections and introducing digital databases in its museums. It started this agenda by forming a very precise idea of the improvements needed within the Indian national museums. In 2008, Jawhar Sircar took office as the Secretary of the Indian Ministry of Culture.<sup>15</sup> One of his first official acts was to initiate meetings with the directors of several museums. He wanted to gain an idea of the issues and problems within the Indian museum sector, and wanted to push the museums – perceived by the public as dusty institutions, preserving and administering old artefacts – slightly ‘out of their comfort zone’ (interview, Sircar, 2017). The statements of the directors on current issues were diverse, broad, detailed and sometimes contradictory. Nevertheless, the Ministry of Culture took their concerns seriously and in 2009 formulated a ‘fourteen-point museum reform agenda’. The fourteen points refer to reforms needed in:

1. Collection & Stores Management.
2. Proper/Scientific Display of Artefacts.
3. Information, Signages, Floor Plans & Visitor Facilities.
4. Museum Shops and Souvenirs.
5. Multi-media, Audio Visual and Guide Facilities.
6. Attract Various Audience Segments, including Students/Children.
7. Image Building, Publicity and Cultural Events.
8. Visiting & Travelling Exhibitions.
9. Expansion & Acquisition of Collections.
10. Professional Development of Museums Personnel.
11. Implementation of Plan Schemes & special projects.
12. Security: Modern Techniques.
13. Conservation and Restoration.
14. Interactions with Academics, Archaeologists and Artists. (Sircar 2009)

The very first point, ‘Collection and Stores Management’, was further defined as the following much-needed reforms to Indian museums’ depots and collections:

- Introduce computer aided collections management.
- Verify physically stocks with registers/database.
- Modernise methods of storage and retrieval & introduce visible storage.
- Develop adequate storage facilities.
- Control/filter atmospheric heat, dust, humidity, light and pest in Stores.
- Take professional quality digital photos of stored items.
- Upload entire collections' database with images of objects online [*sic*]. (Ibid.)

The reform agenda hence defined a CMS as one of the most needed steps for improvement in museums. At the time the fourteen-point programme was drafted, some of the consulted museums had very rudimentary ideas of what could be done with a CMS and what was needed for an up-to-date digital database. There was very limited familiarity with international standards or the aforementioned technical parameters. Some museums pointed out that they already had a visual inventory of ten thousand objects, which, as Sircar later discovered, turned out to be a stock of twenty-year-old black and white photographs that would not meet the envisioned standards (interview, Sircar, 2017). Scanning or photographing in colour (not to mention in specific colour schemes) was by no means customary within the heritage institutions at that time, as illustrated by the fact that the digitization of both the National Mission for Manuscripts,<sup>16</sup> founded in 2003, and the Nehru Memorial Museum and Library's photo collection – both large-scale projects in institutions functioning directly under the Ministry of Culture – was taking place in part or totally in black and white. There was no common ground on the technical front upon which to build. Consequently, what was needed as a preliminary step was the development of a mutual understanding of digitization and of the parameters that every museum could agree on. Without set technical standards, it became clear that it would be a challenge to develop a digitization agenda that could bring together and satisfy everybody's concepts of digitization as a form of improvement.

However, the Ministry – on the basis of formulating its reform agenda – leapt forward by naming digitization as one of its priorities in the Twelfth Five Year Plan (2012–17). It thus continued to define its vision

of museum improvement and announced the following digitization scheme:

### Digitization of Museum Collection

This is a new Central Scheme which has been developed for being undertaken during the XII Five-Year Plan period with the aim of developing a national database of all art objects and antiquities available with the Museums at various levels i.e. national level, state level and regional and local museums all across the country in order to provide enhanced accessibility to scholars, researchers and informed visitors.

#### *Background*

As a part of the 14-point museum reform agenda undertaken by the Ministry of Culture special focus has to be given to the area of digitized documentation of the antiquities in the museums in various parts of the country. Presently, in most of the museums status of documentation is not up to the mark and details of antiquities available in the museums are only available in physical form in the Accession Registers being maintained by the museums. It has also been observed that in some cases information which is available in the Accession Registers is not authentic and has become obsolete. Therefore, with a view to modernizing the collections management system of these museums it is imperative that they resort to digital collection management system. Further, taking recourse to digitization of the documentation of antiquities would also help in the availability of information about the status of various antiquities at one place. This could then be utilized for the development of website of the concerned museum where all this data could be made available online in order to provide accessibility to scholars, researchers as well as interested individuals.<sup>17</sup>

The Ministry continued by laying out the details of the anticipated digitization projects:

Under the scheme funds will be provided by the Ministry of Culture in the form of grants to various museums for digitization of art objects in the museums across the country and for making their images / catalogues available over the website. The scheme will have two components, one relating to the establishment of infrastructure (central server linked to museum level server / computers through dedicated channels) and the other relating to digitization of all collections, cross-indexed with fuller details on a template basis. The ultimate aim of the museum would be to

have an online database of its collections readily available over its website for online viewing by general public. A part of the funds from this scheme (subject to a maximum of Rs. 2 crores per year) may also be utilized by the Ministry of Culture for undertaking projects with technical institutions for creating a combined website showing the collections of Museums under the Ministry and other State Government and Private museums registered under the Indian Societies Act of 1860 or a similar legislation.<sup>18</sup>

The Ministry thus created a precedent. It announced a programme and funds for archival digitization, and thereby stimulated engagement with the topic, which would now also need a determination of the desired technical aspects. It stipulated that the digital catalogues should be internet compatible and visually based, and at the same time recognized the conditions existing in many Indian museums at that time. It acknowledged the lack of adequate IT infrastructure, and made the improvement of that infrastructure part of the scheme.

The Ministry of Culture's agenda was also in line with the government's larger agenda, called Digital India. In 2015 this officially became a national agenda, when the government announced their 'vision to transform India into a digitally empowered society and knowledge economy'.<sup>19</sup> The programme, led by the Ministry of Electronics and Information Technology and the Prime Minister's office, but integrating all government departments, aimed to make government services available to citizens in online format, to expand digital infrastructure by connecting rural areas to high-speed internet, and to achieve widespread digital literacy to empower the Indian public. The programme centres around e-governance, but the nine named pillars of the initiative (broadband internet, universal access to mobile connectivity, a public internet access programme, e-governance, e-Kranti delivery of services, information for all, electronics manufacturing, IT for jobs, early harvest programme) go beyond that. The programme is the latest manifestation of the idea that information and communication technology should go hand in hand with effective governance. However, as Biswarup Sen (2016: 2) argues:

An initiative like Digital India ... is not simply a set of instrumental measures that makes day-to-day governance more effective and in line with the contemporary 'best practices'. It stands for an ambitious act of imagination that rethinks the nation through one central notion: information. The digital revolution, according to this emerging perspective, is capable of changing all dimensions of society by means of a technology based on

the production, dissemination, and manipulation of information. This viewpoint, that can be condensed under the rubric of ‘informationalism’, holds great allure for a postcolonial formation like India where questions of national identity and destiny are always at the forefront of public debate. It is therefore not surprising that the premise and promise of informationalism have been widely embraced by all segments of Indian society.

The control of information is one aspect of the vision of a digital India. Yet it needs to come with the provision of said information, and the circulation of not just embedded knowledge, but also literacy in the use of this online information. Consequently, controlling information through Digital India also includes the distribution of information, which in turn comprises a restructuring of economies of access. The previous development of ICT in India laid fertile ground for the distribution and circulation of digital government services, including the provision of information in the country’s cultural heritage sector. It created a highly valued export commodity and an Indian presence in the world market for the first time since independence (Sen 2016). The success story of the Indian IT industry has not only contributed to the Indian government’s enthusiasm for promoting and pushing digital development, but also led to occasionally overemphasized praise of everything digital (Sneha 2016: 4).

The government’s move into ICT and computer-based information has led some authors to argue that it was precisely the lack of government presence that facilitated the heyday of the IT and software development business in India (see Sen 2016: 5). While this assessment is not completely accurate,<sup>20</sup> the government’s more intense push for what is called ICT for development (ICT4D) is a comparatively recent one. Digital India also embeds notions of the Right to Information Act, a legislative act adopted in 2005, conforming to the pressing demands of access to documents and information. However, it has also been widely acknowledged that successful implementation of ICT4D is subject to administrative backing and approval. As Geoff Walsham (2010: 16) stresses, there is a

... crucial need for major attitudinal and institutional change in order for an ICT-based initiative to be successful. For example, core administrative processes need to be reformed in government institutions in order for the front-end e-government services to be effective. However, it is widely recognised that such reform of the administrative culture in government is enormously difficult to achieve. Computerised systems, such as those involved in land registration for example, do not by themselves



reduce corruption if this is deeply embedded within existing attitudes and processes.<sup>21</sup>

That this was also an issue with digitization projects in museums is a point I will return to shortly. Initially, however, the Ministry of Culture went forward with its increasingly defined digitization plans and announced its digitization schemes, thereby falling in line with, and time-wise even being ahead of, a national agenda for improving conditions through digitization. In the first round, a number of museums under the Government of Rajasthan and the Centre for Art and Archaeology Gurgaon applied for funding within this scheme, which an expert committee discussed and in parts supported.<sup>22</sup> But by far the largest digitization project to be implemented was Jatan.

For Jatan, in 2012 the Ministry allied itself with the Art Institute of Chicago (AIC) as external experts – the second major player involved. The Ministry and the AIC incorporated Jatan’s introduction into the Vivekananda Memorial Program for Museum Excellence, a four-year training programme financed by the Ministry of Culture to be conducted by the AIC in both India and Chicago. Madhuvanti Ghose (interview, 2018), curator of Indian, Southeast Asian, Himalayan and Islamic Art at the AIC and in charge of the Vivekananda Memorial Program, describes the efforts as follows:

So when the Ministry of Culture, Government of India, signed the contract with us they asked us if we would take some of the subjects from [the fourteen-point programme] for the improvement of Indian museums that had already been drawn up. And I said essentially, really, you can’t move forward with improving museums, you know ... if the people don’t know what they have in the museums ... and so I said: okay, then it should be the priority; it should be what we should do right at the beginning, which is to start with a documentation program. ...

And, initially, we also went in with the idea that we would just take something that was shop-bought, or one of the existing database programs but we soon realized that that was not going to work because the country essentially had not done a database; Dharohar [a CMS developed in Rajasthan] was too ancient, it wasn’t really updated enough; they needed something new but at the same time they didn’t need something that was as advanced as the systems that we use in the West, so it wasn’t something that could be just imported in because they didn’t really have the culture of everyone across the museum having access to this database – they wanted a system that had checks and balances.

Ghose's perception of the situation supports the Ministry's conviction that there was clearly a need for improvement (what the Ministry called reform), and that they would have to start with the improvement of collection management. The Ministry named the introduction of computer-aided collections management and the verification of stored collections as the immediate priority, and Ghose's statement is in line with that agenda, combining both tasks in a 'documentation program'. The AIC by then had its own CMS already installed, and Ghose and her colleagues had gained expertise in building and using it. Yet it was evident for Ghose and the AIC from early on that the technical parameters that might be standard in Chicago could not simply be lifted into Indian museums – a presumptuous standpoint in some regards. India's lack of infrastructure is a consequence of the structural inequalities still remaining between countries such as India and the USA. This issue also reflects different understandings of what digitization would be good for – what digital improvement should look like – and consequently how it should be shaped. To tackle the technical side, Ghose (interview, 2018) met with the AIC's Head of Collections and thought about an appropriate CMS, as she had sensed – like Sircar, the Secretary of the Ministry, before her – that there were no clear or uniform notions within the museums of what a CMS can or should be comprised of:

Our Head of Collections spent a huge amount of time – he was the one who was in charge of our inbuilt system here in Chicago – he spent a huge amount of time not only assessing all the different shop-bought systems that were available out there, but also looking at Dharohar and this old Jatan, and then he realized that what they needed was a kind of upgraded Jatan. So he worked with C-DAC to create a system while we worked with the Ministry of Culture to actually create a list of hardware and systems – because the museum didn't even have hardware.

What Ghose describes is the effort it took to come to terms with what Bijker called the technological frame. A technological frame is a 'combination of current theories, tacit knowledge, engineering practice (such as design methods and criteria), specialized testing procedures, goals, and handling and using practice' (Bijker 2012: 164). It comprises the concepts and techniques that a community employs to solve a particular problem or to perform tasks, and provides the grammar for the standards and requirements of problem solving, along with problem recognition. It thus references both the technical and the social factors in improvement or change, stressing their interplay and mutual dependence. The process of moving from analogue ordering to digital

versions of collection management is organized around and in accordance with a technological frame, and the Indian one seemed to be different from that in Chicago. Ghose and her colleagues realized that the equipment and technological infrastructure needed to implement the American CMS in India was not available. The desire to introduce a CMS allowed the inequality in technical standards to surface, but also different social practices to appear.

Ghose was not the only person involved to realize that the computerization of museums involved changes in technical and social realities. Dinesh Katre, the third major player in Jatan, was the lead person involved from the Indian IT side. He has been at C-DAC for more than twenty-five years and is currently the head of the Human-Centred Design and Computing Group (HCDC) at C-DAC, the IT team that developed Jatan. He and his team reprogrammed Jatan from 2012 onwards, and are in charge of its maintenance and further development. Katre and his team would be the people on the Indian side providing the technical parameters for the actual settings and application of a CMS and hence envisioned improvement with very precise technical parameters in mind. Jatan as software in its current form had a predecessor, commissioned by the CSMVS (former Prince of Wales Museum, Mumbai) in the year 2000. This version, also programmed by Katre and his team, had little impact and saw just one deployment per year – not due to any technical fault or insufficiency, but to being outside the average conception of museum work. What was needed was the (outside) introduction of a CMS into the government museum landscape. For Katre's C-DAC department, the Ministry's plan to upgrade and mandatorily introduce Jatan to ten (and later ideally all) government museums was very fortunate. He hence made it a point to have an individually designed CMS:

Often, digitization projects are turnkey projects. But such projects are not bottom-up, not internally decided and carried out. ... At the HCDC Group we have a user-centred approach. For Jatan we needed to look at existing forms and registers and at curator practices to design the features of the software in a way that curators end up using them. (Interview, 2017)

It is highly problematic to term Jatan a bottom-up digitization project, given the nature of its ministerial introduction. But the point Katre tries to make here is that the technological frame needs to be set not only by technical parameters but by the needs and requirements of the Indian museums. Hence, improvement for museums through a new CMS for C-DAC meant programming a piece of software that takes Indian particularities into view, such as an infrastructure still vulnerable to power

cuts or unstable connections. For Katre, it also meant programming the software in India, so that Indian IT experts could better communicate with and understand the needs of Indian curators, directors and museum staff. It was hence decided that C-DAC would programme the software, which admittedly also brought the HCDC group some much-needed recognition. Working at the fringes of IT, other departments at C-DAC (as well as the government itself) sometimes question HCDC's relevance. Programming Jatan and mandatorily introducing it to ten national museums meant extending HCDC's funding, staff numbers and standing. To use an Indian rather than a foreign CMS was also in line with the AIC's and the Ministry's conception of involving national software and Indian engineers.

The three partners furthermore decided that the CMS needed to have some specific characteristics. It should be a single piece of software for all museums; it needed to allow the museums to connect their collections; it should be plain and easy to navigate; it should abstain from designs that require large data sizes. Consequently, Jatan allows for a uniform entry of data across museum classes and types. As the same database is used in all museums, it enables the connection and inter-linking of the museum collections and a thematic retrieval of object information across museums within the database. In its appearance, Jatan is comparatively plain. As Ghose (interview, 2018) explains:

Yes, I mean, so Jatan was at least created in a simplified manner; it doesn't have the sophistication of our [AIC] systems, but it had all the basics for them to know what they have, for them to be able to check on a regular basis – because some of the things that are mandated by the parliament of India is that these museums should know what they have, and that there should be regular checks on their objects from a security point of view. So, this certainly enables them to do all of those things – if it was fully implemented. ... It's enough for what they need right now; at the stage that they're in, even Jatan in the phase that it's in, is okay. It, at least, has all the categories, the nomenclature, all the international standards were used from the nomenclature typology point of view, so those issues that they were having about the modern museum saying that this doesn't have words that we can use; or the archaeology people would be saying: oh, sorry, we need some different things. Well, we were able to go over all of that and explain and create one system whereby everybody could use that; that was us kind of saying: we're encyclopaedic museums, we already have these standards, we don't need to reinvent the wheel; all you have to do is just to get C-DAC to put it in – which they did.

Jatan uses Dublin Core and is in its architecture a CMS that embeds the above-mentioned conventions of contemporary software for museum data management. It comprises a mandatory photo of an object, both dropdown and open entry fields for museum-relevant metadata and tabs for restoration and lending, among other features. It is based on an XML scheme and allows for the data to be migrated. The interface is easy to navigate, and the database did not require unusual semantic web construction, but instead provides a linkage of the objects and their data with regard to the objects' creation time, region, category and so on. This 'less sophisticated' version in general met with approval, even though critical voices were not absent.

Through these technical parameters – a central aspect of C-DAC's understanding of improvement through a CMS – Jatan also validates the fact that visual data and standardized metadata according to Dublin Core are by now well-established elements of CMS construction. Including a photo of the object has even been made a mandatory element of Jatan; it is not possible to create and release entries without uploading an image file. Uploading the entries (after in-house clearance) is done by C-DAC, which also remains responsible for technical maintenance. This reflects an awareness of the fast changes in software and media formats, and the possibility of future redundancy. Migrating data if necessary and further developments of the software also fall within C-DAC's responsibilities. As C-DAC is a government body, it can be assumed that this is a long-term partnership.

The other long-term partner cooperating in the project are the museums, the fourth stakeholder in designing the CMS. They will be able – and to some point obliged – to use Jatan. Between 2016 and 2018, newly hired museum staff and curators (so-called nodal officers for Jatan) were busy digitizing the collections and entering data into the database. One nodal officer, whom I will call Mr Agarwal, a man who had worked as a curator in the same museum for many years, stresses that he has to report to the Ministry on Jatan's progress. Every other week he sends a report to the Ministry directly (not to the Director General of the museum) on how many objects have been uploaded to Jatan and made accessible to the outside world through the internet, and how many objects remain to be photographed and integrated into the database. Mr Agarwal does not do the data entry work himself; the museum has hired staff for the task. Mr Agarwal (private conversation, 2017) also explains that he 'opted for a more sophisticated version of a CMS. I wanted it to comprise more search options and multiple combinations of object details. But these plans were turned down for a more simple software'.

This statement conflicts with Sircar's impression that many museums had little knowledge of digitization. His accounts of the black and white digital photographs of objects indicated that he was confronted with museum personnel needing training in basic technical standards currently set for digitization of heritage material. Mr Agarwal presents it, if not quite the other way around, then at least with a slightly different spin. His statement also undermines the AIC's take on the Indian museums needing something less sophisticated than Western museums.

Hearing another voice from the same Indian museum might help to dissolve this contradiction. The person I will call Ms Rao is a young woman, who was working at the outreach section at the same museum as Mr Agarwal at the time of Jatan's setup. Ms Rao has only recently left the museum for a curator position in a different Indian city. She recalls that Jatan entered the scene at a time when digitization as a means to improve the museum internally and in its outreach was prominent. She describes a setting in which digitization in the museum was introduced and anticipated as a way of improving the museum. '[The ministry] had started [the] Museum Reform Programme, and under that programme digitization was a big hit', Ms Rao (interview, 2018) recalls,

and one of the programmes was to digitize the collections of the Company paintings [i.e. Euro-Indian paintings], Company school paintings, which are in collections of India and the UK. Unfortunately that did not really see the light of day primarily because the Indian partners – mainly the National Gallery of Modern Art, the Victoria Memorial and to some extent the National Museum – didn't really get their act together in getting their collections digitized.

Ms Rao understands this predecessor project as a serious attempt to digitize collections held in India (and abroad) and put them on a common online platform, not least 'so that people stopped endlessly complaining that these collections are in the UK'. The project did not take off due to a 'lack of interest' in the institutions. Around the same time – 2010–12 – Google Arts and Culture entered the Indian museum and gallery landscape, as Ms Rao (*ibid.*) goes on to outline:

One of the things that was happening soon after 2011 was the Google Art Project started making its presence felt here, and many museums signed up; many government museums signed up on the Google Art and Culture platform, and even so, as a pilot, they started allowing Google to digitize their collections and put them online.

The Ministry introduced Jatan to the museums in this threefold context of interest in digitization as part of the reform agenda, an international but not executed digitization project and the digitization attempts introduced by an outside, commercial company. The ground was prepared: the museums were aware of digitization as a current trend and of the reform agenda as an outline for museum development. Yet it would be misleading to reason that recognition of a need to digitize the entire collections as a form of improvement immediately follows from this. When Jatan was introduced in 2013, it was in the context of a general notion of digital technology and improvement. Most of the museum staff had a vague sense of what digitization could entail and how it would be able to enhance the museum and their work practices. Ms Rao (*ibid.*) sees it this way:

Of course, when Jatan came in, it came in as a top-down decision from the Ministry so nobody openly objected to it, but there was, of course, a process: opinions and inputs were taken from the curators. But I have to say these were not informed opinions because none of the curators, at least at the [museum I've been working at], they are not digitally that adept, so the sort of suggestions that they would have given would have been mostly from their angle, you know, their part, the parts that they were to play in uploading material: how the interface was going to work, how friendly it was going to be, how cost-effective it was. All of that was already decided by C-DAC in discussion with the Ministry, with a few representatives from the museum.

One should here consider the museum's take on the CMS as a means of improvement. With Jatan being an Indian programme, it lacks the strong connotation of an international, neocolonial impetus of modernization. Jatan was a form of improvement through technology. Yet the idea of betterment within this improvement was, for the museums, very vague. As Ms Rao outlined, and as Jawhar Sircar hinted at, there was no precise idea in the museums of how exactly digital technology would be beneficial for the museums. There was also hardly a sense here of economic growth and social change for the nation alongside the nationally (or even internationally) determined improvement agenda of ICT4D. It was rather a vague idea that digital means could be good, as they are signs of the time. Mr Agarwal's take on it does not indicate a detailed or programmatic vision of digital improvement, but is more likely a retrospective reflection on practical work with the software.

Jatan also did not provoke open objection to the Ministry's top-down decision of implementing digitization. Jatan rather confirms that

agreeing to the need for improvement is common in contemporary capitalist societies, and the term as well as the broad idea are widely distributed. Installing the digitization scheme at the museum was part and parcel of shaping ambitions and agendas. Consequently, in the aftermath of the CMS's introduction, Mr Agarwal portrayed Jatan as something wanted and needed from the museum's side. Digitizing collections acquired the status of improvement in the museum, at least rhetorically. Mr Agarwal's statement reflects the notion of a need for improvement. Juxtaposing it with Ms Rao's and Sircar's words demonstrates that there was no clear, univocal notion of what betterment would be brought about through digitization, or consequently of the precise technical architecture of the CMS. What was prevalent was instead an indistinct idea of digitization as improvement. Jatan was to some extent entrenched in a techno-optimism, whose groundwork was laid through several digitization attempts in the museums and beyond. Improvement took the form of introducing digital technology, fostering the acceptance of computerization and digitization of cultural heritage in museums and archives. What this digitization entailed in detail was subject to debate.

Jatan's Indian particularities nevertheless share similarities to debates around the development of CMSs in other museum contexts. Technical advancement is hardly ever on a par with the concepts of improvement in the social realm. As Parry comprehensibly lays out in his 2007 monograph *Recoding the Museum*, which mostly draws on British (and US-American) museums' experiences, the development of a CMS requires thorough debates about what this improvement would entail in detail, not only of what is technically feasible. Museum staff often met computational means with scepticism. The introduction of computational means – which meant digital cataloguing systems – was often met with a reticence towards automation, as it was perceived as a potential threat to the curator's creativity, his/her authorship or the uniqueness and authenticity of the objects in a collection (Parry 2007). From the very start, the implementation of computational archiving in the UK came with concerns about access rights and loss of authority. Furthermore, practical constraints such as time, money, expertise and political prioritization led to digital media establishing itself in museums rather slowly. Impulses that eventually made the CMS a standard in many Euro-American museums after four decades came from outside museums and archives – from academia, from technology as an actor in itself, and largely also from newly founded museum databank committees (Sully 2006: 30).



The interrelatedness of technological and sociocultural factors led nonetheless to the introduction of the CMS, albeit taking different paths and paces across and within countries. Digital databases are in this regard similar to analogue ones – registers and records have not been identical in all museums; we cannot even assume that they have been kept everywhere. Accession registers, index cards and other formats have been used in museums in freer or more restricted styles, sometimes being standardized within one institution, sometimes not (Parry 2007). Similarly, CMSs are technically available and to some extent standardized, yet their application remains a conscious decision, influenced by both technical and social factors.

### The Politics of Improvement Programmed into CMS

The technical and sociocultural aspects of improvement are not just two sides of the same coin when it comes to introducing digital archives in museums. Jatan also demonstrated their intertwinement, how they reciprocally inform each other. The following focus on the politics of this CMS construction process shows that museum routines and power relations have the strength not only to effectively implement a CMS, but also to alter its architecture as programmed into the software.

Jatan was from the offset a digitization project characterized by the museums' questions, doubts and potential loss of authority. Museum staff (curators, directors and keepers) had of course a particular interest in displaying relevant object characteristics in Jatan. Depending on the type of museum, these were sometimes highly specialized, and with the idea of a single CMS for all museums came a fear of technical feasibility. The AIC and C-DAC were able to dispel these doubts, as these two parties brought with them both technical understanding and experience of working with a CMS in an encyclopaedic museum. C-DAC set the engineering frame, relying on the previous version of Jatan and the programming expertise of the HCDC group.

The concerns about loss of sovereignty, however, could not be so easily dispelled. Even though there are studies that demonstrate that with increased access to material, the range and popularity of collections increases (Marty 2008), the fear of losing control over collections through digitization remains a common theme in museums and archives. It also arose during Jatan's setup, but the contestations of power and control of the archive and the collection were in this case eventually met through programming several layers of approval into the database: director,

curator, administrator and operator. This is essentially an elaborate system of checks and balances programmed into Jatan:

Jatan was created in a way that is very different from the way we do this in the West, in that the people who were doing the data entry were not experts over there of the material, so essentially they were just doing data entry; and then the curator had one level of checks, and the director would have another level of checks. [This multitude of checks] was something that they wanted in India ... (Ghose, interview, 2018)

The creation of entries in the database, as Ghose points out, was done by people either hired explicitly for Jatan, or (in case of smaller collections) done along the way, by keepers or other available staff. The person entering the data – called the operator – consequently did not necessarily have the most profound knowledge of the collection. Hence everything needed to go through the curator for approval with regard to content – a common practice in most digitization projects. Jatan technically has two further approval levels, that of the administrator and of the director. The administrator can start an entry by providing a photograph; the director is the person responsible for final approval and consistency.<sup>23</sup> Katre says that this multitude of roles also aims at a collaborative enrichment of the material entered into the database (interview, Katre, 2017). Moreover, integrating four roles (plus C-DAC as the uploader of the material, who technically could check material for data faults but is primarily responsible for the upload as they have larger bandwidth at their disposal than the museums) into Jatan's architecture is also a reflection of the desire for control in the digitization process. Programming four levels of checks and balances into the CMS was a concession to the museums' anxieties and fears of losing power and control over the collections.

Despite this concession, the museums initially did not individually push forward with implementing digitization. The reform agenda compiled the various wishes voiced by the museums, but not all museums saw the need to implement these in practice. The museums responded to Jatan with something between disinterest and active pushback. This reminded Sircar of an experience he had had with a previous digitization project, called Euro-Indian Paintings. Euro-Indian Paintings aimed at digitally recording and gathering all the collections of European painters in India from the eighteenth and nineteenth centuries housed in Indian and British institutions. Under Sircar's direction, plans evolved to create a

complete inventory, with adequate meta data and keywords, that is common to the holdings in the seven major collections, ie, the four museums in India [Victoria Memorial Hall, National Gallery of Modern Art Delhi, Salar Jung Museum, Indian Museum Kolkata] and the three institutions in London [British Library, Victoria & Albert Museum, British Museum]. (Sircar 2017: n.p.)

This would provide the basis for “digitally unit[ing]” these separate standalone India-related paintings and sketches’ and to subsequently tackle research questions such as ‘What exactly did people and places look like in the several centuries before photography arrived and started recording these details?’ (ibid.: n.p.). One stage of this international digitization project consisted of diplomatic encounters, which took the form of memorandums of understanding between the three British museums and the Indian Ministry of Culture (on behalf of the Indian museums), signed in June 2010. Only one month later, the issue was discussed during the Indo-British talks when the then British Prime Minister David Cameron visited New Delhi. In the presence of Prime Ministers Manmohan Singh and Cameron, the two countries signed an agreement ‘to work towards a common pool of digitally archived paintings and copies’ (ibid.: n.p.), hoping to develop a digital repository that would bring together the ten to twenty thousand images housed in India and the UK, to be accessible online for researchers and the wider public.

Nine years after the Ministry of Culture initiated the diplomatic agreements on creating the digital archive of Euro-Indian paintings, no such digital repository exists, let alone an online version of it. Although the British institutions involved used the agreement to obtain funds for completing the digitization of European and Indian paintings,

work [at the Indian museums] has been painfully slow and unenthusiastic, because hardly anyone could see the ‘big picture’. Funds were difficult to procure and no one could be ‘excited’ about the project. Individuals made valiant efforts [but] at least two of the directors were busy spiking the work unless they were permitted to visit London. (Ibid.: n.p.)

What Sircar suggests here – and this needs to be taken seriously when thinking about digitization projects commenced with multiple actors in the government or state institutions – is the dynamics of power and bureaucracy. As S.K. Das (2001) argues, the internal power structures of Indian bureaucracy reflect the entwinement between politicians and

civil servants. Das regards this as the main cause of corruption in large parts of the Indian administration. Other authors argue in similar ways that bureaucracy in India is often rife with corruption, an issue likely to be rooted in self-interest and the desire for personal gain, which includes intrinsic violence and systemic arbitrariness (Gupta 2012; Mathur 2016). Given that the directors of Indian state museums are part of what Das (2001) describes as the routine transfer and posting of a few thousand officers with every change of government, Sircar's description of a request for personal travel by two directors does not come as a big surprise. In the political power game within the Ministry of Culture and its museums, subordinate officers, staff and citizens can to some extent exercise or deny support when dealing with people of higher status.<sup>24</sup>

The experience with Euro-Indian Paintings informed Jatan. The Ministry consciously tried to tackle resistance in multiple ways. As Ghose (interview, 2018) put it, 'it took a huge amount of effort on both the part of the Art Institute and C-DAC, Pune and the bureaucrats at the Culture Ministry to actually push this into each institution and to even start'. One part of the effort was to conduct several training days and meetings in an atmosphere of prestige, to which the partnership with the AIC has contributed. Another was the concession of programming four administrative roles into Jatan, providing a format to control the digital archive. Third was a tight monitoring process. The appointment of a nodal officer in each of the museums meant ministerial control of the digitization programme, because the nodal officers were obliged to report directly to the Ministry about the proceedings and progress of the digitization on a weekly or biweekly basis. Accepting the introduction of a CMS as a technical improvement in the museum was hence also the result of a decidedly top-down museum development agenda. To a certain extent it stopped the issue of power and control over collections coming to the boil. As both Ms Rao and Sircar explained, a lack of interest led to the abandonment of the earlier Euro-Indian Paintings project. Last but not least, financing also contributed to Jatan's successful implementation, meaning there was money for additional museum staff hired for the project, covering the costs of C-DAC's programming work, and financing the museums' acquisition of computers, SLR cameras and internet connections. The number of staff and contract periods were subject to the museums' requests and subsequent negotiations.

What we find here goes beyond the regular conflict in museum practice, often characterized by innovative concepts and ideas, new museology and improved management clashing with museum realpolitik determined by limited finances, staff, time and equipment.<sup>25</sup> What we see in Jatan are the political facets of digitization projects, where

stakeholders invoke conventions of museum practices and control when top-down decision making seems to threaten established conventions. A comparatively stable grammar for problem solving and recognition persists in the handling of museum collections. It has been described as Indian museums generally not having an agenda for improvement (Lord 2011). We clearly see that this is no longer the case; museums in India are very much on the agenda for improvement, and this improvement very clearly takes a digital form. As the British Council India (2014: x) argues, ‘Whatever the current state of museums in India, there is a growing recognition of their importance in the cultural, social and economic life of the country and a consequent desire to build new museums and upgrade existing ones’. Nevertheless, the precise form of improvement comes at the cost of tough negotiations. Persistent parochialism in museums impedes changes and digitization. Even though the ten museums initially chosen for the implementation of Jatan are all government run, they tended to challenge the Ministry and would have preferred to rely on their own boards for decision making (interview, Sircar, 2017), a tendency that can also be observed in the digitization process in museums in other countries.<sup>26</sup>

Hence, what Parry (2007) described as a perceived threat to the creativity of curators when it comes to the introduction of computer-based technology in museums needs to be extended here to the political realm. There is, due to the numerical representation of ICT (Manovich 2001: 27–30), an inherent discrepancy between databases as ordering instances that need a certain amount of uniformity in order to function, and the independence of decision-making processes within museums (be it in the individual, creative realm, or in the independent administration of museums as institutions). Directors in the aforementioned Indian museums initially resisted, delayed or at least did not actively support the introduction of the CMS, because it was not clear what advantages it would bring or whether it really would be an improvement. Because the uniformity of computerized data management systems stands supposedly in contrast to a certain amount of independent decision making, such decision making is supposedly at stake when the Ministry centrally introduces a CMS. But for Jatan, both the AIC and the Ministry pressed for the introduction of an electronic databank in the museums, and thereby arranged for the opening of the debate in the first place. A notion of improvement eventually prevailed that sees the CMS as an appropriate solution to a perceived lack of modern collection management. Jatan’s custom-built programming reflects the concessions that needed to be made in the process of reaching this final understanding.

## Introducing Digitization and Digital Collection Management

Without a doubt, museums (not only) in India are in a condition that leaves room for improvement. The partners involved in Jatan in general agreed on this, and contributed or approved of a fourteen-point reform agenda. Even though this agenda was almost all-encompassing, ranging from security and media installations to training museum staff, the management of collections and the installation of a digital CMS was given high priority. Computerization and digitization of cultural heritage (in other words, the creation of a digital archive) was seen as a big step forward, implying the comprehensive inventory of collections and records as well as advanced access to it. The idea was that curators, keepers and other museum staff could perform workflows around objects and documents more efficiently, know more precisely (or at all) what is kept in the depots, and retrieve ordered information about stored artefacts more quickly.

Situating Jatan between the Ministry of Culture, C-DAC, the AIC and the museums, however, allowed a fine-tuning of the technological frame in place here. In their main features, all CMSs rest on numerical code and on the ICT developed on this basis, on established XML schemes and data-modelling conventions. The technical state-of-the-art of CMSs and international standards framed the process of programming Jatan. As there is no longer a one-size-fits-all CMS, individual programming requires selection and adaptation not only across single museums, but also across cultural settings. For Jatan, this was most obvious regarding the lack of technological infrastructure such as hardware or internet connections. More importantly, the Ministry, C-DAC, the AIC and the Indian museums all brought their own concepts of improvement into the processes of creating this CMS. They set the explicit technological frame for Jatan, in relation to social realities. Jatan was hence programmed and implemented according to visions of improvement, customary (museum) practices, social roles and anticipated outcomes. The Ministry of Culture financed, monitored and eventually pushed the digitization project through. The Art Institute of Chicago supported the Ministry's approach through their expertise and experience, and in practice through offering training. C-DAC became the partner fulfilling the needs of in-house, national and individual programming of the software. However, because digitization comes with a plethora of changes in practical and conceptual archiving, in this particular instance it initially faced some reluctance or resistance. The Ministry, C-DAC and the AIC tried to frame the technological advantages in inventory, ordering and retrieving as an eligible improvement, which concurred with a change

in access to collections. Museum staff disrupted this equation of technological advantage, access alteration and improvement. It needed – among other things – the inclusion of four roles into Jatan as a concession to the museums’ concerns and anxieties, to their understandings of the advantages of digitization, the need for improvement, and their desire for independent decision making. The four roles, essentially an elaborate system of checks and balances, and thereby a continuation of stern regulation of access to writing into the database, was needed to get the museums to stay on board.

Engineering multiple supervisory authorities appeased some reservations, but at the cost of remapping or re-establishing existing access to archives and collections as write access in their digital representations. This is not an annulment of a CMS’s capacity to alter the circulation of knowledge stored and preserved in the form of objects and documents in collections and archives. It is rather a comparatively conventional database model with a strong capacity for internal regulation. Jatan’s approval roles reflect data entry staff structures, but are also a form of architectural database construction conditioned by habit and a ‘disconnect’ between the computer and the museum.

However, CMS models exist with and without strong internal regulation, which furthermore can either reflect the regulatory power of the decision makers in analogue catalogues and ordering systems, or subvert them. It remains up to the institution to decide how they implement these in databank systems or whether they convert established systems in digitization projects. With the advent of the internet’s Web 2.0 interactive options, many museums and similar institutions started to embrace a more inclusive approach to knowledge production in (online) curation and public interfaces, mostly through tagging and commenting options, the development of apps or the use of social media.

In everyday practice, for the most part, digitization in museums and archives is primarily concerned with problems on a more basic level. Both conventional CMS construction as well as alternative versions reflect the technological frame in its technical and social realm, and map conventions, expectations, knowledge and power relations onto the software. Digitizing collections often leads to decisions about standard semantics that allow for a compatibility of cultural heritage objects and their networks. In theory, digital versions of inventories present themselves in comparison to analogue registers as less engrained in established hierarchies and more open to a multitude of voices and ontologies. Creating a digital archive purports to be a novel way of architecturally designing information: whereas the structure of the analogue archive of museum objects usually provides a static list with the inventory number as the top

classificatory marker, digitizing the objects and feeding the available information into a digital database allows for information to be presented in a multitude of ways. Based on numerically coded knowledge components, the ranking structure of classificatory markers can be shifted and rearranged with comparative ease, because these components are usually divided into segments. Combining this segmentation of information with a net structure allows for the mapping of different ontologies and embedding of various prioritizations into the management of this digital information. Technically, linkages and interfaces permit a continual growth of digital archives in various directions and across multiple levels. Furthermore, these characteristics allow for the retrieval of information in potentially infinite variations (Cameron 2003).

However, in practice, the planning and programming of digitization reflects political realities. The choosing and reprogramming of *Jatan* demonstrates that internal institutional politics are relevant. This CMS was programmed to reflect customary information systems and tried-and-tested visual economies. Social biographies of the museum objects, potentially ambiguous meanings and alternative understandings did not find their way into the heart of the database through external write access. In *Jatan*'s architectural structure, they can only be entered via a feedback form in the database's online version. The Ministry of Culture, introducing and providing the impetus for *Jatan*, is also not necessarily the kind of partner to encourage database architecture that undermines established economies. It rather had to juggle different in-house conceptions. Such in-house discussions about the architecture of *Jatan* continue, with alterations to the structure and extension of data entry fields recently required at a point of time when data entry was already well under way.

Overall, *Jatan*'s software is a compromise between different understandings of improvement. It is a manifestation of a certain culture of improvement that takes shape in this particular context. It is not fuelled by economic interest, even though aspects of efficiency and power play a vital role in CMS introduction. Introducing a CMS in museums is a complex interplay of beliefs about what museums and computers can and should do, how the different stakeholders involved exercise power and interference, and, most simply, whether the benefits of using a CMS in a precise social setting actually outweigh the anticipated changes and uncertainties.

Digitizing cultural heritage, which, on the technical side, is based on the variability of digital media, technical parameters and a variety of database construction possibilities, has the potential to modulate visual economies, access policies and target audiences. It allows for a more



inclusive approach that acknowledges the communities from where objects originate as stakeholders with particular expertise. At the same time, the CMS as a technical form of improvement in and for museum collections is embedded in a culture of improvement. The next chapter turns to stakeholders outside the museum who might again have very different views on how the situation of accessing museums and archives needs to be improved.

## Notes

1. Extensive lists of collection management systems can be found at <https://web.archive.org/web/20170722163531/http://manyonline.org/professional-development/collections-management-software>.
2. Jatan's planning and programming can be traced back to initial Ministry plans from 2009 and 2010. When I started researching Jatan in 2015, the planning process was as good as finished, and Jatan already contained some data from the ten aforementioned museums. I could therefore see how people worked with the software on site and created content, and I could interview stakeholders involved in planning and outlining the database's structure, demanding features, amendments and changes. The interviews were recorded on tape, and stand alongside more informal conversations on which I took notes during or afterwards. Methodologically, this has the advantage of people being aware of being recorded and hence in a position where their statements must be accurate enough to coincide by and large with what their partners might say. The time shift, i.e. talking about planning after implementation, allows for a retrospective reflection, and an identification of challenges and constraints as well as how they were overcome. However, subsequent interviews also provide options for retroactive alteration or embellishment of processes. As I could not observe negotiation processes, this chapter mostly relies on oral, recorded accounts from people involved in Jatan, and on published statements.
3. [http://museumsfindia.gov.in/repository/page/digitization\\_initiative](http://museumsfindia.gov.in/repository/page/digitization_initiative) (accessed 30 December 2019).
4. [https://web.archive.org/web/20190606163830/http://www.museumsfindia.gov.in/repository/page/msg\\_hcm](https://web.archive.org/web/20190606163830/http://www.museumsfindia.gov.in/repository/page/msg_hcm) (accessed 11 April 2021).
5. [https://web.archive.org/web/20190110113615/http://www.museumsfindia.gov.in/repository/page/msg\\_secretary](https://web.archive.org/web/20190110113615/http://www.museumsfindia.gov.in/repository/page/msg_secretary) (accessed 11 April 2021).
6. An anthropological museum will not need to name a creator, but affiliated communities; a registrar might want to record lending and insurance, but not in the same fields in which the conservator records used chemicals.
7. <http://www.cidoc-crm.org> (accessed 6 June 2020).
8. For example, the Dutch DEN demanded (on the basis that a unanimous application of standards is still not in place) that compliance with the developed digitization standards be made a prerequisite for state funding of digitization. Such a practice is not applicable in other countries, as only a minority of museums in other countries are state owned and run. In Germany, for example, the museum field is defined by a federal system (Witthaut 2004: 98); in the UK, museums are often trust-based rather than state-regulated; and in India quite a few museums are privately owned.

9. Coming up with these standards has been the result of international groups discussing needs and wants that are technically realizable, yet these standards are neither compulsory, nor free of critique (mostly culturally based; see below). Other forms – databases without Dublin Core, ignoring the redundancy of data format or the internet as an access point – are technically possible. But these modes can be understood as being outside the currently prevailing technological frame for digitizing cultural heritage. While such scenarios are interesting regarding the reciprocal relationship and the potential capacity to reset the technological frame, what is of interest here is the interplay between technology and society *within* this prevalent technological framework.
10. This numerical quality of digital media is one of its five core characteristics (see Manovich 2001: 27–48).
11. Other countries, too, have for quite some time lagged behind UK or US development when it comes to computers and CMSs in museums and archives. For example, in Germany almost 60% of museums worked without a PC in 1994. In 1998 the number had reduced to about 50% (Schulze 2001), and to 6.5% in 2004 (Withaut 2004). The 1990s saw the introduction of information and communication technology (ICT) into German museums, in the form of PCs, text processing and first databank models (ibid.: 4, 31), and the Lindenmuseum in Stuttgart was one of the first anthropological museums to develop a digitization strategy (Thiele 1992). However, in general it was to take a few more years for German museums to develop an understanding of the advantages of digital data for their work and the need for a more strategic development of the digital sector. As a recent poll shows, in 2016 only 39% of German museums used electronic databases, 31% worked with digital data, and 13% used both for inventory (Institut für Museumsforschung 2017). On a European level, by 2017 a majority (77%) of museums had a digital collection or were engaged in digitizing strategies (Nauta et al. 2017). However, this does not say whether this digital collection is in the form of a CMS or digital data in another program (93% of European museums held analogue visual collections, and 64% had digital visual collections (ibid.: 22)). Similarly, 84% of European museums held analogue man-made objects in 3D, and 45% could present such objects in a digital format (ibid.: 23), and on average European museums have digitally reproduced about 31% of their collections (ibid.: 28).
12. [https://www.cdac.in/index.aspx?id=print\\_page&print=pk\\_pr\\_prs\\_rl220](https://www.cdac.in/index.aspx?id=print_page&print=pk_pr_prs_rl220) (accessed 16 May 2020).
13. In acknowledging the social determination of technological change (as a form of innovation), we also need to go beyond the Marxist idea of capitalism as fuelling progress out of the calculation that effective innovation and/or improvement generates more capital (which could then fund further development). While this attribution to market forces is often correct, it fails to acknowledge coincidence or piecemeal advancement (Green 2002). Marxism is an appropriate approach to explain many instances of improvement, but when solely focusing on central issues of capitalism, class and power, we might overlook reasons for improvement and technological change that lie beyond the Marxist explanation, such as collective activity, philanthropy and aspiration (Tarlow 2007). A purely neo-Marxist understanding of improvement risks ‘reducing the complexities of human action, practices and thoughts to the strategic negotiations of power relationships [whereas improvement] practices

- are about belief, culture, aspiration and ways of understanding the world, as well as about social control' (ibid.: 9–10).
14. And this also distinguishes it from progress, which is not strategic or active, but rather a larger development realized through accumulating multiple improvements and taking rather passive human beings along (Tarlow 2007: 19–20).
  15. At that time the Ministry had no minister, making Sircar *de facto* the head of the Ministry.
  16. <http://namami.gov.in/> (accessed 16 May 2020).
  17. <http://indiaculture.nic.in/scheme-financial-assistance-digitization-museum-collections> (accessed 16 May 2020).
  18. Ibid.
  19. <https://web.archive.org/web/20191228161526/https://www.digitalindia.gov.in/content/about-programme> (accessed 11 April 2021).
  20. The economic liberalization of India in 1991 is one aspect that accounts for the massive advance of high-tech industry, making it one of the world's largest export markets, as well as the high level of skilled labour. Yet, as Sen (2016) and Pradip Ninan Thomas (2012) point out, the Indian government has had an interest and a stake in the development of the country's IT sector since shortly after independence. Nehru's government included modern computer technology into the state's economic planning, relating to research agendas in nuclear technology and cosmonautics; he inaugurated the country's first computer, the TIFRAC, in 1960. Multinationals like IBM were allowed to operate in India, and the training of engineers was strengthened through the founding of the Indian Institutes of Technology. The electronics industry was declared a key resource for the country and in the 1970s there were already numerous experts in software development and programming (Sharma 2014). The liberalization that started the private ICT industry began in the 1980s, with the New Computer Policy (1984) and Software Promotion Policy (1986), allowing the export of data with the help of government-funded, satellite-based data transport, and subsequent tax reductions and subsidies. The economic liberalization of 1991 gave the industry a further push, so that the early 1990s are characterized by expansion in software development for international customers. The outsourcing of service and backroom operations to India started around the turn of the millennium. The Indian IT industry is now dominated by application development, business process outsourcing, research and development and engineering services (ibid.).
  21. The paragraphs on Digital India were published previously in very similar wording in Müller 2019.
  22. <http://indiaculture.nic.in/digitization-museum-collection-minutes> (accessed 16 May 2020).
  23. In practice, the administrator often recruits from the data entry staff. And in practice, against the theory of checks and balances, one person with relevant access can function in multiple roles.
  24. This is particularly evident when support for the Minister or Secretary from the Prime Minister starts to wane, and the positions of higher-ranking officers are in limbo. (These paragraphs on Euro-Indian paintings were first published in almost identical form in Müller 2019a.)
  25. For a discussion of these points as regards the German museum landscape, see Kraus 2015.

26. For example, in the German context, as digitization projects in museums produced strong parochialism (private communication, Manfred Thaller, 2016).

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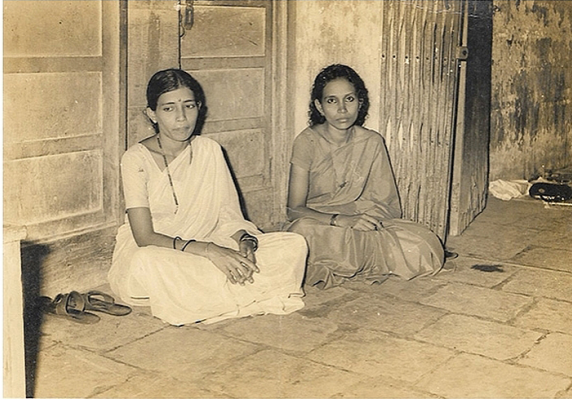
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## Latest

## 189 – The school teachers who went on a twelve-day satyagraha



My mother, K Jagadammal (right) with her peer and friend Jaysree Sawant (left), Bombay, Maharashtra. 1977

Image & narrative contributed by Nishant Radhakrishnan, Mumbai

This is a photograph taken in 1977 of my mother, K Jagadammal (right) with her peer and friend Jaysree Sawant (left) in Bombay. They were on a strike, outside a school compound, protesting the injustices served by the school they both taught in.

My mother, K Jagadammal was born in 1949 in Kalarjoor, Pathanamthitta District, Kerala. Her parents were farmers, and she was one of five sisters and a brother. Her father later ran his own grocery shop, exactly opposite Kalarjoor Government School, that all of his children attended. My mother and her siblings all grew up to have careers as school-teachers.

In 1972, following a matrilineal Dravidian tradition, the *Marumakkattayam* system (where women of the family are legitimate inheritors of property and therefore integral to families), my mother was betrothed to her cousin, her mother's brother's son, my eventual father, M. G. Radhakrishnan. My father had been living in Bombay (now Mumbai) since 1968 and worked in a clerical position at the Indian Cotton Mills Federation. After their marriage they moved to Bombay and on June 11, 1973, my mother armed with degrees in B. Sc (Science) and B. Ed (Education), joined the ranks of thousands of Malayalee migrants (mostly teachers and nurses), and became a Primary section teacher at *Abhyudaya Education Society High School* where she taught all subjects except Marathi.

From 1975, my parents lived in the teeming mill suburb of *Kalachowky*, among other migrants, in a one-room kitchen apartment. The 70s were also the years when the political party, *Shiv Sena* were mobilising their cadre against migrants, especially South Indians like my parents. But this was also the time that people away from their birth homes had begun to embrace and appreciate the other Indias. Yet like many others from Kerala, my parents had a high degree of political agency and found it hard to tolerate injustice. While it may sound like a cliché, it is second nature for us Malayalees to go on strike. The 1970s were a potent moment in India – the heady years of *Emergency* and after. In this photograph my mother (right) was 28 years old when the two teachers went on a strike demanding their reinstatement at the Abhyudaya Education Society High School, following three years of harassment and intimidation by a member of the school management.

In 1975, a new teacher, *Kalyanikutty* joined the school. She was related to a *Mr. Nair*, the school administrator, known to be an authoritarian figure. Allegedly, he would run the school like his personal fiefdom. On several occasions, he would command Kalyanikutty to return home over perceived slights or mistakes. The personal harassment was purely based on the close family relationship between them – found often in patriarchal Indian households. Unable to tolerate the injustice, and in solidarity with Kalyanikutty, all teachers, including my mother submitted a protest letter asking Mr. Nair to stop troubling Kalyanikutty. In retaliation, he called upon each teacher and asked them to withdraw their signatures. All the Secondary School section teachers refused to do so, but from the Primary section, with the exception of my mother, all teachers withdrew their signatures – and categorically refused to withdraw it. This began a long period of harassment for my mother – threats, show cause notices, random inspections on her classes, a trip to the police station. But my mother, with the support of my father, teachers, students and much of the management, maintained her stand. My parents' position was clear – Mr Nair did not own the school or its employees – he was her co-worker, an employee, just like her – an equal in hierarchy.

So the stage was set – My mother, a teacher – K. Jagadammal versus Mr. Nair, the patriarch. Heavily pregnant with me, she was denied her rightful maternity leave and made to accept half-pay on leave, albeit was abruptly terminated from service. In 1976, shortly after my birth, pressured by committee members, she was reinstated, but demoted to a lower teaching position. Following Mr. Nair's machinations, at the end of the academic year, she was again terminated. This open termination had been made available under a CC BY-NC-ND 4.0 license thanks to the support of Martin Luther University Halle-Wittenberg, ZIRS, Fritz Thyssen Foundation and Deutscher Akademikerinnenbund. Not for resale.

So in 1977, my mother was no longer an employee of the school, yet she simply refused to accept the unfair termination and continued to attend the school in protest. Every single day, she would go to the Headmaster's office to sign-in on the attendance muster. When she was not allowed to sign it, she began submitting letters –

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INDIAN MEMORY PROJECT INTERACTIVE TIMELINE INDEX

Celebrating Six years of IMP



## Community-Based Digital Archives

### *Programming Alternatives*

Jatan, the digital archive programmed and installed to manage and disseminate the objects stored and preserved in ten major Indian museums, is currently the exception to the rule of online access to Indian cultural heritage. Despite the Ministry of Culture's Five Year Plan focusing on and financially supporting digitization, few institutions allow online access to their collections. Indian museums and cultural institutions that have a website provide information about how to reach their physical space as well as a brief overview of the collections. The Nehru Memorial Museum and Library, for example, also houses a large photographic collection of more than two hundred thousand (now digitized) images, providing these on in-house computers. Online, there is a small selection of 306 images with captions in seven folders, without any metadata.<sup>1</sup> The Indira Gandhi National Centre for the Arts houses a large collection of works by famous photographers such as Raja Lala Deen Dayal, Henri Cartier-Bresson, Sunil Janah, Shambu Shaha and others, but the digitized images were (in 2017) not even transferred to the intranet, let alone available through the internet.<sup>2</sup> The National Archives of India also stores a number of photographs in private collections, but none are available online.<sup>3</sup> European institutions, especially those in Britain, might have an advantage when it comes to experience in conceptualizing and financing digitization projects. Yet, regarding searchability and retrieval, two of the most extensive photographic collections lag behind. The British Library makes it a challenge to actually navigate to as well as through the India Office Collection, even though fifteen thousand images are available online.<sup>4</sup> The F urer-Haimendorf collection provides the user with considerably better navigation and search options, but simply finding this digital archive online is a barrier, as search engine optimization and SOAS's website structure do not

prioritize the retrieval of the 14,000+ photographs from South Asia.<sup>5</sup> With private (photographic) heritage collections, the situation is similar. The Alkazi Collection of Photography, for example, provides access to the digitized versions on in-house computers only, and only to those that visitors request, not to the full database.

This overall situation of restricted access to cultural heritage – which was undoubtedly worse a few years ago, and is likely to improve further with new digitization projects on the horizon<sup>6</sup> – raised attention and critique. Among the critics is Anusha Yadav, a curator, designer and photographer based in northern Mumbai. In one of our first meetings, Yadav (interview, 2016) recounted one of her experiences in this area:

I think our history should be accessible. There was a very interesting argument on that in one of the sessions where a lot of archivers met in India, and the guy from the museum said, ‘These are family jewels. We can’t share them with the world’, and I said, ‘But you don’t have to share them but can you at least tell me where they are? At the minimum, you can tell me what you have. You’d have to show me the picture even if you want to save it’. If I want to know if there’s a picture available of Gandhi eating food, then I should know where it stands. I mean, where is it?

Yadav (*ibid.*) elaborates on the current state of India’s archived heritage, a topic that we would dwell upon and deepen during our subsequent encounters and later during my internship with her:

Yadav: I’m talking about a government museum. Their catalogues are not available. We have no idea what’s in there.

Müller: Why do you think that is the case?

Yadav: Because they’re just too lazy and there’s no funding for it. The government is not that interested.

Müller: How come they can actually go to an official meeting of archivists, different archivists, Indian ones, so there are a number of them with an up-to-date agenda talking about probably the future of the archives? How can one still have such a position?

Yadav: Because knowledge is power so they’d rather hold onto that power. If they have nothing to protect, then why are they powerful? They are in powerful positions because they guard these things.

Dissatisfied with the way in which historical photographs and archival material are hidden and exploited as a means to consolidate established

power regimes, Yadav decided to create a counterweight. In 2010 she founded her own online archive. She deliberately ensured that this archive would be publicly accessible to anyone, anywhere in the world (provided s/he has internet access), both regarding creation and consumption of the content. She called it Indian Memory Project.

This chapter is concerned with exactly this creation of archives – in digital, online format as alternatives or counterweights to current canonical dealings with India’s past. The chapter brings into view what I call community-based digital archives, and disentangles the reasons for their creation. The aforementioned power imbalance is only one aspect, and an ambiguous one at that. The most prominent and publicly represented arguments are those of a lack of access and of sharing. They are closely related to an optimistic understanding of digital media and the internet. I will show that the public statements of newly created archives regarding their emergence and existence utilize what have become *scripts* of necessity and sharing. The script of undermining power and control takes an equivocal position; while it is relevant, both in relation to the lack of access and to sharing, the conventions on which archives as *lieux de mémoire* rest are in practice not easily avoided, even when community-based archives emerge in digital format.

Scripts are used in this chapter as a heuristic device to enable an understanding of why and how digital media are envisioned as a remedy for heritage material. The way in which scripts are conceptualized here alludes to Erving Goffman’s (1959) theory of the presentation of the self in everyday life with its resemblance to staged theatre plays. As a form of symbolic interactionism, the notion of scripts has been applied with slight variations of the term in most of the social sciences (Vanclay and Enticott 2011; van den Berg 2008). When I talk of scripts in the following, they are to be understood as ‘a culturally shared expression, story or common line of argument, or an expected unfolding of events, that is deemed to be appropriate or to be expected in a particular socially defined context and that provide a rationale or justification for a particular issue or course of action’ (Vanclay and Enticott 2011: 260). Script refers to ways of speaking or acting in everyday life that express internalized values and knowledge, such as behaving according to socialized gender roles or using artefacts according to their use ascribed in manufacturing. Frank Vanclay and Gareth Enticott (*ibid.*) categorize scripts into four (sometimes overlapping) types, namely (1) routines or expected sequences of events, (2) a catchphrase or metaphor frequently recited, (3) a mini-story, narrative or parable that has particular significance, and (4) a commonly used or widely evoked line of argument. When turning to digital archives, the main form of scripts are commonly used arguments.

Scripts can be established anew, but are more often employed as a commonplace argument or expression. They are learned or socially conditioned mental maps (Silvasti 2003: 156); people are rarely consciously aware of scripts or that they are using them. They comprise an internalized set of vocabulary or repertoire, which also assists in legitimizing or advising courses of action. They can provide a rationale for an issue or an action, and often have a moral dimension to them (Vanclay and Enticott 2011: 261).

Users of scripts base their arguments on acknowledged contextual conditions. They express what is 'deemed to be appropriate'. In other words, scripts are predicated on underlying, background arguments, which again can take the form of (preceding) scripts. What Bibi van den Berg (2008) terms 'contextual cues' are underlying, accepted and sometimes only subconsciously resonating ideas about how things, people or encounters work – or should work. Contextual cues are the main resource for a script's legitimation.

Applying scripts to the analysis of newly established, digital-only archives ties in with what has almost become a tradition of relating Goffman's theory to various forms of digital or other media (see Hogan 2010 for a useful list). Digital technology enhances or rearranges scripts, and online performances are easier to understand when conceptualized as onstage or offstage performances that establish new scripts while at the same time being based on existing ones. Yet, instead of turning to users' online behaviour, this chapter is concerned with the creators' scripts as reoccurring lines or arguments when setting up online archives in India.

The chapter deals with two creators as examples of digital archives that have been created more recently, namely Indian Memory Project (IMP) and The 1947 Partition Archive (1947PA). As we will see, both archives share the mentioned scripts – albeit in slightly varied forms – in public statements, interviews and in their corporate videos. They also have a number of individual and contextual aspects in common. Both archives are driven by powerful middle-class women in their late thirties/early forties. These women's individual life stories contributed to the setting up of the archives and are used as explanations or even justification for their endeavours. These individual stories constitute the beginning of this chapter, as they provide an introduction to the archives and demarcate different ways of telling this story, either as retrospective connecting points or by stressing key moments. They are a prelude to the scripts of necessity, sharing and archival power that follow.

## Indian Memory Project

Indian Memory Project is an online, curated, visual and narrative based archive that traces a history and identities of the Indian Subcontinent, via photographs and letters found in personal archives. Contextualised with narratives, the photographs & letters (contributed by people all over the world) reveal a powerful and historical palimpsest of a largely undocumented society and sub-continent.

With personal images serving as evidence, each post on the archive reveals valuable information about people, families & ancestors, cultures, lifestyles, traditions, choices, circumstances and thereby consequences. Indian Memory Project is a personal memory of the world – a sociological and photographic history, remembered, realised and experienced by its own people. It was founded in February 2010, by Anusha Yadav.<sup>7</sup>

This is the official description of IMP, as found on the website's 'About' page. The website offers its visitors a collection of about 180 photographic images related to the history of the Indian subcontinent. Each of the photographs is connected to a narrative. In each of these stories, a person – usually the one providing the photograph – recalls and shares a personal memory. This personal memory is often emotional, subjective and linked with content from other websites. It is rarely autobiographical; usually, a relative or a friend of the depicted person tells his or her story, relating a particularly memorable event or biographical milestone.

The stories – rephrased by Yadav to fit the format of IMP – are usually between five hundred and two thousand words in length, and set in slim, dark grey letters on a plain white background underneath the prominent photograph. The photographs that people send to Yadav for the website are often (but not always) originally black and white. Displayed in digitized form on a white background, they often expose a strong sepia tone. The website itself has a sleek and elegant design. The main part of the homepage is taken up by the latest entry, where a yellow-gold entry headline is followed by the photograph and the story. The yellow-golden title 'Indian Memory Project' is displayed in graceful letters at the top of the main page; a thin yellow banner underneath features the various subpages. The right side of the main page sees black and white social media icons ('follow us'), important copyright notices, donation options, awards and other information.

Yadav's expertise in art and design clearly comes through in the web design. She is an independent graphic designer and photographer in

her early forties. Born in Britain, she returned to India during her childhood, growing up in Jaipur. At that time, she recalls, the roots of her interest in photography and personal histories were probably formed. One aspect she mentioned in one of our conversations was that she always treasured the photographs of her father, who was an amateur photographer. He passed away when Yadav was only twelve, so his photographs are a way for her to relate to and form a vision of her father. Another point she mentioned was the significance of growing up in Jaipur after her father's death, as photographs were quite important in North Indian middle-class families. Almost every family had photographs in their living room:

The richer they are, the more photographs there are in the living room, also because they could show portraits of marriage, and each one had a story. Anybody that we went to, there were always stories: 'This was my uncle, this was my aunt, that was my grandfather'. So, my understanding of photography became contextual. It was not photographs just by themselves, but information. ... I mean the photographs came with information 100 per cent. That happened then even in school. I went to an all-girls school that used to be run, was established by the Queen of Jaipur so it would have her photographs and all the delegates and the royal family and all of that. A lot of girls in my school were from royal families, so it was all around the idea. I mean Jaipur *per se* is an exoticized city, so everything about it was exotic and historical, beautiful and amazing. (Yadav, interview, 2016)

This childhood exposure to photography was not an obsession, Yadav says. These are points which she only connected in retrospect.

After school, Yadav studied graphic design and graduated from the National Institute of Design in Ahmedabad. She worked for several years in print and online advertisement in both Delhi and Mumbai, and took classes in photography at Brighton University. After that, she established herself as an independent artist, curator and designer. Now living in Mumbai, she regularly curates shows, designs websites and books, is featured in exhibitions and is invited to give talks on archives and historical photography. Recalling how IMP came about, Yadav (*ibid.*) tells the following story:

I actually wanted to do a book on weddings in India, but a more academic book, a photobook. When I came back from Brighton, I think that is the time that I started the Facebook photo sharing platform. Yes, I made a Facebook group called Indian Heritage Photos or something like that.

I used to collect pictures for the book proposal and then asked specifically for wedding pictures. People are not good at instructions but the good part is that it had its own dynamics. ... The book proposal didn't come through and I abandoned the idea, but nonetheless I kept thinking there was something there that I hadn't looked at. I think in 2010, I remember I was looking through the pictures again and the penny dropped because everybody who goes through the pictures on Facebook through this group, they were writing about everything else but the wedding: 'how my father went from here to there', 'so many marriages had happened', 'this was his profession', 'he had three wives', 'this is when my father bought his first car'. So it was a lot of these other things and not about the wedding ...

It was their own dynamics and it absolutely worked for me because certainly when they started talking about partition, polygamy, class system, profession, attire, culture, ethnicity, all of these started becoming categories in my head. The moment they became categories, I knew I could form a library and I could form an archive and that I would do it online. ...

Yes, that's how it started. It only excited me, it didn't take much of my time. I didn't think it was taking my time when I was writing this because it was fascinating for me. It was also something I could enjoy because I enjoy technology and I enjoyed spreading the word. I got excited about other people getting excited. ... Yes, that's how it started. Three or four months later, the *Telegraph* in Britain covered it and that's when I knew that it was big.

By 2019, IMP had about 180 entries, more than 800 subjects and 3,000 keywords, more than 1.2 million views and 12,000 subscribers on Facebook. For the project, Yadav won the Innovator of the Year award at the India Today Woman Summit 2014, the Online Influencer Award from L'Oréal Paris Women Achievers 2013 and an Honorary Mention at the Austrian Prix Ars Electronica Awards 2013.

## The 1947 Partition Archive

The 1947 Partition Archive is a non-profit non-governmental organization dedicated to institutionalizing the people's history of Partition through:

- 1) Documenting, preserving and sharing eye witness accounts from all ethnic, religious and economic communities affected by the Partition of British India in 1947. To do this, we have created a digital platform for

anyone anywhere in the world to collect, archive and display oral histories that document not only Partition, but pre-Partition life and culture as well as post-Partition migrations and life changes.

2) Collecting, preserving and sharing personal items and artifacts associated with the people's memory of the 1947 Partition.

3) Bringing knowledge of Partition into widespread public consciousness through [a number of creative and scholarly offline formats]. Presently, a portion of our collected works are being made available in limited capacity via our online Story Map.<sup>8</sup>

The Story Map is the prominent feature of the 1947PA's website. The black background sees small social media buttons at the very top, followed by a header that includes an edited version of a photograph of people migrating. The photo is cropped to integrate the 1947PA's logo on the right, and shows an unusual colour gradient including orange, a sepia tone and green. A small orange banner underneath features the various subpages. The main part of the home page is occupied by a large map of South Asia and South East Asia created from Google Maps. It features smaller and larger orange dots, indicating where oral histories have been recorded, or people migrated to or from. The map also features a window to search for stories and three orange bubbles to 'share your story', 'collect stories' or 'donate'.

When opening a single story, it appears as white letters on a black background. The stories often feature one or more small images of the interviewed person at the top, followed by his or her name in large letters and a slightly smaller listing of current residency, age in 1947, migration route and the interviewer's name. Colourful large share and like buttons ask you to share this story, followed by the actual written summary of the person's biography. Comments, feedback and discussions happen on the archive's Facebook page, which feature the same stories within the aesthetic frame as Facebook predetermines it.

The 1947PA is, like IMP, an online archive that aims at documenting the Indian past. It does so not by digitizing existing tangible material, but through recording oral histories of people who lived through partition. The result is similar to what IMP does – it disseminates the photograph of a person along with the associated biographical story of that person in online form. People can subsequently engage with this story, as well as with other users, through the archive's website and/or its Facebook page. The format is multifaceted: the 1947PA displays video recordings that it creates, stores and makes available through a number of university libraries; photographs of the interviewed person



taken during the interview; and digitized photographs that show the interviewed person at an earlier point in their life. The words written on the website are a summary of the recorded interview.

When I interned with the 1947PA in Delhi for three months in summer 2017, I met Guneeta Singh Bhalla – the founder and leader of the 1947PA – only towards the end of my term. Working mostly in the USA, Bhalla travels to India at irregular intervals. We talked about her work and future plans, but less about how the project started. However, Bhalla has given numerous newspaper interviews on how she came up with the idea and started the 1947PA. In these she always stresses key moments that led her to record and document the history of partition, and mentions several beneficial attributes of her biography.

Guneeta Singh Bhalla was born in Delhi, and moved with her family to the USA at the age of ten. She says: ‘I grew up listening to stories about Partition from both sets of my grandparents, but mainly from my paternal grandparents who actually did the migration. They never really got over having to leave their ancestral home and land behind, even 50 or 60 years later’.<sup>9</sup> Her father’s family comes from Lahore and migrated to Amritsar in 1947. As a child, Bhalla heard fragments of partition stories, but it was not until she was nineteen that her grandmother told her a more thorough story of her partition experience: ‘Singh Bhalla was rapt. [O]n that day in 2000, the details of her grandmother’s journey shifted something within her. She began to understand the story’s significance in the history of a fractured, postcolonial India’.<sup>10</sup>

Nonetheless, Bhalla took up studies in physics in Florida, which she completed with a PhD. Towards the end of this period, in 2008, she acknowledges another key moment, visiting the Hiroshima Peace Memorial:

[W]hen I came across the witness archives in Hiroshima, that’s when it clicked. It was so powerful to hear the stories of experiencing the atomic bomb from survivors. Suddenly it was all very real and human and I felt their pain much more than watching videos of the mushroom cloud or reading written accounts of those hours that followed the dropping of the bomb. It was an immediate click for me. I knew the same had to be done for Partition. I began recording witness accounts on a hobby camcorder I always carried with me, while on a trip to India in 2009 in a small ancient town (former kingdom) in the North called Faridkot.<sup>11</sup>

Bhalla was also eager to record her great uncle Haravatar Singh Sodhi’s story in 2009, as he was the last member of her family who was an adult at the time of partition. She visited him in Punjab:

There was just one problem: [Bhalla had] forgotten to bring her video camera. ‘He told me not to worry’, she said. ‘The next year, on my next visit, we would record it then. ... I knew I needed to do this work. Partition is an event the world needs to know.’ Sodhi passed away six months later, while Singh Bhalla was back in California. Guilt and regret seeped through her for missing her chance. ‘When he died, I got really obsessed about the idea to record stories’, she said.<sup>12</sup>

‘I couldn’t sleep that whole week ... It was just like a bout of madness – an intense and completely irrational desire to put everything aside and just do this without even looking at the future, making no plans.’<sup>13</sup>

Back home in the USA, Bhalla followed through with her aim to record more and more stories of partition. She turned to Sikh temples and mosques in the state of California, where she had taken up a postdoc position as a physicist. She gathered a small team of students around her and got some equipment, with which they started recording stories. ‘Our house turned into almost this weird little cafe, where all these people kept coming in to borrow all this equipment, and I was living with my partner at the time and he was just like what’s going on?!’<sup>14</sup> In 2011, she registered the project as an NGO, on the advice of one of her donors. In 2013, when the project had become big, she quit her job as a physicist to manage the 1947PA full time.

The archive had recorded more than eight thousand stories by 2019. The interviews were conducted by volunteers (so-called citizen historians) and paid ‘story scholars’ in India, Pakistan, Bangladesh, the USA and other countries. The 1947PA’s Facebook page has more than nine hundred thousand subscribers and likes.

## Script I: Lack and Necessity

The individual accounts of how and why these two projects were started allow for a more detailed, personal approach to the archives, and also serve, to some extent, as a legitimization as to why *these particular* archives are important and valuable. To argue for the need for digital archives *per se*, and digital archives dealing with partition or Indian memories in particular, the two women primarily employ a script of lack and necessity. Both the 1947PA and IMP state this categorically. The 1947PA states a lack of documentation of individual accounts of partition, a lack of narratives of partition beyond textbook numbers, and finds fault in the minimal attention given to this dramatic historical event. As Bhalla explains:

I knew [Partition] was a really traumatic and large-scale event, but I never learned about it in high school here in the US. In fact, it was not even mentioned in my textbooks while in contrast we learned about the Holocaust in Europe and Hiroshima/Nagasaki for a whole semester in my World History class.<sup>15</sup>

The archive's corporate video, embedded in its website, transports the script of gaps, enhanced with the urgency of advancing time:

Shockingly there exists no memorial / or public archive devoted to Partition / devoted to the memories of those whose lives were affected / There exists NO source of witness voices for us to learn from. / so we decided to create one. ... Let's preserve 10,000 stories by 2017 / Together, we can preserve history, one story at a time. / And create a source of learning for generations to come. / Before it is too late. / Before the memories are forever lost.<sup>16</sup> [Emphasis in the original]

Repeating this script in a TED Talk in 2018, Bhalla explains:

So that was the public memory of Partition: it was this story of ice-cold numbers and contested accounts by political leaders. Those numbers did not account for the human toll, and they did not capture hearts. Yet, we were so wed to those narratives that they had led to a lot of cross-border tensions. I wanted to know more. ... There was a fear: if we did not record our history, we would build our future on a faulty and less understood history and a faulty sense of identity. And so I wanted to do something about it.<sup>17</sup>

Bhalla clearly communicates her motivation, the multiple voids that led her to start the archive: the lack of a place for remembrance of partition, whether in written form or in the form of a memorial or museum; the government's inability so far to install such a place; the missing voices of people who lived through partition, this first-hand oral history account that she perceives as a very powerful way of learning about the past.

Yadav does not so much stress a perceived lack in her extensive public statements, but points at a deficit when it comes to established heritage institutions' access policy (see her first account at the beginning of this chapter). She also points to the issue on her website, where she writes:

Contextualised with narratives, the photographs & letters (contributed by people all over the world) reveal a powerful and historical palimpsest

of a *largely undocumented society and sub-continent*. With personal images serving as evidence, each post on the archive *reveals valuable information* about people, families & ancestors, cultures, lifestyles, traditions, choices, circumstances and thereby consequences. Indian Memory Project is a personal memory of the world – a sociological and photographic history, remembered, realised and experienced by its own people.<sup>18</sup> [Emphasis added]

The highlighted parts of this statement refer to the gaps and deficits: society is largely undocumented (through photographs and letters) and is missing a bottom-up (photographic) history. IMP is a response to that gap and aims at satisfying the need to document memories.

Both these notions of shortcomings seem slightly exaggerated. There exist a number of initiatives that record the oral history of partition, albeit none as large in scale or as wide in recognition.<sup>19</sup> Written accounts of partition in fictional and nonfictional form are abundantly available.<sup>20</sup> Yet a distinct memorial site does indeed not exist, and the states of Pakistan, India and Bangladesh celebrate the birth of independent nations rather than publicly point to the turmoil of partition. Bhalla and the 1947PA avail themselves of this fact, and enhance their argument for the archive with a notion of time-related urgency.

Likewise, it is not true that the Indian subcontinent and its society is largely undocumented; public and private photographic collections indicate otherwise. Even regarding photographic accounts, the statement seems disproportionate. The Nehru Memorial Museum and Library, for example, houses about two hundred thousand photographs, and the Alkazi Collection of Photography owns about one hundred thousand images. The India Photo Archive, the Indira Gandhi National Centre for the Arts, the national museums and the Press Information Bureau all store between several dozen and several thousand photographic images. Together, they constitute a substantial volume of photographic documents from many decades. The number of photographic documents from India increases further when adding foreign photographic archives to the list, such as British and missionary archives.<sup>21</sup> However, what is indeed an issue is that many of these archives are documentations of or by socially/politically important people. These photo archives are not created by or designed to represent the common people, let alone a cross-section of society. Yadav highlights this aspect, stressing that if indeed these archives exist, they are not accessible and their content is not available for view, which consequently creates the need for something like IMP.

Nonetheless, the script of a lack, as employed by both community-based archives, can be a powerful one when asking for support for the respective cases. Both Yadav's and Bhalla's idea is to create and curate online archives, for which they need material in the first place. There is a need to convince people to contribute, to fill the persistent gap. Pointing at such a lack, and indicating a moral judgement of the same, with which potential contributors can identify ('shockingly, there exists no memorial of Partition'; 'we need to reveal parts of history so far largely undocumented'), is a legitimate strategy. It draws on users' sentiments as well as on the insufficient performance of existing state institutions.

This script rests predominantly on two ideas: one is the ideal of a more democratic production of history through oral accounts and bottom-up engagement, the other the notion of the internet as a place for digital memory making.

Regarding the first idea, it is commonly known that history, conventionally, relies on written accounts stored in archives or preserved in libraries. Alternative versions of the official, constructed canon of the past rest on oral accounts. Oral history 'is as old as the first recorded history' (Ritchie 2011: 3), but the term in its current meaning was coined in the 1940s and subsequently grew in importance. Oral history projects – the collection (and analysis) of narrative interviews with contemporary witnesses or life story interviews – were, especially in Europe, conducted as bottom-up endeavours, attempting to include unheard voices: 'European oral historians ... allied with political movements on the Left. They reexamined history from the "bottom up", intending to include the voices of those previously excluded from national narratives' (ibid.: 4). There was a sense of social responsibility, which can also be traced very strongly in the 1947PA and IMP. It might not be so much 'to radicalize the practice of history' (Grele 2006: 48), but a belief that current history production is insufficient, because it is a 'story of ice-cold numbers and contested accounts by political leaders'<sup>22</sup> (Bhalla), which needs a project that 'traces a very different history of the subcontinent from the one we read in textbooks'.<sup>23</sup> Oral history projects are not necessarily led by professional historians, but often include local enthusiasts, curators and archivists (Ritchie 2011). They can collect information that would not have existed otherwise, as the interviews are rich sources of first-hand historical accounts. Testimonies of eye witnesses, especially when the interviews are conducted a significant time after the narrated events, have been contested as not 'objective', and the fallibility of memory is certainly something to be acknowledged. However,

oral historians stress that a source is not more reliable just because it is written down (ibid.: 12). IMP to some extent avoids the question of the truth value of oral accounts, as it is a visual and narrative-based archive, which takes photographs<sup>24</sup> as the starting and material reference point for its oral history accounts.

The 1947PA, by contrast, is a straightforward oral history project. It works with volunteers ('citizen historians') and enthusiasts on small stipends ('story scholars') who are responsible for conducting interviews. They all receive some initial online training, including information on how to conduct interviews, what questions need to be asked, basic recording techniques, image composition and behavioural rules. After this online training, they are provided with a few documents that include checklists and field manuals. Thus equipped, they set out to conduct oral history interviews, which they subsequently upload to the 1947PA's server. The 1947PA is hence an archive that conducts oral history with a digital camera in an offline space, and collects these stories in a digital archive that is (at least in part) later accessible online. It makes use of technology, whose progress has always influenced oral history, not least since audio recording techniques emerged. The 1947PA did not face the challenge of converting formats (as many other oral history archives did; see Schrum et al. 2011), but made online sharing of oral history accounts an intrinsic element of its offering. It also relies on the growing willingness and eagerness of people not only to share their personal accounts of partition, but to do so online. The interaction with media and the wish to be heard makes online oral history archives an acknowledged form of sharing individual ideas and memories (Schrum et al. 2011: 509).

This relates to the second idea behind the employed script of a lack: the internet as a place for digital memory making. When IMP and the 1947PA employ online dissemination of individual accounts of the past, they recognize the internet as a place for memory making. Memories have for a long time been understood as a counterpart to history. Instead of relying on the written word, memory has multiple media and formats and implies a less authoritarian, peer-to-peer approach (Garde-Hansen et al. 2009: 8). Similar to digital media, memory seems to be a counterpart to stoic and fixed versions of history, as it is more fluid and flexible, and can be adapted and transformed. Both digital techniques and memorizing can be understood as bottom-up approaches with the potential to undermine established versions of history. Thus, it seems only natural that Joanne Garde-Hansen et al. (ibid.: 10) ask if digital memory making – combining two bottom-up approaches to the past and its formation – indicates the end of history. While they deny

this – referring to the myth of cyberculture being free from history and the presence of new powerful actors within the digital realm – it is exactly this idea of a more democratic account of the past through online memory making that digital archives rest upon.

The 1947PA and IMP do not restrict themselves to random, individual accounts of the past, but claim importance and request acceptance for their displayed ways of seeing the past. They touch upon history making when they record and disseminate alternative versions of ‘standard textbook’ history and employ digital memory making, with its wide appeal and large coverage. Digital media can be influential when it comes to transmission of ideas, allowing for the mediation of alternate versions of the past (and the present), for better or worse. Especially when looking at the past, oral history accounts amassed and communicated online do not necessary imply an end to historical production, but they can comprise a ‘recycling of history in the form of digital memories’ (Garde-Hansen et al. 2009: 11).<sup>25</sup> Employing the internet and social network sites as mediums bears the potential to enhance and democratize means of history production. In consequence, digital archives based on individual narratives combine oral history as an alternative means of relating to the past, and digital media as another way to circumvent top-down accounts of past events. Acknowledging a lack of diversity of voices in how the subcontinent’s history is told, the 1947PA and IMP set out to fill this gap with bottom-up digital memory-making approaches. They mark the lack of verbal public statements and implicitly call for a solution – for spoken accounts and/or archives in the first place – which they provide at the same time. Resting their script on internalized beliefs in the importance of oral history and online memory making anticipates the methods these online archives employ. Oral history and digital technology complement each other effectively in this attempt to collectively and inclusively create accounts of the past.

## Script 2: Access and Sharing

Related to the script of lack is the script of accessibility. Both IMP and the 1947PA make use of this script, albeit in slightly different ways and with differing intensity. The 1947PA states that it wants to ‘create a source of learning for generations to come’. This ambition is explained on its website:

[The 1947PA is dedicated to] documenting, preserving and sharing eye witness accounts from all ethnic, religious and economic communities

affected by the Partition of British India in 1947. To do this, we have created a digital platform for anyone anywhere in the world to collect, archive and display oral histories that document not only Partition, but pre-Partition life and culture as well as post-Partition migrations and life changes. ... Bringing knowledge of Partition into widespread public consciousness through [various online and offline formats]. Presently, a portion of our collected works are being made available in limited capacity via our online Story Map.<sup>26</sup> [Emphasis added]

The idea of sharing the gathered archived material is – at least as a script – very important. It is an essential aspect of the online archive, which draws its value from being accessible online ‘for anyone anywhere in the world’. The online format is here pictured as a guarantee of 24-7 access to the gathered material, breaking existing barriers of controlled access to archival material and heritage documents.

Yadav made the notion of access and sharing even more prominent for IMP. She stated that, as a minimum, ‘our history should be accessible’. As noted earlier, the website stresses the importance of revealing information and memories, and does this deliberately in an online form. In an interview (2016), Yadav adds:

[At one point] I knew I could form a library and I could form an archive and that I would do it online, and many things prompted me to do it online and keep it free. One was that there was nothing like that in India especially and history is valuable, everybody knows that, which is why they want to hold onto it and not share. So, I decided I wanted to share and I wanted the whole world to know about it. ...

If there’s any history that concerns India, it is going to be a part of [IMP’s] Facebook page, and it really works to my benefit to be inclusive rather than saying, ‘This is my project and that is your project and I will not show you’. Because that is the problem in the first place, that nobody shares information, and it’s that much more valuable for some people, some people are collectors and private collectors in museums, so I was very clear that I would be very inclusive on social media. I mean entirely on the subject, not on your own brand *per se*. I think there’s more merit in being more inclusive on the idea of history.

What clearly resonates in these statements – beyond a sense of conventional institutions concealing historical documents – is the idea of online publication as a solution to concealment. These online archives will, as stated, *reveal* information of and through historical documents.



If there is no way to deal internally with the problem of institutional concealment, there needs to be an external way. To put it differently, if it is impossible to get access to existing archives, there is still the opportunity of creating a similar one that will grant access. This script of granting access and allowing information to circulate freely rests on the combination of conventional notions of sharing and distribution on the one hand, and an optimistic view of the internet on the other.

Theories of distribution as reciprocal exchange and gift giving pre-date ideas of sharing in economic anthropology. Marcel Mauss and Bronislaw Malinowski developed these theories as early as the 1920s. They set important benchmarks for the ever-growing canon of economic anthropology. Malinowski (1922) examined the economy of exchange in the Trobriand Islands, and described the Kula exchange as a system of ritual giving and receiving, in which shell necklaces and shell bracelets are exchanged clockwise and counter-clockwise among inhabitants of the archipelago. While the objects have no economic value in themselves, they are of symbolic and ritual importance. In examining Kula exchange culture, Malinowski analysed how the bequeathing and reciprocal exchange of non-economic objects enables exchange of other commodities, and social interaction between members of the receiver's and the giver's community. Departing from this, and including examples from multiple societies in present and former times, Mauss (2002) argued in his seminal book *The Gift* that giving is practised in all societies. He states that giving a gift is usually combined with the obligation of the other to accept that gift, and the implicit anticipation of a gift in return. The idea of reciprocity is a vital element of both commodity economies and gift economies. And since giving or exchanging goods does imbue the moral, economic and legal spheres of societies, Mauss acknowledged it as a 'total prestation'. Giving has since been recognized as a total social fact, being most important economically, but also influencing and relating to all aspects of human societies.

Nurit Bird-David (1990) argued that gift giving and commodity exchange need to be enhanced by a third form of distribution – sharing. Sharing is – unlike gift giving and exchange – not characterized by reciprocity, but (as exemplified through game division among the South Indian Nayaka) an act of giving without any personal obligation of recipients towards the giver (*ibid.*: 192). In a similar way, James Woodburn (1998) opts for a recognition of sharing as a nonreciprocal form of giving. It is not a form of exchange, as he demonstrates again with reference to game division (here among the Hadza in Tanzania). A share is usually demanded, and sharing has neither an obligation for return nor a higher social status attached to it. It is to be seen as another economic

aspect of giving that goes beyond Marshall David Sahlins' (1981) binary distinction between reciprocity and redistribution.

More recently, the economic take on sharing has experienced renewed interest with what is commonly known as the sharing economy (see Widlok 2017). However, with reference to the aforementioned anthropological definition of sharing, the current concept of companies making sequential use of commodities is not a form of sharing at all. The existence in economic systems of car sharing or apartment sharing (through Airbnb for example) is clearly part of a commodity economy based on reciprocity (and payment). Even though the business version of a sharing economy indicates quite the contrary, sharing remains positively associated with unselfishness. The idea of a nonreciprocal, generous and equalizing form of sharing is here applied to obscure commercial logic. These forms are not nonreciprocal forms of giving, but require payment. Free-of-charge sharing forms (such as Couchsurfing or agricultural production cooperatives) usually also require some form of reciprocity, mostly in other forms of capital (for example social or cultural capital).

Consequently, there is a modification of the term 'sharing' at work. Current definitions of the sharing economy do not restrict this term to a nonreciprocal act of giving, but define the term rather broadly as a sharing of assets or services for free or for a fee (according to the Oxford Dictionary), or they subsume obtaining, sharing, swapping, trading and renting under the one term (Albinsson and Perera 2018). Sharing has not only become a buzzword in relation to business models – usually associated with online practices of providing services and communicating via a platform – but has also emerged as a keyword of Web 2.0. It conventionally meant an act of distribution, or having something in common, but within Web 2.0 the term has been extended. Sharing is now also an act of communication (John 2012). As Nicholas John (*ibid.*: 170) explicates, this wider notion of sharing most likely derives from sharing meant as imparting to others' beliefs or experiences, and has a history in the computational sciences. Here it is file sharing (at first closely tied to material data carriers, now more and more detached from materiality) that made use of and hence characterized the understanding of sharing. With it came the notion of endless available copies, making sharing not a zero-sum game, but one that leaves you with the same as or even more than when you started (*ibid.*). The term sharing, when used in the context of the internet, especially by social network sites (SNS), has been fundamentally modified. Sharing is now used synonymously with communicating via SNS or participating in Web 2.0 (*ibid.*: 172). It refers to such various forms of online communication as uploading

an image, commenting on a post, updating your current status or distributing an entry through wider online networks. The objects of sharing thereby not only become less precise (SNS ask their customers to ‘share your world’ or ‘share your life’), but also get dropped altogether (‘Share!’), so that sharing is used as an almost universal keyword in Web 2.0 (ibid.: 173–75).

The 1947PA and IMP cater to this meaning when talking about and requesting sharing. They ask people to ‘share their stories’, that is, to tell or disclose their memories, to send in their photographs or to indicate their willingness to be interviewed. This request for a share comes with the pledge to pass on information, to publish it online and to thereby make it known. It is a request for communication and a promise to do the same through their own (extended) channels. In this particular case of online archives, the share – other than online communication in general – can be read as a reciprocal exchange, as the person contributing to the archive expects a storage and dissemination of her/his memories, albeit without this being necessarily a prerequisite. Moreover, other than the conventional understanding of sharing as giving something away and thus parting with it, memories are not material content. Telling a story does not mean that one has less of that story after telling it. The reproducibility of digital files on the contrary allows for duplication without reduction. If one considers digital archives in a quantitative way at all, it is an increase rather than a decrease of the story: numbers of copies increase, as do publicity and circulation.

This leads to the second aspect that the script of access and sharing rests upon: a general positive perception of the internet as a means to communicate and circulate information. Without a positive or at least neutral assessment of what the internet can do as regards bottom-up Indian history, there would be hardly any contributions to the archive. Evaluating the internet goes back to the first wave of discussing the advantages and disadvantages of internet technology in the 1990s. In general, this saw media technology and internet pessimists or sceptics, such as Neil Postman (1993) with his popular book *The Surrender of Culture to Technology*, juxtaposing optimistic positions such as Nicholas Negroponte’s (1996) in *Being Digital*. Negroponte (ibid.: 230) understood digital technology to be potentially ‘a natural force drawing people into greater world harmony’, and envisioned the digital age as bringing about decentralization and empowerment. The internet as the digital age’s flagship medium was characterized as less restrictive, equalizing and full of communication and networking opportunities. In the bright version, it enables participation, education of the masses, diversity, liberation and empowerment (Thierer 2010). ‘The optimists’

response [to the pessimists' critique of the internet] is rooted in the belief that, despite their highly disruptive nature, the Internet and new digital technologies empower and enlighten individuals and, therefore, generally benefit society' (ibid.: 71). Digital technologies and the internet bring the prospect of decentralized architectures of communication, which offer users and creators – who can fall into one as prosumers – multiple choices and options for democratic participation.

The critical voices, on the other hand, stress that the internet is not democratic *per se*, as James Bohman (2004) has demonstrated, for example. Harmony does not simply come about through the internet, and neither is web architecture a warrant for empowerment or decentralization. The developments in the last decade contradict – to quite a substantial extent – the optimists' belief in love and humanitarianism as drivers for contributing to social media (e.g. Shirky 2010). There exists a concentration of market power (even monopolies) of single companies in some sectors of news, media and communication (see, e.g., Risam 2019). In sum, it does not make sense to uncritically praise the internet or to condemn it. The internet does have its advantages as well as its downfalls, which generate optimism, pessimism, and a more middle ground of 'pragmatic optimism' (Thierer 2010) and critical assessments of power concentration and cultural changes.

It is sharing as a rather positive aspect of the internet – seen with optimism itself – upon which the 1947PA and IMP rest their digital archives. Both stress the sharing aspect of their projects, whether in the form of oral history accounts from eye witnesses to partition or as stories shared in connection with photographic cultural heritage. Hidden information and personal accounts need to become public, as this might be beneficial for the individuals sharing and receiving this knowledge, as well as society at large. It is clearly a positive account of the internet as a medium for communication and connectivity. Both IMP and the 1947PA make use of it as an available medium that gathers together a large crowd of readers and followers, and is accessible from all over the world. The notion of a sharing and empowering internet feeds into the archives' scripts of free circulation of knowledge and memories, and open access to the subcontinent's history.

In practice, not only do the two archives distribute the content gathered online without sign-up restrictions or similar features, but they also offer prevalent commenting and sharing options via Facebook, Pinterest, Reddit, Google Plus, Twitter, email, Instagram or as a direct link. Sharing as distributing and through social networking sites has become an essential asset for IMP and the 1947PA. For online archives, active engagement in social media is essential, as the sharing of these

stories creates a currency in their striving for recognition, participation and potential funding, and thus becomes a profitable transaction.

### Script 3: Undermining Archival Power?

As outlined earlier, Indian archives, especially governmental ones, have a reputation for neglecting documents and granting only arbitrary access. There seems to be little or too slow practical implementation of an open access policy; government archives create the impression of randomly granting or denying access to material, which in addition is sometimes stored in poor conditions. The access policy in private collections is also often restrictive. As outlined above, Guneeta Singh Bhalla and Anusha Yadav gave the limited existence of and access to archival material as reasons for creating their online archives. As such, they drew heavily on scripts of access and sharing. When asked what they thought the reason might be for restricting access to heritage material, Yadav (interview, 2016) explained it this way:

It's just that knowledge is power and it gives them power, which is why they won't part with it. It's nice to be secretive. It's nice – but not being generous has its faults – which is why a lot of private institutions will not share and they would rather deal with a certain class of people, elites. They only want to do shows in particular places so they're not interested in all of that. That's also a lot of classism and there's a lot of other stuff at work.

She hereby draws on archival power (see chapter 1), stressing that one of the characteristics of archives and collections is that they establish themselves as storage spaces for the memory of society. What Nora (1989: 12–13, 8) named *lieu de mémoire* is a place where memories are stored and filtered through numerous means, and history is written as a produced past based on the intellectual operation rendering it intelligible. Ordering, remembering, forgetting, restricting or allowing access and interpreting archival context are in this context the main actions involved in writing history and controlling the knowledge embedded in archives. If knowledge circulates in narrow spheres, discursive and interpretational authority can be maintained.

As shown in chapter 1, both archives and museums have in the last two to three decades changed direction, and now understand themselves as framed by the conditions of their establishment and maintenance. Experts inside and outside archives set frames for altered approaches

to accessing, understanding and using archival material, which often includes a scrutinizing of archives and/or implemented authorities, without necessarily granting an articulation of so far subordinated voices. Rethinking archives and museums brought the chance to reconsider the relationships between different stakeholders (Clifford 1997), opting for new perspectives, permanent questioning and collaborative approaches to collecting, preserving and displaying. Yet, despite broad agreement and seminal works (Macdonald 1998; Peers and Brown 2003; Phillips 2005; Shelton 2011), ‘intellectual control has largely remained in the hands of the museum’ (Boast 2011: 58). Yadav confirms this proposition with her aforementioned account of the archivists’ meeting in India and the rejection of sharing the ‘family jewels’.

Digitizing processes, particularly in combination with dissemination on the web, seem to grapple with the restricting principles of concentrating interpretative and history-producing power within archives and museums. They rather provide possibilities of knowledge circulation, which were not to be thought of in physical space. This third industrial revolution of digital reproduction offers a broadening of access and a rethinking of the definition of preserved museum and archival objects once again (Cameron 2007; Conway 2015), bearing a striking similarity to the potential loss of aura and visibility of art and historical documents that Walter Benjamin (1969) examined with regards to the second industrial revolution (see Müller 2017a).

Notions of accessibility and fostering encounters are prevalent in some European and North American digitization projects.<sup>27</sup> Likewise, the 1947PA and IMP argue for a break-up of visual economies embedded in archival practices. Both recognize the defining power adjunctive in established archives and collections and voice their complaints as well as making sharing a central aspect of their work. What is on the one hand due to the logics of legitimizing digital platforms through their impact – requiring a focus on sharing and commenting to accumulate users (van Dijck 2013) – is on the other hand due to the conviction of opportunities to challenge archival power. Removing tangible restrictions of access through online dissemination and the inclusive approach of creation can undermine the control of conventional institutions over heritage and history, and the 1947PA and IMP would like to make use of available options not least to this end.

But community-based archives in online spaces are necessarily in an in-between position, as they comprise both the aspects of openness (‘community-based’) and order (‘archive’). The 1947PA and IMP are in ambiguous situations. They undermine the authority of top-down history productions of *lieux de mémoire*, but at the same time are engaged

in archival practice, which includes top-down decision making about collecting, ordering, preserving and disseminating. To preserve and to order is the core task of these archives, while at the same time they try to be as inclusive as possible and remain feasible.

This discrepancy or conflict also surfaces in the two archives' corporate videos. These videos, intended to summarize the digital archives' mission and work, also serve as a blueprint for their relation to the idea of the archive in its conventional form as comprising and representing the power to constitute (the basis of) written history.

IMP's corporate film starts with an old, greyish-brown, stained background. White flower graphics start to grow into it as gentle piano music begins to play. 'Indian Memory Project' is now written in black capital letters. 'The World's first Visual & Narrative based Archive' (the background now changes to a yellowed map of the Indian subcontinent) 'presents true stories of the Indian Subcontinent ... presented by people from all over the world.' After these introductory statements, the film shows about three dozen historical photographic images, one after the other. The camera zooms in or out, moves slowly across the images. A violin sets in; the music is now emotional and powerful. Each photograph is accompanied by an inscription: 'He was the first Cricket captain to play England', 'She was a widow who dared to change her world' or 'They found new friends in Andaman'. After three and a half minutes, the greyish-brown, stained background appears again, with the discreet white flower graphics. 'These are your stories', the film tells the viewer, 'and your stories make our History. Contribute a story today. Visit [www.indianmemoryproject.com](http://www.indianmemoryproject.com)'.<sup>28</sup>

The *words* used in the corporate video convey a distinct message: individual stories instead of canonical school or history books should be the core of making sense of the past, and IMP is an attempt (the first of this particular form) to jointly create and disseminate this version of the past, which also has particular truth value.

The 1947PA also created a corporate video, albeit with a slightly different screenplay. It starts with the same old, greyish-brown, stained background. White flower graphics are growing in. The numbers and letters '1947 ARCHIVE' appear, and a division mark separates 19 and 47. After this intro, the video starts with a short audiovisual account of an interviewee, with captions: 'I was very traumatized', Ali Shan tells the camera in a close-up, 'I was standing there not knowing what's happening. He – the gunman – was only about ten feet away. You know, he shot at me a few times. Every time he missed. So I started running'. The stained background appears again, featuring the lines of a notebook instead of the white flower graphics. A sitar sets in; and to the sound

of a rattling typewriter, letters in a congenial font – black, typewriter-like, slightly torn at the fringes – appear: ‘1947 marked the end of the British Rule in South Asia’. The background changes to a map, with the borders between India, Pakistan and Bangladesh highlighted in yellow. ‘1947 also marked the birth of India and Pakistan.’ Switch back to the oldish background. ‘Chaos unfolded during the transfer of power, / and the division of states along religious lines. / Millions fled at a moment’s notice.’ The background is now enhanced with a black and white video of people boarding trains and flocking onto platforms. ‘In 1947 alone an estimated 15,000,000 people became homeless. / Making it the **WORLD’S LARGEST** mass human replacement.’ A short interview is shown again. Zafar Afaq Ansari tells the camera, ‘I feel like I’m a watered plant. So a bottle can be put here or there. I have no roots’. The sitar continues to provide the audio background. Typewriting appears again: ‘Between 1 to 2 million lives were lost’. Another short interview statement, this time by a woman, Manjit Kirpal Singh: ‘And I remember my mother made me sit down. There were all the bed sheets. And then I knew why. Because all these wounded people who were coming in – she had converted one place for clearing their wounds’. The longest section of typewritten text follows this account. ‘Shockingly there exists no memorial / or public archive devoted to Partition / devoted to the memories of those whose lives were affected / There exists **NO** source of witness voices for us to learn from. / so we decided to create one.’ A tabla sets in. The writing is pierced with image stills from interview situations, showing interviewers and interviewees. ‘We began interviewing partition witnesses and became Citizen Historians / a grassroots **VOLUNTEER** movement / soon it went viral.’ Several newspaper headlines float in and out. ‘More than 500 people from over 20 countries signed up to become Citizen Historians / And uploaded nearly 1000 interviews in 9 languages / some were telling their story for the **FIRST TIME**. / Attracting **MILLIONS** of interactions on social media / The time has come to take this to the **NEXT LEVEL**. / This is where we need **YOU**. / Let’s preserve 10,000 stories by 2017 / Together, we can preserve history, one story at a time. / And create a source of learning for generations to come. / Before it is too late. / Before the memories are forever lost. / Join the movement. / Support this campaign. **BECOME A DONOR** now.’ The video ends with the credits, and the request to ‘Share this!’<sup>29</sup>

With its corporate video, the 1947PA criticizes prevailing archival practices as not undertaking their collective, disseminative and memory-making obligations. These arguments make their bottom-up approach all the stronger.



The visuals used in the videos depict the 1947PA's and IMP's relation to what an archive entails. The fact that both their videos use a greyish-brown background – resembling old, stained paper (coincidentally, they even use an identical background in parts) – is a reference to archives as institutions with an obligation to deal with the past. In their visual self-portrayal, the two archives place themselves close to conventional concepts of archives, which they thereby also reinstate with a nostalgic aura of historical images and documents, enhanced through sound and fonts. IMP uses a map of India with a historical yellowish touch; 1947PA highlights the relation to the past through the created borders. Both films create an impression of 'historicity': IMP stresses the reference to old original photographs; the 1947PA uses historical film clips. They translate historicity into audiovisual material.

Furthermore, both stress the relation to memory, history and archives, firmly claiming to be the place to write 'History' (with a capital H in the case of IMP). The two projects clearly portray themselves as memory institutions and archives. They make a claim to be documenting and preserving the past, which at the same time is filtered and proposed as part of an intelligible history. With the corporate videos (as well as through their naming), both IMP and the 1947PA peremptorily demand recognition of their status as archival institutions.

Despite the stressed demand for access, communication and interaction, they here reinvent the idea of the archive as a preserving and controlling institution. They want to be an active and acknowledged part of cultural production, influencing the way national and international bodies reflect on historical issues such as partition, British–Indian relationships and the fate of individual women. Sometimes upset with the institutional inability to recognize the importance of historical events (1947 Partition Archive) or with the restrictive access policies of Indian archives and European implementations of digital possibilities (Indian Memory Project), they work to close these gaps and simultaneously challenge existing practices. Yet, at the same time, they struggle to detach themselves from archival conventions as preservers of a consensual past and constructors of acknowledged history.

## Community-Based / Archives

The 1947PA and IMP are community-based online archives that emerged both from the individual circumstances of their founders' biographies, and from the wider context of historical production, archival practice and internet use. Their digital ventures concur with the general trend

of cultural production shifting towards the virtual space. They pursue their approaches at a time when existing analogue archives and museums are also entering the digital age (Parry 2010). Information on archival material and photographic collections has been made available outside the physical space of an archive or museum, demonstrating that digital archives can enable a larger plurality of voices. Digitization and web-based dissemination render new encounters possible and supposedly undermine conventional hierarchical structures, allowing 'real contact zones' (Hogsden and Poulter 2012) to emerge.

While the two mentioned archives make (in retrospect) use of their founders' individual biographies, in public statements and practices they employ three scripts. The script of absence or lack adheres to a critique of (state) practices in documenting and distributing India's past. This critique might not rest on solid ground, but the script of void and necessity rests firmly on internalized convictions that history is more democratically written when amassed in bottom-up oral history projects, and that documenting and communicating the past can be done through digital memory practices, with the internet backing participation in these newly established archives.

The belief in the internet as a democratizing entity also features in the script of access and sharing. It is internet optimism that substantiates the 1947PA's and IMP's emphasis on being inclusive and open, collecting and distributing from everybody and with everyone. The internet is taken for granted as a potentially empowering, equalizing medium, where advantages clearly outweigh potential threats. Sharing has become an important aspect of the internet, especially on social network sites. Yet they ignore the fact that the definition of sharing has changed over time; its meaning as a form of distribution without obligation of return or reciprocity has been hollowed out. Sharing, as 1947PA and IMP make use of it, retains its positive connotation, enhanced by the zero-sum characteristic that digital copies comprise. Yet, in fact, sharing has become a term used abundantly for all kinds of distribution, making it a convenient buzzword for social network sites. IMP and the 1947PA use access and sharing as a script in verbal arguments, and also successfully manage to share, in the sense of communicating and disseminating material online.

The script that is less congruent in verbal and practical argumentation is that of challenging archival conventions and archival power. While IMP and the 1947PA see issues with the current situation of what archives do and how history is constructed on the basis of this, they struggle to convert this criticism into practice. Eventually, both also aim

at becoming and started to emerge as new, additional actors in the networks of producers, consumers, objects, infrastructure and regulations constituting (digital) archives and enabling their functioning as *lieux de mémoire*. Community-based archives, like all other archives, produce, preserve and order accounts of the past, be they material or virtual. The two aforementioned online archives nevertheless strive to be archives, which they express not least visually through displaying an aura of nostalgia and creating a frame of historicity for their corporate films. Looking at their practices (the topic of the next chapter) furthermore substantiates the account that they reproduce canonical archival behaviour when executing an ample curatorship before and while publishing photographs and oral history accounts. These digital archives are quite strongly dependent devices, where archive-specific hierarchies are not abrogated through digitizing or community-created digital archives, but shifted. Decision making remains archive-intrinsic, but the actors deciding what to collect and how to make it accessible have diversified. It is now independent Indian middle-class women interfering and partaking in archival practices and historical construction, along with an even younger generation of enthusiastic volunteers and interns.

## Notes

1. <http://www.nehrumemorial.nic.in/> (accessed 16 May 2020).
2. <http://ignca.gov.in/> (accessed 16 May 2020).
3. <http://nationalarchives.nic.in> (accessed 16 May 2020).
4. <http://www.bl.uk/onlinegallery/onlineex/apac/index.html> (accessed 16 May 2020).
5. <https://digital.soas.ac.uk/furer> (accessed 16 May 2020).
6. The National Digital Library of India (<https://ndl.iitkgp.ac.in/>; accessed 16 May 2020) is but one current initiative, which will provide written resources and photographs. For an extensive list of online Indian heritage, see also <https://directoryofarchives.wordpress.com/> (accessed 16 May 2020).
7. <https://web.archive.org/web/20190624071948/https://www.indianmemoryproject.com/about/> (accessed 11 April 2021).  
Please note: The website [www.indianmemoryproject.com](http://www.indianmemoryproject.com) has been relaunched in September 2019. The quotes and descriptions refer to the older version, which can be accessed through <https://web.archive.org/web/20190624072036/https://www.indianmemoryproject.com/>.
8. <http://www.1947partitionarchive.org/mission> (accessed 18 July 2018).
9. Ammara Ahmad, 'I Wanted to Change the Lack of Knowledge about Partition', *The Nation*, 17 August 2016, <https://nation.com.pk/17-Aug-2016/i-wanted-to-change-the-lack-of-knowledge-about-partition> (accessed 20 July 2018).
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  12. Anjali Enjeti, 'One Woman's Quest to Record the History of the 1947 Partition of India and Pakistan', NBC News, 4 May 2016, <https://www.nbcnews.com/news/asian-america/one-woman-s-quest-record-history-1947-partition-india-n560506> (accessed 20 July 2018).
  13. 'An Interview with Dr. Bhalla: The Physicist-Turned-Partition-Archivist', Zubaan, 22 December 2015, <http://zubaanbooks.com/2015/12/> (accessed 20 July 2018).
  14. Ibid.
  15. Ammara Ahmad, 'I Wanted to Change the Lack of Knowledge about Partition', *The Nation*, 17 August 2016, <https://nation.com.pk/17-Aug-2016/i-wanted-to-change-the-lack-of-knowledge-about-partition> (accessed 16 May 2020).
  16. Image-film 1947 Partition Archive, published in 2013, available at [https://www.youtube.com/watch?time\\_continue=2&v=ncFm4L3eMtk](https://www.youtube.com/watch?time_continue=2&v=ncFm4L3eMtk) (accessed 16 May 2020).
  17. 'Retrieving Lost Stories from the Partition of 1947', Guneeta Singh Bhalla at TEDx Ashoka University, available at [https://www.youtube.com/watch?v=j\\_QYPCDuFPk](https://www.youtube.com/watch?v=j_QYPCDuFPk) (accessed 16 May 2020).
  18. <https://web.archive.org/web/20190624071948/https://www.indianmemoryproject.com/about/> (accessed 16 May 2020).
  19. For example, the Citizen Archive of Pakistan, Ashis Nandy and the CSDS, The Partition Museum, Bolti Khidki.
  20. See <http://southasia.ucla.edu/history-politics/independent-india/partition-india-bibliography/> for an extensive list (accessed 16 May 2020).
  21. To mention just a few of the larger ones: the Furer-Haimendorf Archive (<https://digital.soas.ac.uk/furer-haimendorf/>; 14,500 photographs), the British Library (<http://www.bl.uk/onlinegallery/onlineex/apac/index.html>; 15,000 photographs), the Basel Mission/Mission 21 (<http://www.bmarchives.org/>; 39,000 images) and the SLUB Dresden (<http://www.deutschefotothek.de/cms/welt-sichten.xml>; 8,000 photographs) house large archives of historical photographs from the subcontinent (all accessed 16 May 2020). Yadav also knows of a large number of (not only photographic) Indian archives and compiled these in an online 'directory of archives' (<https://directoryofarchives.wordpress.com/>; accessed 16 May 2020).
  22. Guneeta Singh Bhalla at TEDx Ashoka University, [www.youtube.com/watch?v=j\\_QYPCDuFPk](http://www.youtube.com/watch?v=j_QYPCDuFPk) (accessed 16 May 2020).
  23. Sandip Roy in conversation with Anusha Yadav, <https://indianexpress.com/audio/the-sandip-roy-show/anusha-yadav-on-the-indian-memory-project/5250575/> (accessed 16 May 2020).
  24. The truth value of photographs has its own history of contestation. See, for example, Edwards 1992, 2011; Theye 1989; see also the introductory chapter.
  25. We also need to acknowledge that while the digital can enhance the notion of democratization, it also enhances the notion of 'misuse', questionable truth value and ease of alternation.
  26. <http://www.1947partitionarchive.org/mission> (accessed 16 May 2020).
  27. See chapter 1; see also Müller 2017b.

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# Creating and Curating Digital Archives

## *Horizontal and Vertical Structures*

Chapter 3 demonstrated that the aspiration to find alternatives to conventional archiving practices does not always match the realities of digital archives' self-portrayal. This chapter turns to the creation of content for and through digital archives. The 1947 Partition Archive presents itself in this close reading as an organization that is both vertically and horizontally structured. It draws on internet optimism when it searches for, trains and communicates with its workforce in online formats and has set up its office in the IT hub Cybercity, a corporate park and one of India's largest hubs of IT activity. It also creates an impression of flat hierarchies and democratizing tendencies when drawing on crowdsourcing and oral histories for archival content.

Cybercity, as the following pages will illustrate, is a fitting environment for a digital archive. It is symbolic for the archive's constitution as a *digital* archive, consisting not of dusty old shelves but of a modern state-of-the-art IT environment. The people hired by the archive, and those who work for it voluntarily, operate in line with this. They are, by and large, young, educated, tech-savvy Indians,<sup>1</sup> who are part of what has been called the new Indian middle class. Crowdsourcing this workforce adds to the notion of a modern institution that co-creates work and works with flat hierarchies.

Working with a digital archive means balancing IT and archival production. It means working in a digital context on history and memory creation. This allows for an investigation of how this generation is dealing with its memory making, and how much they are embedded in what Steven Brown and Andrew Hoskins (2010) call a new memory ecology. This also requires taking the volunteers' and staff's interest in history, social work and partition into account, as these are important motivations for dedicating time and manpower to the archive.

The vertical work structure of the archive to some extent impedes these conditions. That the 1947PA is also very much a vertically structured organization comes to the fore in set guidelines and rules for interviewing, and especially in editing stories prior to dissemination. The following pages demonstrate how the creation of this online archive is an ample curatorial practice, which is working in the realms of cultural production. Editing is done here in several stages, both by default and on purpose. The 1947PA is a community-based digital archive, yet that does not imply an unfiltered publication of individual stories. On the contrary, the online dissemination comprises a finely tuned editing process of several stages.

The 1947PA tries to balance IT and history, vertical and horizontal practices and curating at the fringes of Cyberspace. One consequence of this attempt to bridge multiple gaps is that staff stay there for comparatively short periods of time. The high turnover of employees is one symptom of the tensions between the digital and the archive; it relegates to the increasing vicissitude in content created to last.

## Crowdsourcing Archival Workers and Other Horizontal Structures

Unlike conventional archives, the 1947PA has an agenda of being inclusive and horizontally structured. As shown in chapter 3, it stresses sharing and access to archival content, which is in this case the collection of individual memories that people from any background can contribute to. A logical consequence is to lower the barriers as much as possible for people to join in. Joining in is done by telling one's own story or by contributing time to the archive as a volunteer. The 1947PA draws heavily on people conducting interviews for the archive who work as 'citizen historians' for free, or as 'story scholars' for three to six months on a small stipend. The 1947PA chooses to recruit this workforce – both volunteers and people working for the stipend – online, in a way that resembles the principles of crowdsourcing. This provides a comparatively novel way of engaging people with the rather dusty topic of archiving and Indian history. It combines the fresh and innovative characteristics of online encounters with work for an archive, portrayed as important work for society.

In general, crowdsourcing is characterized as having an initiator – an individual, a company – calling for support for an issue, problem or task in online form.<sup>2</sup> The online call is supposed to have a very wide reach, one that goes beyond conventional social networks or printed public calls. It offers the prospect of using crowd wisdom to solve a task

(Brabham 2008), and to bring together disparate and independent people on a shared issue. Crowdsourcing relies on people contributing voluntarily, with the compensation for their contribution being any form of satisfaction. This can come in the form of money, social recognition, self-esteem, development of skills (Estellés-Arolas and González-Ladrón-de-Guevara 2012) or through a medium-term positive effect in the sense of acquiring recognition or skills that will be helpful for future work (Brabham 2008). The crowd itself can be any number of individuals, whose size, heterogeneity and expertise are determined only by the initiative. Overall, crowdsourcing draws on positive associations of giving, sharing, openness and doing something (morally) right.

The 1947PA started in 2011 with online calls for participation and has been successful in reaching its envisioned audience – the Indian new middle class, in the form of urban youth with an academic background. This cohort’s affinity for online communication makes them a prime target for crowdsourcing. An important point of contrast with other crowdsourcing platforms such as Mechanical Turk, which are popular in India but are purely monetized,<sup>3</sup> is that the 1947PA stresses both its relation to ICT and its situatedness in cultural heritage and history. The 1947PA sits in an academic milieu and explicitly encourages bachelor’s and master’s students to apply for the story scholar positions. In general, it attracts young academics interested in issues of the past, who are happy to be compensated by gaining skills and/or carrying out acts of moral goodness.

A young male citizen historian states:

It is my profound interest in the anthropological history of South Asia, and particularly the Partition of 1947, that has inspired me to become a Citizen Historian. Oral history gives me the opportunity to encounter historic events from a humane and cultural vantage point. Otherwise, such accounts are presented in a very linear fashion in academia, and neglect the various layers of forces that underlie those watershed moments. ... I feel it is my responsibility toward my society to understand the heritage of Partition.<sup>4</sup>

A female story scholar, who receives a stipend for conducting interviews, puts it this way:

I grew up listening to my grandfather’s stories about the times when he was young. When my grandfather passed away in 2014, it dawned on me that the treasure trove of stories and experiences that I had taken for granted all this time was now lost! This made me realize that I needed to

do something to safeguard this human experience before it fades away. ... I wanted to collect and help archive oral traditions of history because, as a student of history, I understand that these stories are fundamental for the discipline, not to mention for future generations of humanity.<sup>5</sup>

All new potential co-workers join the digital archive by partaking in a so-called oral history workshop. The workshop is an online course offered every two to four weeks. Everyone registered logs on at a particular time, and a staff member from the 1947PA conducts the course live. He or she starts by introducing all participants who are present, usually one to three dozen young people. They are both male and female and log on from Pakistan, India, Bangladesh and a few other countries. The course conductor then poses a few introductory questions on the history of the subcontinent and subsequently takes the participants through a typical story collection process. Collecting stories essentially involves interviewing people who lived through partition according to set guidelines. These interviews make up the core task for citizen historians and story scholars. The conductor, whom the participants can hear all the time, teaches simple rules of courtesy and video recording, which are important for the interview process. He or she introduces the forms and guidelines required for conducting interviews: the lengthy questionnaire, release and agreement forms, check lists and guidelines for everything from copyright to Twitter use to the submission portal. The webinar includes short tests after each section to check the participants have understood. After two to three hours, people are asked to download the guidelines and are thus ready to conduct their first interview. They are asked to complete and upload it within four weeks.

On the one hand, the idea of the webinar is to gather people together and familiarize them with the working procedures of the 1947PA. The webinar is not conceptualized as an exam, but rather as a verification of a basic sense of understanding. The online format has several advantages. It is the most feasible technical solution for reaching a crowd that is spread across countries and even continents. In this regard, it is a means of reaching the largest possible number of people, and it is supposedly the best option for a project that has offices in both Asia and the US. Furthermore, a webinar adds to the IT-savviness of the digital archive and anchors it more firmly in the Cybercity context. It puts the ideals of internet positivism into practice, as it is a comparatively open and democratic way of enabling participation in a form of cultural and history production.

On the other hand, a webinar also works to filter the archive's audience or potential workforce. Online access and digital literacy are a

particularity of some of India's younger generation, but not characteristic of society in general. There persists a strong urban–rural digital divide. According to the 2011 Census, just 0.7 per cent of rural Indian households, compared to 8.3 per cent of urban Indian households, had access to a computer connected to the internet.<sup>6</sup> For mobile phone connection, the numbers are significantly higher, with 59.2 per cent of people owning a mobile in 2011, divided into 51.2 per cent for rural and 76.1 per cent for urban India.<sup>7</sup> The 'mobile typhoon', a price war between mobile phone companies, made internet-enabled phones more affordable and reduced prices for mobile internet packages to less than US\$2 per month (Kumar 2014). Taken into account, this suggests currently a higher mobile phone penetration and an increase in internet access through mobile phones. More recent numbers suggest an estimated 718 million internet users at the end of 2019 (TRAI 2020), which accounts for 54 per cent of the population and is likely to grow further. The Indian population also joins the worldwide trend towards an increasing use of social media, which finds expression, for example, in growing numbers of Facebook users (200 million by the end of 2018, according to Internet World Stats).<sup>8</sup> Nonetheless, the entertainment experience of India's rural youth is grounded in conventional media, that is, television, Bollywood films and newspapers. Here, the use of digital media has symbolic value but is far from an everyday experience (Pathak-Shelat and DeShano 2013). For underprivileged urban youth, however, the use of mobile phones is important for SNS and entertainment, as well as gaining internet competency (Kumar 2014).

The (young) urban middle and upper class dominate internet use and communication, having the largest share and arguably also the loudest voice. According to the Internet and Mobile Association of India, in 2015, 246 million of India's internet users came from cities, compared to 129 million in villages. And over 60 per cent of the six million social media users in Mumbai come from higher-income segments (Udupa 2016). Consequently, many people working in IT hubs in general come from this cohort of young, urban, upper-middle-class Indians. Volunteers and staff who work for the 1947PA are recruited mostly from this stratum, because finding out about the 1947PA, initial training, as well as working with the digital archive requires familiarity and intensive use of digital devices and online interaction. The citizen historians, story scholars and staff members all come from similar backgrounds; they include only a few older people and some from small town settings. All are acquainted with digital and online technology, and feel at home in an online environment, which is fittingly also expressed through the physical environment in which the paid staff work.

## The Digital Side: Working for an Archive in Cybercity

In 2017, the 1947PA had a large team of about twenty story scholars and employed a handful of staff members: Priyanka, Rajiv and a part-time story editor in Delhi's National Capital Region (NCR). Sarah headed the social media team, Malika was the lead archivist and Guneeta was the head of it all in Berkeley.<sup>9</sup> In 2017, the archive's India office was in Cybercity, 'the largest business district with commercial office space offered on lease in Delhi/NCR'.<sup>10</sup> Cybercity is located in Gurgaon, south of Delhi, and as the crowded metro indicates, it draws a lot of workers in the morning and evening. Cybercity even has its own metro extension, connecting the 3 km<sup>2</sup> area on the outskirts of the Indian capital with the centre of the city. Cybercity is a self-labelled futuristic commercial hub. It comprises a central food and bar court and numerous office towers, with names like Innov8, Epitome and Infinity. These glass and steel constructions provide office space for several hundred national and international companies, among them Google, Yahoo, Oracle, IBM, Tata Consultancy Services, LinkedIn and Boston Consulting Group. These companies work in software creation, IT-enabled services, financial services and telecommunications on the outskirts of Delhi and at the centre of modern work infrastructure.

The 1947PA has its office on the fourteenth floor of one of the glass and steel towers. When entering the premises of Cybercity, staff have to show an ID at the main gate and their bags are checked by security personnel at the tower entrance. A key card allows workers through the turnstile and up to the fourteenth floor, where another swipe of the key card lets them into the open-plan, air-conditioned office. This floor is home to a large Indian e-business company. Its entrance is equipped with a big company advertisement screen, front desk personnel and a security officer. The modern design continues beyond the front desk. The open-plan office comprises more than three hundred desks. Its scale appears slightly smaller, as lounge areas, meeting places and coffee and water dispensers break up the scene. In the middle of the floor is the company's canteen, which serves a delicious thali for lunch every day for 45 Rupees, and offers small snacks in between. In the afternoon, two young men push a chai trolley through the office. The lounge and meeting areas are thematically designed, referencing popular Western movies, and motivational memes decorate the walls. Young people sit at their desks, meet in the designated areas or stand in small groups talking. They type on their laptops and PCs, talk on the phone or to each other and are shielded from their counterparts only through a half-height grey screen. A constant buzzing and humming can be heard

in the cool air, which also surrounds the four desks occupied by the 1947PA. They moved here in 2016, when the company decided to sponsor the archive's work by providing the workspace free of charge. Each desk is equipped with a small whiteboard, a mobile file container and, most importantly, a LAN cable.

When I interned with the 1947PA in spring and summer 2017, I worked predominantly with Priyanka; we were later joined by Rajiv as the new programme manager. Priyanka oversaw my internship and was my main contact person, although technically the archive's boss (residing currently in the US) claims that position. In practice, Priyanka forwards me Google documents and access keys, grants me access to files and folders and provides me with necessary online resources to do my work. She sends updates to the US office in Berkeley, and searches online for new funding opportunities. She seems to be always online, even when she takes me along to outside appointments. When we ride the metro or take an autorickshaw, she makes WhatsApp calls to the story scholars. When she needs to check her emails in an environment without Wi-Fi, she connects her laptop to the phone and is online on two devices.

Cybercity hence seems a pretty good environment for Priyanka's work. Working for a digital archive that has offices in India, the US and Pakistan means working predominantly online. Priyanka is constantly making use of online infrastructure to enhance, update and sustain the 1947PA. She, alongside her colleague Rajiv, belongs to a generation that grew up with smartphones as an essential communication device. Creating and storing personal content as potential memories has developed into a common practice, and social media plays an important role in communication. The use of digital devices has become omnipresent. Rajiv and Priyanka are both in their twenties, and come from urban middle-class families. Priyanka grew up in the National Capital Region close to Delhi, and since finishing her studies in history and arts at a Delhi university, she lives with her family in Gurgaon. Rajiv comes from Mumbai and, after studying economics, worked for an insurance company in Singapore. He subsequently turned to social work with Teach India in the slums of Mumbai, and then moved into a shared apartment in Gurgaon to work for the 1947PA. Both live thirty to fifty minutes away from Cybercity and come to work five days a week, using Ola, Uber or a family car with a driver.

With Cybercity as their workplace and their everyday tasks involving intense digital engagement, Priyanka and Rajiv blend in with the IT workforce that surrounds them. The IT workforce is part of India's 'new-rich middle class' (Fuller and Narasimhan 2007); comparatively

young and well educated, most people working in Indian IT come from high or middle castes, have their roots in the middle class, and generally have urban backgrounds (Upadhyaya and Vasavi 2008a). Their comparatively high income affords new spending habits, often seen in their choice of housing and children's education (Fuller and Narasimhan 2007), and they expect high levels of cultural capital, mobility and flexibility (Upadhyaya and Vasavi 2008b). The IT sector has created a comparatively rich class of entrepreneurs and professionals in the private sector, and a labour force for whom technology is central to their work. The use of digital technology is a prerequisite in these jobs, whether as software engineers or globally embedded customer service professionals. Using smartphones in their professional and private lives is for this segment of the new-rich middle class a matter of course.

The 1947PA's staff share characteristics with such IT professionals, not on the financial side,<sup>11</sup> but on the technological side. Working for the digital archive requires taking their own devices to Cybercity and site visits, although company-owned devices are planned for. Digital recording, communication, archiving hardware and software and internet dissemination are the basis of digital archives.

Being situated at Cybercity is in this sense emblematic of the space the digital archive occupies in contemporary society. Its location at the heart of one of the country's largest IT hubs reflects the fact that it is a *digital* archive, which can only exist because staff, volunteers and citizens are making more extensive use of digital devices. Digital technology is the basis for distance working and digital memory creation. The staff are not programming or creating software, but use ICT for their work and are almost constantly online through their laptops and smartphones. Content is produced, stored and disseminated in digital form, and communication through WhatsApp is a self-evident necessity at the 1947PA. Online interaction provides the most convenient way to stay in touch with colleagues at the Berkeley office and with contributors in Delhi and elsewhere. Priyanka can receive twenty to fifty messages an hour and often joins late-night WhatsApp conference calls with the team overseas.

## The Archival Side: At the Fringes of Digital Work

As we have seen, much of the work conducted by the 1947PA functions only through and on the basis of ICT. Recruiting workers, spreading information, raising funds and keeping track of what everyone is doing needs an online environment. The basis of the archival work –



conducting interviews with people who lived through Partition – is technically only feasible because most story scholars and citizen historians can use their own smartphone cameras to record interviews of sufficient quality. The 1947PA owns only a few semi-professional video cameras, so the utilization of individually owned digital recording devices is key. Priyanka and Rajiv, the two staff members working out of Cybercity, have themselves conducted such interviews, even though their work today focuses on other tasks. Priyanka interviewed about sixty people before becoming a full-time staff member, and Rajiv started his job by recording a handful of interviews too. It is predominantly story scholars and citizen historians who interview. The interviewing work is based on ICT, yet goes far beyond it. I joined Priyanka and the story scholar Sahar in the aftermath of one of these interviews, to get a better idea of this part of the archive's work.

Priyanka and I meet Sahar and Anand Chopra in Mr Chopra's office in Noida, an industrial town southeast of Delhi. The outside looks rather residential, but the inside houses the control centre of a very successful Indian trading company. We are offered chai and sit down in front of the large desk from which Mr Chopra leads his international business. He is a man in his early seventies. With his warm, expressive voice and his enthusiastic performance, he is a charming and engaging storyteller. He told Sahar his migration story in this room a few weeks ago. Sahar asked him questions about his life before, during and after Partition, about his individual memories. Parts of it he shares again with us today, which we listen to carefully, intrigued by the wit of the protagonist and the dramaturgy of the events as he tells them. He manages to bring optimism to the fore without denying the hardships and horrors of partition:

We had to flee at night. I only remember that my father was standing at the door, urging us all to get up, leave personal belongings behind and make it to the car outside as fast as we can. He stayed behind, and we only saw him a few weeks later. He later told me that in a cloak and dagger operation he managed to get a few lorries to our warehouses in the eastern parts of Lahore. He convinced a few bystanders to load everything they could on the lorries within half an hour. Everything else had to be left behind, and he handed the key to the bystanders saying that what remained would be theirs – as the reward for their help.<sup>12</sup>

Sahar has been interviewing Mr Chopra about his migration story from Lahore to Delhi in more detail. The interview lasted more than two days. Sahar confirms that listening to Mr Chopra was intriguing, sometimes

so much so that they lost track of time. Other interviews, both Priyanka and Sahar explain, are more challenging, as they involve very painful, deeply moving and even traumatic memories. Every interview is different, they say, but individual stories always touch you: ‘You always learn and you always feel with the people sharing their memories’.

This part of the 1947PA’s work needs technical equipment to video record the interviews, which are later digitally stored in the archive’s database, but goes far beyond digital work. It is the elicitation of individual stories, a diving into the past through personal interaction, an active listening to personal memories. The interviews follow guidelines – and an extensive information pack needs to be downloaded before interviews are conducted – but are still always unique encounters.

The 1947PA works with digital technology, but in the realm of memory production and archival work. It requires ICT, but does not develop it. Guneeta Bhalla developed the online platform, from the original idea, to its implementation, to its permanent expansion. It is web based but also essentially a space to collect, store and possibly revive documents of the past. Hence, in public, people draw on the digital *archive* aspect when explaining their motivation to work with the 1947PA, rather than the digital characteristics (see the story scholar and citizen historian quotes above). Priyanka and Rajiv affirm a fascination and interest in history as a motive for working with the 1947PA. They do not have or do not foreground a family history of migration to or from Pakistan or India. Rather Priyanka, who studied history and arts before joining the 1947PA, was involved in studying South Asian history from an academic perspective at university. She also worked as an assistant researcher to an author writing a book on partition. Working with the 1947PA is for her a way to employ her interest in history in a professional setting. Rajiv tells me that he is considering a master’s degree in history in the future, and understands his work here as both personal training and a service to society.

It is this stated interest in history that the 1947PA extensively draws on, alongside its active online performance. Portraying itself as an archive with an intention to create history (see chapter 3), its workforce builds upon this idea and engages with aspects of the past. Interviewing elderly people about their experiences from several decades ago, and on a topic as important as the partition of India and Pakistan, is indeed a way of pursuing an interest in history. According to the citizen historians and story scholars, the reasons to do so are to further the cause of justice and to be informed about the past in order to understand the present. This corresponds to a general understanding of historical responsibility (Rüsen 2003; Tillmanns 2009), and implies notions of gratitude, acceptance and dignity (De Baets 2004). History as a discipline also draws on the idea of enabling succeeding generations to analyse

the past. Remembering historical injustice is a precondition for historical justice to take place (Tillmanns 2009).

In India, thinking about the past in relation to partition is also connected to a desire to understand contemporary social identities that are shaken by historical trauma. Asking and answering questions about the past ('Where do I come from?', 'What did my forefathers and foremothers do?') is important in terms of accepting your present identity and developing a perspective for the future.

Historical references are key in Indian identity politics. This plays out in South Asian colonial history, but reaches back to reinterpreting scriptures, and the settlement of the subcontinent. Hindu elites have been generating new interpretations of Vedic heritage for ages, thereby redefining themselves and strengthening their collective identity (White 2006). Likewise, the year 1947 is subject to interpretation and marks an event that is extremely important for contemporary South Asian identity and politics alike. As Urvashi Butalia (2003), Veena Das (2007) and others have shown, partition accounted not only for about fourteen million displacements and at least several hundred thousand deaths, but an unequalled level of violence that continues to influence society. Individual experiences and suffering, often buried away in silence but mapped onto female bodies especially, cannot easily be put aside in history books, but remain present in the lives of Indians, Pakistanis and Bangladeshi men and women. The wars between Pakistan and India and the continuous conflict in Kashmir are only the most visible consequences of partition. It continues to influence perception, identity making and politics even today (Ben-Ari and Jassal 2007).

Working with the 1947PA is thus a way of engaging with the past, albeit on the basis of digital technology rather than paper files or material records. By placing young people's statements of interest in history online, the 1947PA found another expression for its combination of modern forms of communication and historical topics. ICT is a natural environment for thinking about and remembering partition. It merges a young tech-savvy workforce with a generation of first-hand narrators sharing their memories, allowing young people to engage with this part of their history. ICT provides the backbone for this, without being the core or the sole reason.

## Balancing IT and Cultural Production: A New Memory Ecology?

Regarding memory production, it can also be argued that people turning to digital technologies and online environments to store and communicate the events of the past, an intrinsic element of the 1947PA's

work – become acquainted with digital memory. New modes, expectations and circumstances of memory creation facilitate this trend, which, as José van Dijck (2007) convincingly argued, brings a shift from the memory function of media towards identity formation and experience. Digital recordings, due to their immateriality, become entities of sharing, communicating and experiencing, rather than of preserving, albeit without losing the latter capacity completely. Brown and Hoskins (2010) even speak of a new memory ecology that develops through digital media, where memory making is no longer in the foreground when content is stored, but every piece of digital content bears reconstitutive potential. They also note a new memory boom initiated through digital devices, when everything is ‘archived’ in post-scarcity societies: ‘As our digital media translate more and more into data the digital distribution and malleability of memory (individual, social, cultural) appears infinite’ (ibid.: 97).

For the people working at the 1947PA, this would mean that growing up or living in an environment where ICT is ubiquitous creates an environment in which digital storage of potential memory as data is an everyday task performed habitually. At first sight, this is correct. As Chinar Shah and Aileen Blaney (2018) illustrate in their compilation on Indian photography, there is a tendency among parts of Indian society to record, collect and store digital media abundantly. Priyanka and the others working for the 1947PA are always online for work purposes, but also record and share private experiences. These have the potential to develop into memories as they are automatically stored on digital devices or carefully arranged in customized folders.

However, engaging with the past through personal involvement in interview situations adds another facet to what a new memory ecology can comprise. When the story scholars and citizen historians conduct and record interviews, they do so consciously as a task of creating historical documents. These documents are video recordings of individual stories, and while oral history has had its contestations, individual testimonies are by now acknowledged as historical resources (Ritchie 2011). That these recordings are conducted in a digital format is self-evident for volunteers and staff, since a digital archive is a way of granting access to the material and makes the whole undertaking meaningful as a way of coming to terms with the past. Individual stories of the past acquire new significance through digital media, are able to travel and communicate across distances and bear the potential to produce empathy at a distance (Garde-Hansen et al. 2009).

As a consequence, the groundwork of the 1947PA resembles a sociality of online and offline encounters. This allows for a refinement of

the new memory ecology as Hoskins understands it. He sounds a warning when analysing memory making in digital contexts, and stresses the negative or disputable aspects of a changing memory ecology (Hoskins 2011). Memory, according to him, is no longer an individual or collective process of personally making sense of the past as a process of the mind, but is outsourced. We are giving away memories to machines, which influence what and how memory is created and blur the distinction between human memory and artificial memory (regarding devices, storage and material) (*ibid.*). It would no longer be experience that conditions remembering, but ubiquitous technology. As a result, Hoskins (2018a: 105) argues, there is less capacity to remember, attention spans become fragmented and we can even observe a ‘diminishment of the active human capacity of memory in the face of the distractions: the capacity to select, discern, as overconsumers of a post-scarcity culture’. In other words, we no longer have memory, but access to the past: ‘Memory has been lost to the hyperconnective illusion of an open access world of the availability, accessibility, and reproduceability of the past’ (Hoskins 2018b: 5).

The 1947PA’s work on the ground tells a different story. The middle-class individuals who make up the crowd for the 1947PA are certainly individually familiar with digital technology and attuned to the internet. Some document their lives without a precise agenda, or create a somewhat arbitrary shadow repository of potential memories, which they share, blog about or communicate in other online formats.<sup>13</sup> At the same time, they also participate in a more coordinated means of making memories, which the 1947PA choreographs. Memory making for the digital archive is not outsourced to machines, but saved with their support and re-evoked in a common effort. The crowd joins in with a common effort to record and collect memories and thereby contributes to the common vision of creating the archive and influencing history making. The 1947PA as a charitable trust is the nodal point around which an interest in history and doing something for the common good is organized. Being part of the digital archive’s workforce creates a feeling of working conjointly with a common interest in gathering cultural heritage. The digital archive not least stipulates the frame for personal interactions and provides an argument for why this work is necessary. It offers an impetus for approaching people and asking for their stories (at a time when telling stories is not an everyday practice). The emerging encounters, fostered by an interest in the shared past, demonstrate that memory making is anything but lost.

However, the work for and within the 1947PA constitutes a balancing act between digital work and offline encounters for producing

narratives of the past. Priyanka's and Rajiv's work also comprises tasks that go beyond pure online or digital work to increase the number of archived stories and to keep the archive running. The webinar, for example, is an online encounter, but it is at the same time probably the first instance that co-workers actually meet. They meet here only in list form and through a brief introduction, as well as the Q and A session at the end, but it is a chance to acknowledge that other individuals share their interest in the project. It is a first step to establishing a bond between the otherwise mostly anonymous people attracted to the same initiative.

Forming these bonds continues throughout the time people participate in the 1947PA, albeit with erratic intensity. Since Priyanka took over the coordination of the volunteers, she has been the Indian contact person for both citizen historians and story scholars. Citizen historians are free to contribute interviews whenever conducted (but they are expected to start soon after the webinar). Story scholars, applying for this position and receiving a small stipend, are obliged to fulfil a quota of eight to twenty-two interviews per month. Priyanka's and later Rajiv's role is to be available for questions, but also to monitor and ensure that the quota of interviews is fulfilled. While Priyanka regularly communicates with all story scholars via WhatsApp, phone and email, Rajiv – being solely responsible for managing the volunteers – enhances the quality of the established social relationships in the offline world.<sup>14</sup> He schedules face-to-face meetings for all Delhi story scholars and later also for all Indian members at a 'mandatory retreat in Delhi'. During these meetings, held in cafés and other public venues in Delhi, people can converse about their experiences, exchange interesting, curious and common stories and get a feeling for who else is on board in this endeavour. These meetings give social groups established on the basis of the digital archive a new quality, allowing people to establish contacts and share their thoughts not only through the coordinator at the office, but also peer to peer.<sup>15</sup>

A final area in which the 1947PA's work shows clearly how it functions at the fringes of IT is its self-conception as an archive. It decidedly claims not only to have individuals tell their stories, but to assemble these and make them public as accounts of oral history. It perceives itself as contributing in its entirety to the way partition is constructed as a part of South Asian history. In this we find another point to expand on Brown and Hoskins' new memory ecology. Hoskins (2018a: 88) makes a point that digital technology leads to memory being all over the place. It is connected, networked and searchable, yet that implies that it is scattered, that 'the archive has run riot'. Digital archives like the 1947PA,

which have a marked agenda of creating content for memory and history making (moreover, in an ordered form; see below), can instead be understood as using digital media to make access to material easier, albeit in a regulated and ordered/ing way. Instead of eroding the term archive (everything is an archive; the whole internet is an archive [Kimpton and Ubois 2006]) and talking of shadow archives that are created when data is stored in abundance (Hoskins 2018b), the 1947PA constitutes the continuity of archives in the narrow sense in the digital realm. Widening the term due to the potential memory ability of storage devices and capacities is not very helpful (see chapter 1). The potential for using stored data for archival purposes is certainly extended with the increased use of recording equipment. But ‘archiving’ is more than collecting or randomly storing using automatic digital processes. It is a conscious process of creating and/or collecting and ordering data for memory and history making. What human beings create along the way through digital means are shadow repositories instead of shadow archives. Shadow repositories may have an insinuated past and a dormant digital memory, and come with unlimited ‘sharing’ and reviving options. But they lack the intentionality of digital archives and ignore the crowd with its common interests and its sociality as a factor in digital memory making.

## Editing Stories and Other Vertical Structures

The intentionality of the archive not only stresses the ordering and preserving side of the 1947PA as a digital archive, but stands in contrast to the ideal of low hierarchies and horizontal structuring of creating the archive online. The more horizontally structured, collective work of online training and interview conduction is followed by a vertically structured process of editing. Editing is partially determined by the technical framing of storage and dissemination. The 1947PA has two main outlets, one being its own website, with about eight thousand stories in 2019, the other its Facebook page. On the website, an interactive map is the main feature and retrieval instrument, serving as the database ordering the interviews. A user can click on the dots on the map to see where people migrated from and to. When retrieving and opening individual datasets, these do not comprise the video interviews, but name, age and migration route of the person in note form, one or several photographs and a written summary of about five hundred words. The summary features the person’s biography as he or she told it in the interview, with a

focus on partition. Similarly, the Facebook page – which does not come as a database with a retrieval system, but lists entries chronologically – features a recent or historical photograph of the interviewed person followed by a written summary of her or his biography.<sup>16</sup>

It is the needs of Facebook and the practicability of the website that codetermines the form of dissemination. Full interviews, lasting between one hour and several days, cannot be uploaded in their entirety. The sheer size of these video files forbids it; server capacity would need to be several times higher. With the aim of ‘bringing knowledge of Partition into widespread public consciousness’,<sup>17</sup> the data packages of many users would be insufficient to stream or download entire files. While downscaling and/or cutting the film would be an option, the 1947PA decided to edit based on written summaries of the interviews.<sup>18</sup> This has the advantage of taking up less storage space and being theoretically easier to retrieve. The chosen design of the website and its database structure, as well as the logics, rules and aesthetics of Facebook, where the 1947PA sees most traffic and has more than nine hundred thousand followers, sets one frame for editing and publishing. The second determining factor are the benefits such editing can bring in applying internally set rules of quality control and political neutrality.

To reach quality control and political neutrality, as a first step every interviewer is obliged to write a summary of his/her interview and upload it along with the video file. The guidelines for writing a summary are as follows:

Each summary aims to tell a complete story of the interviewee’s life, so including many details helps to create an accurate, fully-formed life story. Of course, you don’t need to write-up the interview word-for-word – rather, include the major details (at least 3) from each part of life – childhood, Partition, after Partition, and current life. In all, the summary should be 1 to 2 pages in length.

This document justifies the stories of these Partition witnesses, and will be read by thousands, possibly millions, in the future, so please write carefully! ... In all, the interview summary is meant to create a full picture of the interviewee’s life story and aims to be report-like.<sup>19</sup>

The second step is the editing process. Sarah headed the 1947PA’s social media team in spring and summer 2017. She works at the Berkeley office and communicates with me via WhatsApp when I join her team to edit stories. When I asked her about the process of editing work, she responded as follows:



Sarah: The Archive Team receives the summaries, files the information in our database, and sends summaries to us. They also talk with the story collectors about corrections in the summaries, things like that. ...

Katja: Is it only you and me working on [the summaries], or more people?

There is another person editing 20/week, but I know that the Archive Team is a bit behind on stories. Apparently we are getting a lot sent in and we (the Social Media Team) have to wait for the Archivists to catch up. I really appreciate all the work you're doing!

As Sarah explained, the archival team receives the summaries electronically, files them and sends them through a few rounds of copy-editing and approval, aimed at language correction, changes in style and diction. The summaries are published only in English, while many interviews are conducted in Hindi, Urdu or regional languages:

And still some of the summaries – sorry to be so open – are really bad!

Yes, I know that some of the summaries suffer from bad translations, but we have to work with what we get. It's a long process! We used to publish stories at a faster rate but I think the editors realized that the stories needed more work and that it would take longer.

Language was not the only thing that needed to be corrected in editing, and was certainly not the most time-consuming factor. The second area that editors at the 1947PA are asked to look into is sensitivity and impartiality. The archive developed guidelines for editors that aim to guarantee the protection of informants and named individuals as well as assuring non-biased reporting. Associations with political parties, religions or judgemental statements are to be avoided as much as possible:

Ask yourself: How would this post look to a person with a background from India, Pakistan, or Bangladesh? How would this post look to a person from a non-South Asian background? How would this post look to

a person who identifies as Muslim, Sikh, Hindu, Zoroastrian, Christian, Jewish, or another group? How would this post look to a person who is extremely wealthy or one who struggles financially. How about the the interviewee's family and friends? How will they feel about this post? Will anyone belonging to any one of these groups be rubbed the wrong way or be offended or off-put by statements in this post? Will anyone feel misrepresented?

When in doubt: Take the more conservative route.<sup>20</sup>

As an editor, the task is to filter out all political statements and associations that might be insensitive, disturbing or offensive.

By far the biggest challenge and most time-consuming aspect of editing was making changes for the reason of coherence or logic:

Hello Katja ... How have you found the editing process so far? Do you have any questions?

It takes time, especially if you want to bring some chronology into it. But no, no further questions as of now.

I'll let you know. And I'd appreciate if you have a look at one or two of the edits and let me know if something goes severely wrong.

...

Looking over the edits now, looks really good so far. I'm emailing you a few corrections/suggestions. Thank you for your hard work! I know that editing can be challenging and it is very time consuming. ...

I started as an intern and was promoted to editor when the previous editor left a few months ago. When I was an intern they expected 3 stories an hour, but the policy has been relaxed to 1 story an hour, I think Guneeta may have realized that some of the stories needed extra work.

Oh, there are expectations in numbers. I better get going then ;)

So far everything is working great, don't worry!

The corrections Sarah sent were mostly changing a passive voice to an active voice to make the reading experience more immersive. Preceding this were sometimes severe corrections from my side, when summaries provided hardly any information about a person's biography. We received summaries such as this one:

Mr. Arif Mohammed started the interview by giving family names. He then told that he was in grade 1 when partition happened, and how he escaped from school when riots happened. He moved further to his professional career. He talked about his family members and their professions. His favorite game was Gulli Danda.

He told about the great Muslims at that time, and how their wishes got fulfilled and the difference in now days Muslims. According to him, the life before partition was great, he considers that life much more simple than this was. The only thing he remembers about the British was the introduction of tea by them. He also told a story he remembered from his childhood. According to him, in India there was respect for elders. According to him Muslims are in misery in present India because of the Hindus that migrated from Pakistan. ...

The summary continues to talk about issues and topics that the interviewee touched upon, without providing content. The interviewer did not write down how Mr Mohammed escaped from school, or his childhood story, nor did they name the profession that 'he was delighted to talk about'. While smoothing out any sentiments the interviewee might have against Hindus, the major task for the editor here is to trace the little information provided and rearrange it into a short but coherent biographical story. This issue arose time and again, and eventually reached almost all staff working for the archive:

Hej Sarah, I uploaded a few more edits. Several times I this week as well as last week I got very frustrated about Kabir Saleem's summaries. Someone needs to tell him urgently how to write a summary that actually tells content!

Hi Katja - I finished assigning stories for this week and I emailed the Stories Team to let them know that we might need to reiterate the standards we are looking for in the summaries.

Malika, who is also editing stories, made a similar comment. We have several new story collectors so it might just be because they are new.

Hi Sarah. Regarding the summaries: some are really good and most are okay. I don't think the standards need to be changed and I know that English is quite hard for some scholars. ... Are there any mechanisms for feedback? Can Priyanka, or now Rajiv use the information, say if we are dropping a line? That would improve things a lot, I guess.

... (Oh, and I'm confident that I'll finish the remaining edits today ;)

Hi Katja - I was just about to message you! So I spoke with the Story Team here today about your concerns about the quality of the summaries. We are having a similar problem with the story collectors that are sending us small snippets of interviews that we immediately post to Twitter. I've been in touch with both Rajiv and Guneeta about this as well and we're going over our editing standards and brainstorming ways we can reach out to the story collectors and remind them of the quality we expect. It's difficult because we don't want to discourage them from sharing with us, but I agree, many of the summaries could be of better quality. ...

Well, definitely don't discourage them. But I'm sure there are ways of 'sitting down with them' and going (pedagogically) through their summaries, pointing out strengths but also weaknesses and rooms for improvement.

The standards for the summaries and the quality in which they are submitted determine how quickly new stories are published online. If language, style and coherence are acceptable, the task of the editorial team comes down to erasing potentially offensive statements for

the sake of balancing an account, and anonymizing the interview as needed. Identifiers such as the name of the interviewee and the cities of origin or residence are retained. Affiliations, street names and names of relatives are erased.

After copyediting, the summaries are returned to the central outreach coordinator for social media, who checks them once again. Together with the archival team, s/he ensures that all necessary approvals are at hand and clears the summary for social media and website upload:

And another question (out of interest):  
what happens to the edits once I uploaded them? They go back to the archival team?  
How long does it usually take them to get to fb and the story map?

Your stories are scheduled to start appearing on Facebook next week. In fact I think a few have already gone up, but I'll send you a message next week when they start getting posted. It's also difficult because I'm discovering that sometimes we're missing important material from the story collectors and then we can't post anything until the story collectors get around to sending us the missing information. It can get very frustrating

Missing information in the sense of...?  
Images? Forms of agreement?

Missing release permissions from interviewees

Ya.

There's a detailed list of things that the story collectors need to provide and apparently in the past people have submitted incomplete stories and then the Archive hasn't been able to get in touch with them again. So essentially the stories were lost.

... Ui. That's rather bad  
But the focus is in fb, and story map is only a second step  
Is that right?

Yes, we have so many stories coming in, I think that we need to post more frequently on Facebook. I'm going to discuss that with Guneeta as well. When the story goes up on Facebook it is concurrently posted to Story Map.

All in all, the editing process is an intricate way of actively intervening with the content that is to be published. Writing the summaries, rewording, corrections and adjustments according to the archive's guidelines are extra layers placed on top of the first-hand accounts. Volunteers and staff modify and alter the stories to make sure they adhere to the digital archive's dissemination format. The interview process is the first step in this direction – setting up the interview, guiding it with the manual, and the questionnaire. The second step is writing the summaries as the archive demands from the interviewers when uploading their files. The in-house editing process is an amplified modification. The social media team edits and exhibits according to internally set formal and moral guidelines. There is the option of checking with the interviewees if the final summary is to their liking, but this is not always applicable. After multiple layers of intervention, it is the envisioned public appearance of digital archives that determines the final outcome of the summary. The published entries consequently turn out to be quite strongly depended devices, with the initiators of the project as regulators. What the online audience can eventually see and read online on the story map and on Facebook are carefully curated accounts of the past.

Curating historical material is not a new phenomenon, but it is essentially a practice of museum or gallery politics. The localized arrangement of artefacts for public view has developed from an early modern form of collecting, ordering and sense making, and modern forms of serving the creation of nation states, to a recent trend of more inclusive ways of curating a display (Macdonald 1998). In many of today's museums, exhibitions take the public and its interests into view, accepting visitors as consumers who are to be included in interactive ways. The content mediated in displays is carefully conceptualized. Especially in science and history museums – in contrast to galleries and art museums – the exhibition includes contexts of displayed objects. Objects are set in scene and explained, people are guided through the museum – all with a notion of scientific fact that objects and museum production imply. The process of reaching a particular form of display, the selection of content and the way accompanying and explanatory texts have been written is carefully hidden from the viewer (*ibid.*). The same goes for the political and social intentions of curating and exhibiting. The

reasons for communicating a topic in a particular way are at most implicitly understood. But curating is never neutral. It comprises value judgements when stakeholders select, within the realms of their power, what and how ‘facts’ are communicated. They thereby create knowledge that is culturally and politically informed and has at the same time cultural, social and political implications.

The editing process that the 1947PA conducts before online dissemination bears strong similarities to museum curation. Volunteers and staff choose and select content, which they edit according to internally formed political motivations and external stipulations. Like a museum that is determined by the building’s space, the digital archive adheres to the limits of Facebook and to conventions of internet usage. Many of the archive’s working principles and guidelines are only available to insiders. As in museums, the curatorial process in the digital archive, the editing and altering of interview summaries is not made public but executed behind the scenes. Language editing might come to mind naturally, but only the person who recorded the interview is publicly named in the 1947PA. The political intention behind the archive is to some extent declared in the website’s ‘about’ section. This intention informs decision making for detailed processes within archive creation and dissemination. It leads to an extensive editing of content, including cutting political statements, religious sentiments and hateful statements. Personal opinions are smoothed out for the sake of reconciliation, and confused write-ups are cleaned and straightened out. The subsequent online impression is of an extensive collection of well-written, English interview summaries, all roughly the same style, neatly formulated and informative. They tell of the hardships and troubles people had to go through during partition, without blaming or incriminating each other.

In this way, curating and publicizing archival content blurs the distinct line once drawn between museums and archives. As digital archives thrive on online engagement (whether to generate funds, attract a workforce or gain attention and recognition), they have to exhibit their content and make it known. Digital archives combine this need to publicize, communicate and exhibit with an ample curatorial practice, and hence adopt practices that museums have been conversant in for a long time.

Curating with thorough editing rules guarantees consistent quality for the archive, justifying this top-down decision-making structure. Vertical structures in the archive also play out in the training of new volunteers and the extensive questionnaire and approval form, as well as in the staff workflows in and between offices. A few weeks into my

internship, Priyanka (private conversation, 2017) tells me how challenging the work is for her:

I quit. No seriously, I quit. It is just too much. I'm working day and night. When I get home from the office there are still calls to make and messages to answer. After dinner tonight I will have another WhatsApp call with the staff from Berkeley. Yesterday the same, I did not get to bed before 3am. It is just too demanding to work in two different time zones.

She put into words what I had already been observing. In my view, it is not only the time difference that makes things so difficult, but the fact that she is managing fundraising, the volunteers and paid interns, and is in charge of an upcoming exhibition. Being the mediator or buffer between the head in the US and locals in Delhi and India does not seem to be an easy task. Transmitting debates, needs and concerns across distances demands tact, intuition, improvisational skills and a thick skin. The working environment is hierarchical, despite, or precisely because of, the use of the internet. It is a challenge to maintain such a workflow over a longer period of time, especially given the idealism needed for this kind of work at the fringes of IT. As shown, the digital archive combines important work on history and society with modern IT-related work, and it attracts a particularly suitable cohort of Indian society that feels at home in both worlds. Yet balancing internet positivism and its ideal of flat hierarchies with producing an archive is difficult within an IT world where high wages and job changes are the norm. In consequence, for the 1947PA, catering to both its social and IT dimensions comes at the cost of sustainability. Being a charitable trust, the 1947PA works with IT professionals, but is not able to pay comparable salaries. Being a community-based archive and drawing on crowdsourcing recruitment implies that (high) monetary compensation is not a necessity when the workers identify with the cause or expect a moral or time-shifted indemnification. Being satisfied with the processes and outcome of the work significantly increases the length of time people stay with a company. In Priyanka's case, circumstances did not permit her to stay with the archive for much longer than eighteen months.

Moreover, Priyanka aimed for something beyond working at the fringes of Cybercity. With her master's in arts and history, she started to look for individual funding to continue her studies at PhD level. In spring 2017, she requested leave for three days to attend an interview in Mumbai, where she partook in an assessment for an international stipend programme. She had already secured a place at an overseas university a year ago; a professor had accepted her as a PhD student.



However, paying tuition fees and maintenance abroad was not possible for her and her family. Nonetheless, despite not having a funded PhD position, Priyanka quit the demanding work with the 1947PA in late 2017.

Rajiv took over the management of the Indian story scholars and citizen historians. He was able to devote more time to it than Priyanka, as he did not have to raise funds or organize exhibitions. A few weeks into his job he was very enthusiastic about the insights he was gaining into the past, and into partition in particular. He was also highly motivated by the volunteers' potential and the possibilities of advancing the story scholars' commitment to the 1947PA. He set up several peer group meetings for the Indian citizen historians and story scholars and was committed to improving workflow, submission rates and summary quality. However, in 2018, Rajiv also left the 1947PA after a little more than a year in the job. He tells me that the reason for quitting what started as a very positive role was his need for time off to study for the Civil Service Examinations. Concentrating on these required all his time and made working for the archive at the same time impossible. Difficulties in communication at work, across the offices and in the hierarchical work structure led him to take the step to leave.

Like Priyanka and Rajiv, other staff members' employment at the 1947PA was also rather short-term. Sarah was no longer part of the digital archive in mid-2018, neither was the head of the archival team. The scholarships are scheduled to be temporary only, lasting between three and six months. Employees, however, receive open-ended contracts or one-year contracts with the prospect of extension. The company has a good reputation as an employer in the social sector that does important work and pays decent salaries. Its Indian location in Cybercity adds to its reputation as a progressive organization, being part of one of India's fastest growing business segments. But as digital archives remain at the fringes of the IT business, so also does the 1947PA linger at the periphery of Cybercity, both in regard to being social sector archival work and in its finances. The desks are only temporary; it depends on financial aid and funds coming in. The archive operates here on an insecure basis. In line with this, the staff only stay for short periods of time. The employees carry out work at the 1947PA on a temporary basis. It is a career step, one that sits between IT business, sociopolitical ambitions and professional involvement with the past. A digital archive is attributed with novelty, creativity, opportunities to develop and space for innovation, and comes with an increased fluidity. Balancing this with inherently vertical decision-making structures comes at the cost of short-term commitments only. Changes and vicissitude rather than continuity and

sustainability define the on-the-ground archival work. Priyanka secured a place and full funding for her PhD at an overseas university. Rajiv failed his entrance exams in 2019 and began work with an EdTech company.

## Archive / Cybercity

To create a consistent digital archive, makers have to find ways to engage a larger cohort of co-workers and to display the created content in an appropriate way. This means that digital archives outside established institutions must consist of both vertical and horizontal decision-making structures. Digital technology restores an agency that goes beyond archival conventions of top-down decision making. A digital archive such as the 1947PA embodies this idea of equality and low hierarchies in multiple ways. Large parts of its work are crowdsourced, and staff are recruited through online calls and online training. The people working for the archive as employed staff and volunteers maintain contact across large distances through ICT and use digital devices for most of their tasks. The location of the Delhi office in Cybercity, with desks in an open-plan office, emphasizes its close relation to online business. It symbolizes the digital side of digital archives, and caters to an image of novelty and innovation.

The staff working for digital archives feel comfortable in such an environment, and use digital devices and techniques as a matter of course. The methods of recruitment and communication are in line with this, and foster the habits of the young new Indian middle class who operate the archive. Their work on the ground is nurtured by the proximity to IT, yet also nourished by an interest in history and dedication to social work. Their multiple engagements with memory, history and the digital mean not only dedicating time to a charitable trust, but allowing for the emergence of a more nuanced memory ecology. People working for the digital archive belong to an IT-savvy generation, yet their immersion in this form of dealing with the past allows them to reflect on archival work, memory making and digital storage. Their work is a joint undertaking to record and collect memories, which will enter a digital archive, with the stories available to everyone. The combination of volunteering, crowdsourcing, online communication and IT creates the perception of a horizontal structure.

However, the archive's public online availability actually entails a strong vertical structure. Disseminating content involves the curation of the same. Content is structured and aligned to the external requirements of an internet user's habits, resulting in dissemination on SNS,

and avoiding large data files. The editing of the 1947PA goes beyond this as it comprises quality control and adjustments on moral grounds. The politics of display comprise moral judgements about what should be stated publicly and what should remain unsaid or unrepeatable to contribute to a process of reconciliation. In conventional archives, curation was not intrinsic. Archives were instead understood as undertaking preserving and ordering, as more or less professional bodies with ordering systems that allowed for retrieval of information (see chapter 1). The special feature of digital archives, in contrast, is the accessibility of their material – they cannot avoid exhibiting and curating. This does, in the case of the 1947PA, lend a strong verticality to archival work. The curatorial interventions of editing are considerable. This is not comparable to holistically digitizing according to previously set digitizing strategies. It is a conscious selection of how to display content, taking the liberty of formulating rules on moral grounds. The leadership set these rules, and staff and volunteers comply with them. Selecting, decision making and curating have become intrinsic elements of digital archival work.

Digital archives hence oscillate between vertical decision making and horizontally structured practices of archival work. Their content creation and intense editing demonstrates that digital archives do not *per se* abrogate hierarchies. Digital media, crowdsourcing and community-created content allow structures to shift, but the editing processes (re) establish ties with political processes of displaying and communicating. This crystallizes in the archive's everyday work, exemplified by the editing process, which is part of a choreographed curatorial practice. There is a distinct moral and political agenda behind the work, which makes it anything but a neutral assembling of statements. What the questionnaire for each interview indicates is amplified by the editing process of the interviewer, the copyeditor and the outreach coordinator.

Digital archives control the circulation of information. They do so not in accordance with government guidelines or long-established hierarchies, but in line with the moral ideals of the initiative and the rules and regulations of digital media. They make the best use of social media to keep the archive running, and financial and human capital flowing. In other words, they mediate information in accordance with the acceleration of the digital era. Digital archives adhere to the implicit and explicit rules of SNS in order to be successful, which includes a continuous communication on the topic and hence an active crowd remembering the past, based on an archive they have created. Moral judgements are the guiding forces behind arranging and publishing the past, and the actors deciding what to collect and how to make it accessible have become diversified. Volunteers, interested in the history of the

subcontinent and perceiving themselves as contributing at a grassroots level to the important process of national or subcontinental identity making, now create and edit content, yet they do so on the basis of set guidelines and manuals. The IT environment allows a levelled form of communication and an increased potential for novelty and innovation. It also provides for politics of display, where the digital archive's staff create knowledge about Partition on the basis of carefully curated summaries of individual memories.

## Notes

1. I, too, was working for the 1947PA, as an intern, but I was the exception to the rule when it comes to tech-savviness. While my colleagues were online in multiple ways, I at first was busy figuring out the best data package for my smart-phone. I tried to convince the phone company that they shouldn't disconnect me automatically after three months, because I did not have an Aadhaar card, which every average Indian needs these days for a sim card, among other things. At the office I was pestering the IT guy for weeks to make him give me an individual Wi-Fi account. I also had issues accessing the Google services that the 1947PA uses.
2. Predecessors of crowdsourcing in the offline world, using the dispersed knowledge of the crowd, are manifold, but the term 'crowdsourcing' is in a narrow sense applied to online versions only. Jeff Howe coined the term in *Wired* in 2006 (<https://www.wired.com/2006/06/crowds/>; accessed 16 May 2020).
3. In a segment on paid crowdsourced work, with Amazon Mechanical Turk as an example, Ross et al. (2009) already observed a shift from white, female, well-educated, young, US-based crowdworkers to male, highly educated, low-income Indian crowdworkers. Being a minority of 5% on the platform in 2008, their share increased to 36% in 2009. It is problematic not only that the Indian crowdworkers earned less for their work (less than US\$2 per hour), but that some relied on crowdsourced work to make ends meet (ibid.).
4. [www.facebook.com/1947partitionarchive](http://www.facebook.com/1947partitionarchive), 11 July 2018.
5. Ibid., 19 July 2018.
6. <http://www.censusindia.gov.in/2011census/H1o-series/H1-data/DDW-HH4012-0000.xls> (accessed 23 September 2019).
7. Ibid.
8. <https://www.internetworldstats.com/stats3.htm> (accessed 16 May 2020). These numbers should be treated with care and can provide a rough estimate only.
9. All names have been changed, except for the name of the archive's leader, who frequently appears in public.
10. <http://www.dlfcybercity.com/> (accessed 16 May 2020).
11. Staff at the Delhi office earned approximately 40–50,000 Rs. per month.
12. Private communication, June 2017, formulated on the basis of field notes.
13. See, for example, <https://nooranandchawla.com/an-evening-swapping-partition-stories-with-the-1947-partition-archive/> (accessed 23 September 2019).
14. Priyanka also met some story scholars and citizen historians offline.

15. It is arguable whether this or the previously established form of indirect online connection suffices to label the people working for the archive a community. While Kozinets (2010: 10) would argue that membership of a community is subject to 'self-identification as a member, repeat contact, reciprocal familiarity, shared knowledge of some rituals and customs, some sense of obligation, and participation', Postill and Pink (2012) stress the transient encounters and the qualities of digital socialities.
16. The raw audiovisual material, as mediated through the interviewer's questions and recording, is preserved in a digital cloud. Forty-seven of these recordings are now available online (at least in parts) through Stanford University Libraries. ('Due to privacy restrictions, portions of The 1947 Partition Archive interview are not accessible via online streaming video but can be viewed at the Stanford University Libraries as well as the following partner institutions'; <https://exhibits.stanford.edu/1947-partition/about/partner-institutions>; last accessed 16 May 2020). It is also possible to view these video recordings in person in India at Ashoka University, Sonipat, Guru Nanak Dev University, Amritsar, and the University of Delhi, as well as in Pakistan at Habib University, Karachi, and Lahore University of Management Sciences.
17. <https://www.1947partitionarchive.org/mission> (accessed 16 May 2020).
18. Additionally, some video compilations of single interviews are available on Facebook.
19. From the 'Interview Summary', provided after completing the 1947PA oral history workshop.
20. From the 'Interview Summary', provided after completing the 1947PA oral history workshop.

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0:01 / 1:49



## The 1947 Partition Archive

@1947PartitionArchive · Gemeinnützige Organisation

Spenden

Startseite Videos Donate Mehr ▾

Gefällt dir

Nachricht senden



Rajender Mehta

Very nicely captured. we grew listening those stories from grand parents. I am from a town that you cannot differentiate from Multan. There is mini-Multan, mini-Jhang in Haryana. 3 generation gone, our mother tongue is still multani. We get all multani sweets, multani festivals etc. etc. in our city that no where else available in India.

10

Gefällt mir · Antworten · 4 J.



Tousif Latif

Name of the town pls?

Gefällt mir · Antworten · 4 J.



Rajender Mehta

Barwala, Hisar, Haryana - Mini multan.  
Fatehabad, Haryana - Bhutto belongs here.  
Hansi, Haryana - Ghulam Farid stayed here for long time. Izmamul-haq belongs here

3

Gefällt mir · Antworten · 4 J.



Rajender Mehta

There are many old monuments in these cities.

Gefällt mir · Antworten · 4 J.



Amira Khan

Interesting. I live in multan.

Gefällt mir · Antworten · 4 J.



Waqas Hassan Awan

So it mean u can speak siraiki language

Gefällt mir · Antworten · 4 J.



Rajender Mehta

Our mother tongue is siraiki. Whole city speaks siraiki.

Gefällt mir · Antworten · 4 J.



Rupangi Sanon Sharma

Wow very interesting

Gefällt mir · Antworten · 4 J.



Deepti Dhyani Punetha

Hi Rajender Mehta Can you recommend any online recordings/



## Using Digital Archives

### *Online Encounters, Stories of Impact and Postcolonial Agendas*

The 1947 Partition Archive publishes its new entries simultaneously on its website and on its Facebook page, where they generate likes, comments and discussions. The following entry from February 2018 shall serve as a blueprint, featuring a broad spectrum of reactions.

Mrs. Mahjabeen Sahibzada is the last surviving great grandniece of Munshi Abdul Karim – an attendant of Queen Victoria, who served the Queen during the last fifteen years of British rule, and the first Indian to be awarded the title of Commander of the Victorian Order. ‘Abdul Karim and Abdul Aziz were two brothers. Their father was a veterinary doctor specializing in the treatment of horses. Abdul Karim did not have any children. We are the grandchildren of Abdul Aziz. I’m the last daughter-in-law of Abdul Rasheed, his son and my eldest uncle’, Mahjabeen Sahibzada explains.

She was raised with three stepsisters from her father’s first wife, and three brothers at the Karim Lodge in Agra before Partition. Mrs. Sahibzada says they lived in one of several houses within the Lodge on the Karim family’s 18 acre plot. There was a mosque in the Lodge where her paternal grandfather used to lead prayers, and next to it was a stable for horses. ...

Sharing her memories of Partition, she says, ‘We were engaged in our daily activities when the government officers surrounded our house. My uncle’s eldest son was a city magistrate. Next to our house was the Rajput College. Someone from the College had sent an informant advising us to immediately send the women and children to a safer place’. She says, ‘Our cousin made arrangements for our overnight travel to Bhopal by train’. Mrs. Sahibzada, with twelve of her family members and workers, took the train to Bhopal in September 1947. She recounts the fear of the

elders and the silence during the journey, ‘they had gagged our mouths with handkerchiefs to filter out any sound or noise. Our names were not even listed on the train tickets’.

In Bhopal, they stayed at the barracks of Nawab Hamidullah Khan for four days, and were entrusted to the care of his friend and writer Ahmed Ali Khan (Khan Sahib), then an employee of the British Council of India, who made arrangements for the family’s train tickets and travel to Karachi. They stayed with Khan Sahib’s family at their residence in Bombay (now Mumbai) for five days. From Bombay, they boarded the ship to Karachi, and after three days at sea, they entered Pakistan at the Karachi Sea Port. Their only belongings were the clothes they were wearing. They moved to a flat in Kutchery Road but within two days communal riots erupted in Karachi, and the area was surrounded by violent mobs. The owner asked her mother to vacate the flat immediately. She recalls how her family was attacked by the mob in Karachi. Her mother screamed at them in Urdu saying, ‘You’re no different than the troublemakers back home in Agra’. The mob, seeing her anger and fluency in Urdu, dispersed from the location. Mrs. Sahibzada eventually settled on a temporary basis at the house of her eldest uncle’s daughter on Burns Road. ...

It was only much later that Mrs. Sahibzada came to terms with her new national identity. She was married to her husband in the year of 1960. The couple has three sons and two daughters. Reflecting on Partition, Mrs. Sahibzada says, ‘I pray no one has to go through the conditions and circumstances in which we arrived in Pakistan’ ...<sup>1</sup>

Within a few days, this post had been shared twenty-one times, generated 147 likes and fourteen comments:

Hena Khan Shariq: Interesting

Mansoor Sahab: Inspirational travel!

Shahid Ittehad: ‘I pray no one has to go through the conditions and circumstances in which we arrived in Pakistan’. A real true. Hundreds of thousands of minority people of three sides of East & west Pakistan and India uprooted faced miserable conditions which we read on the posts of this wall. Mrs. Mahjabeen Sahibzada to some extent lucky that they finally reached Karachi via Bombay by sea route. But those who fled their home and belongings and to go their desired save land faced enormous problems and many of them were butchered on trains leaving behind everything.

Bal Gupta: Around 15.0 million became refugees or Mohajirs and, around 1.0 million massacred. Not hundreds of thousands ????. Thanks 1947PartitionArchives to record around 4,000 survivors.

Ali Liaqat: she was lucky enough to go through the transition safely, due to influence of her cousin and british influence in india, they took well care of them

Maqsood Najar: Interesting

Ajay Sharma: Has she visited agra again??

Muneerah Merchant Lalani: Is this the Abdul Karim whose story was featured in the recent movie, Victoria and Abdul ? Interesting to know more about him and his surviving family. :)

Fakhra Hassan: Yes, she is indeed

Zarmina Anwer: Nazish Murshedi please share with Apya, may be this lady is her class mate.

Jhuma Parial: It's pathetic to go back to the place one was once compelled to leave out of fear of losing one's life. A land where people used to live from ages unknown, was no less loving to one than one's own parents and children. My parents left their homes at Chittagong, then East Pakistan and never went back to see their homes turned into agricultural fields. It was unbearable sight for them. Hope peace and fraternity prevail everywhere.

Sheema Sayeed: Two of my sisters,were also at St.Josephs college at the same time

Danya Farheen: Umer Ghafoor

Suhel Khan: A very unusual page from the history of the subcontinent.

Faizan Parvez Qureshi: Quite a life she has been living with respect to all the hardships she faced.

With entries like this one, the 1947PA generates a comparatively high online engagement, reflected in the number of comments and likes, and visible in its nine hundred thousand followers on Facebook. It becomes a site for exchanging thoughts and memories on the basis of archival entries. In this chapter, I examine actual and anticipated usage of digital archives once they are published online. Looking into active online engagements allows an identification of some of the characteristics of online communities in a more global sense, and the particularities

of South Asian online culture as expressed here. In other words, the question of why people post will in part be answered by the distinctiveness of South Asian online communication, while other forms of this online exchange match more global phenomena of online interaction. Examining the online user reaction at the 1947PA and Indian Memory Project – the examples familiar to the reader from previous chapters – also demonstrates that continuous social interaction and emotional involvement are very important factors for a visible engagement with archived material.

This chapter also takes up the institutional-based examples analysed in the previous chapters of this book – namely the Eickstedt archive and Jatan – and draws on complementary digital archives to illustrate their usage. Their usage is less visible online, but traceable in stories of impact, meaning that a digital return as a postcolonial agenda is an often anticipated, yet not easily achieved form of using digital archives. I will examine the postcolonial agendas in more detail, as this also helps us to understand the neocolonial threats faced by Indian institutions. This will lead, in consequence, to a rethinking of what postcolonial visions entail in the context of online archives.

## Online Engagement as Weak Ties and Offline Relations

When using the 1947PA, people do so to express interest and approval, to engage with the topic of partition and to communicate their reactions and thoughts upon reading the latest archival entries. In other words, they use the archive to establish weak ties (Granovetter 1973) with a like-minded community. Such weak ties are a source of non-material social resources, that is, information and support, companionship and a sense of belonging (Wellman and Gulia 1999). When Hena Khan Shariq, Mansoor Sahab and Maqsood Najar briefly comment on Mahjabeen Sahibzada's biographic narrative with 'Interesting' and 'Inspirational travel!', their avowal of approval or compliance constitutes a low-threshold form of partaking. Establishing weak ties in a Web 2.0 context requires little more than reading the post and signalling user engagement or common interest through likes or short statements of approval and interest. Weak ties are easily dismissible, but at the same time they are 'more apt than strong ties to link people with different social characteristics' (ibid.: 176).<sup>2</sup>

That the 1947PA can link people with different characteristics, at least as regards their place of living, is demonstrated by the comment made by Bal Gupta, who in the quote above posted a correction to the

numbers. Bal Gupta is an elderly man of Indian origin who lives in Atlanta. He maintains his weak ties with the other users of the 1947PA through frequent commenting, leaving a comment under almost all of the posts. He thereby makes himself known as an engaged reader and discussant, potentially leading to further interactions with other users as well as sharing his personal experiences of partition. His interest in the 1947PA and reason for engaging online stems from being held in a prisoner-of-war camp in the 1940s, when he was a young boy. Describing himself as ‘a prominent Indian American author, speaker and intellectual’<sup>3</sup> and an ‘Independent Philanthropy Professional’,<sup>4</sup> Gupta (Gupta 2012) published a book on his experiences of partition and uses the 1947PA’s Facebook page not least to promote this. Thus, his close following of the 1947PA reflects a biographically induced interest in the topic and at the same time is probably his way of processing his traumatic experiences of partition, as well as allowing for the establishment of weak ties with a community of similarly interested people, who, additionally, might also be a potential readership for his book.

However, the interaction we see on the 1947PA’s SNS not only links people with different social characteristics or who are unknown to each other, but also draws on existing ties. In the above-mentioned post, this is shown in Zarmina Anwer and Sheema Sayeed posting ‘Nazish Murshedi please share with Apya, may be this lady is her class mate’ and ‘Two of my sisters, were also at St. Josephs college at the same time’, statements that indicate that the person commenting knows the interviewee or the interviewer and has some personal relation to them beyond using the digital archive. Often, family members with present-day contact or friends and contemporaries post supportive or reassuring comments that demonstrate the interrelatedness of online and offline worlds in personal interactions. Such overlaps of online and offline ties are characteristic of Indian social media use, as Shriram Venkatraman (2017) points out. Studying social media on a micro level in a South Indian peri-urban area, Venkatraman (2017: 3) describes how Indian social relations and offline traditions map onto social media:

People bring their offline traditions into social media, be it in terms of gender, kinship, age, caste, religion, class etc. Tradition to a large extent is mapped onto social media and reasserted on it, thus reflecting offline social categories online as well. Online is also a place to which individuals on social media strive to bring along their social groups, for example friends and kin. In so doing they showcase social media as a group media, and perform on it for the wider world to see how they uphold normative Indian traditions.

Venkatraman shows in detail what the short statements on the 1947PA's Facebook page merely indicate, that the social context as experienced in face-to-face interactions, family relations and sociocultural norms feeds into online relationships. Online networks on social media map offline relationships; Facebook and WhatsApp friendship circles are constituted along lines of conventional family and kin bonds. Caste, class and gender also determine what online communities a person is socially allowed to be part of, with Twitter regarded as a medium for better-educated and wealthier people, and Facebook and WhatsApp a social media form for everyone. Venkatraman (2017) also states that young men from different social backgrounds form the largest cohort on Indian social media, with women's status as being vulnerable to harassment leading to particular protection and/or family control being adopted in digital communication. Social media use for women is restricted, at least in the South Indian village that Venkatraman analysed. The concept of befriending people with a similar background is extremely important, creating in effect a network homophily and a certain digital inequality (*ibid.*). Online and offline communities are heavily intertwined, and identities are reproduced rather than negotiated.

Venkatraman's analysis of South Indian social media use clearly rejects the generalized assumptions that the internet would be a means to break up established hierarchies, to democratize and perhaps even revert power imbalances. They stand opposed to the vision of the internet as a more open and less prejudiced space, a vision that digital archives also draw upon. The 1947PA, for example, states that it will share accounts from all ethnic, religious and community backgrounds, 'for anyone anywhere in the world', thus 'bringing knowledge of Partition into widespread public consciousness'.<sup>5</sup> The internet, in theory, differs from personal face-to-face interaction through being based on written words, and hence is at first blind to visual characteristics such as race, gender and (other) bodily features.<sup>6</sup> It also allows the adaptation of an avatar or single characteristics, which do not need to coincide with the actual physical attributes of the internet user.<sup>7</sup> But identity markers find their way back onto the internet through social interaction within online groups, indicating the conservatism of cyberspace (Kollock and Smith 1999). Offline characteristics and social stratification find their ways into the 1947PA and IMP, as this user comment from March 2016 exemplifies: 'I noticed that you guys only interview rich people who survived 1947. I would like to see the narratives of the poor people who have gone through 1947 as well of ot is possible [*sic*]'.<sup>8</sup> The immediate online response on Facebook by the archive was: 'We record the stories of all people who witnessed Partition, of all socioeconomic backgrounds'.

However, the critique is to some extent legitimate. Guneeta Singh Bhalla, the head of the 1947PA, mentioned in an interview in 2013 that some imbalances exist regarding the socioeconomic backgrounds of contributors and users. Anusha Yadav, founder of IMP, has also mentioned that language and internet access are certainly restrictive factors.<sup>9</sup> She acknowledges that most people contributing to Indian Memory Project are connected to the internet, and from better-off strata of society: ‘And even if they’re not [connected to the internet], they have relatives who are. So one of the pictures, for example, was a lady who used to be a cook in my house five, three years ago, and she is not online but she got me a photograph, and told me her story and I wrote it down’ (Yadav, interview, 2016). Even if the internet allows for large numbers of potential users, it also continues to exclude people, and the social context as experienced offline also determines the usage of digital archives. While Indian Memory Project and the 1947 Partition Archive do not display a significantly lower number of female as compared to male users, they demonstrate that social stratification within society and offline relationships also feed into their online usage.

What the 1947PA does, however, is work against boundaries of communication and interaction between India and Pakistan. With story scholars and citizen historians working in both countries, as well as in Bangladesh, archival entries stem from these places and entail a circulation of this content as well as an online communication across national borders. While the 1947PA does not lead to immediate physical border crossings, as a popular Google Search advertisement suggests,<sup>10</sup> it aims at reconciliation. It consequently works against polemics and hatred, which have been gaining a stronghold in Indian online communication. Polemics and hatred are admittedly quite rare in digital archives – according to Anusha Yadav, they have never appeared in the comment section of IMP – but the 1947PA tends to delete hate speech and heated discussions as soon as they appear. In the aforementioned quote, Shahid Ittehad only hints in this direction when stating, ‘Hundreds of thousands of minority people of three sides of East & west Pakistan and India uprooted faced miserable conditions which we read on the posts of this wall’. More heated was a debate between Malik Ahmed Miraj and three other men:

Malik Ahmed Miraj: Lol...before partition lahore had 90 percent Muslim population. I don't know how lahore would go to India...it doesn't make any sense.

Prabhnoor Singh: Apparently not. It was 50-50.

Malik Ahmed Miraj: 50-50 according to BJP textbook board of gujrat

Sowrya Kasim: That's what you've got out of this? And coming back to your question, the status of Lahore was disputed because the number of Muslims and non-Muslims were the same, meaning even though Muslims didn't form an out right majority they were still the biggest group compared to the Sikhs and the Hindus who if only combined together formed a bigger majority than Muslims. ...

Nidhin George Olikara: Malik ahmed Miraj: And your information is from? Daura e Aam at LeT camp, Muridke? ...

Prabhnoor Singh: Malik Ahmed Miraj please provide facts rather than being an asshole.

...

With conversations like this, the 1947PA's Facebook page becomes a site of political arguments and quarrels. These men engage in a heated debate, proclaiming their own interpretation of historical events. The discussion quickly shifts to accusing each other of partaking in falsifying history, referencing ideologies of the Hindu-nationalist Bharatiya Janata Party and the Islamic militant Lashkar-e-Taiba's Daure-E-Aam camp. The tone quickly turns rough and insulting. It eventually induced the 1947PA to delete the conversation.

An obvious reason for such polemics and hatred is the topic of partition. The separation of India and Pakistan was drenched in blood, and the trauma was on neither side collectively reprocessed, meaning it is difficult for the countries and their citizens to come to terms with it communally. Partition, not only on the issue of Kashmir, remains an area of conflict. Making this sensitive issue a public subject of discussion can be a way forward, but chances are that public engagement with the matter provides a platform for dispute and conflict rather than resolution, as some comments prove. They range from who killed most and who suffered most, to how many people of one religious community lived in a place before and after 1947. Emotions quickly run high and sometimes it is easy to see that trolls started the dispute.

Another factor fuelling arguments of this kind is the coarsening of online environments. Against the assumption that digital natives in South Asia are apolitical (Shah 2009), politically or religiously induced online aggression is clearly visible in South Asia. Trolling as an intentional form of linguistic aggression, a persistent provocation within interactive online platforms, has gained a foothold in South Asia (Udupa



2017). The growing popularity of creative wordplay in Indian politics and the global media format fostering a culture of quick retorts are two aspects that foster hate speech in India (*ibid.*). Since the turn of the millennium, India has tended towards lighter and more colloquial language, which has also created new phrases and words, promoted in TV formats and online comedy (Pohjonen and Udupa 2017). Not only is the line between comedy, parody, insult and abuse getting constantly blurred, but this language has also entered India's political culture. It has become desirable to semiotically dominate the opposition through provocation and insult, which is profitable in the sense of gaining traction. While the forms and degree of aggression and intensity vary, online hate speech or verbal aggression in general aims at dehumanizing members belonging to another group as well as thereby reinforcing boundaries between groups (Marwick and boyd 2014; Pohjonen and Udupa 2017). Insults and abuse manifest themselves in a dense flow of verbal and video traffic (Udupa 2017). The concurrent rise of Twitter as a less-regulated media outlet where individuals can discuss political issues at an accelerated speed hastens the promotion of hate or extreme speech. Adding to this increase is the relative anonymity of the internet, as well as the conviction in a higher moral order – in an environment saturated with religious and nationalistic sentiments – demanding effective (online) action (*ibid.*: 1516). Moreover, despite legal regulations on freedom of speech and penalties for religious insults and for incitement of hatred between religious communities, 'scathing messages against minoritized Muslims and Christians are a common occurrence, and so are the acrimonious retorts and dodges among the avowed supporters of Muslim communities. This form of abuse culture centers on defining nationhood in terms of religious belonging' (Pohjonen and Udupa 2017: 1180).

While most digital archives and their content seem less assailable, or their content and online presence less suitable for vitriolic or provocative speech, the 1947PA is, both through its format – predominantly its Facebook page – and content, a target for trolling. When Malik Ahmed Miraj – a recently created and almost empty profile, and thus possibly fake – states that Lahore had a 90 per cent Muslim population before 1947, he incited others to react and started a verbal exchange, with the actors winding each other up. Other comments condemn partition or the two-state solution. Occasionally, single politicians and their decisions are denounced. Yet, in general, polemics and extreme speech do not gain much of a foothold here, not least since the 1947PA decidedly works against it.

## Emotional Involvement as Empathy at a Distance

Rather than hatred and malevolence, we find empathy and compassion when examining the emotional involvement at the 1947PA and IMP. An example from IMP shall serve to illustrate this.

On 28 April 2016, Indian Memory Project published a new post about *The Devadasi Who Became a Maharani*.<sup>11</sup> It shows a family photograph from the 1930s that is explained as showing Cory Wallia's – the contributor's – ancestors. His grandparents were photographed in a photo studio, his grandmother sitting on the left, her mother (Wallia's great-grandmother) sitting on the right, his grandfather standing in the middle. Before him two children are positioned, whom Wallia identifies as his mother and uncle. As important as the photograph is the narrative Wallia provides along with it. His grandmother was a Devadasi, a highly trained woman dedicated to temple worship, who became the courtesan of the king of Dewas. However, breaking with convention, Malhar Rao Narayan Rao Puarto married her, so that Wallia's grandmother in consequence became his queen, the maharani of Dewas. The photograph was taken during their common reign. Continuing with the biography of his grandmother, Wallia discloses the hardships and strength his grandmother needed after the king died and the family had to come to terms with a life in Bombay, outside the royal court. The narrative ends with Cory Wallia stating that, 'Earlier, when I looked at this photograph I used to feel a sense of lost glory, but now I feel great pride in my ancestry'.

The post, according to Anusha Yadav, went viral. By May 2016, it had been shared more than three thousand times; two years later, more than twenty thousand times.<sup>12</sup> Of the comments on IMP's website, most address the strength of the women in the narrative or the varying status of devadasis. But two comments stand out: Mrudula Prabhuram Joshi says (29 April 2016):

I have known your grandmother if she is the same frail but rather haughty beautiful lady who was our neighbor on the Third Pasta Lane in Colaba. We lived there from 1949 to 1954. This lady normally shunned outsiders, but struck a beautiful friendship with my mother who was a very talented and highly educated woman. These two women shared a very close bond and exchanged books, landscape paintings, tips on cooking, fine embroidery and such other things but never any gossip. She was a very proud and self-respecting person and I admired her from a distance. Her small flat was full of lovely things like gold-encrusted bone China dinnersets, huge paintings and portraits and also beautiful Chanderi sarees. I was her favorite and visited her often. To me, she seemed a real Queen.<sup>13</sup>

And a few days later Cory Wallia replied:

The response from Mrudula moved me tremendously as I know that she is talking about my grandmother. I was born in 1959, after Mrudula moved, so I never met her... But my Aaji, as I called her, passed away in 1980 at the ripe age of 94, leaving me with a priceless legacy of memories, objects, recipes & a greed for knowledge, adventure & a survivor creed that has shaped my life. Thank you Mrudula for remembering the haughty, frail lady who raised me and loved me so deeply...<sup>14</sup>

Emotional involvement is at play here at various user levels. For one, contributing the post was meaningful for Cory Wallia. Wallia is a thoughtful man now in his late fifties, who made his name as a makeup artist, working for the magazine *Femina*, on the TV show *Khoobsurat*, and for stars such as Aishwarya Rai Bachchan. When we talked and met in 2018 and 2019, Wallia explained that the post on IMP was most important for him, because it provides a way to honour his grandmother. She inspired him, she taught him a love of beauty, creativity and art. Being a devadasi essentially meant that instead of being married off early to become a wife and mother, she was well educated. She was trained in dancing and embroidery, had a profound general knowledge, loved reading books and could speak six languages. Wallia's grandmother passed away when he was twenty years old, but those childhood and teenage years, he says, were characterized by his grandmother's influence on him. Furthermore, contributing the post was important and meaningful for Wallia as a means to openly speak about a devadasi family history. Some people still apply social stigma to devadasis, and publicly revealing a family history as including a courtesan is not commonplace. A few of his friends and family members criticized his public revelation of this part of the family's history. But Wallia (private conversation, 2018) feels that this is nothing to be ashamed of, instead acknowledging it as something formative: 'A lot of people told me that they were glad that I shared the story. They were happy that there was no sense of shame or anything like it when I was revealing that my grandmother was a courtesan or came from a courtesan background. It's not shame, but it is fascination'.

A second level of user engagement also shows emotional involvement, as demonstrated by the feedback and comments people posted under *The Devadasi*. Most of the comments written on IMP, as well as the oral feedback Wallia received from friends and acquaintances on the public post, were admiring and reassuring. As one commentator wrote: 'What a wonderful story of resilient women. The past is not scandalous, it's a testament of women surviving scorn of status and birth. That they

adapted from royal to common lives is another achievement. Thanks for posting. Love the story'.<sup>15</sup>

These responses as online engagement result from the topic as well as from the format. People reading the post can relate to its content when it is close to their own experiences – knowing the person or knowing courtesans, experiencing women's hardships or contested family histories. Furthermore, devadasis are a well-known part of Indian history, and moreover a disputed one. Many readers from India will have an opinion on it. Involving people emotionally through the archive's topic applies also to the 1947PA, which throughout its posts relates to the traumatic and highly politicized issue of partition.

For both IMP and the 1947PA, the format of the entry also contributes to involving people in online encounters. Readers feel with the person who lived through what is told, as it is narrated with words and visually enhanced. Both IMP and the 1947PA present written narratives along with a photograph. For the 1947PA, being based on video material, the narrative-plus-photograph format proved adequate for both the story map on [www.1947partitionarchive.org](http://www.1947partitionarchive.org) and for distribution on Facebook. Acknowledging that visuals attract more attention than written text only, they always publish a video still or a historical photograph of the interviewee along with the summarized biographical narrative. Anusha Yadav for IMP stresses the conscious decision behind her digital archive's emotionally immersive form. For IMP, the visual-cum-narrative format is the core of the archive. When asked whether she thinks photographs can desensitize an audience, Yadav answers:

[If a photograph] is relevant to you, then the sensitivity increases; it depends on how much you can relate to it and how much of it is working towards the context that you have. It is sort of fixed into that little story that you have about your own life. So it also depends on what cultural systems are documenting it and for what purpose. ... Storytelling works brilliantly around a picture, because then at least somebody is taking you through the photograph, explaining its roots and how it came to existence, and attaching a human story which people find easier to relate to. ... People [search for history through photographs because they] are looking for identity. People are looking to be surprised. They want adventure.<sup>16</sup>

In other words, people are looking for something that touches them, that they can relate to, and the format of visuals-cum-narratives works towards this. When people narrate what occurred and thereby 'take you through the photograph', these narratives are not factual lists of characteristics – as digitized collections from institutions often are – but an

emotional recall of individual memories, which are visually enhanced and retained. They diverge from archives as fact and impersonal listings, although they are – at IMP and the 1947PA – essentially ordered repositories of listed entries. But presenting these entries as visuals-cum-narratives leads users to commiserate and consequently comment or discuss them (on the grounds that the webpage allows for Web 2.0 options or is linked to an SNS). Both content and form trigger readers emotionally and foster online encounters, whether on a digital archive's website or its social network sites.

Quite often these comments are commiserative statements regarding the personal experiences told online, supportive words or sympathetic exchanges. If the reader traces aspects of themselves in the post or sympathizes with the writer, this creates a form of shared emotions rather than dissent or refusal. IMP and the 1947PA hence have become platforms for exchanging living individual emotions between first-hand historical witnesses and their descendants, as well as a larger group of internet users. The stories are publicly distributed and received, displaying a more volatile or deeper engagement with a digital archive's content. The entries might not be historically significant, but they are personally meaningful. They have powerful emotional effects, both for the person providing the post and the one viewing it. The remote accessibility of individual memories produces here, to use Garde-Hansen's term (Garde-Hansen et al. 2009), 'empathy at a distance', an affective relation to personal stories generated on the basis of circulating online information, leading to an active online engagement as a usage of digital archives.

## Digital Return as Postcolonial Agenda

Usage as a sign of impact is also what archives and museums from the Global North envision, especially when collections are situated in at least two different contexts – that of the current storage or former collector, and the place of origin of the objects or photographs. The possibility of giving back information through online dissemination of (digital reproductions of) ethnographic collections – called a digital return – is one driver for European museums and archives to digitize their collections. The British Library, for example, which presents about fifteen thousand prints, drawings and photographs from South Asia online, terms its online archive 'a unique historical tool, a vivid evocation of the common cultural heritage forged by two centuries of interaction between India and Great Britain'.<sup>17</sup> The makers of the Fürer-Haimendorf

online collection, which displays fourteen thousand photographs taken by Christoph von Fürer-Haimendorf in South Asia and the Himalayas, anticipated that ‘the resulting online resource will enable people across the world to look at and learn from this unparalleled documentation of tribal cultures in South Asia and the Himalayas during the middle decades of the twentieth century’.<sup>18</sup> The Basel Mission Archive, which showcases twelve thousand photographs, maps and writings with relation to India and is one of the earliest photographic digital archives to go online, says:

The objective of the website is to foster encounters with, and prompt questions about, various kinds of transfer and circulation of ideas, knowledge and values around the globe through space and time. ... More generally, users are invited to explore the accessible material with a view to discover connections between the past and the present. Distinct search modes allow both for simple or more complex virtual voyages in pursuit of varied research interests. The latter constitute the basis for the common task of forging notions of ‘living archives’ and ‘joint cultural and intellectual heritage’, thus rendering the website a platform for research in partnership.<sup>19</sup>

Likewise, the ethnographic museum in Munich aspires to ‘make the images available to researchers, descendants of the photographed and all interested stakeholders, and hope for a lively feedback’,<sup>20</sup> and the digitization of the Eickstedt photographic collection, described in chapter 1, is seen as providing ‘visual resources [that] can be of great interest for researchers of countries of origin as documents of their past, and can now offer the basis for transcontinental discourses’.<sup>21</sup>

Such self-characterization displays a postcolonial thinking in these institutions, manifesting in ideals of opening up museums and archives and facilitating the online circulation of knowledge. The expansion of information, encounters and exchange through online archives is a solid reasoning for digitization work in European museums and archives, especially those with a colonial past. In this context – and consequently mostly in ethnographic museums and collections – postcolonial thinking by now has a sound and widely acknowledged theoretical basis.

The concept of postcolonialism as decolonizing collections or archives has been around since the 1980s (Bodenstein and Pagani 2016). While museums in the Global North tried to downplay their colonial origins and mission in the first decades after colonial empires collapsed (Aldrich 2009), this embarrassment and anachronism of the old colonial museums could not be glossed over for long. Questions of

colonialism entered discussions, temporary displays or newly setup museums. Perceived attempts to avoid or erase colonial history drew criticism not only from representatives of once colonized communities or their descendants, but also from curators and historians (Appiah 1991).

Consequently, the debate around postcolonialism in museums grew larger, and has in the last decade been at the forefront of cultural and political debates. In Europe, it has culminated in restitution debates and provenience research, with the German Humboldt Forum's labour pains<sup>22</sup> and French president Emmanuel Macron's announcement of a return of all cultural heritage artefacts from colonial times to Africa<sup>23</sup> being only two of the most prominent examples. There seems to be a consensus that museums are non-neutral spaces, in which colonial structures of representation are inscribed and through which power and identity were co-constructed (Chambers et al. 2014; Kazeem et al. 2009; Macdonald 1998). While Christian Kravagna (2009) believes a postcolonial museum is a fiction due to the impossibility of disentanglement from its own history, other authors suggest several strategies to confront colonial pasts. Ruth Phillips (2011) sees remote access through online dissemination – which has been tried in various projects – as a beginning to level the playing field for inside and outside museum actors. While Phillips speaks of a digital repatriation and stresses the indigenization of the Canadian museums she has worked with, Paul Basu (2011) directs attention to online dissemination as a way of circulating information in a global mediascape. Untethering ethnographic objects from their local museum or archival context is in his view not necessarily a form of repatriation or return, but a way of providing remittances. Online archives can provide information and cultural capital to the places of origin and support knowledge production in various ways beyond the museum sector (*ibid.*). Digitizing museum collections and making them accessible online allows institutions to develop from strongly localized institutions into global museums and global mediascapes, where information provision supporting knowledge production becomes part of a postcolonial agenda and a 'response to rupture' (*ibid.*: 37). Pointing beyond sharing of information, Dominic Thomas (2009) stresses the institutions' willingness to rethink ownership of museum holdings as part of a postcolonial agenda, besides responding to aesthetic or political repositionings, privileging the experimental and/or understanding the audience also as postcolonial, which might narrow down representational gaps in exhibitions. Corinne Kratz and Ciraj Rassool (2006) go even further, demanding recastings, remappings and reorganizations, which in turn require negotiations and fundamental changes to political power within and between museums and archives.

Postcolonial thinking about museums and archives conceives of relocating objects and documents, altering leadership and staff or modifying decision making and ownership structures.

In debates and theory, many museums whose collections derive from colonial dominance are rethinking their colonial legacies and trying to work against confirming existing cultural doxa.<sup>24</sup> In practice, however, the process of postcolonializing museums and archival collections is highly problematic. While the success of new museums and exhibitions shows the audience's interest and willingness to learn about the past<sup>25</sup> (Thomas 2009), museums and archives as a source of European identity and experience also tend to be cumbersome in practice. Postcolonial theory, activist intervention and repatriation claims make seemingly objective talk about 'the other' in conventional representational forms harder than ever, without (yet) being unanimously converted into exhibition practice, restitution or widely implemented new imperatives (Chambers et al. 2014; Kazeem et al. 2009; Wonisch 2017).

Digitizing collections in museums and archives is one way to put postcolonial thinking into practice (see Geismar and Müller forthcoming), although it is not the only one, nor is it without issues itself. When digitizing museum objects, stakeholders make use of the anticipated human-object relationship inscribed in online dissemination. As the above-mentioned quotes show, some envision the objects returning to so-called source communities and places of origin in digital format. In museum or archival contexts, a digital return implies 'the goal of bringing knowledge of the collection back to communities' (Hennessy et al. 2013: 45) or other related stakeholders. Digital return is 'a process of creating and maintaining relationships between heritage and cultural institutions, people, and digital data' (ibid.: 44). It rests on the concept of objects representing activities, evoking memories or conveying information. A digital return as disseminating an object's digital avatar in an online environment and its subsequent appropriation can be a way to 'breathe new life into the collection' (ibid.: 56). Digitization and online dissemination allow individuals and groups to use archival content and to communicate on objects in the public sphere. When framing digitization projects as digital return, online dissemination stresses the provenience of stored objects and archived material, and indicates a need to remediate. It positions digitization as a technique that allows acknowledgement of the past, if not the making of amends. Digital returns are predicated on community interest and expertise, and are at the same time a way for current custodians to reach out. They are envisioned as reciprocal or cyclical processes of exchange, where stakeholders can use digital material in intersecting ways (Bell et al. 2013: 2–3).



Admittedly, a digital return can – like visual returns – be understood as a compromise in situations where physically returning an object is demanded or morally required, but not possible for practical or political reasons. However, as with visual returns, stakeholders make a virtue of necessity by acknowledging the insufficiencies or deficiencies of digital vs. ‘real’ return. For one thing, when repatriation has become a central term, digital returns at least help to establish some form of ‘indigenous control over cultural artifacts and thus the possibility of engaging with scientific research on something like equal terms’ (James Clifford, quoted after Bell et al. 2013: 4). ‘Engagements [in digital return], however messy, have been and remain profoundly important in creating the grounds for collaborative histories to emerge and for shifts in museum display and management practices and understandings to follow, along with an appreciation of Indigenous ontologies’ (Bell et al. 2013: 4). As Srinivasan and his colleagues (2009) acknowledge, digital museum technologies have the potential to politically and socially empower tribal museums and leaders, as well as to foster cultural connectiveness to heritage among tribal people.<sup>26</sup>

To actually engender an active (online) use of digital archives in the form of a digital return, the above-mentioned generation of empathy is conducive, as is the use of social network sites to maintain social relationships. Many large-scale digitization projects in museums and archives in the Global North, however, produce their online archives aiming at a holistic provision of information about collections, which comes in the form of factual lists of object characteristics. They list digital images with metadata related to each entry, and allow users to filter entries by ethnicity, genre, topic, time or geographic area. They provide records, not stories. They offer information in a functional way, aiming at access to material that is otherwise hard to get hold of. This, arguably, leaves the user in charge of interpreting the images according to his/her knowledge and context. Making sense of the objects and their meaning is less predetermined by explanation. On the other hand, lists are less capable of emotionally involving the users and effectively result in very little online engagement. European digital archives often offer the creation of individual virtual collections, but less often offer sharing options or maintain online relations with users on social media channels. The Basel Mission Archive, for example, offers commenting options on its website, but these are seldom used. The holistic strategy of online dissemination caters to the idea of potential digital returns through the widespread online display of collections. But when the creation of the digital archive does not involve the envisioned stakeholder, and the digital archive is set up in a list form rather than a more emotionally

engaging narrative format, digital return as an active engagement with the provided content is less likely to occur.

### *Postcolonial Databasing*

The Weltkulturen Open Lab, a digital archive based at the Frankfurt ethnographic museum, tried to work against the list form and thereby engage a wider audience. It is an example of a digital archive deriving from a European ethnographic museum with a very strong postcolonial agenda, as this digital archive is a digital extension of the director Clementine Deliss' understanding of museum practice. Deliss' (2014) work at the Frankfurt museum was led by the concept of remediation (a term borrowed from Paul Rabinow) and the question of how to give presence to museum objects (again) without falling for exotic or anachronistic stereotypes. Remediation implies a correction or healing of the colonial past's resonance; in the museum's realm this can comprise exhibiting against the grain of ethnicity or tribe, if one is not a member of that group (*ibid.*: 447). The correction also comprises the acknowledgement of earlier exhibition narratives and a critical integration of the same into contemporary work. Methodologically, Deliss tried to break up conventional power structures and enter objects into remediation processes through international artist residencies (Weltkulturen Labor),<sup>27</sup> being the basis for both exhibitions<sup>28</sup> and the digital archive. The digital archive, at that time presented online at [www.weltkulturen-openlab.de](http://www.weltkulturen-openlab.de), provided online access to some of the museum's objects with semantics that differed from the analogue storage depots in the museum, while taking the depots as the starting point. The digital archive allowed users to navigate through parts of the museum's collection, to add information as to their liking and to determine the semantics of this archive as content and pathways connecting this content – visually displayed through green lines between museum objects and additional content, which registered users could add. The Weltkulturen Open Lab was an example of postcolonial databasing aiming to involve a wider cohort of users and foster digital returns:

No matter if you are a school or university student, artist, anthropologist, filmmaker, sound artist, scientist, writer or are simply interested in arts and the cultures of the world: Dive into a digital expedition with the OPEN LAB. Get inspiration from the collection objects for your own investigations and new productions. Follow the development of ongoing

projects or add your own comments, sketches, images, texts, audio files and your own creations.<sup>29</sup>

Working with an open format rather than list form, it was closer to the visual-cum-narrative approach of the 1947PA or IMP than the holistic approach of listing collection information.

The Weltkulturen Open Lab also shared with the 1947 Partition Archive and Indian Memory Project an openness of content creation. Like the examples in India, the Frankfurt digital archive was set up to engage users by allowing them to determine what further information should be added and included. Going beyond the 1947PA and IMP, the WOL incorporated this inclusive approach in its database architecture as well, rather than asking people through personal interaction or mediators to submit stories and entries. But while the users had potentially more freedom to write into the archive and codetermine the archive's appearance and development, in practice the WOL failed to foster new encounters. As Deliss (interview, 2017, translation by the author) explains, it was fed by ideas and the lived offline practices of remediation, new appropriations, aesthetics and access. But the Weltkulturen Open Lab did not gain traction:

You had to sign up and could send us your thoughts or ideas and we would upload it. Only, in a municipal museum with a municipal budget I could find no one who would concern her/himself with it. I could not push it, this open lab, I could not expedite it. The application was too complex. It did not always work. Or the person that was supposed to sit in front of the screen would not do it. Even though some have tried. And we uploaded content ourselves. But it remained like a stillborn child. It did not dynamize.

Since 2017, the website has been offline, and this is, among other things such as raising further funds, due to the fact that it failed in 'creating and maintaining relationships between heritage and cultural institutions, people, and digital data' (Hennessy et al. 2013: 44).

### *Stories of Impact*

If, however, such relationships are cultivated, digital returns are possible, regardless of the digital archive's form. They are less likely to take an online format, but are expressed in different offline formats. 'Source communities' do use digital archives provided by institutions in

the Global North and appropriate their content, even if these are more 'classic' digital repositories listing images and collection information. The impact of digitization projects shows in what Marsh et al. (2016) call 'stories of impact'. One such story is the digitization of the Eickstedt Photo Archive described in chapter 1.

The Eickstedt digital archive is a rather conventional repository. Its only Web 2.0 feature is a link for registration in order to leave comments, which users find under every entry. When it comes to talking about the impact of digitizing the Eickstedt collection, it is not the website but an exhibition-cum-worship-event that still resonates with museum staff and colleagues. This event, called *Purvajo-ni Aankh*, took place in 2012 in Tejgadh, Gujarat. The centre of this appropriation of some of the digitized Eickstedt photographs (as well as of the William Archer archive housed at the Museum of Archaeology and Anthropology Cambridge) was the sacred site of Koraj Hill in Gujarat. On the basis of digitized photographs (not online, but burned onto CDs), Narayan Rathwa and his colleagues from the Adivasi Museum of Voice in Tejgadh, in close collaboration with the local Rathwa community, conceptualized this event. They presented the photographs depicting Adivasi in pre-Independence India as enlarged printouts, which the Rathwa celebrated with a procession to and at Koraj Hill. The Rathwa perceived the photographs as ancestors and reconceptualized the digitized photographs in their meaning as detached from the photographer. Local religious and cultural authorities gave the documents a new form and meaning; some of the printouts became part of ancestral veneration and were worshipped and consecrated by the local priest. Others became part of memory making through talks and conversations, or engaged otherwise in this public spectacle and anthropological museum collaboration. *Purvajo-ni Aankh* was a three-day exhibition-cum-worship-event sparkling with dance, celebration and enthusiasm, interest in changes in Adivasi tradition and respect for the photographs seen as the return of ancestors (see Müller 2017; Rycroft 2012).

Such stories of the impact of digitizing heritage collections not only legitimize the resources put into digitization, but make for a more appropriate assessment of 'success' or effect of digital ethnographic collections, as Diana Marsh and her colleagues (Marsh et al. 2016) convincingly argue. In archives, museums and libraries, the impact of digitizing collections can be defined as the difference in meaning that something has, as 'something that brings change, happens at multiple levels/dimensions and magnitudes/scales, matters to someone, travels, and happens over time' (ibid.: 358). Because metrics often fail 'to capture what is most meaningful about Indigenous people's interactions

with digital surrogates: the messy process of meaning making, healing, or cultural revitalization' (ibid.: 338), museums and archives turn to stories to capture and convey the impact of digitizing projects. These stories of how digitization influences institutions and/or audiences take the form of metric, singular or abstract stories. With metric stories, narrators use clicks and hits to construct a narrative around the importance of their digitization work. They connect numbers of requests, for example, with stories of how the institution managed to spread important cultural knowledge, thus allowing a sense making of metrics in relation to a collection's meaningfulness for various audiences. Singular stories focus on the unexpected ways in which a digital archive can resonate. Untapped audiences or unexpected public interest, discovered kinship ties to materials or 'linkages to new knowledge and the forging of new relationships and best practices' (ibid.: 351) form the core of such stories. Abstract stories, finally, refer to broader user groups such as researchers, source communities, internal staff or the lay public who have somehow gained from digitization – an impact that is traceable in changed or expanded knowledge, discourse, attitudes, capacity or policy (ibid.).

Purvajo-ni Aankh is a singular story of impact for the digital Eickstedt collection, albeit on the basis of a pre-stage to the online archive. The Basel Mission Archive, as one of the first European online photo archives with a large selection of photographs from India, also demonstrates metric and abstract stories of impact, which furthermore happen on the basis of online available material. The Basel Mission Archive (BMA) was one of the first colonial repositories to use Web 2.0 tools, putting a postcolonial agenda into practice on a large scale through a digital online archive. In 2002, the Basel Mission digitized and disseminated about twenty-nine thousand images in collaboration with the University of Southern California. By 2020, the digital archive covered a total of seventy-three thousand entries, featuring photographs, maps and writings and aiming at a holistic reproduction of analogue archival material. Its database structure is oriented on the indexicality and searchability of databases that comprise large data sets. Although the website features a comment section for every image, and centrally gathers these comments on a subpage for everyone to engage with, in the years since it went live it has generated in total only slightly more than seventy public online comments. The metric story of impact lies here rather with access statistics: yearly, the website gets about two hundred thousand hits and is accessed by about thirty-two thousand people.

Magdalena Zimmermann, head of the BMA, combines this metric story of impact with a more abstract one. In an interview in 2016, she

estimated that about 60–70 per cent of these online visitors are researchers. She makes her estimate on the basis of browsing time, returns to the website and, most importantly, on the basis of requests and correspondence. People from all over the world, but in particular from places where the Basel Mission was or continues to be active, ask for further information on displayed images for purposes as manifold as setting up exhibitions or archives on their own (as a few partner churches did recently), doing family research, or conducting historical or linguistic research. People require further information for research projects or correspond with the BMA staff to expand their knowledge and intellectual networks.

Social media, however, plays no major role, either in generating encounters or in the efforts to produce these. The ‘push’ to make the online archive better known is run mostly through offline channels. When asked if they actively expedite the online archive, Zimmermann (interview, 2016, translation by the author) explains:

We do it consciously with the partner churches, and they obviously very often have connections to the universities in their countries. We have every year the international mission synod, where representatives of these countries are present. And we lead them every year into the archive to show them: please spread the good word in your countries and at your universities that there is lots to see here.

The digital archive is, according to Zimmermann, ‘important for the digital research community’. But the Basel Mission Archive’s unique selling point (USP) is not their online work, but the networking they provide through being still active in the countries of origin:

To put something online, many can do that. And many do this very well. And we also do it very well. But our USP is also that we are still working in these countries, that we can connect people. And that is a bonus for the European research community. But that is also a bonus for the research communities in these countries [where the objects originate]. (Ibid.)

Zimmermann refers here to the Basel Mission’s way of maintaining social relations, which is exercised offline rather than online, through social interaction between the housing institution and potential users in countries of origin. It is the continuity of these relationships that contributes to the use of the digital archive. As Bell and his colleagues (Bell et al. 2013: 11) point out, ‘digital collaborations only succeed when they

are built on solid, ongoing social relations. In other words, the digital does not replace the social, but can rather help to reinforce and enable capacities that were otherwise not obtainable’.

Furthermore, there are also the more exceptional or singular stories of impact to be told for the Basel Mission Archive. Zimmermann says that access numbers are less important than projects developing with the help of the digital archive. She can provide numerous examples, from the installation of a professorship for South Indian languages in Tübingen, financed by the Indian government, to the provision of research funds for a joint Ghanaian-Swiss project, and the upcoming visit of two researchers from South India, who speak Kannada and hence will be able to read manuscripts stored at the archive. These projects were developed on the basis of, or with the help of, the Basel Mission Archive in its online and offline forms. Two examples help Zimmermann (interview, 2016) to stress both the religious and the secular context of interest in the archive:

...the partner churches that derived from the Basel Mission. It is their history. A lively interest is developing now in these churches, who became independent, an interest in the historical documents. Be it pictures or print or written pieces, written additionally in their languages. That is – I can give you an example: next year a church in Hong Kong celebrates its 170th anniversary. That is a church of the Tsung Tsin Mission that developed out of the Basel Mission. And they are creating their own small archive with pictures that they of course digitize. And they are incredibly interested in the history [that is kept within our archive]. That is one thing: partner churches. And the other example, also from China – maybe that is also a trend – is: we have researchers that originally do not have any ties to the partner churches. In Southern China, Shenzhen, is a girls’ school, which still exists. It is long independent, has no connections to any church whatsoever. And from there a research group contacted us, because they knew that the school is old. It was secular research, also connected to the university. And a secular research group from China eventually came to visit us and actually realized only during their research that this school used to be a missionary school.

As mentioned, Zimmermann does not see online promotion or the Web 2.0 options for the archive as the drivers that keep it running and get people’s attention, but rather perceives the emails and the existing networks between the churches as important strands of communication, which lead to exchanges on the basis of historical material. The

BMA does not in a strict sense foster *online* encounters or digital returns, but facilitates in a mix of online resources and offline exchange a lively engagement between stakeholders in Basel, the ‘source communities’ and the digital data. Digitization is a prerequisite for stories of impact, as is the constant maintenance of the relationship between these potential actors. Fostering encounters with a postcolonial agenda of providing information on collections and archives in an online format can be achieved without emotionally engaging people online. However, such encounters are then more likely to happen offline than online, taking the form of singular stories of impact, and they require networking or personal relationships between institutions, online archives and potential stakeholders.

In sum, postcolonial agendas, whether mapped onto database architectures or leading to online archives listing photographs and metadata, can generate stories of impact, but are no guarantee for online encounters. Online archives stemming from European collections are statements towards rethinking injustices and established visual economies. They are at the same time a politically inclined practice of providing access. Digital archives are not repatriations or reparations, yet they are a step towards rethinking and potentially overcoming colonial hierarchies that still resonate. Providing online access – as an offer, not as a reciprocal return expectation – is an extremely important prerequisite for potentially levelling the playing field. For the engagement of users who turn the digital archive into an actively employed repository and a site for memory making, however, providing online access to archival data alone does not suffice. For stories of impact or online encounters, a thematic relevance, emotional involvement, solid and ongoing social relationships and an inclusive databank architecture are similarly important. An online circulation of objects needs machines as well as humans interacting with them, and digital archives emanating from existing repositories might find it harder than newly created digital archives to engage envisioned users. Working from existing repositories when creating digital archives is likely to focus on the objects rather than the humans related to them, which might result in less usage and fewer online encounters in the first place, and a scaling down of expectations regarding encounters with current digitization projects in the second. Holistic digitization projects are today more likely to be seen as aiming at researchers as a target group, as generating singular stories of impact or as the prerequisite for further projects – online and offline – that factor in thematic relevance, social relationships, emotions or postcolonial databasing to make digital returns more likely.



## Indian Institutions between Development and Colonial Power

Researchers as an anticipated user group are also an issue for Indian institutions digitizing their collections. Jatan and its web presence [www.museumsofindia.gov.in](http://www.museumsofindia.gov.in) is to some extent very similar to European digitization programmes. Like other large-scale institution-based projects, it tries to live up to the expectations that international museums and archival communities have developed over the last decade. Archival power through ordering, and particularly through regulating access to collections, is no longer deemed appropriate for the information stored therein, and in line with a general understanding of the need for improvement and development, a national Digital India campaign and the idea of Internet and Communication Technology for Development (ICT4D), the Ministry of Culture implemented Jatan as a digital collection management system and ensured the collections' online dissemination.

However, the decisions to thereby allow universal online access to archival information are by no means uncontroversial. In 2019, I met several times with the director – let me call him Mr Surya – of one of the ten Indian museums whose collections form the content of Jatan. When thinking about the digitization programme (see chapter 2) of which his museum became part, Surya sounds a warning. His museum is – along with the nine other museums – publishing its entire collection on an online portal, and Surya clearly sees a disadvantage: he and his staff will no longer have sole access to the material. 'You see', Mr Surya explains (private conversation, 2019):

there are archaeologists working here and studying statues or beads or other records of various times and places. Through these artefacts we could prove historical cultural connections and trade across and beyond the subcontinent that could otherwise not be verified or even identified. If all these resources are now online, we can no longer be the first to publish these findings, and first publishing is a very strong value in this academic community. So I don't mind others all over the world doing research on these topics, but when we as representatives of the Indian state are in charge of the collection, I also think that we should be the ones to have the right to first research and publish. Additionally, there is this 'why us?' question. Why does India have to take the lead on being very open and going the extra mile on access policies? Will being a forerunner in open access to archival material really prove to be beneficial? If so, for whom?

His colleague, the director of the Victoria Memorial in Kolkata, Jayanta Sengupta, argues quite differently. Sengupta praised the advantages of an online repository, as the accessibility of the digital format allowed him to become very familiar with the museum's collection. Furthermore, Sengupta (interview, 2019) states:

[The internet] is an excellent space. The other people who look up [the digital archive of the collections] on the website probably are scholars from all over the world, because what we can see is that the number of requests that we get from scholars [is increasing]. Both in India and abroad, scholars and publishers who ask for permission to use high-resolution internet images have gone up rapidly. ... So it is our database, which is an invaluable tool for scholars working from anywhere in the world, who can come up within minutes what exactly is where and then send requests. Or come and look at the material accordingly. So that they do. In a sense I would say because we sell, it's not a huge amount of money but it's a significant amount of money that we make by selling our images. Also, so that our collection is also getting known all over the world and these images are getting published. ... I'm not sure if apart from a very specialized community of scholars and publishers how many ordinary people look up that site? I don't know, I have no idea. I don't think many do.

Without overestimating the reach of the digital archive, Sengupta clearly sees its advantages for an international community of researchers and for publicity for the museum.

Sengupta and Surya represent two different arguments in archival access policy, or in open access more generally – an optimistic take on open access, and the concerns that postcolonial digital humanities thinkers most eloquently express. On the one hand, digital technologies bring about an advance in access in terms of numbers and spread. While analogue archives and collections include several hurdles to consulting documents and objects, their digital copies potentially allow for the largest number of users, from all over the world. Instead of needing social and economic capital to travel and physically enter an archive or depot, such costs are now reduced to internet access, a digital device and digital literacy. Digitization and online dissemination can be seen as a more democratic mode of using preserved content. The coding of the historical, which has always been an eminent aspect of producing order, is implemented in digital code, which allows for a flattening of previous visual hierarchies. The digital archive can enhance scholarship and broaden perspectives; it allows online access to resources across borders. In other words, cyberspace reduces geographical distances to

infrastructural realities. It has the potential for novel interpretations of documents and objects, for extended collaborations or new circulation of knowledge. It can generate stories of impact and empathy at a distance.

However, as Surya expresses when thinking about the digitization project in his museum, online access and the circulation of information do not necessarily level the playing field by diminishing structural disadvantages. Digital archives might derive from a postcolonial agenda of universal access to heritage resources, but they can lead in practice to a continuity of inequalities resulting, for example, from colonial occupation. For Surya, online archives of his museum's collections in the first place stand for access for researchers from the Global North. With the digital gap persisting and social and economic capital being unequally distributed among the research communities of, for example, India and Europe, Surya rightly points to the neocolonial tendencies of online access. He indicates that structural colonial inequalities linger, and cannot be easily overcome with online dissemination if the infrastructure (in a broader sense) is not present. Scholars from the Global North often enjoy an infrastructural advantage over those in the post-colony, so Surya rightly raises doubts about the democratization effects of digitizing projects in the Global South when the content is potentially accessed from and used in the Global North. With financial resources for research being higher elsewhere, Surya is concerned about furthering this disproportionateness, when as a result of universal access other researchers will be able to use the collection for analysis and might first publish results from this research – regarded as a valid currency in research contexts and potentially contributing to acquiring further funds. Hence, online access to collections and repositories does not necessarily abolish colonialism-related archival power through novel access policies. Especially when content is provided from within repositories stored in the Global South, research usage from the Global North is facilitated, potentially working to reinstall rather than overcoming structural inequalities.

At the same time, we need to acknowledge that Surya only points to privileged users rather than to more marginalized ones. Disseminating heritage information through digital archives also bears the potential of Indian stakeholders outside his institution accessing and using the material. People like Anusha Yadav from Indian Memory Project criticize the secrecy and inaccessibility of state institutions, and online access through digital archives is a way of overcoming these barriers. India's museum collections furthermore comprise objects from Indigenous communities, who could also use online archives, perceiving them as a

means to scrutinize the institutions' tight control over documents from the past. When tackling structural injustices, Surya omits the continuously powerful position of Indian state museums regarding Adivasi issues. In *Jatan*, objects from Indigenous communities continue to be part of listings without considering alternative versions of ordering, displaying or treating these objects. Indigenous issues or postcolonial questions targeting the relationship between Indian centres of power – that is, state or national museums and archives in regards to heritage and the past – and cultural production at the margins do not play a role in *Jatan*, and Adivasi people were not considered or anticipated as users when digitizing the collections. *Jatan*'s thesaurus hence includes merely 'tribe' to denote an Indigenous correlation – which is, on top of that, a contested term – and does not provide technical features for online engagement beyond a general feedback form.

## Reconsidering the Postcolonial Agenda

The actual usage of online archives takes many forms. As I have shown, engagement ranges from commenting on social network sites and forming weak ties to emotionally reacting to topics or people that are personally meaningful. Online archives see numeric impacts, as the 1947PA with its nine hundred thousand followers demonstrates. Such high user numbers indicate that digital archives influence more than individual perceptions of the past, but can become relevant actors in cultural production and contribute to the historical canon. One aspect contributing to active use of digital archives is continuous social interaction. The 1947PA and IMP see permanent sharing and communication as an essential part of their work (see chapter 3). They encourage social interactions through mediators and interns' social networks, as well as proactively through utilizing social media. The 1947PA regards this communication as one of its core tasks and employs a staff member solely to maintain the archive's social media presence, as well as two social media and editorial assistants. Next to new stories that make up the archive, they also regularly post about the latest developments, call for donations and upload behind-the-scenes information. They additionally keep contact with their followers through a newsletter, and recently took up Instagram as a further social media outlet. Similarly, but with fewer staff members involved, IMP makes use of social media regularly, being quite active on Instagram and considering online communication an essential part of digital archive work in general. The inclusiveness at the front-end complements this maintenance of social relationships.

The website designs and the setup of social network sites are encouraging interactions between the makers of the archive, internet users by now largely used to being prosumers, and the archival content. IMP and the 1947PA aim for inclusiveness both as regards content creation and online exchange on published content. They manage to activate internet users interested in the Indian past to submit their documents and stories, which contributes to these users also engaging in the online discussions unfolding, as well as potentially triggering them to react to further calls or act as multipliers. Asking people to co-create content is also beneficial for online engagement, as the archival context that people have a need or desire to occupy themselves with is very likely to produce exactly the desired involvement. If this involvement is furthermore emotionally touching and meaningful for both contributors and readers as regards topic and form (employing visuals-cum-narratives), it creates empathy at a distance, which again is a highly important factor contributing to engagement. The two Indian archives consequently manage to provide a platform for a continuous exchange of ideas and memories, even if the intensity of these exchanges varies over time. In other words, through being immersive at the front-end and back-end, when creating and when distributing archival content, online engagement is written into the DNA of these digital archives.

The Basel Mission Archive, the Eickstedt Photo Archive and the Weltkulturen Open Lab are less successful when it comes to emotional involvement and numerical impact. Maintaining social relations – also beyond online interaction – is key for the Basel Mission Archive and for the Eickstedt Photo Archive to generate user engagement. An inclusive front-end expressed in a postcolonial database architecture alone – as the Weltkulturen Open Lab in contrast to the other two digital archives avails itself of – appeared insufficient for any form of use. Yet it seems that without creating empathy at a distance through form or topic and/or a proactive use of social network sites, the use of digital archives is less likely to occur online, but in singular instances of meaningfulness. The stories of impact generated through digital archives are forms of usage no less important than online expressions. They are instances of finding new appropriations, interpretation and meaning. They only circulate differently, as stories of impact are for the most part told internally, rather than contributing to an online visible and thus potentially wide-ranging circulation network triggering further usage.

Comparing digital archives emanating from European collections gathered by missionaries, administrators or anthropologists in India several decades ago with collections referring to the same times and places but assembled today – and hence including contemporary meaning

making in the collection process – is to some extent a comparison on uneven grounds. These digital archives are very likely to produce uneven engagement reflected in diverging usage. Overthinking access regulations and taking to digitizing collections holistically and disseminating them online is a result of a postcolonial agenda becoming prevalent in museum and archival discussion in the Global North. Many institutions in the Global North envision digital archives as a remediation, a tool for reciprocal research or as an information remittance responding to former ruptures – considerations that are less or not at all relevant in the Global South. Here, it is rather questions of providing platforms for engagement, of creating alternatives to the canon and of becoming actors of cultural production. Digital archives offer a form for this, as they allow the ordered assembly of historical material, drawing its relevance also from large user numbers. Juxtaposing institution-based digital archives from the Global North with community-based ones from the Global South means comparing different starting points and diverging ambitions, but it also shows that certain factors account for generating active usage and online encounters. Offering Web 2.0 options, crowdsourcing content, disseminating the archival content on SNS, a postcolonial database structure, and using visuals-cum-narratives rather than lists are factors that help to foster the use of digital archives. Furthermore, solid and ongoing interaction between housing institutions and envisioned users has proven to be beneficial for engagement with digital archives, whether visible in comments and high user numbers or in the form of singular stories of impact. Without social interaction, digital archives are unlikely to gain much traction, and might even get turned off. It is in comparing different approaches for digital archives that we see the factors contributing to their usage more clearly. However, it has also become apparent that none of them is a guarantee of generating usage.

Taking national institutions in the postcolony into account as well, the juxtaposition of different digital archives opens up space for rethinking the postcolonial agenda as digital return. Institutions from the Global North configure the postcolonial agenda as transnational circulation of cultural heritage information resulting from rethinking established hierarchies and visual economies, the opening of archives and museum collections and its wide online accessibility. However, heritage actors from the Global South also see the threat of neocolonialism or exploitative continuity in digital archives, or do not see an international agenda in digital archives at all. Digital return did not play a role at the community-based Indian digital archives I worked or engaged with: while the state museum director is concerned with the anti-postcolonial implications of online access to heritage material, the

1947PA and IMP are occupied with crossing the borders between India, Pakistan and Bangladesh, and with overcoming barriers in people's minds. When tackling access policies and prevailing power structures, digital archives aim at national and subcontinental politics, and thereby confront established institutions within reach rather than globally dispersed ones. Their active websites and social media performances are examples of fostering encounters – just like those in the Global North – albeit with slightly different actors involved. The postcolonial agenda of digital archives like IMP or the 1947PA does not imply amending unequal situations between formerly colonized and colonizing states, even though the digital gap and the storage of large collections outside the Indian subcontinent are well known. They rather aim to overcome archival and history-related conventions *within* India and the subcontinent. They frame postcolonialism implicitly as overcoming intra-country continuities of colonialism. The 1947PA was formed out of a felt need to exchange memories and thoughts on the Indian-Pakistani Partition in particular, and IMP set out with a mission to give people from the subcontinent an online outlet that could map a plurality of voices. Both digital archives deal with the past of the Indian subcontinent, and both archives succeed in engaging people in online conversations across borders and around the world. With the active contributors to these two India-based digital archives coming mostly from India, Pakistan and Bangladesh, the question of postcolonialism as digital returns between former colonizers and colonized groups does not push to the fore. When setting up digital archives as postcolonial remediation, these engaging digital archives in large part ignore European attempts to digitize Indian cultural heritage. Instead, they perform a notion of postcolonialism that derives from a felt need to engage with the past and a lack of access to archival and museum material *in India*. They were formed as an alternative to established state archives and museums and to mainstream historical narratives. Their postcolonial agenda scrutinizes established Indian collections and history-making conventions that have their origin in colonial times. The talk of the day is overcoming these through novel archival forms and the active involvement of larger crowds. Postcolonial activity in digital archives means challenging the conventions determined by colonialism within the subcontinent and within reach. Taking the post in postcolonialism seriously in this case does not denote criticizing the past, but focusing on the continuities of colonial conventions. Consequently, challenging the established hierarchies of Indian historical production and the subcontinent's closed borders is the meaning of their postcolonial engagement. They successfully engage people by focusing on current problems within the

subcontinent – its national governments and its forgotten voices. Their postcolonial agenda is challenging the historical canon and access policies in place at their doorsteps on the Indian subcontinent, where the most relevant actors for its cultural production are situated.

## Notes

1. <http://www.1947partitionarchive.org/story/4145> (accessed 18 September 2019).
2. Whether online encounters enable a form of community building has been subject to debate. While the idea that a community is a stable entity, implying some coherence, has long been challenged (Wilson and Peterson 2002), few academics apply the term ‘community’ to online groups. Andreas Wittel (2001), for example, opts for understanding online interactions as a network sociality, a term that Postill and Pink (Postill 2008; Postill and Pink 2012) pick up. They suggest that neither network nor community are usable terms. According to Postill (2008: 421), ‘community is a vague notion favoured in public rhetoric, not a sharp analytical tool with an identifiable empirical object’. It is a rather empty, but emotionally ‘feel-good’ term denoting interaction. To analyse online interaction, especially in relation to offline engagement of the users, Postill and Pink (2012) opt for social fields or sociality. Sociality attends to the qualities of social relationships rather than to being part of an (inflexible) community. It allows identifying shifts and routes and thus an understanding of users who interact online as well as offline and form active networks.
3. Facebook profile page, about (accessed 23 October 2018).
4. LinkedIn page (accessed 23 October 2018).
5. <http://1947partitionarchive.org/mission> (accessed 3 November 2020).
6. Famously set in scene by Steiner in his cartoon ‘On the Internet, Nobody Knows You’re a Dog’ (published in *The New Yorker* on 5 July 1993).
7. See Boellstorff’s (2015) seminal work on Second Life.
8. [www.facebook.com/1947PartitionArchive](http://www.facebook.com/1947PartitionArchive) (accessed 8 March 2016).
9. In late 2019, Yadav tackled the language issue when redesigning the website [www.indianmemoryproject.com](http://www.indianmemoryproject.com). The website now features a machine-generated translation, providing the stories in fifty-one languages, among them more than a dozen from the subcontinent.
10. <https://www.youtube.com/watch?v=gHGDN9-oFJE> (accessed 3 November 2020).
11. <http://www.indianmemoryproject.com/161-2/> (accessed 16 May 2020).
12. <https://www.facebook.com/indianmemoryproject/> (accessed 14 June 2018).
13. <http://www.indianmemoryproject.com/161-2/> (accessed 16 May 2020).
14. Ibid.
15. Ibid.
16. <http://theladiesfinger.com/anusha-yadav-photography/> (accessed 16 May 2020).
17. <http://www.bl.uk/onlinegallery/onlineex/apac/curatorintro23234.html> (accessed 16 May 2020).
18. <https://www.soas.ac.uk/furer-haimendorf> (accessed 16 May 2020).
19. [www.bmarshives.org/about](http://www.bmarshives.org/about) (accessed 16 May 2020).
20. [www.museum-fuenf-kontinente.de/museum/emuseumplus.html](http://www.museum-fuenf-kontinente.de/museum/emuseumplus.html) (accessed 16 May 2020), translation by the author.



21. <https://www.slub-dresden.de/ueber-uns/projekte/juengst-abgeschlossene-projekte/weltsichten/> (accessed 16 May 2020), translation from German by the author.
22. <https://www.zeit.de/2018/18/humboldt-forum-berlin-kolonialismus-revolution-monika-gruetters> (accessed 16 May 2020).
23. <https://www.zeit.de/kultur/2018-11/postkolonialismus-frankreich-rueckgabe-kulturerbe-afrika-emmanuel-macron> (accessed 16 May 2020).
24. However, some institutions (such as the British Museum or the Louvre) portray themselves as global museums, which allows for international donors and a whitewashing of histories rather than a scrutinizing of conventional power structures (Chambers et al. 2014; Wonisch 2017: 6).
25. See successful prime examples and ‘poster children’ Le musée cannibale at Musée d’ethnographie Neuchâtel (MEN) and the Världskulturmuseet in Gothenburg (Bodenstein and Pagani 2016).
26. In practice, Srinivasan et al. (2009) critique the fact that digital collections often function as collection broadcasters rather than mediums of community engagement. Boast and Enote (2013) are also sceptical of online collections aiming at ‘repatriation’.
27. Although these, too, can be criticized as a fig leaf (see Kravagna 2009; Wonisch 2017).
28. Of the three major exhibitions Deliss curated in Frankfurt, two were of an explicitly postcolonial character in as much as they centred on and critically engaged with the museum’s colonial past. With *Ware & Wissen/Foreign Exchange (or the Stories You Wouldn’t Tell a Stranger)*, Deliss, together with Yvette Mutumba, curated an exhibition as ‘an account of certain disturbing ways of visualizing human beings in the name of science; of the transformation of the human body into that of an object; of the fascination with the Other; of the passion for collecting; of the mission to preserve remote cultures for all eternity; of the need to find systems for that task’ (<https://www.weltkulturenmuseum.de/en/exhibitions/past/?exhibition=foreign-exchange>; accessed 16 May 2020). For the preceding exhibition, *Objekt Atlas – Feldforschung im Museum/Object Atlas – Fieldwork in the Museum*, Deliss curated the outcome of artist residencies. Instead of venturing into foreign lands, the museum invited seven international artists to conduct fieldwork in the Frankfurt museum. The exhibition presented objects from the museum’s collection and newly created works, and thus tried to create a dialogue between contemporary art and ethnographic museums.
29. <https://web.archive.org/web/20150331112540/http://www.weltkulturen-lab.com:80/en> (accessed 16 May 2020).

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## Digital Archives' Objects

### *Law and Tangibility*

In late 2013 the National Gallery of Modern Art (NGMA) in Delhi staged a solo exhibition of Atul Dodiya's work. Dodiya, a Mumbai-based artist born in 1959, is known for his artistic engagement with Mahatma Gandhi, 'Dodiya's hero and constant point of reference in political, cultural, pedagogic and spiritual contexts'.<sup>1</sup> As the NGMA states:

Dodiya's interest in Gandhi is linked to his childhood memories of a Gujarati growing up in the 1960s Bombay, and his reading of Gandhi's works over the decades which has brought him to a complex awareness about the rites of passage for a nation as it passes from revolutionary nascentcy to trying to establish its foothold within and outside its borders.<sup>2</sup>

Dodiya's interest in Gandhi is also linked to photographs of the Mahatma. One of the works on display at NGMA shows a painting of Gandhi as he leans out of a train window, touching the hand of a young man who reaches his arm out to Gandhi while holding onto the train railing. In close proximity Dodiya placed an abstract sculpture of an arm reaching out, a statuary artwork on a stand of wood and metal. The painting is oil on canvas on top of a digital print of a photograph on Hahnemuehle bamboo paper. It is painted in an almost photorealist style, while also hinting at the softness of brushstrokes. From afar, the painting could easily pass as an enlarged copy of the photograph that Dodiya took as a template.

One visitor to the 2013 exhibition was Aditya Arya, a professional photographer from Delhi now living in Gurgaon. Being only slightly younger than Dodiya, Arya has for the last few years increasingly focused on archiving, collecting and exhibiting photographs and cameras. He also inherited the archive of Kulwant Roy, a photographer who took some of the most iconic photographs during India's and Pakistan's

independence. One of them is the template for Dodiya's 2013 artwork. Arya had only recently digitized the full Kulwant Roy collection and disseminated parts of it online on [www.adityaaryaarchive.com](http://www.adityaaryaarchive.com). He immediately recognized the photograph as one of Kulwant Roy's. He publicly requested that Dodiya acknowledge Kulwant Roy's photograph as a source of the artwork. Dodiya, for his part, declined to do so. The NGMA, when asked to take action, did not take up the case.

This chapter examines the legal question of reproducing content that – at one stage – was disseminated in digital form. It starts by trying to answer the question of whether Arya would have had legal grounds for his request to acknowledge Roy as the author. Reverting to legal claims and understanding the rights connected to online dissemination is essential in dealing with heritage objects, not only to enforce existing copyrights, but to be able to identify potential limits in their current formulation.

Copyright related to digital reproduction rests on a division between copy and original. Delving into this more theoretical debate allows me, in the second part of this chapter, to turn to an essential question of using digital objects. Does this distinction prove valid in times of digital reproduction, or is it more helpful to think of neither digital nor analogue objects as finished entities? The chapter shows that despite enhanced possibilities and serious differences in the produced objects, the original–copy divide suggested nearly a hundred years ago still dominates understanding in the cultural heritage sector, both legally and socioculturally. Benjamin's (1969) essay on reproducibility through photography remains canonical in the debate. It is thus no coincidence that this chapter again draws heavily on photography as an exemplar when looking into the shifts that occur through digitization, albeit while trying to free objects from the original–copy straightjacket. Digital objects inform us that (auratic) originals can very much be digital, and hence have an endlessly reproducible form.

This second part establishes appropriated digital objects as border-crossers, an alternative suggestion to binary concepts that I substantiate in the third part of this chapter. Here, I turn to the differences between the material object – as for example Dodiya's artwork – and the digital object. What are the materialities of digital objects, and how are they relevant? What does a transformation from one state to the other imply? The chapter draws on material culture studies and philosophical understandings of matter, but subsequently turns to very practical forms of Indian materialism. Despite theoretical concepts, the brute materialism that Tim Ingold (2012) refers to continues to play an important role in the Indian heritage sector. Despite, or because of, increased digitization, a materialism has entered this sector, resulting in actors longing

for tangible output. Yadav, for example, when thinking about her next project, is sure that it will be in book form rather than an online repository, while at the same time working almost completely with the digital format of Indian Memory Project. Her communication work related to it happens in large part through social network sites and communication apps. Consequently, when thinking about the digital form of her work and the content, Yadav (interview, 2016) answered with a straight 'No' when asked, 'Do you think there's an urge for the people to also have it in material, offline form?' – 'No, not really. I mean I'm sure if they want, they can print it out. I don't do that'.

Yadav's simultaneous engagement with the digital and her longing for a more physical output, as well as the shifting forms of Kulwant Roy's photographs from physical to digital and back, are but two examples that guide this chapter. They are proof of novel appropriations of heritage material disseminated online through digital archives, and will help to disentangle some of the theoretical, legal and practical questions that come with these shifts.

## Copyright

The legal basis for digital objects is copyright. It functions at the intersection of the interests of the creator of a work and the public. Its aim is to protect the artistic or intellectual work of a person as intellectual property and to make sure that the person benefits economically and/or morally from their work, while at the same time ensuring that creations or inventions also foster further public development, knowledge and activity. To balance the interests of the creator and the public, international as well as national copyright regulations are in place.

The most important aspects protected through copyright are the right to reproduce and to disseminate. Arya bemoaned exactly this when he criticized Dodiya's exhibition at the NGMA. His case would rest on the Indian Copyright Act 1957, which has its precursor in the era of British rule and has been amended six times since 1957. Regarding photography, all photographs published prior to 1958 are subject to the Indian Copyright Act 1914, providing a copyright period of fifty years from the time of publication. The currently applicable Indian copyright expands this period to sixty years after first publication.<sup>3</sup>

The person holding copyright of a photograph is the photographer, but s/he can assign this right to a third party; this is where Arya fits into the picture. He has held the rights to reproduction and dissemination of the Kulwant Roy photographs since he inherited the collection. In

other words, for these as for all other Indian photographs the photographer or the person to whom s/he assigned the copyright needs to be consulted for consent if anyone wants to reproduce the photograph for private or public consumption or attempts to circulate a copy of the photograph. The form of reproduction is of little concern; photographs or digital reproductions of a piece of work count as reproductions.

However, there are exceptions to this rule. In order to protect individual user rights and/or the public interest in these works, Indian copyright defines terms of fair dealing (section 52 of the Indian Copyright Act). Private or personal use, including research, does not count as an infringement of copyright. Neither does criticism or review or reporting of current events and current affairs.<sup>4</sup> There are also exceptions for, among other things, using copyrighted material in teaching and the electronic storing of media in non-commercial public libraries.<sup>5</sup> As the High Court of Delhi argued in a ruling in September 2016, copyright is:

not an inevitable, divine, or natural right that confers on authors the absolute ownership of their creations. It is designed rather to stimulate activity and progress in the arts for the intellectual enrichment of the public. Copyright is intended to increase and not to impede the harvest of knowledge. It is intended to motivate the creative activity of authors and inventors in order to benefit the public.<sup>6</sup>

Fair dealing is especially important when copyright does not lie with the museum or archive that wants to digitize and disseminate online, or if authorship cannot be definitively attributed. Indian law states that ‘the reproduction, for the purpose of research or private study or with a view to publication, of an unpublished literary, dramatic or musical work kept in a library, museum or other institution to which the public has access’ is not an infringement of copyright (section 52, subsection (p)), if the author of the work is not known to the library, museum or other institution. What have been termed orphaned works in other nations’ legal contexts seem relatively straightforward in the Indian context, leaving public repositories in charge of disseminating these works. Other national laws require, for example, a ‘substantial’ or ‘thorough’ investigation before publication of orphaned works is permitted. Yet what seems like a comparatively easy task is often in practice a mammoth undertaking, when authors’ names are recorded with articles, books or documents, but finding their whereabouts and hence the clearing of (potential) copyright issues results in a time-consuming and uncertain search for an individual or their descendants. Consequently, museums and archives tend to operate in grey areas when deciding to digitally



reproduce and disseminate orphaned works, knowing that the possibility of violating copyright is not completely eliminated.

The case of Arya vs. Dodiya is not a case of fair dealing, since the photograph was not used for educational or research purposes, nor is it a private work. What is important, though, is knowing whether the photograph has been published previously, a question that Arya is not able to answer. If it can be found in a newspaper or magazine (presumably from the 1940s), the copyright will by now have expired and will not lie with Arya, but will have entered the public domain in the 1990s. Arya only holds the copyright for the images that *he* first published, either in exhibitions like the one held at the Indira Gandhi National Centre for the Arts in 2008, in his book *History in the Making* in 2010 or on the website [www.adityaaryaarchive.com](http://www.adityaaryaarchive.com) from 2009 onwards. For these images, only fair dealing as defined in section 52 is allowed, and Arya holds the copyright for these images until the end of the 2060s.

But even if the photograph was published in the 1940s, some rights remain with Arya. Section 57 of the Indian Copyright Act is an adaptation of the Berne Convention, an international copyright convention from 1971, of which India is a member. The Berne Convention – the result of heavy diplomatic discourse – defines moral rights in copyrights. Moral rights allow an

author to demand (i) identification of his name as author of a given work (right of attribution) and (ii) respect of the integrity of his work which may not suffer alteration without his prior consent (right of integrity) and depending on countries, (iii) to exercise the exclusive right to disclose his work to the public for the first time (right of disclosure[]) and the right to withdraw his work from circulation. (WIPO Standing Committee on Copyright and Related Rights 2015: 20)

The Indian Copyright Act transformed these international regulations into national law, and defined the author's special rights in section 57 as independent of copyright, even after the assignment of rights to others. These special rights comprise (1) to claim authorship of the work, and (2) to restrain or claim damages of the work (distortion, mutilation, modification) if these damages are prejudicial to the author's honour or reputation.<sup>7</sup>

In legal practice, these moral or special rights were grounds for a lawsuit that the artist Amar Nath Sehgal fought and won. Sehgal sued the Indian government after it relocated and damaged one of his murals, which the government originally commissioned him to create. Sehgal won the case on the grounds of his special rights as the author of the

work, being allowed to claim damages even if (as in this case) he had assigned copyright to another body (in this case the government) (Rajan 2012). Based on a similar argumentation, Arya could, despite the fact that the copyright for particular photographs by Roy may have expired, claim authorship in Roy's name and in consequence ask for this authorship to be acknowledged in an appropriate form.<sup>8</sup>

However, these (potential) legal cases also show that claiming rights and obtaining rights are two different things. Taking a case forward is a question of cost and benefit; calling and fighting a case requires financial resources and time. With the accelerated speed of disseminating work through digital reproduction and the internet, it has become even more difficult to trace copyright infringement in the first place, and to get hold of the perpetrator in the second. This situation encourages a rethinking of claiming copyright over digitally published works, and consideration of Creative Commons or Traditional Knowledge as alternatives.

### *Creative Commons and Traditional Knowledge Labels*

If a museum or archive digitizes its collection and disseminates it online, it can obtain some form of copyright, on the basis of first publication (as in India) or of ancillary copyright (as for example in Germany, where a *Leistungsschutzgesetz* exists).<sup>9</sup> However, some institutions take contemporary handling of digital content into consideration and have decided to strike new paths. One of the best-known examples is the Rijksmuseum Amsterdam. The Rijksmuseum, a museum of Dutch art and history, made more than 660,000 of its 1.1 million objects available at the Rijksstudio (<https://www.rijksmuseum.nl/en/rijksstudio>). Its makers explain:

The ultra high-resolution images of works, both famous and less well-known, can be freely downloaded, zoomed in on, shared, added to personal 'studios', or manipulated copyright-free. Users can have prints made of entire works of art or details from them. Other suggestions for the use of images include creating material to upholster furniture or wallpaper, or to decorate a car or an iPad cover for example. ... The Rijksmuseum now allows free use of [formerly 125,000, currently 660,000] high-quality digital reproductions, with absolutely no limitations. These are not 'thumbnails', and there are no watermarks or sharing restrictions. (Gorgels 2013: n.p.)

The reasons for renouncing potential copyright are, according to the makers, the concepts of open content and open design (*ibid.*). Technical

means have made it exponentially easier to copy and disseminate content, and everyday practices of downloading, altering and redistributing digital content have fostered habits that support Creative Commons, a legal option to declare open or less restrictive access to intellectual property. Attaching Creative Commons labels when publishing creative or scientific work helps to maximize openness without necessarily preventing commercial restrictions or opposing the very idea of copyright (Garcelon 2009).

However, the idea of Creative Commons also faces criticism. Creative Commons might not be a good option for Indigenous communities, who might have different concepts of ownership and access rights. Christen (2005, 2008) illustrated this convincingly with the example of Aboriginal regulations of secret and sacred objects, where rights to see particular images of deceased persons or sacred objects are subject to socially (re)defined individual status. To respect and acknowledge the values of source communities, copyright protections are very much needed. However, as existing copyright regulations are often based on 'Western' concepts, Anderson and Christen (2013) developed Traditional Knowledge labels. These labels – to be used in the style of Creative Commons labels and applied by the creator or author according to his/her choice – comprise a wider range of approvals, which reflect Indigenous conventions of seeing and using works.

## Copy and Original

The legal aspects of copying and disseminating objects and archival material rest on a general distinction between copy and original. Most prominently, Benjamin (1969) advocated for this division in his 1930s essay on the mechanical reproduction of artworks and historical documents. This essay has been quoted and analysed repeatedly, and has also been of use for theoretical reconsiderations regarding digital reproduction. In digitizing museum objects or archival material, one creates representations or replica of the original object, usually digital scans or digital photographs of a three-dimensional object, and these digitized objects are regarded as copies of existing artefacts. They do not exist independently of them, but represent them (Mitchell 1994, 2001). They are technical reproductions that require 'original' objects as reference points. They are – initially – in very close relation to them.

The pre-existing artefacts, on their part, attract particular attention through digital reproduction. They usually obtain or manifest their status as originals. In museums and archives, where objects already enjoy

high esteem as expressions or carriers of cultural heritage and historical information worthy of preservation (Burmeister 2014; Dorrian 2014; Pomian 2001; Thiemeyer 2011), their significance increases further with digitization. They gain their importance now not only through being located in a museum or archive, but through being worthy of reproduction for the sake of preservation and access. The original artefacts require effort and care in their constitution as museum and archival objects, and enhance their status by requiring or inspiring copies, while also demarcating themselves from these.

It is thus questionable if the aura of the original really is lost, as Benjamin argued, when we copy it. Peter Walsh (2007: 29), for example, states with reference to photography that, ‘In fact, Benjamin has the aura of art exactly the wrong way around. It is the mechanical reproduction – the photograph – that created the aura of the original, much as it was the machine that created the “handmade,” the negative that created the “positive,” and the digital that gave retroactive birth to its latent opposite, the “analog”’. In other words, copies of an object make it better known, which can result in an increase in popularity and awe for the ‘original’ object. The digital, Walsh (2007) argues, has today taken the place of photographic reproduction; it creates or enhances the ‘original value’ of an initial object. To put it more colloquially and pointedly, if something does not exist with a corresponding online representation, it does not exist at all.

Yet there are also voices that would revise rather than abandon Benjamin’s concept in the age of digital reproduction. The cultural turn led to a more open conceptualization of the fluidity of objects and the materiality of digital objects, and also allows for a more relational and multidimensional understanding of aura. According to Dominik Bartmanski and Ian Woodward (2013), Benjamin applied a too rigid understanding of a copy, of which we have a more nuanced comprehension today. Drawing on the example of vinyl records, Bartmanski and Woodward convincingly demonstrate that a technically reproduced medium can also obtain value beyond being a copy, and even become an ‘original’ (first pressings of vinyl records, for example). Copies today need to be understood in nuances between technical reproducibility and digital hyper-reproducibility (ibid.).

In accordance with this differentiation, we can also see that photographs (which in the form of positive prints are themselves copies of the negative) can (re)acquire importance, value and even aura, whether as limited editions, first prints, newly framed or as subject to legal copyright disputes. Furthermore, I would add, aura can also apply to digital objects and digital copies. When in Benjamin’s concept of aura we

replace uniqueness with categories such as relative rarity (as Bartmanski and Woodward (2013) suggest), digital objects can also acquire auratic properties. Digitized objects can gain a touch of elusiveness, creating value or status as collectors' items. As I have shown elsewhere (Müller 2018), the Berlin Museum's Pergamon Altar provides an example of digitized museum objects acquiring auratic character. The Fraunhofer Institute scanned the Altar in 3D, just before heavy renovation began on the Pergamonmuseum and the Altar was closed to the public. The 3D scan is available online (<http://3d.smb.museum/pergamonaltar>), and at some point it was also considered that it would be displayed with parts of the original in an interim building during the 10+ years of renovation and restoration. Such an installation would underline the border-crossing qualities of digital objects, as they become objects in space in their own right without denying reference to the museum object under restoration (*ibid.*). Such a merging of physical and digital objects furthermore stresses that the properties, qualities and materiality of objects are constantly in flux. Exhibiting digital and analogue parts of the Pergamon Altar together enhances the meaning of the Altar as an important work, while abrogating the binary of original and copy. The digital object takes cautious steps out of the shadow of the 'original' and is no longer perceived as a copy of the same, but as its own entity.<sup>10</sup>

The border-crossing character of digitized objects becomes even more apparent when they find expression in a different material. When Dodiya used the available photograph that Arya digitized, it experienced 'remediations in curatorial contexts' (Deliss 2014). Collected objects, Deliss (*ibid.*) argues, require – especially in the context of ethnographic museums – a critical integration into contemporary work as well as a change in their methods of communication. Becoming part of an artistic appropriation and subsequently an exhibition connotes a new valuation of the image, and arguably a new aura in the context of the art gallery. Dodiya appropriated a historical photograph and remediated it into new form and context. Arya, too, transformed digital photographs into a new, physical form when he reproduced the digital and later online images in the form of a large coffee-table book, which he wrote and published together with a historian.

While it can be argued that both of these remediations of Kulwant Roy's photographs could have been done without a digital go-between, I would argue that cases exist where the digital is the easiest if not the only way for a work's reproduction to cover large distances. As I have argued elsewhere (Müller 2017), this is especially the case when it comes to museum or archive collections from colonial contexts where the source of the collection and its current storage are far apart. The fluidity of the

digital form allows for an unprecedented capacity of (re)appropriation and includes an openness regarding novel formats that neither visual returns nor repatriation necessitate. Digitized objects require a new act of formation – in exhibitions, worship or as reprints, for example – for their perception to go beyond the user interface of human–computer interaction. Such acting on digitized objects leads to various forms of valuation of the object, implying a reframing of the aura (ibid.).<sup>11</sup> An example of creating material objects from digitized objects is the 3D print of the Tlingit killer whale that the Smithsonian National Museum of Natural History created in close cooperation with the Tlingit. They scanned an object from the museum’s collection before repatriation and reproduced the object using a 3D printer. The Tlingit used the digitized and printed version together with the original on multiple festive occasions for dance performances, before the printed version became part of the museum collection and the older one returned to the Tlingit (Hollinger et al. 2013).

These examples demonstrate that digitized objects can become border-crossers that oscillate not only between different appropriations and forms, but also between originals and copies. To argue that digital code is hence the new object (Buchli 2010) is in my view not very convincing, since the new entities comprise the digital object in its entirety, particularly its visual or perceivable form, which goes beyond computer code. A digital object is rather the intertwinement of digital files and the technologies that deliver them, requiring us to think of digital objects as entities in their own right that derive from specific contexts as well as particular materialities. Digital objects in museums form an enduring continuum of precursors, technological mimesis and objectification (Geismar 2018). Digitized and rematerialized objects undergo new meaning making and valuation (up to heritagization; see Müller and Wille 2019), which is embedded into new or expanded contexts. Although reference to the ‘original’ object does not completely vanish in these processes, digitized objects do acquire their own meanings as new objects. Digitized objects, although created as copies, can obtain their own valuation and biography (Kopytoff 1986), even their own aura. Reference to the original becomes only one property among many.

## Born-Digital Objects

The situation is slightly different for born-digital objects, although overlaps are multiple and frequent. In the legal context, they are comprised under computer programs in the Indian Copyright Act, and received

increased attention and protection in the last amendment in 2013, albeit in an effort to ensure operability, which often includes some form of copying and (temporary) storing. Beyond that, consumer studies have been contributing to research on born-digital objects. Rebecca Mardon and Russell Belk (2018) studied online games and digital trading cards to demonstrate how born-digital objects have become sought after due to their limited availability. Creators and companies distributing these objects online have programmed software to restrict digital reproduction, introducing geotagging and other spatial or temporal metadata to singularize digital objects, giving them the attribute of an 'original'. Their value can also be measured monetarily when turning these objects into commodities and trading them. In conclusion, Mardon and Belk (*ibid.*) state that digital goods are not necessarily valued less than physical goods, and options are there for product designers to increase the market value of (born-)digital objects.

These arguments also hold true for the cultural heritage sector. Here, born-digital artworks have entered gallery and museum spaces, thereby posing new challenges for storage and preservation. Outside the museum walls, born-digital cultural objects continue to receive increasing attention, with digital photographs probably being the digital objects gaining most traction in both practice and theoretical consideration. Ordinary people might not regard the digital photographs they take to be cultural heritage, but they can gain importance for individuals as valued items and memory devices (Goldsteijn et al. 2012). More noticeable, however, is the contemporary abundance of digital photography and its online dissemination. Worldwide, there are an estimated one million selfies taken each day, 350 million photos uploaded to Facebook (in 2013; Smith 2013), forty billion uploaded to Instagram (in 2015),<sup>12</sup> and a multitude of digital photographs on online and offline storage devices.

India contributes to these numbers. Digital photography, especially among the new Indian middle class, has become an integral part of everyday life (Fuller and Narasimhan 2007; Upadhyia and Vasavi 2008). Photography thus sits between documenting special occasions and capturing everyday life, between the individual importance of a single image and unlimited sharing. It is a medium for memory making, and increasingly one for communicating current experiences (van Dijk 2007). The technical contexts of digital cameras and the internet slightly alter viewing habits, as spectators are no longer used to seeing only perfect photographs or extraordinary scenes. Digital photography has become a rather common medium, accompanying almost every part of Indian life (see for example Charuau 2018; Müller and Aich 2019). Both born-digital and digitized objects oscillate between their

endless reproducibility, an attributed uniqueness or importance, and their ever-increasing number.

## Materiality of Digital Objects

Despite the ubiquity of digital photographs – or precisely because of it – photographers and photo enthusiasts in India have started to re-discover analogue photography and its techniques. They learn and practise these, for example, in Aditya Arya's workshops. Arya used to regularly offer workshops in cyanotype and other photo developing processes in colleges, schools and for the wider public. In 2017, I signed up for a one-day workshop to be held at the India Habitat Centre in central Delhi. In preparation for the workshop, all participants were asked to send up to five photographs to Arya and his organizing team. As they are sent by email, all the photographs are in digital form. The team digitally transformed these into black and white photographs and printed the black parts on transparent foil, creating something resembling negatives of A5 or A4 size.

The workshop starts with a more theoretical introduction by Arya, who also ponders the difference between the digital and analogue in photography. 'The digital has no ma-bap', Aditya Arya tells the class. It has no material root or source, no 'mother-father', nothing to cling onto; it is missing a carrier material. This is not to discredit digital photography as such; Arya himself has been working as a professional photographer for many years with digital SLR cameras. Yet there is a fascination, maybe even a longing, for something material. Arya says that one of the reasons for the renewed interest in old photographic development techniques is their contrast to digital photography. People are not satisfied with the digital. Here in the workshop the twenty or so participants produce cyanotypes from their 'negatives'. This old technique of printing photographs is comparatively easy, but brings unique and beautiful results in the form of blue photo prints.

In the hands-on part that follows the introduction and explanation, we participants – ranging in age from early twenties to late fifties – are assisted by Arya's team, most of them students whom Arya teaches at art college. They set up the workstations with chemicals, brushes and frames as well as water baths in the yard. We carefully coat paper in the dark, expose the negatives to Delhi's summer sun and rinse and tone the cyanotypes. Over the course of the day, each participant produces numerous individual cyanotypes, with the results being light to dark blue coloured prints on thick paper, showing precisely arranged framings or



the person's brushstrokes. Each print is unique, even though some people decide to produce multiple prints from one negative. The amount of chemicals applied, the brushstrokes and the time of exposure determine the outcome of the pictures, which all of us take home at the end of the day.

There seems to be a big difference between the results of this workshop – the haptic cyanotypes as blue prints on paper to be carried home – and the digital photographs that served as visual points of departure. One of them is very much material and the other rather immaterial. Indeed, in a narrow sense, digital objects visually displayed are not material if we understand matter as something physically substantial. Ingold (2012: 432) refers to this as the 'brute materiality or "hard physicality"' of objects. Digital objects as such have no substantial properties, but are a binary code of zeroes and ones, which can be read, visualized and altered with the help of computers.

However, if we talk of the immateriality of digital objects being in opposition to analogue objects' materiality, it ties in with the debate on material culture and matter that social anthropology and other disciplines have been engaged in for quite some time now. Material culture can comprise all things used in a society, which we can only make sense of in the context of their use (Hahn 2005). It can also denote the sum of all things that are meaningful in a society (ibid.). A clear distinction between material and immaterial culture has proven to be difficult to draw, even when not considering the digital realm (see Buchli 2002; Miller 2005). Material culture studies stress that objects in general are not stable and fixed entities, but are always in a state of becoming. Or, as Ingold (2012: 432) puts it, next to 'brute materiality' there is the other side of materiality, which is 'the socially and historically situated agency of human beings who, in appropriating this physicality for their purposes, project on it both design and meaning in the conversion of naturally given raw material into the finished forms of artifacts'. This understanding of materiality, subject to the cultural turn, sees objects as social constructs.<sup>13</sup> One part of this is that performances are required or voluntarily used to produce an artefact: crafting a stone makes it an altogether different object to the stone in crude form.

Similarly, programming makes a digital object a perceivable entity. An object is always subject to the process of its (natural or human-related) creation, leading Ulla Johansen (1992) to coin the phrase *materialisierte Objekte* (materialized objects), capturing more appropriately this aspect of becoming and the immaterial culture (literally) taking shape here. Going a step further, one can also argue that the making of an object does not end when a product is finished or an artefact manufactured,

but objects can be understood as being in a permanent process of making, not only regarding their meaning, but also regarding their materiality. Not only are their subjective qualities subject to change, but their ‘objective’ and measurable properties need to be understood as histories created, applied, perceived and acknowledged in human–object interaction (Ingold 2012).

Digitization processes have given a strong new impetus to this debate. Material objects stress the question of where exactly object boundaries lie. Where do digital objects end and where do they begin? Horst and Miller (2012) identify three aspects of digital materiality: (1) the materiality of digital infrastructure and technology, (2) the materiality of digital content, and (3) the materiality of digital context. Digital infrastructure as an (extended) materiality of digital objects mostly takes the form of hardware devices and cables. Without the infrastructure of cables, hard drives and screens, digital objects cannot be generated and perceived in their anticipated form – a fact that we appreciate mostly in times of their dysfunction. Soft- and hardware necessary for creating and perceiving digital objects can hence be understood as part of digital objects. The materiality of digital content refers to what is produced through digital technology, be it text, websites, 3D prints or exhibition displays. Finally, digital technology also creates new spaces and new relative proximity, when the Internet of Things, geolocation systems, games or apps provide an enhanced context, within which we move (ibid.).

Digital materiality has furthermore provoked an investigation of the meaning of the word ‘material’. As Paul Leonardi (2010) explains, it can be understood in the sense of matter or significance; objects matter when they differ from talks, social practices or interaction through being an entity. In other words – and in close relation to Heidegger’s *Zeughaftigkeit* – anything that can translate an idea into action is material. ‘Whether in physical or digital form, an artifact that translates idea into action is material’ (ibid.: n.p.). Whether an artefact has a physical form is hardly relevant here. Furthermore, matter can be the topic or theme of an examination or a conversation. Matter as meaning or significance develops in interaction between human and object. The digitality of an object is again of little concern: ‘No matter whether those artifacts are physical or digital, their “materiality” is determined, to a substantial degree, by when, how, and why they are used’ (ibid.). Objects become material, relevant and real through the relationships between objects and the human beings that produce or consume them.

With regards to photography, digital photographs are also mentioned in studies asking for the most meaningful objects in a household, even though study participants tend to point them out less often than objects

with a brute materiality, such as paper-based diaries or inherited jewellery (Goldsteijn et al. 2012). Arya's work, too, does not strictly value the material over the seemingly immaterial, but he rather deals with photographs in their multitude of forms and creates meaning or a frame for others to do so. He praises analogue photography and its technical sophistication in his workshops. He archived the negatives and positive prints of Kulwant Roy, along with a large collection of cameras and photographic equipment. At the same time, he engages with the digital, proudly claiming to have taken up digital cameras at a very early stage, before his clients in Europe even knew how to store or circulate digital photos. He digitized the Kulwant Roy collection he inherited with the help of government funding and private sponsors,<sup>14</sup> and also made some of the photographs public through the internet in what he calls the India Photo Archive and the Aditya Arya Archive.<sup>15</sup>

The subsequent publication of Kulwant Roy's photographs in book form (*History in the Making*) and in Atul Dodiya's art installation once more point to the crossover qualities of digital objects. Shifts and changes here relate to the concept of original and copy, as well as materiality. Kulwant Roy's photograph oscillates between material infrastructure, the materiality of digital content and context, the absent brute materiality and the (re)acquisition of the same when shifting from one form of appropriation to another. Demarcating lines between analogue and digital or material and virtual hence comes with a certain unease. The ambiguity of matter, materiality and the digital refuses a binary division between digital and analogue. Rather, material-focused approaches to the digital substantiate the concept of digital objects as border-crossers. Digital objects are situated both in the material and the immaterial world, and cross over from one side to the other in multiple ways.

## Longing for Materiality

This crossing over also has to do with a certain longing for a more stable materiality as opposed to the ever-fluid digital object. In more general terms, returns to the analogue can be seen in the context of the ever-increasing permeation of the digital into every aspect of society. This time of severe social, cultural and economic change has seen a renaissance in handmade, analogue products as a consequence. It is not only nostalgia that fosters this back-to-basics movement, but a response to larger and long-term economic and cultural shifts (Luckman 2013). The analogue becomes different and desirable, an alternative when seemingly everything is digital (*ibid.*). In addition, there has been a

recent growing awareness of the cost of mass production, whether environmental or societal. Handmade analogue objects are especially imbued with an authenticity that comes through touch, expertise and the time it takes to produce such items (ibid.).

Two aspects of Arya's work shall serve to illustrate this point by focusing on the Indian context. One is his continuing investment in producing books of his photography, whether from digitized analogue photography – as in the case of the Kulwant Roy collection – or based on newer, born-digital photography. Book publishing is an outreach strategy that other actors in the heritage sector follow as well. The second aspect relates to Arya's collection of cameras and camera equipment. These material objects with a very brute materiality used to take up the whole of his basement, and were shifted in summer 2019 to the museum building that Arya was able to create in Gurgaon, called Museo Camera. Examining the emergence of the museum and of book projects related to digital photography in more detail will help to unravel some of the perceived distinctions and constructed characteristics that constitute the two sides, between which digital objects shift back and forth.

### *Books – between Materialism and Literacy*

Producing a book is situated somewhere between the abundance of the digital and the singularity of art or handcrafted objects. As briefly mentioned above, Arya produced – among other books and catalogues he created throughout his photography career – a large coffee-table book based on the Kulwant Roy photographs. The book comprises numerous images and their historical contextualization. Next to this 2.2 kilo, 330-page version, Arya also produced a lighter editor's collection of *History in the Making*. Only two hundred copies were made of this linen-bound, high-end print and paper version. One of them even found its way into the hands of former Prime Minister Manmohan Singh, who presented it to former US President Barack Obama on one of his state visits. Arya here artistically created a book as a collector's item. Limiting its run and using premium material and artistry for its production are value-raising techniques that we also encounter for other artefacts. Arya's book performs similarly to the vinyl record (as Bartmanski and Woodward (2013) portray it) or digital objects that become collector's items (Mardon and Belk 2018). What is technically a copy can acquire status as an original and rare object, something that Arya created with the collector's edition.

That art or history/heritage books can acquire such a status is a recent phenomenon in India, as the book in general has occupied a

difficult position in Indian society. Historically, Indians regarded the spoken word as superior to the written word, and the centuries-old oral tradition of passing on the Vedas and other religious texts is a prominent example of the fact that more information (intonation, length, etc.) can be transmitted through memorization and recitation than through written word (Kesavan 1986). While the written word did appear on palm leaf manuscripts, the introduction of the printing press, and hence of wider circulation of books and newspapers, came from outside, through missionaries and colonial occupiers. The written word circulated in its early days in the form of the Bible, newspapers and English or local-language prints of Indian law, literature and scripture (Trivedi 2008). The literacy rate was – compared to the literacy rates in Europe at the time of the introduction of printed books – high, but books were also valued for their paper or as a curiosity (Gosh 2008). With the Sikhs' Guru Granth Sahib, the holy book of the Sikhs, India is also home to one of the rare cases of religious worship of a book. As profane artefacts, books in colonial India – especially in Bengal – tended to be closely associated with speaking or performing the written word, which took place in popular reading sessions or theatre performances; reading in private alone was very uncommon (*ibid.*).

However, after independence the situation seemed to shift, especially when looked at from the perspective of book sellers and traders. In the 1960s and 1970s, they lamented low literacy rates, limited purchasing power and a 'lack of book-mindedness and reading habit' (Chatterjee 1970: 5). With only one-third of Indian's population being literate, literature struggled to find a market, which to some extent contradicts the descriptions of books' popularity that we find in historical accounts (Fraser and Hammond 2008). M.N. Chatterjee (1970) states that a good percentage of Indian readers focus on textbooks, and read only when they have to, indicating a shift from novels, poems and entertainment to nonfiction books used for studies. Spending power is an issue, as is – at the other end of the line – the fact that authors can rarely make a living from writing. This leads P.N. Venkatachari (1974: 63) to state that books have no significance for the general Indian public. The book, according to him, does not even have 'snob value' as an indicator of high culture (*ibid.*).

With the liberalization of the Indian economy in 1991, two things changed significantly. First, the readership's focus on textbooks increased. Priya Joshi (2008) demonstrates, through the example of the Connemara Public Library in Madras, that large reader growth after 1991 went hand in hand with the library catering to the textbook market and to the demand for vernacular language novels. Since the 1990s, readers have come to the library to learn how to master postcolonial

modernity (*ibid.*), for which textbooks seem more necessary than poems and novels. Second, liberalization opened doors for new attitudes towards materialism and consumption. Traditionally, the notion of actively extending the self through possessions seemed a bit too proactive an act to be applied to India, where the self is said to be less individualistic and less susceptible to the dualism of object and subject (Mehta and Belk 1991: 399). This is substantiated through ‘Hindu traditional beliefs [that] emphasize renouncing material desires as the ultimate enlightenment’ (*ibid.*). As late as 1996, Güliz Ger and Russell Belk (1996) ascertained that India, due to its sociocultural stability and traditionalism, was comparatively unmaterialistic. Possessions used to construct identity could be found primarily among the few more affluent Indians. The majority of Bombay citizens questioned in Mehta and Belk’s (1991: 404) study cited shrines, family idols or guru photos as their favourite possessions. The second most mentioned item was the Godrej cupboard, an item usually acquired at or shortly after marriage, indicating that there are some valuable belongings to be stored, such as expensive clothes or jewellery. Mehta and Belk (*ibid.*: 405) read the Godrej’s prevalence in less affluent households as a sign of social and economic change, where cultural identity no longer plays the only role.

More than twenty years later, the situation has definitely changed. The steady inflow of consumer-centric culture in the context of globalization, along with advertisements and pro-consumer media influences, has led younger generations in particular to shift their consumption behaviour and attitudes towards materialism (Mishra et al. 2014). A new consumer culture developed alongside the increased focus on markets, characterized by the availability of goods and extended credit systems. This leads Rimple Manchanda et al. (2015) to the conclusion that Indians have shifted to materialism in the aftermath of the social and cultural changes of liberalization. Material goods are no longer taboo among the youth, and are actually now used to measure success (*ibid.*). Mishra et al. (2014: 312) come to slightly different findings, stating that the young have shifted towards materialism, although habits of prudence and careful consideration before buying remain strong.

This changing consumer behaviour and the increasing demand for textbooks have contributed, in consequence, to India being the third largest producer of English-language books and one of the largest consumers of books in the world (Trivedi 2008: 27). Adding to the status of books is the fact that South Asian literature has found international recognition and been featured on numerous book prize shortlists. The piracy of (predominantly English-language) books prevalent in many Indian cities is another indicator of a demand for books (at

more affordable rates) and the existence of a readership that is willing to invest at least a certain amount of money in buying books, 'to feed a demand for unreasonably expensive objects of legitimate desire' (ibid.: 28). Consumption and spending rates will of course be considerably higher in other product segments. But with changing attitudes to materialism and the book by now a deep-seated element of Indian society, stakeholders in the heritage sector have found a potential market for their publications, especially in the higher price segment. Arya's *History in the Making* in its two editions shows very well that books in India today can become signifiers of cultural capital, for which people – albeit only a small segment of society – are willing to pay.

This is also what Anusha Yadav builds upon when considering her next project, called 'Love Letters'. 'Love Letters will be a celebration of the idea of romantic love', Yadav explains (private conversation, 2017). It will be a collection of facsimiles of love letters from all over the world, contributed ideally by any gender, caste, age group and religion. Like Indian Memory Project it will be crowdsourced, but it will definitely be in book form. Yadav is aiming the book at the newly consuming middle class, who might be in their late thirties or older, and willing to pick it up from the bookshop or the airport as a gift for their loved ones. 'The book', Yadav (ibid.) stresses, 'is not a vanity thing. But it comes as a book form also to earn money from it'. It will be self-published and needs investment – individual or crowdfunded – to make the publishing process possible. In summary, Yadav, like Arya, draws on a new consumerism that includes books as material goods. Given the standing of literature in India, it will be a small but affluent segment of the population that qualifies as buyers of such material manifestations of cultural heritage.

### *Museum Space – Creating a Legacy*

An even stronger material manifestation of once digital or digitized cultural heritage is the museum, which both Arya and the 1947 Partition Archive envision themselves setting up to house their respective collections. The 1947PA states on their website that their aim is:

Bringing knowledge of Partition into widespread public consciousness through i) creative and scholarly expression including but not limited to literature, film, theater, *visual arts, other creative medium*, and academic research, ii) proactive world-wide primary education curricula, iii) traveling exhibits as well as *physical 'Centers for Learning'* designed to memorialize the people's history of Partition and serve the public for research and educational purposes.<sup>16</sup>

In detail, this will also include a permanent physical space, very much like a museum, which Guneeta Bhalla envisions as a physical centre for learning in South Asia, probably with satellite centres abroad. This physical space will make use of archival material for public education, especially for children from kindergarten to twelfth grade. It will be a place to go to and to reach out from, to communicate and educate about ethnic violence and communal harmony on the basis of the testimonies collected (private conversation, 2017). Bhalla traces the first seeds of this idea to her visit to the Holocaust Memorial in Japan. The opening of the Partition Museum in Amritsar in 2017,<sup>17</sup> under the aegis of Kishwan Desai and with no relation to or cooperation with the 1947PA, is consequently viewed with suspicion and as a rival.

While Bhalla's dream of a physical space for the digital archive remains a future vision for now, Arya has been able to make significant progress in this direction and eventually achieve his aim. In 2017, he signed an agreement with the government of Haryana to set up a photography museum in the centre of Gurgaon. The government provided him with a plot and a building (formerly a badminton court that now lay abandoned), as well as the funds to reconstruct and convert the building into a museum for his photographic archive and camera collection. The building underwent a complete makeover, including a new basement, a first and second floor, division of the exhibition, office and lecture rooms, air-conditioning and electricity. A restaurant, bathrooms and a large firewater tank were built, and showcases for the permanent exhibition have been carpentered. Arya and his crew did much of the designing, decorating, installing and shifting themselves. While construction sometimes tended to progress slowly, in summer 2019 Arya was finally able to open his unique space – a museum with 1,700 square metres of exhibition and gallery space dedicated to photography. He describes it as:

India's first centre for the photographic arts. Museo Camera is a modern museum to showcase the art, science and history of photography. A space that has on display antique cameras from over 100 countries, photographic equipment down the ages, historical archives, the works of legends as well as cutting edge contemporary lens-based art. A centre where professionals and amateurs have the rare opportunity to learn and experience the magic of photography, and through it, to explore the arts, ideas, and issues of our time.<sup>18</sup>

Arya (private conversation, 2019) says that one reason for building a museum was, of course, to have a significantly larger space for his collections



and the increased possibilities that come with this. Furthermore, according to him, nothing can beat a physical space. Yes, he has created a website as an online outlet for the India Photo Archive, but more important is the physical object – the book or exhibition. Material things, Arya explains, have a life and they cannot so easily disappear. They are not like digital storage devices or servers that might fail or crash. Once you create physical objects such as books or prints for an exhibition, you can also aim to create a physical space to display these objects, allowing you to build a legacy.

The idea of legacy building through a physical structure is not new, echoing ancient practices of building monuments and memorials. Monuments are in general three-dimensional structures that function as memorial devices in public space. Installed by the government, they often serve to foster national identities, but are also an expression of claims for representation of a particular class or individuals in a society (Menkovic 1999). Even though, from today's perspective, monuments appear directed to past events, institutions or individuals, they had at the time of erection a very clear focus on the future. It is not only a gesture of ennoblement (*ibid.*: 1), but an intentional solidification of an idea, achievement or statement, directed at informing future generations. Opening ceremonies and/or repetitive displays of reverence to the built structure verify its claim for continuous interaction and reception, and are at the same time a demonstration of political power within public space. Monuments – as well as museums, I would add – are semiophores for power, designed for perpetuity (*ibid.*).

Arya's museum is now subject to an eleven-year contract, which can be extended as long as both he and the government deem it fit. Currently, they do:

Together [Arya and the government] seek to make Museo Camera a symbol of excellence and emerge as a place for learning and showcasing contemporary photography including providing a platform for emerging and established artists from various genres of photography, and to establish it as a celebration of photography and its evolution as an art form and a medium of human expression. Above all, both seek no profit from this endeavour, and commit that earnings, if any, shall be invested back to further the aims and objectives of Museo Camera.<sup>19</sup>

Building the museum thus creates an opportunity for both Arya and the government to create a physical structure in public that is meant to last and send a message. The cooperation between the government and Arya speaks of a democratization of the culture of remembrance,

opening the public space to more stakeholders than the government only. The Museo Camera might not be a monument, but it is, as Arya said, a permanent space that people can turn to, reminding them of the techniques and art of photography. The museum will at the same time serve as a reference point for traces of Arya's work and the exhibition work of the museum. The museum building becomes a material reference point.

## Digital / Analogue Objects

Zooming in on the various facets of Arya's work has demonstrated that the digital and the analogue take many forms in today's practice and interpretation. Visuals, especially photographs, seem to shift easily when used, from digital to brute material form. Digital objects – whether digitized or born-digital – can no longer be termed clear antipodes to analogue objects. Material culture studies and theoretical takes on the digital approach the divide from both sides and make it more permeable. They constitute the theoretical approach to digital objects as border-crossers, which can be observed in practice and use. The movements between human–computer interfaces and novel materializations with digital objects also lead to new or extended considerations and valuations, bringing a softening of the original–copy binary. In times of hyper-reproducibility, mechanical copies, high-end digital reproductions or digital copies enhanced with singularizing traces acquire market value, social lives and status as originals.

Nonetheless, a longing for stability and durability also paves the way for a renewal of (or return to) analogue techniques and the creation of something literally cast in cement or bound with ink on paper. This holds true especially for cultural heritage and its tendency to refer to the past (as well as its use and benefit for the future), and when this longing is paired with a less solid trust in digital technology. Relevant and acknowledged in the heritage sector, these practices also help to define digital objects, though only for the very narrow realm of digitized or born-digital artefacts in archives and museums. Given the variance of digital objects, 'it can be problematic to seek a definitive ontology of digital consumption objects or to treat all digital consumption objects as equal' (Mardon and Belk 2018: 547). Outside the museum/archive sector, digital objects can be understood as anything from an app to a social network profile, to a tweet or a smart meter, thus making a general definition or characterization of digital objects extremely complicated if not impossible. Here, however, we have seen an ontology of

digital objects of Indian heritage as copies-turned-original, as entities in their own right, which are constituted through HCIs and an extended understanding of their materiality. In use and appropriation, they cross the more permeable borders between brute materiality and digital code with ease.

This ease certainly also causes legal disputes. Copyright infringements are likely to occur when ubiquitous online availability meets the habits of retrieving (heritage) information from the web. This coalesces around two legal aspects that need to be singled out. First, copyright laws were developed in the first half of the twentieth century and have been repeatedly amended, often as a reaction to new technology. Especially with ICT, legal readjustments cannot keep up with the pace of technical developments. This produces legal grey areas, for better or worse. National and international protection mechanisms, as well as the resources required to enforce these, compel the individuals involved to make decisions while and after disseminating digital objects (e.g. relying on existing copyright or publishing with Creative Commons or Traditional Knowledge labels, considering potential copyright infringements before using a digital object, enforcing infringements in others' uses). These legal uncertainties require and allow stakeholders to choose between, or even balance, the circulation of information through digital objects and the protection of established rights. While such decisions are best made on a case-by-case basis, state heritage institutions in particular need to weigh up the arguments of socializing the costs and privatizing the profits, financial disadvantage and a loss of sovereignty of interpretation, in balance with the potential decline to insignificance as regards cultural coproduction.

## Notes

1. Exhibition description by the National Gallery of Modern Art (NGMA), Delhi. Retrieved from <https://www.artslant.com/ber/events/show/307670-experiments-with-truth-works-1981-2013> (accessed 6 March 2019).
2. *Ibid.*
3. Indian Copy Right, retrieved from <http://copyright.gov.in/Documents/CopyrightRules1957.pdf> (accessed 16 May 2020).
4. *Ibid.*
5. India's limitation of copyright benefits teaching, research and the visually impaired, among others. In this regard, it goes beyond many national conventions and international recommendations. Despite the tightening of copyright in India after economic liberalization in 1991, and especially after increasing pressure from (US-based) film industries, there are what Thomas (2015) calls instances of 'copyleft' in Indian copyright.
6. High Court of Delhi, 16 September 2016, Case Number 2439/2012: 1–94.

7. <http://copyright.gov.in/Documents/CopyrightRules1957.pdf> (accessed 16 May 2020).
8. Arya did so with another image by Kulwant Roy, which Getty Images published online. Coming across this image, Arya asked Getty to acknowledge Kulwant Roy as the author, which they did once Arya could show that he held the original of the (cropped) photograph that Roy probably sold to one or multiple agencies. Getty, on the other hand, could provide details about acquiring the photograph as part of a larger stock from a different agency, but had no further information about the photograph until Arya provided it.
9. In Europe, only Spain and Germany recognize ancillary copyright (in German called *Leistungsschutzrechte*), which grant rights to a photographer for his effort and work, even if the outcome does not qualify as a piece of original art. Examples are photographs of a picture, which are nearly 1:1 reproductions of the same. A prominent court case – which was eventually decided in favour of the *Leistungsschutzrecht* – was the Reiss-Engelhorn-Museen against photographs published on Wikipedia. The person scanning museum catalogue pictures of paintings that are in the public domain due to their age was ordered to not do so and ordered to stop publishing these on Wikipedia on the grounds of the museum photographer's ancillary copyright, which he acquired through taking the photographs in the first place and which had not yet expired. However, the Directive on Copyright in the Digital Single Market (Directive 2019/790) from 2019 makes such a ruling in the future impossible. Nonetheless, when photographing a museum object where lighting, exposure time and so on mean that the digital photo can be regarded as a piece of art, copyright will continue to be applicable.
10. Eventually, however, the Berlin Museums decided against the digital-analogue exhibition of the Altar and instead had a large-scale panorama picture installed.
11. Lorne Dawson and Douglas Cowan (2004) show that worship is also possible for online objects.
12. According to [https://en.wikipedia.org/wiki/Instagram#User\\_characteristics\\_and\\_behavior](https://en.wikipedia.org/wiki/Instagram#User_characteristics_and_behavior) (accessed 16 May 2020).
13. An idea that has gained a stronghold since the 2000s; see Cameron 2007; Pink et al. 2016.
14. Money was required to buy scanning equipment and software, and to hire staff to scan and digitally archive the complete collection.
15. [www.indiaphotoarchive.org](http://www.indiaphotoarchive.org); <https://www.adityaaryaarchive.com/> (accessed 16 May 2020).
16. <https://www.1947partitionarchive.org/mission> (accessed 16 May 2020), emphasis added.
17. <http://www.partitionmuseum.org/about-us/> (accessed 16 May 2020).
18. <https://web.archive.org/web/20200531172924/https://www.museocamera.org/> (accessed 12 April 2021).
19. <https://www.museocamera.org/mission> (accessed 16 May 2020).

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 ZEUSCHEL

DOCUMENT  
PREPARATION  
&  
SCANNING





# Conclusion

## *Cultural Production in the Present with Reference to the Past and Directed at the Future*

This book has dealt with digital archives as collections of photographs and objects from the past that have been disseminated online in one form or another. It has shown that creating a digital archive brings the concepts of museums and archives closer together, as online output also comprises a form of publicizing, exhibiting and curating. The examples also demonstrated that digital archives deal with the past and engage with what we can call heritage, but that they do not take heritage as stable entities, but rather (re)construct and (co)produce what cultural heritage can entail. Digital archivists digitize existing collections and hence challenge ideas of originality and copying by pouring objects into new forms, or they create and arrange digital objects from scratch and thus introduce new entities that co-constitute the heritage corpus. Digital archives showcase what Barbara Kirshenblatt-Gimblett (1995) emphasized more than two decades ago: that heritage is not a finished, stable object from some distant past. It is rather the result of a constant process of negotiations; it creates something new in the present with recourse to the past (ibid.: 369). Creating and maintaining heritage requires constant renewal and reaffirmation. It is a form of cultural production, and it is one in which new forms and new actors have entered a scene that has so far been occupied by established museum institutions and archives.

The actors involved in digital archives and related heritage production employ scripts of access, void and necessity, resort to postcolonial ideals, operate at the fringes of IT hubs and make salient use of social media, negotiating the introduction and architecture of improvements. They are contained in cultural production through digital means. Pierre Bourdieu's (1996, 2004) theorizing on cultural production, which he developed with reference to art and around the same time as

Kirshenblatt-Gimblett, still proves valid and can be employed in understanding digital archives. Bourdieu demonstrated that cultural production is not the result of some magical powers of the individual creator, but that it is intertwined with power regimes and market logics – or, in Bourdieu’s terms, with economic and cultural capital. Cultural capital is what decision makers and professionals working in museums, archives and research utilize when functioning as gatekeepers for digital archives. They determine how already heritagized material is digitized or how new material (in the process of being included in a digital archive) consequently becomes part of a heritage corpus. In other words, these gatekeepers’ cultural (and economic) capital determines how digital archives take shape, what architectural form the databases rely on and what technical standards constitute a canon.

Digital archives that have been developed in established institutions correspond to what Bourdieu defined as the subfield of large-scale cultural production, and Richard Peterson and N. Anand (2004: 316) identified as highly bureaucratized, vertically integrated ‘oligarchal’ organizations. Such big players usually have larger market shares and ‘are better at exploiting the commercial potential of predictable routines’ (ibid.). Translated into (less market-oriented) cultural production in/for museums and archives, this means that established institutions have the capacity to develop and set standards, producing extensive databases. They are often centrally involved in developing digitization standards that potentially allow for the largest amount of data to be coded. CIDOC CRM exemplifies this point, as this reference model is supposedly able to display all possible relationships of cultural heritage items in listed triples of subject, predicate and object.

However, this is not to imply that large-scale bodies necessarily also pursue digitization and online dissemination.<sup>1</sup> In cultural production, rather ‘small and simple structures tend to foster entrepreneurial leadership and informal interaction that allow for the rapid decision making and rich communication required to facilitate innovative production’ (Peterson and Anand 2004: 316). For digital archives, this means that this field leaves room for what I have described as programming alternatives. Community-based archives that do not have institutional backing enter the scene and establish digital archives, which allows them to designate both form and content. We hence see a scrutinizing of and attempts to break up ordering principles and archival power structures through a digital archive’s architecture (Christen 2015), but also an acceptance of and building on existing CMSs.

Such small actors (Peterson and Anand 2004) have also been termed enthusiasts, professional-amateurs (pro-ams, see Dallas 2016; Terras

2010) or rogues (see De Kosnik 2016). The related rise of the citizen archivist (Cox 2009) is not a new phenomenon, but developed some decades ago as one facet of oral history production (Charlton et al. 2006). The internet, however, provided citizen archivists with new modes of output and outreach, and provided the technological framework to foster prosuming. Digitalization and the internet hence boosted cultural production as regards contributing to historiography or commemorative practices.

Moreover, community-based digital collectors spend a lot of time updating their digital archives. They actively and effectively engage with their material and ensure continuous preoccupation with it. It hence differs from ‘the “scan and dump” digitization typical of many projects within the cultural heritage domain’ (Dallas 2016: 433). Or, to put it differently, solely or predominately digital archives necessarily need to periodically, if not permanently, update their archives in order to persist. Unlike museums and archives that can relegate to the analogue collection, continuous engagement is an intrinsic characteristic of digital-only archives in order for them to contribute to cultural production. The need to constantly engage with one’s own archive in order to keep it ‘alive’ leads to ‘the pro-amateur community [being] much better at interacting with online audiences than memory institutions are (Terras 2010)’ (ibid.: 433).

The examples from India that this book has drawn upon emphasize that the forms of this engagement are manifold. They reach from adding intuitive metadata to curatorial practices, and creating empathy at a distance. It is, next to an inclusive front-end design and a consistency in maintaining social relations, a focus group-oriented emotional involvement that contributes to online archives having an impact. While this impact is not always expressed online, but can be traced in stories of impact (Marsh et al. 2016), the Indian examples support Terras’ 2010 statement of community-based online archives being more successful in engaging *online* audiences. They thus not only contribute to online cultural production, but further online archives’ establishment as a valid format for cultural production.

Community-based digital archives are thus situated between becoming relevant actors in cultural production and introducing or advancing new forms of doing so. This leads to a questioning of the division between established and alternative archives and heritage custodians and the related distinction between history and memory. Nora (1989) introduced *lieux de mémoire* some thirty years ago to formulate a critique of comparatively static institutions that store and preserve traces or proofs of the past. *Lieux de mémoire*, according to Nora, are storage facilities,

places to accumulate signs of the past. Museums, archives and monuments are prime examples, providing traces of the past to be mediated as history. In other words, if a *lieu de mémoire* is recognized and approved as being a place that preserves documents and other traces of the past, they serve as the basis for historical construction. Institutions and their staff regulate access to material and/or communicate on stored material as history in writing, fixing particular versions of the past, which then become official accounts of bygone events. Collective remembering is replaced with organized history making.

Nora's understanding of *lieux de mémoire* has, since its introduction, been subject to critique and demand for improvement. In consequence, *lieux de mémoire* are no longer necessarily perceived as being as static and immobile as Nora depicts them. They are subject to the changing cultural context in which they are embedded. Their stakeholders are able to decide what becomes 'canon' as actively circulated memory that keeps the past present, and what will be the 'archive' as passively stored memory (Assmann 2008). While Nora might discharge this as another instance of history production, the individual reactions, mediations and changing cultural contexts of history cannot be ignored as influencing factors in commemorative processes. They intermingle to create different individual appropriations, taking root in the concrete or objects, as well as in relations between things (Nora 1989: 9). The cultural context becomes even more relevant in in-depth analyses of archival material, as Stoler (2009) showed regarding the reappropriation of historical documents, which can be read against or along the archival grain, therefore producing different stories about the same material. Archives and other *lieux de mémoire* have the potential to serve as tools for creating conditions for intercultural dialogue and communication (Zeitlyn 2012), even if they often fail to do so.

Digital archives enhance this critique of a divide between history and memory. They blur the distinct lines that Nora drew between the two, as they incorporate both active memory making and the construction of canonical ideas about the past. The context for young professionals and volunteers creating the archives is informed by a new media ecology, where individual memory making is shaped by digital technology. Citizen historians and story scholars set out to collect personal memories, large numbers of portraits, post interview summaries and circulate visual narratives – impressive assemblies of individual voices that have a wide span across the subcontinent and beyond, as well as across social strata, religion, class and caste. Creating digital archives in interview situations or retellings of photographic readings constitutes instances of remembering. The conversations and exchanges happening online

on the basis of these accounts are likewise commemorative practices evolving through and in interaction with these digital archives, making digital archives instances of remembering and possibly even a real contact zone.

At the same time, the impetus of history making also remains strong in digital archives. It becomes evident in the public statements of the initiators or directors of digital archives and in the archives' self-portraits. It is also revealed in the motivation of the crowd to join in. It crystallizes in the processes taking place on the ground in these archives' everyday work, and is expressed in editing processes as part of a choreographed curatorial process. In digital archives, distinct moral and political agendas taken from conventional archival work still loom large, making digital archives anything but a neutral assemblage of statements. Rather than being grassroots, democratic instances of internet empowerment, digital archives apply rules and regulations and undertake intricate editing and dissemination processes, which brings them into the proximity of traditional archival order and power relations. Digital archives share characteristics with *lieux de mémoire* when they control the circulation of information. They do so not in accordance with governmental guidelines and long-established hierarchies, but in line with the moral ideals around initiative and the rules and regulations of digital media. They make the best use of social media to keep the archive running and financial and human capital flowing; they mediate information in accordance with the acceleration of the digital era. Digital archives adhere to the implicit and explicit rules of social network sites in order to be successful, which includes continuous communication and hence an active crowd collectively remembering the past, based around an archive they themselves created.

Digital archives hence oscillate between history and remembering, or, in other words, between an archival and a lived past. They comprise aspects of both, and thereby dissolve the clear distinction between memory as lived experience and history as stored and archived memory. This line is blurred, if not suspended altogether (Haskins 2007). Digital archives, actively involving the online crowd and its extended networks, become models for a commemorative culture that combines lived and archived memory with the help of a virtual space, and consequently contribute to the historical canon, or what people regard as cultural heritage.

Thus, power relations regarding history and cultural production change with community-based digital archives, but are not abrogated altogether. As Abigail De Kosnik (2016: 3) states: 'The rogues of digital archiving have effectuated cultural memory's escape from the state;

memory will never again be wholly, or even mostly, under the control of the state or state-approved capitalists. Having fallen under the sway of rogues, cultural memory has become more democratic'. While in this book I have shown that the process of democratization through online archives is certainly subject to debate, and not at all something that follows automatically from digital options, I do agree with De Kosnik that these rogues disrupt conventional memory institutions. Community-based digital archives set debates, engage people, and hence co-define culturally relevant themes. The 1947 Partition Archive, for example, pushed the traumatic topic of partition into the (urban) Indian mainstream, which now finds expression both online and offline. One result of the 1947PA's almost decade-long engagement with partition via an online audiovisual archive has been the opening of a museum on partition in Amritsar in 2016. This Partition Museum physically manifests the fact that the topic has become part of the regional, if not national public memory, as its inauguration (with the Chief Minister of Punjab and a minister of state present) demonstrated. The Partition Museum is, unlike the 1947 Partition Archive, a brick-and-mortar building, which thematically, practically and linguistically bears strong similarities to the 1947PA.<sup>2</sup>

Community-based digital archivists influence societal standards as regards the relevance of historical topics. Through providing access to information carriers that have not (or at least not in this form) been previously available, they promote engagement with topics they deem relevant. Like the fan archives that De Kosnik (2016) describes, Indian Memory Project, the 1947PA and India Photo Archive (alongside numerous other online repositories of graphic art, maps, photographs, movie posters and thematically focused stories) engage with mnemonically relevant, but so far socially under-represented aspects of the past. They make an entrance into the production of history from the fringes of the heritage sector.

This book has also shown that newly emerging actors in the realm of digital archives operate at the fringes of the IT sector, and that they – in the examples analysed here – stem in large part from an urban, new Indian middle class. As opposed to De Kosnik's observations in the US, these are by no means the underdogs of cultural production, but originate from higher strata of society. In the context of strong digital divides, grave economic disparities and an only recently announced electrification of the country,<sup>3</sup> creating and even engaging with digital archives remains a privilege for those who have the infrastructural, economic and cultural resources to do so. This is not to undermine the efforts of archives such as SPARROW (Sound and Picture Archives for

Research on Women) or Tasveer Ghar,<sup>4</sup> or to negate the struggles that community-based archives face when trying to establish themselves in an environment dominated by larger institutions. But it is by and large the better-off sections of Indian society (sometimes in partnership with Western experts) that can cross the ‘wild frontier’ (Dallas 2016) of curating digital archives online and forming the core of community-based digital archivists.

Nonetheless, we witness the influence of digital archivists in two directions: into established institutions and into society. For the latter, as mentioned, they set new topics and pierce established matrices of professional and amateur in relation to history and memory. For the former, it has become evident that community-based digital archives change the way museums and archives work. Such digital archivists cannot claim to have introduced digital preservation and curation into museums and archives, as it was largely ‘digital preservation research and professional work on the one hand and e-science data management and systems specification considerations on the other’ that did so at the beginning of the twenty-first century (Dallas 2016: 424). Community-based digital archivists do not necessarily strive for canonization of technical parameters or the development of generalizable metadata. It was in the hands of a ‘community of research and professional practice: a prime mover towards the development of large-scale trusted data repositories, and of standards, methodologies, and research agendas aimed to ensure the trustworthiness, sustainability and quality of such repositories, and the authenticity and integrity of research data they are entrusted with in the long term’ (ibid.: 428). But amateurs-turned-professionals do push the institutions by demonstrating what can be done in this field. They creatively and enthusiastically put technical possibilities and theoretical considerations into practice.

However, the positive impetus of digitization and the new digital archives should not prevent us from ‘pay[ing] attention to the specific contexts, as well as materialities, of digital objects and that digital media in museums exist in a longstanding continuum or process of mediation, technological mimesis and objectification’, as Geismar (2018: 11) urges us to do. Assumptions about the digital, especially in museums and archives, are not detached from the past, but develop from existing archival and curatorial structures. The human–computer interface relates to visual conventions and human–object correlations, and museums and archives (with their analogue social, political and cultural settings) determine how digital archives are constructed and perceived. The object lessons of the twentieth century should inform those of the digital age, as they allow us to better understand

digital objects rather than seeing them as something magically created through new technological means (*ibid.*). Museums and archives as institutions that preserve information about the past should also refer to experiences made and principles developed in treating objects and documents when handling digital objects. In reverse, thinking through the prism of the digital, as cultural production guided by interpretation and meaning making, allows us to better understand archives and museums in their analogue form.

With a better understanding of how digitization is carried out in the present with entities referring to the past, the question remains what this might entail for the future. Digital archives require constant work. While at one point they were envisioned as a tool for long-term preservation and a rescue option for the information captured in crumbling photographs, destroyed monuments or decaying objects made of natural materials, digital archives – or digitization projects focusing on one object – very soon proved to be one of the most time-intensive forms of preservation. Other than nitrate film and cellulose acetate film, which last up to 40 or 150 years, respectively, digital photographs or film need to be migrated more often, in accordance with the technical developments of readable and common file formats. If accessible online, the websites hosting digital archives also need regular technical updates in order to correctly display the data populated into the databases. Furthermore, one has to constantly work to prevent a digital archive from stagnating or shutting down, if it is envisioned as a site of online encounters. Digital archives generally draw their significance from active mnemonic processes, from contributions of prosuming audiences. Keeping digital archives alive thus requires perpetual engagement, renewals and extensions, even more than the technical side of data migration demands. Under these circumstances, many of today's digital archives will not survive into the next century. Many online repositories, bringing together digital photographs or scans and metadata in lists or other forms will not be maintained. Not all digital archivists will continue to update their archives; migrating data to new formats will not in all cases be feasible or desired. A clear sign of this fact, as well as an obstacle to its overcoming, is legacy production in museum or book form, that is, the (re)materializing of digital content.

However, the methods and means of digital archivists will outlast current digital archives. They have actuated a scrutinizing of common ordering systems and power relations that do not question archives and museums as such, but require a reassessment of the standard practices that regulate access to and circulation of knowledge about the past. Using digital technologies, resetting the standards of who writes what



into (and about) archives, curating content and – perhaps most importantly – involving larger parts of society in the processes of thinking the past, has fundamentally changed cultural production, and will continue to do so in the future. The methods and means of digital archivists will influence who and what defines relevance in the future of historical production and memory making. They will become new common practice for museums and archives.

## Notes

1. Numbers indicate otherwise (see Institut für Museumsforschung 2017; Nauta et al. 2017).
2. The museum also draws on eyewitness accounts, and has even started to create a digital – albeit not yet online – archive of audiovisual accounts of partition survivors. Its self-description reads: ‘The Partition of India was one of the most defining events in the history of the subcontinent. It remains till date the largest mass migration in human history. Yet, despite the extensive loss to life and property, almost 70 years later there existed a severe lacuna that no museum or memorial existed anywhere in the world to remember all those millions. In early 2015, a small dedicated group of people came together with the resolve to fill this lacuna’ (<https://www.partitionmuseum.org/about-us/>, accessed 16 May 2020).
3. Prime Minister Narendra Modi announced in 2018 that 100% of India’s villages have been electrified. But for a village to be labelled electrified, only 10% of its households need to be connected to the grid. Furthermore, ‘electrification’ is not a guarantee of constant or stable power supply, and power cuts and voltage fluctuations remain a problem (<https://thewire.in/government/narendra-modi-government-rural-electrification-power>, accessed 16 May 2020).
4. Who archive thematically also on masculinity, gender or religious minorities.

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