

{Digital Heritage}: From cultural to digital heritage

Lutz, Samantha

Veröffentlichungsversion / Published Version

Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

Lutz, S. (2018). {Digital Heritage}: From cultural to digital heritage. *Hamburger Journal für Kulturanthropologie*, 7, 3-23.
<https://nbn-resolving.org/urn:nbn:de:gbv:18-8-11904>

Nutzungsbedingungen:

Dieser Text wird unter einer CC BY-SA Lizenz (Namensnennung-Weitergabe unter gleichen Bedingungen) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier: <https://creativecommons.org/licenses/by-sa/4.0/deed.de>

Terms of use:

This document is made available under a CC BY-SA Licence (Attribution-ShareAlike). For more information see: <https://creativecommons.org/licenses/by-sa/4.0>

{DIGITAL HERITAGE}. FROM CULTURAL TO DIGITAL HERITAGE

Samantha Lutz¹

»If it's not online it doesn't exist!«

Under the umbrella theme »Sharing Heritage«, Europe celebrates the *European Year of Cultural Heritage* (EYCH) in 2018, stressing once again that cultural heritage plays a crucial role in European societies as it provides a sense of identity and continuity. The emphasis on common tradition seems to be of particular importance in times of rising social and political unrest, which put the formerly common grounds of »living«² in pluralistic, open, democratic European societies as problematic.

A similar tendency can be observed when openness and accessibility of cultural heritage artefacts are produced as central arguments for putting enormous efforts and resources into the digitization of cultural materials of memory institutions such as museums, archives, and libraries across Europe to broadly share our heritage beyond the halls of memory institutions. As a meanwhile prominent saying goes, »if it's not online it doesn't exist!« The mantra of participation and openness of and through culture is prominent also in the mission of so-called »openGLAMs« (Galleries, Libraries, Archives, and Museums). They provide digital access to their collections and archives and make cultural heritage increasingly available online as »open cultural data« to offer new opportunities for recreation, communication, and sharing of cultural knowledge to more diverse and also younger audiences. To facilitate the transition of analogue cultural productions into digital copies and create digital collections online, local, national, as well as international initiatives have been set up, ranging from political governance approaches on the European to local levels (e.g. the *eCulture Agenda 2020* for the city of

1 This special issue would not be possible without the working context of the H2020-MSCA European Training Network on »Participatory Memory Practices. Concepts, strategies, and media infrastructures for envisioning socially inclusive potential futures of European societies through culture« (POEM) at the Institute of European Ethnology/Cultural Anthropology at the University of Hamburg. I would like to thank the HJK editing team for their effort and commitment in the past year to publish this special issue in English. My particular thanks therefore also go to Stefanie Everke-Buchanan for proof-reading the issue as well as to Alejandra Tijerina García for her helpful comments on the introduction. I would like to thank the authors who were willing to contribute with their expertise and their patience in discussing changes.

2 The term living goes beyond the daily practices and refers here to the paper of Collier and Lakoff who outline the contestation of moral orders as emerging from global assemblages and as an overarching perspective of anthropological research in various fields. *Stephen Collier/Andrew Lakoff: On Regimes of Living*. In: Aihwa Ong/Stephen J. Collier (ed.): *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*. Malden 2005, pp. 22–39.



Ill. 1: eCulture Agenda 2020, Photo: Sebastian Gietl, Regensburg

Hamburg, see ill. 1³). Moreover, we observe the emergence of new stakeholders across Europe such as digital repositories for digital long-term preservation (e.g. the Digital Repository of Ireland, see the contribution of Natalie Harrower in this issue), and of data aggregators like Europeana that stack digital copies of cultural materials, which are out of copyright and may be broadly used, for example in thematic collections across the web – to name a few approaches.

Consequently, digital heritage has been taken up and acted on by a vast array of different stakeholders, accompanied by an impetus towards arenas of cultural production beyond the halls of memory institutions. In some contexts, memory practice no longer takes place solely within the custodial institutions that are used to shouldering all the responsibility of collecting, docu-

3 The visual statement referring to the eCulture agenda 2020 was designed by Theresa Müller, a master student at the Institute of European Ethnology/Cultural Anthropology at the University of Hamburg, with the kind permission of Sebastian Gietl.

menting, preserving, and displaying cultural heritage. The dynamics in the field of digital heritage are increasingly encouraged by practitioners from IT and creative industries such as software and hardware developers, digital artists, and gaming industries who are urged by those who campaign for open knowledge and open data to explore heritage materials or datasets to creatively »reuse« and remediate the past in an experimental fashion in the context of private-public partnerships (e.g. *Google Art Project*) or creative design challenges like the cultural hackathon *Coding Da Vinci* in Germany. To what extent do these remediations of the past reframe our understanding and experience of heritage?

With »digital heritage«⁴, there is also an impetus towards opening up more commonplace participatory forms of interacting with cultural heritage, thus enabling individuals to participate in activities of collection, preservation, documentation, and interpretation of digitized heritage content in their everyday lives. Moreover, concepts like »open access« and »reuse« remind us of the conceptual shift of audiences becoming users, whether or not this status is desired. However, memory institutions are used to being solely responsible for the safeguarding and management of cultural heritage and are not sure whether or how to share that role with ordinary people. What implications would this have for authority over categories, copyright, or even cultural memory itself?⁵

As a matter of fact, not only are the tools and means by which we practice, experience, share, collect, document, and safeguard cultural heritage increasingly digital; the cultural artefacts and forms of cultural expression, such as objects and images, are themselves becoming digital and already subject to archiving, for example, in the context of the Library of Congress's Twitter collection or the *Internet Archive*, an independent non-profit library project for the collection of websites. Hence, the impact of mobile and ubiquitous technologies on heritage discourse and memory practice is significant as they seem to render contemporary memory practice problematic and pose new questions on how these influence, alter, and transform the complex set of social practices of collecting, safeguarding, and displaying as well as engaging with cultural heritage under digital conditions. These developments and considerations led to the organisation of a lecture series (Institutskolloquium) on the topic of {D1G1TAL HER1TAGE} in the winter semester of

4 The concept of »digital heritage« needs to be critically reflected and is therefore enclosed in quotation marks. For reasons of legibility and practicability it has been avoided to consistently use quotation marks throughout the article.

5 *Jon Ippolito: The Lost and the Saved*. In: Richard Rinehart/Jon Ippolito (ed.): *Re-Collection. Art, New Media, and Social Memory*. Cambridge 2014, pp. 3–11, see p. 11; *Gertraud Koch: Kultur digital: Tradieren und Produzieren unter neuen Vorzeichen*. In: Eckhard Bolenz/Lina Franken/Dagmar Hänel (ed.): *Wenn das Erbe in die Wolke kommt: Digitalisierung und kulturelles Erbe*. Essen 2015, pp. 15–28; *Isto Huvila: The Unbearable Lightness of Participating? Revisiting the Discourses of ›Participation‹ in Archival Literature*. In: *Journal of Documentation* 71 (2015), no. 2, pp. 358–386.

**Die Bewahrung des digital heritage ist eine nicht
endende Aufgabe, solange sich der Mensch
weiterentwickelt.**



Ill. 2: Media convergence, Photo Anna-Katharina Galinsky, Hamburg

2015/2016 as well as to further activities in research and learning at the Institute of European Ethnology/Cultural Anthropology at the University of Hamburg. Considering this, the issue at hand represents a collection of these initiatives which are more than the individual contribution by myself but has originated from a productive exchange among different generations of researchers as well as practitioners in the collaborative context of the institute (see ill. 2⁶).

Digital heritage as transdisciplinary landscape

»Digital heritage« scholarship, if one can speak of an established research community from a cultural and social research point of view, is proliferating as concepts like new heritage, virtual heritage, or open cultural data exem-

6 The visual statement on media convergence was designed by Anna-Katharina Galinsky, a bachelor student at the Institute of European Ethnology/Cultural Anthropology at the University of Hamburg, stating: »The safeguarding of digital heritage is a never-ending task for as long as humanity continues to develop.«

plify. When discussing »digital heritage«, it is helpful to distinguish between *digitized heritage* and *born-digital resources*. Digitized cultural heritage refers to artefacts like objects or artworks that have been photographed or otherwise processed into digital form. Born-digital resources are created and experienced using digital technologies and may one day in the near future become heritage themselves.⁷ Examples of this form include tweets or websites that are described as so-called »new heritage« or »heritage 2.0«, i.e. what we may value in the near future and which in turn is increasingly subject to contemporary archiving practices. While heritage making processes of this kind are certainly important and not yet well addressed in the scientific field of digital heritage, they are somewhat outside the primary focus of this special issue.⁸

Special themes and thematic selections of articles, published in peer-reviewed periodicals, have emerged on the websites of highly referenced sources for digital heritage.⁹ A number of chairs and/or professorships, national and international research projects, and institutes as well as post-graduate study programmes have been initiated to meet the changing needs in research and the qualification of heritage experts with respect to contemporary and future memory practice.¹⁰ Annual as well as bi-annual international conferences (such as Digital Heritage, Digital Museums and the Web) have established their meetings as seminal events for digital heritage for several years now, with their proceedings constituting highly referenced sources for the subject.¹¹ Emerging working groups such as SIEF's »Towards Digital Folkloristics« or international interdisciplinary conferences such as »Researching Digital Cultural Heritage« in 2017 show the growing demand for sound scholarly research in the humanities and theorizing current developments framed as »digital heritage«.

7 UNESCO: Convention for the safeguarding of the intangible cultural heritage. URL: <http://www.unesco.org/culture/ich/en/convention> (date: 29.11.2017); *Richard Rinehart: New Media and Social Memory*. In: Richard Rinehart/Jon Ippolito (ed.): *Re-Collection. Art, New Media, and Social Memory*. Cambridge 2014, pp.13–27, see p. 21.

8 For issues of born-digital materials as new heritage see *Yehuda Kalay/Thomas Kvan/Janice Affleck* (eds.): *New Heritage: New Media and Cultural Heritage*. Abingdon 2008; for issues of digital preservation of digital art see *Richard Rinehart/Jon Ippolito: Re-Collection. Art, New Media, and Social Memory*. Cambridge 2014.

9 For thematic collections see for example the »Digital Heritage Article Collection« on *Taylor and Francis Online*. URL: <http://explore.tandfonline.com/page/pgas/digital-heritage> (date: 29.11.2017).

10 For professorships of Digital Cultural Heritage see for example Simon Tanner at King's College London or Erik Champion, UNESCO Chair in Cultural Heritage and Visualisation at Curtin University of Technology in Australia; for (postgraduate) study programmes see for example the Centre for Digital Heritage York, with study courses in Museum Management or the European Training Network POEM, coordinated at the Institute of European Ethnology/Cultural Anthropology at the University of Hamburg.

11 *Ross Parry: The Practice of Digital Heritage and the Heritage of Digital Practice*. In: Ross Parry (ed.): *Museums in a Digital Age*. London 2010, pp. 2–4.

However, »digital heritage« initially emerged outside the traditional scholarly silos of disciplinarity. International organizations preceded this scholarly endeavour, culminating into UNESCO's Charter for the Preservation of Digital Heritage in 2003 and reflected on current developments such as the emergence of digital infrastructures and platforms such as Europeana – the only platform at the European level for aggregating the digitized cultural materials in Europe – or civil society organizations like Wikimedia and national and local memory institutions keenly interested to see their respective activities increasingly supported by sound scholarly research. Still, digital heritage as a practice does not proliferate mainly through top-down governmental technologies but is (re-)produced through mechanisms, material regulations, and practices of »competitive emulation«¹² similar to Gisela Welz's observation with respect to the Europeanization and economization of cultural heritage in Cyprus.¹³ New policy agents such as experts from national and local memory institutions, so-called openGLAMs, data aggregators, civil society organizations such as Wikimedia, legal advisors, and social and cultural entrepreneurs act as »transfer agents«, facilitating the knowledge transfer within the so-called »European memory complex«¹⁴. Through editing publications on best practice examples, the bestowing of awards, consultancies, organising of and participation in conferences, or through voluntary contributions to the Europeana task forces, they generate manifold new forms of expertise, enter an exchange of knowledge, and circulate »open knowledge« as a mobile policy model within Europe. In consequence, current dialogues and discursive practices such as giving access to cultural heritage online, sharing, or »re-using« it as open cultural data can increasingly be observed in social media, thus gaining increased importance as a discursive arena.¹⁵

In consequence, digital heritage is embedded within a broad socio-cultural assemblage, firmly tied to the notion of practice and theory, and located in highly diversified discursive-material arenas: »Therefore, the reality for anyone working in digital heritage is of an evidence and literature base that is complex, diversified and distributed, with relevant content available through multiple channels, on varied media, within myriad locations, and different genres of writing.«¹⁶ In saying so, the next section reviews the scientific landscape of digital heritage, in particular the two research areas of *digital humanities* and *critical heritage scholarship*. However, what comes to the fore

12 Eugene McCann/Kevin Ward: Introduction – Urban Assemblages: Territories, Relations, Practices, and Power. In: Eugene McCann/Kevin Ward (ed.): *Mobile Urbanism: Cities and Policymaking in the Global Age*. Minneapolis 2011, pp. xiii–xxxv, see p. xiv.

13 Gisela Welz: *European Products: Making and Unmaking Heritage in Cyprus*. New York 2015.

14 Sharon Macdonald: *Memorylands: Heritage and Identity in Europe Today*. Abingdon 2013, see p. 5.

15 In regard to this characteristic in the area of digital heritage, in this issue we have also included the twitter handles of the authors – a practice which can also be increasingly observed in academia.

16 Parry, as in fn. 11, p. 3.

is that both research areas seem to be rather disconnected, exemplifying that current developments (with only a few exceptions) in both scientific and practical fields are not critically reflected in terms of cultural theory and vice versa.¹⁷

Digital heritage in digital humanities

Digital humanities is an expanding and dynamic field of research that is currently under negotiation. In diverse ways, it engages with the application of digital technology in the arts and humanities, ranging from the construction of scholarly databases, the automatization of data analysis and lessons learned from 3D photorealistic modelling to serious game development and the application of digital methods and presentation tools as an activist intervention.¹⁸ For pragmatic reasons, only aspects of digital humanities that focus on »digital heritage« will be the subject of discussion and oriented on Patrick Svensson's classification of five currents under the umbrella of digital humanities to discuss different epistemic approaches to digital heritage as subject and practice.¹⁹

Considering digitization projects currently undertaken in memory institutions, it is therefore no accident that a major enquiry of the application of digital technology in the arts and humanities has been concerned with *digital technology as a tool*.²⁰ There is a growing international as well as a German-language corpus of literature on digitization, in particular with an increasing focus on digitization of material culture and cultural artefacts like images, objects, and texts.²¹ This concerns processes of data creation and processing for setting up databases for documentation and cataloguing purposes, digital collections, and online repositories.²² Case studies, conference proceedings, and project reports have addressed technological and organi-

17 For a critique in the context of cultural heritage cf. *Fiona Cameron/Sarah Kenderdine* (eds): *Theorizing Digital Cultural Heritage: A Critical Discourse*. Media in Transition. Cambridge 2007; for digitality and empirical approaches cf. *Gertraud Koch* (ed.): *Digitisation: Theories and Concepts for Empirical Cultural Research*. Abingdon 2017.

18 Cf. *Patrik Svensson*: *The Landscape of Digital Humanities*. In: *Digital Humanities Quarterly* 4 (2010), no. 1. URL: <http://digitalhumanities.org/dhq/vol/4/1/000080/000080.html> (date: 29.11.2017).

19 *Svensson*, as in fn. 18; *Gertraud Koch*: *The Ethnography of Infrastructures*. *Digital Humanities and Cultural Anthropology*. In: *Agiatis Benardou et al.* (ed.): *Cultural Heritage Infrastructures in Digital Humanities*. Abingdon 2018, pp. 63–81.

20 *Svensson*, as in fn. 18.

21 For contributions from cultural anthropology on digital heritage in German-language scholarship see *Eckhard Bolenz/Lina Franken/Dagmar Hänel* (eds.): *Wenn das Erbe in die Wolke kommt: Digitalisierung und kulturelles Erbe*. Essen 2015; *Holger Meyer et al.* (eds.): *Corpora ethnographica online: Strategien der Digitalisierung kultureller Archive und ihrer Präsentation im Internet*. Münster 2014.

22 *Yehuda Kalay/Thomas Kvan/Janice Affleck* (eds.): *New Heritage: New Media and Cultural Heritage*. Abingdon 2008; *Agiatis Benardou et al.* (eds.): *Cultural Heritage Infrastructures in Digital Humanities*. Abingdon 2018.

sational-theoretical questions that emerge in the context of digitization and open accessibility. They focus on issues of implementation or usability and how open source and open data approaches can be realised in memory institutions. On the one hand, this is coupled with legal issues such as intellectual property rights and calls for comprehensive modifications of legal frameworks as the vision of ubiquitous accessibility to cultural objectivations is limited by copyrights and the uncertainty about how to handle the digital imperative of open access in light of orphan works, cultural materials with unknown authors, which fall into a regulatory grey area.²³ On the other hand, this also links to efforts of data capturing and visualisation in the context of cultural heritage, as different kinds of cultural data and tools are made freely available over the web, such as tools to systematically collect data from online environments (e.g. social media) or web-based visualisation tools like face-recognition for remediations of cultural heritage. Moreover, once digitized, technical issues of long-term preservation concerning digital archiving, maintenance, and accessibility arise in the context of memory institutions' digitization projects, underlining the vulnerability of digital infrastructures as storage media; the same applies to scholarly (and practical) endeavours of archiving born-digital resources such as digital art or tweets.²⁴ In the light of the ongoing digitization of cultural heritage and the maintenance of born-digital artefacts, new challenges arise as »bits depend on software protocols«.²⁵

In that vein, digital humanities scholars consequently highlight the complexity of digital infrastructures and problems of mutual compatibility, interconnectivity, and interoperability when applying digital technology to current practices of representation, preservation, management, and dissemination of cultural heritage. Moreover, this also implies a lack of appreciation for the emerging potentials of digital technology to change the practice and so-called memory modalities to which it is applied.²⁶ This, in turn, goes hand in

23 Paul Klimpel/Ellen Euler (eds.): *Der Vergangenheit eine Zukunft: Kulturelles Erbe in der digitalen Welt*. Berlin 2015; Gabriele Beger et al.: *Hamburger Note*. URL: <http://hamburger-note.de/> (date: 19.1.2018); Merete Sanderhoff (ed.): *Sharing is Caring. Openness and Sharing in the Cultural Heritage Sector*. Copenhagen 2014.

24 Caroline Robertson-von Trotha/Robert Hauser: *UNESCO and Digitalized Heritage: New Heritage – New Challenges*. In: Dieter Offenhäuser/Walter Zimmerli/Marie-Theres Albert (ed.): *World Heritage and Cultural Diversity*. Germany 2010, pp. 69–78; Thomas Risse et al.: *Documenting Contemporary Society by Preserving Relevant Information from Twitter*. In: Katrin Weller et al. (ed.): *Twitter and Society*. New York 2014, pp. 207–219; Michael Hollmann/André Schüller-Zwierlein (eds.): *Diachrone Zugänglichkeit als Prozess: Kulturelle Überlieferung in systematischer Sicht*. Berlin/Boston 2014; Richard Rogers: *Digital Methods for Web Research*. In: Robert Scott/Stephan Kosslyn (ed.): *Emerging Trends in the Social and Behavioral Sciences*. Malden/Oxford 2015, pp. 1–22; Maria Economou: *Heritage in the Digital Age*. In: William Logan/Máiréad Nic Craith/Ulrich Kockel (ed.): *A Companion to Heritage Studies*. Malden/Oxford 2016, pp. 215–28.

25 Ippolito, as in fn. 5, p. 9.

26 Yehuda Kalay: *Introduction: Preserving Cultural Heritage Through Digital Media*. In: Yehuda Kalay/Thomas Kvan/Janice Affleck (ed.): *New Heritage: New Media and Cultur-*

hand with an emerging and much needed focus on more critical reflective explorations of digital technologies and their implementation in recent writings that go beyond instrumentality and traditional museological concerns in the field of digital heritage. Considering this, these developments in digital humanities engage with *digital technology as expressive medium* to contribute to a greater and more rigorous critical understanding of the whole process of digital source creation and reflective use.²⁷

While driven by the traditions of memory institutions, digital humanities leverage the capabilities of contemporary technologies in visualizing (e.g. augmented and virtual reality technology) and representing cultural artefacts such as objects through 3D modelling. The digital offers new modes for experiencing cultural heritage by creating information technologies that set up new relations between people, things, and information and thus reconfigure approaches to cultural heritage digitally. In saying this, recent discussions in digital humanities are putting more a spotlight on »expressive, creative media« and how these in turn reconfigure our experience of cultural heritage. As Benardou et al. note, digital humanities scholars' engagement with expressive media such as 3D technology has a rather long history of drawing more from theories and practices in digital archaeology and the digital representation of material culture to analyse the potentials of contemporary technology developments. Like endeavours into serious games show, these kinds of engagement with contemporary information technology also occasionally borrow ideas from the entertainment industry. However, there is a lack of solid theoretical underpinnings in digital and virtual archaeology, raising critical voices to create more socially and individually meaningful representations of cultural heritage with respect to issues of experience and knowledge production in and through immersive, interactive, and multimedia technology (see Isto Huvila in this issue).²⁸

In parallel with the rising call for critical and theoretical reflections of digital heritage, the second paradigm mentioned by Svensson gains importance and concerns the engagement with digital heritage infrastructures as an *object of analysis* in digital humanities. In recent writings, these developments particularly focus on reflections on the code-dependency of objects and de-

al Heritage. Abingdon 2008, pp. 8–9; Gertraud Koch: New Memory Modalities – Exploring the Internet for Participatory Memory Work Paper Presented at Towards Digital Folkloristics. Research Perspectives, Archival Praxis, Ethical Challenges. Riga, Latvia. September 14, 2016. URL: <http://lfk.lv/conference/index.html> (date: 29.11.2017); cf. Parry, as in fn. 11; Isto Huvila et al.: What is Librarian 2.0? In: Journal of Librarianship and Information Science 45 (2013). no. 3, pp. 198–205.

27 Wido T. van Peursen: Text Comparison and Digital Creativity: an Introduction. In: Wido T. van Peursen/Ernst Thoutenhoofd/Adriaan van der Weel (ed.): Text Comparison and Digital Creativity: The Production of Presence and Meaning in Digital Text Scholarship. Leiden 2010, p. 1–28, cit. in Benardou et al., as in fn. 22, p. 3.

28 Alonzo C. Addison: The Vanishing Virtual. Safeguarding Heritage's Endangered Digital Record. In: Yehuda Kalay/Thomas Kvan/Janice Affleck (ed.): New Heritage: New Media and Cultural Heritage. Abingdon 2008, pp. 27–39; Benardou et al., as in fn. 22, pp. 1–2.

sign processes of digital heritage infrastructures like databases of digital repositories (e.g. The Digital Repository of Ireland in this issue) or the role of knowledge production in 3D modelling. The same is true for analytical considerations on the cultural implications of (contemporary) technology development from the perspective of cultural anthropology, in particular with attention to its tradition as a co-founder of Science and Technology Studies. The approach of an »ethnography of infrastructure«, as recently outlined by Gertraud Koch, provides fruitful reference points for further empirical research on digital heritage infrastructures. To foster careful design, a reflective analysis of tools, and their appropriate as well as meaningful adaptations in the context of cultural heritage, this approach focuses on »codings« of digital cultural heritage infrastructures, i.e. the design and design processes as well as social and cultural implications of digital infrastructures.²⁹

However, there is also flourishing work on digital heritage that is informed by the cultural theoretical and reflexive enquiry of how digital technologies reconfigure our understanding and the very notion of heritage itself. In studies like Elisa Giaccardi's edited volume on heritage and social media, the main focus is not on the digital itself, but rather on phenomena like the idea of participatory culture, artefacts of cultural heritage, and individual and institutional memory practices that are digitally inflected: »Even though increasing attention is being paid to the construction of personally and socially meaningful experiences, issues of heritage value and its wider social significance have not yet been placed at the core of the design, management and renewal of heritage experience.«³⁰ This links humanities based engagement with digital technologies as an object of study to broader questions related to social, political, economic, and ethical issues surrounding the social construction of heritage and public formation as well as critical aspects concerning safeguarding, heritage management, transmission, and reproduction – issues that are traditionally analysed in the research area of critical heritage studies. However, these research initiatives on digitally inflected aspects of cultural heritage often seem surprisingly discrete in the landscape of digital humanities.³¹

Digital heritage in critical heritage studies

In that vein, the phenomenon of digital heritage and its social and cultural implications have not sufficiently been taken into account by critical her-

29 Gertraud Koch: Ethnography of Digital Infrastructures. In: Gertraud Koch (ed.): Digitisation: Theories and Concepts for Empirical Cultural Research. Abingdon 2017, pp. 78–92.

30 Elisa Giaccardi: Introduction: Reframing Heritage in a Participatory Culture. In: Elisa Giaccardi (ed.): Heritage and Social Media: Understanding Heritage in a Participatory Culture. Abingdon 2012, pp. 1–10, p. 2.

31 See for example Benardou et al., as in fn. 22; for (digital) humanities in the broad sense, see Svensson, as in fn. 18.

itage studies yet, with only a few exceptions.³² This may seem surprising with respect to its social relevance as a new research field as mentioned by the Norwegian ethnologist Dagny Stuedahl as »early« as 2009³³ – yet an impression that is reinforced when looking at the Association of Critical Heritage Studies' (ACHS) sessions at the 4th Biannual Conference on »Heritage Across Borders« in 2018.³⁴ Moreover, considering current developments in the practical field of digital heritage such as ubiquitous digitally enabled access and practices of »creative reuse« as outlined in this issue's introduction, questions of »why and how some things come to count as ›[digital] heritage« and the consequences that flow from this»³⁵ or how to transmit cultural heritage in the long-term to create a cultural memory assume new importance in light of the digital conditions. In light of the above-mentioned discussion on the engagement of digital heritage in digital humanities, these critical perspectives on digital heritage as an expressive medium and object of analysis in a broad sense highlight an important intersection between digital humanities *and* critical heritage scholarship.

Critical heritage scholarship has a long history of critically engaging with processes of heritage making as well as the cultural, social, political, and ethical effects of cultural heritage, in particular with issues of cultural economies and heritage regimes, for example, in the context of UNESCO's heritage regime of transnational heritage designation and protection. Such a perspective considers heritage as socially constructed rather than it being a quality inherent to objects, places, or practices that exists prior to preservation and official heritage lists.³⁶ Analytical concepts such as ›metacultural production‹, ›heritagization‹ (Prädikatisierung) or ›patrimonial regime‹ put a spotlight on the processual character of symbolic valuation and valorisation regimes in the context of culture.³⁷ Considering this, the relation of cultural

32 See for example *Cameron/Kenderdine*, as in fn. 17; *Ross Parry* (ed.): *Museums in a Digital Age*. London 2010; *Giaccardi*, as in fn. 30.

33 *Dagny Stuedahl*: Digital Cultural Heritage Engagement: A New Research Field for Ethnology. In: *Ethnologia Scandinavica* 39 (2009), pp. 67–81.

34 At the 4th biannual ACHS conference in Hangzhou, only one session, titled »Digitising Cultural Heritage: Opportunities for the Past, Present, Future«, will explicitly address digitization of cultural heritage. See further URL: <http://2018achs.com/#/session/theme> (date: 29.11.2017).

35 *Macdonald*, as in fn. 14, p. 14.

36 *Barbara Kirshenblatt-Gimblett*: Intangible Heritage as Metacultural Production. In: *Museum International* 56 (2004), no. 1–2, pp. 52–65; *Laurajane Smith*: *Uses of Heritage*. Abingdon 2006; *Regina Bendix/Dorothee Hemme/Markus Tauschek* (eds.): *Prädikat »Heritage«*: Wertschöpfung aus kulturellen Ressourcen. Berlin 2007; *Marie-Theres Albert/Roland Bernecker/Britta Rudolf* (eds.): *Understanding Heritage: Perspectives in Heritage Studies*. Berlin/Boston 2013; *William Logan/Nic Craith Máiréad/Ulrich Kockel* (eds.): *A Companion to Heritage Studies*. Malden/Oxford 2016.

37 *Kirshenblatt-Gimblett*, as in fn. 36; *Bendix et al.*, as in fn. 36; *Valdimar Hafstein*: Claiming Culture: Intangible Heritage Inc., Folklore ©, Traditional Knowledge. In: *Regina Bendix/Dorothee Hemme/Markus Tauschek* (ed.): *Prädikat »Heritage«*: Wertschöpfung aus kulturellen Ressourcen. Berlin 2007, pp. 75–100.

heritage and ideas of nationhood with respect to the symbolic dimensions of the past as well as their differentiation from other nation states are of sustained interest, although there is an intrinsic transnational dimension to its conceptual genealogy and rise in Europe, Western societies, and globally.³⁸ Heritage is a highly politicized concept and process. As a tool of government, its use can be controversial, contradictory, and inconsistent, sometimes also catering to the interests of minorities and marginal groups. Wider explorations of historical responsibilities to others have been of sustained interest, as this year's *International Council of Museums (ICOM)* conference on »difficult issues« exemplifies. So-called difficult, dissonant, or dark heritage confronts societies with uncomfortable truths and provides reference points to national and colonial heritage projects of nostalgia, rehabilitation, and revisionism with respect to legacies of the past such as wars, (political) regime changes, forced migration, and displacement.³⁹ Heritage, however, can also be a matter of conflict that is closely linked to processes of dis-remembering or even the destruction of cultural artefacts, sites, and repatriation projects, pointing at the existence of multiple pasts and the inherent social and moral orders of heritage making and unmaking.⁴⁰ Moreover, the appreciation of multiple pasts and different manifestations and practices in Asian, African, South American and indigenous societies has influenced the nature of heritage and its politics globally (e.g. UNESCO's 2003 Convention for the Safeguarding of Intangible Heritage).

In addition to regimes of symbolic valuation, critical heritage scholars closely scrutinize the mechanisms of the commodification of culture, the invention of traditions or the rise of the heritage industry and their socio-economic heritage effects such as the disenfranchising of local people and groups that occur once their tradition is valorised as a commodity to be bought and sold.⁴¹ As a result of these tensions, scholars have turned to extensive enquiries of cultural and intellectual property, a topic that has been of sustained interest in terms of legal and ethical questions regarding issues of accessibility and

38 *Regina Bendix/Aditya Eggert/Arnika Peselmann* (eds.): *Heritage Regimes and the State*. Göttingen, 2012; *Astrid Swenson*: *The Rise of Heritage: Preserving the Past in France, Germany and England, 1789–1914*. Cambridge 2013.

39 *Sharon Macdonald*: *Museum Europe: Negotiating Heritage*. In: *Anthropological Journal of European Cultures* 17 (2008), no. 2, pp. 47–65; see further the ICOM conference website URL: <http://www.icom-helsingborg-2017.org/conference/> (date: 29.11.2017).

40 *Rodney Harrison*: *Heritage: Critical Approaches*. London 2013; *Benjamin Isakhan*: *Heritage Under Fire: Lessons from Iraq for Cultural Property Protection*. In: *William Logan/Máiréad Nic Craith/Ullrich Kockel* (ed.): *A Companion to Heritage Studies*. Malden/Oxford 2016, pp. 268–79; *Christian Manhart*: *The Intentional Destruction of Heritage: Bamiyan and Timbuktu*. In: *William Logan/Máiréad Nic Craith/Ullrich Kockel* (ed.): *A Companion to Heritage Studies*. Malden/Oxford 2016, pp. 280–94.

41 *Eric Hobsbawm/Terence Ranger*: *The Invention of Tradition*. Cambridge 1983; *Regina Bendix/Valdimar Hafstein* (eds.): *Culture and Property*. Special Issue. In: *Ethnologia Europaea* (2009); *Markus Tauschek*: *Wertschöpfung aus Tradition: der Karneval von Binche und die Konstituierung kulturellen Erbes*. Berlin 2010; *Sybille Frank*: *Wall Memorials and Heritage*. *The Heritage Industry of Berlin's Checkpoint Charlie*. Abingdon 2016.

openness to cultural heritage as well as the distribution of economic revenues and wealth (see also Gertraud Koch in this issue).⁴²

More recently, critical heritage scholarship has also started to look at the new political economies that have developed around heritage and has reconnected them to broader international processes and politics, addressing agencies like the European Union and processes of European integration.⁴³ In doing so, they pay special attention to their inherent dynamics, unevenness and discontinuities of managing, governing, translating, and capitalizing heritage, i.e. how these often-hidden, less obvious mechanisms of economic valorisation and conversion operate and connect to inherent material-discursive practices of making – and sometimes unmaking heritage – to ultimately scrutinize more closely what it means to manage heritage regimes as an assemblage of neoliberal governmentality. In this light, critical heritage studies expand into research terrains that seem more akin to those of administrative sociology, institutional and political economics, and the anthropology of law. Moreover, there is an increasing focus on issues such as the use of more abstract normative criteria and »objective« evaluation processes in the context of heritage management.⁴⁴

Critical heritage scholarship is also engaged with questions of how to transmit cultural heritage in the long term and critically discusses heritage in terms of memory and the increased public attention to the past and its »attention to that attention«⁴⁵; a phenomenon that has variously been referred to as »heritage overflow« or »memory boom« in the European memory complex. This directs the attention to the »problem of memory«, i.e. issues of the formation of a cultural memory (e.g. analogies of individual and public memory), the many forms which processes of remembrance and forgetting take in contemporary societies, problems of long-term preservation as well as critical perspectives of de-collection (Entsammlung) and dis-remembering.⁴⁶ Another focus is also concerned with multicultural and minority memories, so-called »moving memories« in the context of migration, bor-

42 *Michael F. Brown*: Can Culture Be Copyrighted? In: *Current Anthropology* 39 (1998), no. 2, pp. 193–222; *Martin Skrydstrup*: Cultural Property. In: Regina Bendix/Galit Hasan-Rokem (ed.): *A Companion to Folklore*. Malden/Oxford 2012, pp. 520–536; *Rosemary J. Coombe/Melissa F. Baird*: The Limits of Heritage: Corporate Interests and Cultural Rights on Resource Frontiers. In: William Logan/Máiréad Nic Craith/Ullrich Kockel (ed.): *A Companion to Heritage Studies*. Malden/Oxford 2016, pp. 337–54.

43 For example *Welz*, as in fn. 13.

44 *Tania M. Li*: Governmentality. In: *Anthropologica* 49 (2007), no. 2, pp. 275–281; *Rosemary J. Coombe*: Managing Cultural Heritage as Neoliberal Governmentality. In: Regina Bendix/Aditya Eggert/Arnika Peselmann (ed.): *Heritage Regimes and the State*. Göttingen 2012, pp. 375–387, see p. 379; *Lynn Meskell*: Introduction: Globalizing Heritage. In: Lynn Meskell (ed.): *Global Heritage: A Reader*. Malden/Oxford 2015, pp. 1–21.

45 *Macdonald*, as in fn. 14, p. 5.

46 *Rodney Harrison*: Forgetting to Remember, Remembering to Forget: Late Modern Heritage Practices, Sustainability and the »Crisis« of Accumulation of the Past. In: *International Journal of Heritage Studies* 19 (2013), no. 6, pp. 579–595.

der crossing, and diaspora. Recent work considers such questions by analysing the various ways in which multicultural groups are organised and what different individuals and groups regard as relevant »heritage« in their everyday lives. In this respect, critical heritage studies and memory studies have a long tradition of putting a spotlight on the variety of everyday heritages and memories in various ways.⁴⁷ The connotations and framing of heritage, however, differ from »memory«: To discuss heritage in terms of memory rather in terms of the materiality, durability over time, and value of artefacts significantly »displaces the debate, compared to the early years of heritage boom [...]. As a consequence, there is a move away from trying to be selective in heritage management to being inclusive.«⁴⁸ Hence, there has been an increasing focus on participation and the local, especially directed towards indigenous and minority groups, their participation in safeguarding projects, and a much needed emerging exploration of the potential for fruitful collaboration in heritage making, unmaking, and management.⁴⁹ In contrast, Sharon Macdonald's analytical category frees itself from notions of »heritage« and »memory« lost in favour of paying attention to practices of »past presentencing«. According to her, past presentencing encompasses »different kinds of technologies, materializations or objects«, that societies have created to make the past present, which should all be considered in anthropological enquiries, with a focus on »how they allow access to distant pasts and places, or [...] generate particular kinds of responses«.⁵⁰ At a higher level, the question should be discussed more widely on how we can keep cultural knowledge in its different forms of expression, materialities, and qualities (e.g. as cultural heritage) alive in the ongoing area of tension between continuity and change – a debate which often operates under the term of »living heritage«, for instance in the context of the patrimonial regime of intangible cultural heritage.⁵¹

47 See, for example, Jelena Tošić/Monika Palmberger (eds.): *Memories on the Move – Experiencing Mobility, Rethinking the Past. Migration, Diasporas and Citizenship*. London 2016; Elizabeth Auclair: *Ordinary Heritage, Participation and Social Cohesion: The Suburbs of Paris*. In: Elizabeth Auclair/Graham Fairclough (ed.): *Theory and Practice in Heritage and Sustainability: Between Past and Future*. London 2015, pp. 25–39. For young perspectives on »ordinary heritage«, see also the cross-generational research initiative *Young Heritage Studio* at the Institute of European Ethnology/Cultural Anthropology at the University of Hamburg, URL: <http://digilab-culture.de/> (date: 29.11.2017).

48 Tim Benton: Introduction. In: Tim Benton (ed.): *Understanding Heritage and Memory*. Manchester/New York 2010, pp.1–6, see p. 2.

49 Auclair, as in fn. 47, pp. 25–39; Tauschek, as in fn. 41.

50 Sharon Macdonald: *Presentencing Europe's Pasts*. In: Ullrich Kockel/Máiréad Nic Craith/Jonas Frykman (ed.): *A Companion to the Anthropology of Europe*. Malden/Oxford 2012, 233–252, see p. 246.

51 Fredrik Barth: *An Anthropology of Knowledge*. In: *Current Anthropology* 43 (2002), no. 1, pp. 1–18; Kirshenblatt-Gimblett, as in fn. 36; Gertraud Koch: *Studying Heritage in the Digital Era*. In: Marie-Theres Albert/Roland Bernecker/Britta Rudolff (ed.): *Understanding Heritage: Perspectives in Heritage Studies*. Berlin/Boston 2013, pp. 169–82.

Building on these currents and themes from a theoretical standpoint, further research needs to reflect on the intersections of digital humanities and critical heritage studies. In what ways can concepts of critical heritage studies ›animate‹ debates in digital humanities and vice versa to highlight the specific changes produced by the digital in the context of cultural heritage and memory work?

Digital heritage as metacultural production

When looking at efforts to digitally safeguard cultural heritage and to maintain digitized heritage, one can observe that these can leap right to logistical problem solving. This is reasonable given the urgency of the problem. Digitization projects of memory institutions, however, are often only operated based on what is technologically, financially, and organizationally possible, whereas a complete and timely digital recording of existing collections is often deemed as good practice and an underlying principle of digitization projects.⁵² Considering this, various authors criticize »the emergence of a digital imperative, the life in the necessity of digitising cultural expressions«⁵³. Moreover, increasingly analogue objectifications such as images, texts, and objects are subject to digitization efforts raising issues of cultural representation.

As is the case with practices of symbolic valuation like the »invention of tradition« or heritagization, digitization confers value to open cultural data. Usually, heritage making is informed and validated by scientific selection criteria to govern what is regarded as worthy of safeguarding in heritage regimes, e.g. by conferring value to what is on the list in UNESCO's patrimonial regime.⁵⁴ (See ill. 3.⁵⁵)

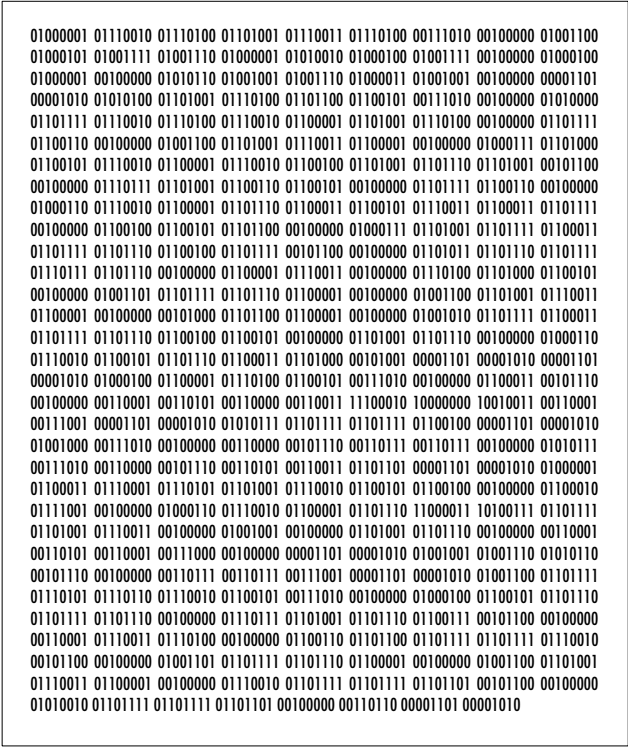
As in the case of symbolic valuation like »the invention of tradition« or »patrimonial regime«, digitization can also be seen as an instrument of modernization and a mark of modernity. Heritage making – and thereby also practices of an unmaking –, however, are rather facilitating an affirmative metacultural production of publicly interpreted cultural heritage into digitized heritage – following the argument of: »If it's not online it doesn't exist!« This emphasis on digital heritage as a metacultural product rather than pro-

52 *Bas van Heur*: From Analogue to Digital and Back Again: Institutional Dynamics of Heritage Innovation. In: *International Journal of Heritage Studies* 16 (2010), no. 6, pp. 405–416; *Koch*, as in fn. 5.

53 *van Heur*, as in fn. 52, p. 405.

54 Cf. *Kirshenblatt-Gimblett*, as in fn. 36, p. 57.

55 In her visual statement »I am Mona Lisa.«, Anna Christina Massing, master student in European Ethnology/Cultural Anthropology at the University of Hamburg, refers to the principle of machine-readability and practice of datafication of cultural heritage. However, it also demonstrates that digitization is not a technical process per se. Digital technologies are both driver of socio-cultural change and subject to change, rendering contemporary safeguarding practices problematic as further outlined in this issue.



I am Mona Lisa.

Ill. 3: *Datafication, Photo: Anna Christina Massing, Hamburg*

cess seems to be running the risk of producing rarely retrieved piles of data, a digitized »memory mountain«, reinforcing the problem of memory rather than being »constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, [that] provide them with a sense of identity and continuity«. ⁵⁶

Even if some of those experts involved in digitising cultural expressions had hoped for cultural rather than metacultural outcomes in the first place and wanted to focus on practices that directly support individual cultural reproduction such as emphasized by initiatives of »creative reuse«, digitized herit-

56 UNESCO, as in fn. 7.

age and open cultural data are rarely retrieved and re-created by individuals in their everyday lives. Consequently, discursive practices of living digitized heritage, i.e. cultural artefacts that are widely shared, continuously changing, and producing new cultural knowledge facilitated through open access to digitized collections, stand in stark contrast to the contemporary memory practices of museums, archives, and libraries which often maintain a somewhat static, unambiguous, expert-defined concept of heritage needing protection from the forces of change.⁵⁷ And to confuse matters more, this again is putting memory institutions under pressure as politicians and funders are increasingly demanding numbers to show that the invested public resources have a »tangible societal impact« and digital copies are remediated.⁵⁸ Because of the great pressure to codify and quantify metacultural operations by creating universal standards through law, technology (e.g. metadata standards), and new measures of ascertaining »impact«, memory practice subjects itself to new forms of neoliberal governmentality in a similar manner as shown by, for example, Rosemary Coombe and Gisela Welz in the context of UNESCO's heritage regime and Europeanization.⁵⁹

Consequently, digital cultural heritage is a site of ethical problematization where memory practice has been rendered problematic: How should we remember and safeguard the past under digital conditions?⁶⁰ This question and the associated contingencies and dynamics in regard to heritage making and sometimes unmaking through digitization must be addressed from the perspective of critical heritage studies and digital humanities in a cultural theoretical and reflexive manner »to probe and unsettle ways in which memory, and especially the ongoing memory and [digital] heritage boom, are typically addressed and theorised«.⁶¹

This issue as a bricolage

The articles in this volume make a case for reconsidering the more familiar categories of cultural heritage, be it custodial institutions and their memory modalities, cultural memory, participatory culture, rationales like openness and accessibility, or the rethinking of the operationalization of rights or compliance, the experience and representation of cultural heritage or finally the

57 Neil Silberman/Purser Magaret: Collective Memory as Affirmation: People-Centered Cultural Heritage in a Digital Age. In: Elisa Giaccardi (ed.): Heritage and Social Media: Understanding Heritage in a Participatory Culture. New York 2012, pp. 13–29.

58 The Sharing is Caring conferences in Hamburg and Aarhus 2017 raised questions on issues of the new digital economies in the context of open cultural data. URL: <http://share.care.nu/> (date: 29.11.2017).

59 Coombe, as in fn. 44; Welz, as in fn. 13.

60 Samantha Lutz/Gertraud Koch: Sustainability, Sustainable Development, and Culture. Diverging Concepts and Practices in European Heritage Work. In: Marie-Theres Albert/Francesco Bandarin/Ana Pereira Roders (ed.): Going Beyond – Perceptions of Sustainability in Heritage Studies No. 2. Wiesbaden 2017, pp. 71–84.

61 Macdonald, as in fn. 14, p. 2.

notion of knowledge itself. Taken together, the authors chart various new directions in critical heritage scholarship and related fields of practice, while acknowledging and building upon established fundamentals including perspectives from cultural anthropology, museum studies, art history, information science, – to name only a few – and other disciplines of critical heritage studies as well as from the perspective of practitioners such as heritage professionals along with social and cultural entrepreneurs.

This issue's articles focus on different layers of these metacultural operations outlining challenges that different stakeholders are facing in light of digitization and discuss it from scientific, practical and students' perspectives. It incorporates different genres of text such as scientific reflections, interviews, and visual statements from students.

From the perspective of a museum expert and trained scholar in art history, Antje Schmidt revisits the development that the *Museum für Kunst und Gewerbe Hamburg* (MKG) has undergone as a result of making available and giving access to cultural heritage in the *MKG Online Collection*. A central aspect of the museum's open access policy is making digitized heritage, i.e. digital copies of images that are out of copyright, freely available online to give access to cultural heritage as well as to allow for their recreation without restrictions »for private and scientific as well as for creative and even commercial purposes«. By introducing the museum's digitization project and the MKG Online Collection, the author reconnects its path of development and digital strategy with the museum's traditional vision and mission of openness. In the article, she highlights the practical, even technical side of heritage making under digital conditions by discussing the material-discursive operations that constitute the European (Commission's) governance approach of open accessibility in the context of culture through the example of the MKG Hamburg. Furthermore, she outlines modalities of making and unmaking digital heritage by referring to practices of licensing and copyrighting open cultural data. At the end of the article, Schmidt presents an outlook for future potentials and challenges for museums as facilitators of people-centred approaches to (digital) cultural heritage by opening up the discussion on how to make reference to the richness of dynamic pasts as well as multiple, even ambiguous narratives in the context of memory institutions' ongoing digitization projects.

A different approach to opening up and encouraging cultural citizenship in the practical field of digital heritage is taken by Mar Dixon, a UK-based cultural and social entrepreneur, by engaging with everyday communication practices on social media. By reflecting on a series of cultural heritage events from her practical experience (e.g. #AskACuratorDay and @52Museums) on Twitter and Instagram, she highlights that it is essential to reconnect memory institutions and people across technological change in the interview »Continuity across change? What memory institutions need to learn for the future.« While they have acted as important ›bearers‹ of heritage and identity, and from Dixon's point of view continue to do so, memory institutions of-

ten ignore the dialogical aspects of people's social practices that take place inside and beyond their walls like, for example, on social media. Consequently, she approaches social media as a connecting tissue and a space in which individual and everyday ways of past presencing take place. In light of continuous social, cultural, and technological change, one of the main challenges of memory institutions for her is to always re-examine and revisit if heritage professionals still »keep their fingers on the pulse«⁶² at the intersection of people's communicative repertoire and everyday practices compared to what people and groups variously draw on, experience, negotiate, and reconstruct as heritage. In this, the analogue media forms and manifold retranslations between analogue and digital also play an important role.

Through the example of theatre livestreaming, Rosalie von Viereck Engel explores how people draw on and experience cultural heritage in their everyday lives through an ethnographic enquiry. She takes a questioning stance towards a digital cultural pleasure and how the engagement with digital technologies in theatres reframes how we experience cultural heritage. In analysing different utilisation practices of livestream users, she focuses on the experienced perception in view of communality, spatiality, and liveness. With the help of users' videos and comments in online forums, she outlines how different levels of involvement facilitate a feeling of virtual and global connectivity and community building for a limited period of time and how the engagement with theatre livestreams serves as a demarcation of the everyday.

In an interview, Natalie Harrower reflects about her work at the Digital Repository of Ireland, a national digital repository for archiving, preserving, and providing access to Ireland's cultural heritage, humanities, and social sciences data. With the examples of the two projects *Inspiring Ireland* and the newly launched *Atlantic Philanthropies Archives*, she highlights the importance of creating a living repository and the potential of digital technologies as facilitators of people-oriented memory practice in Ireland. This, however, comes with a new set of challenges and professional expertise for archivists and heritage curators (that goes beyond technological expertise) to promote a participatory culture of public formation and collection of cultural heritage. On the one hand, this entails the need to pay closer attention to individual testimonies and experiences by collecting, digitizing, and documenting everyday knowledge, for example through so-called collection days. On the other hand, this entails the need to embrace the potential of digital technologies to achieve a multivocality of memory in order to cluster difficult issues or underrepresented memories into shared forms and processes of remembering. Furthermore, Harrower reflects on current issues of evaluation processes and shares her experience with attempting to archive born-digital content.

62 See Mar Dixon in this issue.

In his article, Robert Willim introduces an artistic practice of exploration and surrealist performance that he frames as art probing. Through the example of *Possible Worlds*, he takes the art probe as a point of departure for critically discussing digitisation projects in memory institutions. By contrasting the *Google Art Project*, he analytically reconstructs digitisation projects as an extension of frozen, glass-covered, and objectified modes of displaying and affirmative reproductions of traditional power relations of authority, proximity and distance in the digital, a mode of visualisation that was established in the early 19th century and has been replaced by more interactive and experimental practices today. Projects of this kind with their rationale of detailed proximity are culturally coded and set frameworks for interpreting and experiencing cultural heritage online. Through the example of *Possible Worlds*, Willim puts the spotlight on evoking and gaining potential for multiple ways of knowing as well as imagining new possible, digitally enhanced futures in heritage work.

Isto Huvila reflexively explores the problematic relationship between 3D artefacts and knowledge production and takes a critical stance to look at the entanglement of (3D) digital heritage infrastructures with the social practise of digital humanities scholarship from the perspective of information science. In putting a spotlight on 3D digital tools and ›visualisation‹, he focuses on 3D digital heritage infrastructures as objects of study.⁶³ For their appropriate and meaningful adaption, it is crucial to consider epistemic beliefs that inform the selection of specific methods to create three-dimensional artefacts. The use of a specific digital method to visualise cultural heritage then again has epistemic consequences for the nature of the artefact itself and its outcomes with respect to knowledge and 3D knowledge. According to Huvila, different types of 3D artefacts consequently do not only function differently but also require that differences in ways of knowing have to be taken into account when making three-dimensional knowledge visible. He argues that it is therefore relevant to ask if a particular three-dimensional artefact is a model, a visualisation, or a substitute of cultural heritage to understand the implications of knowing about archaeology compared to knowing three-dimensionally about them.

In her opening speech at the Sharing is Caring Conference in Hamburg, Gertraud Koch takes a critical stance at current practices of opening up archives and collections by asking »how open are open cultural data?« In re-examining and revisiting practices of heritage making and unmaking, she addresses three major lines of development when it comes to opening up under digital conditions: Based on Michael F. Brown's question »Can culture be copyrighted?«, she highlights that openness has been an inherent value and central rationale of European heritage regimes that is currently under negotiation in light of ongoing technological and cultural change. In addition, openness and accessibility are closely linked to questions of ownership

63 Cf. *Svensson*, as in fn. 18.

and cultural property. When it comes to sharing economies, following Luc Boltanski and Arnaud Esquerre, one can observe an emerging distribution debate, revolving around the questions to whom cultural expressions belong and who should benefit from the marketization of culture. This also entails the question of cultural representation, raising further issues of cultural citizenship and participation especially for young people and their contributions for imagining possible futures in digital times.

In the areas of data capturing and data analysis, the project description of »hermA: Automated modelling of hermeneutic processes« gives an overview of the theoretical and methodological background of the interdisciplinary research project that focuses on the exploration of the potentials of digital technologies as a tool for computer-assisted data retrieval and analysis. It assembles five disciplines from three academic institutions in Hamburg that work collaboratively on medical research questions relating to the usage and application of annotation in hermeneutic text analysis in their specific fields. hermA's common research interest is based on exploring the possibilities of digital tools and methods for the automation of annotation and examines, among other aspects, the potential of digital humanities for cultural anthropology.



Samantha Lutz, M.A.
University of Hamburg
Faculty of Humanities
Institute of European Ethnology/Cultural Anthropology
Edmund-Siemers-Allee 1 (West Wing)
20146 Hamburg, Germany
samantha.lutz@uni-hamburg.de
@_samanthalutz