# Digital heritage preservation for vulnerable collections: Reflections on the Sudan Memory project history and inventory

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ذاكرة السودان

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This report is based on findings from fourteen interviews conducted by Sara El-Nager with contributors to the initial phase of the Sudan Memory Project, along with our Research Assistant, Sari Arraf.

Any concerns related to the content of the report are the responsibility of Gibson and Ishmael, who are also the points of contact for any questions about it.

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*Front and back cover image: Pyramids at Meroe (Professor Marilyn Deegan)*

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# Executive summary

This report summarises the main findings from 14 interviews conducted between January and May 2025 with contributors to the Sudan Memory project for the Sudan Memory project history and inventory project. The Sudan Memory project (SM) is the first mass digitisation project ever to be implemented in Sudan, and its success has resulted in the digital documentation of a large quantity of Sudan's historic, social and cultural heritage.

Using SM as a case study, the report draws on insights from the interviews to identify key lessons learnt from conducting a digitisation project of cultural heritage deemed 'at risk.' In doing so, it makes recommendations for future work undertaking digitising and preserving cultural heritage in crisis situations.

### The main aims of the report are to:

1. Make recommendations and provide practical advice that stakeholders in the cultural heritage sector can use in their work to safeguard the memories and identities embedded in cultural heritage from loss in crisis situations.
2. Provide a mechanism for groups to advocate for the importance of conserving endangered cultural heritage in digital form as an important contribution towards rebuilding communities, societies, and nations in post-conflict situations.

### The recommendations of the report:

The main recommendations made in this report focus on how to conduct and improve future work that digitises cultural heritage in crisis situations and include the following:

1. Training and mentoring should be foregrounded in projects digitising cultural heritage in crisis situations. These create impacts that outlast funding cycles. When local individuals and organisations are trained and equipped, digitisation and documentation can continue – if the local communities wish – even when external organisations no longer have access.
2. Trust must be established between parties at the outset. This takes time and will determine the pace of the project, but also its success. Clear agreements around ownership and access are essential, especially when dealing with private collections.
3. Instability should be expected and anticipated. Project designs should be flexible, mobile, and decentralised to account for power outages, infrequent Internet connections, mobility constraints, and security and environmental risks.
4. Digitisation strategies should capture oral histories, narratives, and contextual metadata associated with the tangible artefacts so that the focus is preserving memories and meaning, rather than material completeness.
5. Standards for digitisation should be 'good enough.' What constitutes 'good enough' will be determined by the project context, reuse and access expectations, cultural protocols, and the Intellectual Property (IP) legal frameworks, amongst other issues.

# Definitions of core concepts/ideas

**Access:** The location, retrieval, and consultation of archival materials through physical, intellectual, or digital means, within the constraints of institutional policies and legal frameworks.[1]

**Archive:** Archives are the records people and organisations leave behind through their activities, kept because they continue to have value over time. These everyday documents and materials help us understand past events, decisions, and experiences. Archives take many forms, including written documents, photographs, audio, video, and both physical and digital materials. They may be cared for by individuals, communities, or institutions, and the word 'archives' is also often used to describe the places where these collections are stored.[2]

**Crisis Situation:** A period of acute instability or disruption that overwhelms the normal coping mechanisms, resources, and capacity to function of individuals, groups, or organisations. Such situations fall outside routine conditions and pose significant threats to safety, operations, continuity, or viability. Crisis situations may arise from a wide range of events, including natural disasters, health emergencies, political or security upheavals, cyber-attacks, infrastructural failures, or incidents of violence.[3]

**Cultural Heritage:** Cultural heritage refers to the objects, structures, and places that societies value for their historical, symbolic, artistic, scientific, or social importance. This can include artefacts, monuments, buildings, sites, and museum collections, each carrying different kinds of cultural meaning. Cultural heritage encompasses both tangible forms (movable objects, built environments, and underwater heritage) and intangible cultural heritage, including practices, knowledge, and expressions associated with people, places, and materials.[4]

**Digital Preservation:** The ongoing, managed activities required to maintain access to digital materials for as long as necessary. It encompasses the actions needed to ensure digital content remains discoverable, accessible, and usable despite risks such as media failure, technological obsolescence, resource constraints, and organisational change. Digital preservation recognises that digital materials are inherently vulnerable and require sustained technical, institutional, and financial commitment over time.[5]

**Digitisation:** The process of converting analog signals or physical originals into a digital form that can be processed by computer systems, resulting in a digital surrogate, such as a scan, photograph, audio-visual transfer, or 3D representation, accompanied by structured descriptive information (metadata) that remains persistently linked to the digital object. Rather than a singular act of capture, digitisation comprises a series of interrelated stages including preparation, data or image capture, processing, format conversion, metadata creation and enhancement, storage, and publication, ideally supporting long-term access, interoperability, and reuse.[6]

1 Society of American Archivists, *Access*, accessed June 2, 2026, https://dictionary.archivists.org/entry/access.html

2 International Council on Archives, *What Are Archives?*, accessed March 27, 2026, https://www.ica.org/discover-archives/what-are-archives/

3 Oxford English Dictionary, s.v. *crisis*, accessed March 27, 2026, https://www.oed.com/

4 UNESCO, *Glossary*, accessed March 27, 2026, https://databrowser.uis.unesco.org/resources/glossary/2488

5 Digital Preservation Coalition, Digital Preservation Handbook, accessed March 27, 2026, https://www.dpconline.org/handbook

6 Collections Trust, *Digitisation – What Do We Mean by Digitisation?*, accessed March 27, 2026, https://collectionstrust.org.uk/digitisation-resources/digitisation-mean/; Culture24, *What Do We Mean by Digitisation?*, accessed March 27, 2026, https://digipathways.co.uk/what-do-we-mean-by-digitisation/; The National Archives (UK), *Digitisation Survey – Digitisation Taskforce*, accessed March 27, 2026, https://www.nationalarchives.gov.uk/archives-sector/digitisation-taskforce/digitisation-survey/; Ditsong Museums of South Africa, *Digitisation: Is Ditsong Museums of South Africa Ready for the 4th Industrial Revolution?* accessed March 27, 2026, https://ditsong.org.za/en/digitisation-is-ditsong-museums-of-south-africa-ready-for-the-4th-industrial-revolution/

**Ethics of Care:** In a digital heritage context, this refers to a relational and context-sensitive approach to decision-making that prioritises responsibilities, vulnerabilities, and the lived consequences of technical interventions. In digitisation and preservation work, it foregrounds attentiveness to custodians, contributors, and affected communities, recognising that materials, knowledge, data, and access conditions are embedded within social relationships and unequal power structures. An ethics of care emphasises restraint, responsiveness, and situational judgement, resisting purely procedural or standard-driven approaches.[7, 8]

**Intellectual Property (IP):** IP refers to creations of the mind, including inventions, artistic and literary works, designs, and symbols or images used in commerce. IP is protected through legal mechanisms such as patents, copyright, and trademarks, which grant recognition and potential economic benefit to creators. Intellectual property frameworks seek to balance creators' rights with the public interest; however, IP laws and protections vary significantly across national jurisdictions.[9] Rooted in western conceptions of property and creativity, IP laws do not protect categories like traditional knowledge and cultural expressions or intangible culture and knowledge. These materials are deemed as being in the public domain, available for anyone to reuse for any purpose, without permission.[10]

**Orphan Works:** Cultural or creative materials whose copyright holders or legal owners cannot be identified or located after a diligent search. Common in archives, libraries, and museum collections, orphaned works often include photographs, manuscripts, films, and other historical materials where authorship, ownership, or rights information has been lost over time, or may never have been recorded. Their uncertain legal status can complicate digitisation, access, and reuse.[11]

**Reuse:** Refers to the repurposing of archival materials for new purposes, contexts, or audiences, often involving their reproduction, reinterpretation, or publication for research, exhibitions, marketing etc.[12]

**Transnational Justice:** Refers to legal, political, and ethical processes that address harms and rights violations extending beyond a single nation-state. Like transitional justice, it involves acknowledging past injustices and pursuing accountability, recognition, restitution, or redress. It recognises that many forms of harm – including those linked to conflict, displacement, or colonialism – exceed national jurisdictions and require multi-sited, cross-border mechanisms involving international actors and affected communities.[13]

7 The Ethics Centre, *Ethics Explainer: Ethics of Care*, accessed March 27, 2026, https://ethics.org.au/ethics-explainer-ethics-of-care/; Encyclopaedia Britannica, *Ethics of Care*, accessed March 27, 2026, https://www.britannica.com/topic/ethics-of-care

8 Research Data Alliance International Indigenous Data Sovereignty Interest Group. CARE Principles for Indigenous Data Governance. September 6, 2019. Accessed May 28, 2026. https://www.rd-alliance.org/wp-content/uploads/2024/03/CARE20Principles20for20Indigenous20Data20Governance_OnePagers_FINAL20Sept2006202019.pdf

9 World Intellectual Property Organization, *What Is Intellectual Property?*, accessed March 27, 2026, https://www.wipo.int/en/web/about-ip

10 Pavis, Mathilde, and Andrea Wallace. *Response to the 2018 Sarr-Savoy Report: Statement on Intellectual Property Rights and Open Access Relevant to the Digitization and Restitution of African Cultural Heritage and Associated Materials*. Journal of Intellectual Property, Information Technology and E-Commerce Law 10, no. 2 (2019). Accessed May 28, 2026. https://www.jipitec.eu/jipitec/article/view/250

11 The National Archives (UK), Orphan Works: Guidance for Archive Services on Copyright and Diligent Search, accessed March 27, 2026, https://cdn.nationalarchives.gov.uk/documents/archives/orphan-works-guidance.pdf

12 Society of American Archivists, *Reuse*, accessed June 2, 2026, https://dictionary.archivists.org/entry/reuse.html

13 International Center for Transitional Justice, *What Is Transitional Justice?*, accessed March 27, 2026, https://www.ictj.org/what-transitional-justice

# Introduction

Archives, museums and libraries are spaces for 'shared memories and identities'; when they are erased in conflicts, they leave a 'memory gap' that needs to be filled so that people can reconstruct their culture and histories post-conflict.[14] Since 2013, the collaborative Sudan Memory (SM) project has digitised collections of Sudanese cultural materials from the country's different regions, both in public and private institutions, in anticipation of mitigating this gap.

The ongoing war in Sudan that has led to devasting loss of tangible cultural heritage through the ransacking and looting of institutions such as the National Museum, Khalifa House Museum, and other institutions, confirms the significance of this work.[15] In the absence of these tangible heritage collections, this digital archive will play a vital role in preserving and reconstructing key elements of Sudan's culture. This situation is not unique to Sudan – militarised conflicts and the impacts of climate change increasingly place material cultural heritage in crisis situations worldwide.

This report details the major findings of research activities designed to assess SM's history, inventory, processes and methodologies and so develop a set of 'lessons learnt'. The final recommendations are grounded in these research findings and are intended to inform changes in the international cultural heritage sector to support organisations to better conduct digitisation projects, with a focus on crisis or emergency situations.

## Sudan Memory history and inventory project

### Project aims

1. Document the history of the SM project
2. Collate an inventory of holdings
3. Identify the project's key successes and learnings.

### Project objectives

The main project objective was to develop a history of the SM project through collating a comprehensive inventory of materials digitised during the initial phase of the project, along with a compendium of rights and licensing agreements that currently govern the digital materials within the collection. Through full documentation and consolidation of the materials, the initial intention was to prepare these materials for transfer to an institutional archive repository to ensure SM's long-term preservation and sustainability.

### Project outputs

Creating a written history of the PM project informed through research and interviews.

Consolidating the 'lessons learned' into this report for use within other institutions and agencies responsible for tangible cultural heritage who are in similar contexts to:

- Advocate for the significance of proactive digitisation projects that are driven by local concerns and communities
- Form part of a long-term strategy to preserve cultural memories and identities
- Facilitate enduring cultural understandings
- Foster transitional justice in a post-crisis situation.

14 Professor Dina Matar (SOAS) cited in Mai Khaled, Heba Saleh, Lucy Rodgers, Alexandra Heal, and Dan Clark, *How the Loss of Entire Families Is Ravaging the Social Fabric of Gaza*, Financial Times, December 13, 2023, https://www.ft.com/content/c09cc412-ae5c-423e-8e1d-b888d9f65598

15 James Copnall, *From Prized Artworks to Bullet Shells: How War Devastated Sudan's Museums*, BBC News, April 26, 2025, accessed July 26, 2025, https://www.bbc.co.uk/news/articles/c5y4lxxj055o

## Research activities

The research activities centred on three areas:

- Generating data and evaluation of the project through interviews with those involved. This led to interviews with 14 participants (2025) by Sara El-Nager and Sari Arraf, undertaken in both English and Arabic, with translations provided;
- Mapping, compilation and documentation of the extent of the digital materials;
- Identification of the multiple rights holders within the digitised materials.

In-person interviews were not possible because most participants had been forced to move to a number of countries outside Sudan due to the war in 2023. The interviews were therefore conducted via a secure video conferencing platform. Interviewees were given the option to speak in English or Arabic with six choosing to express themselves in Arabic. The interviews were based on a set of pre-discussed questions and participants were given the opportunity to add further comments. During the interviews, topics deemed to have the potential to put the participants at risk were avoided, such as discussing opinions about Sudan's warring sides or about the countries they were currently residing in.

Sari Arraf, a PhD candidate and native Arabic speaker, was the project's research assistant and had the necessary experience and skills to check the transcripts corresponded to the interview audio files and to correct any mistakes such as place names. For the purposes of the project, English summaries of the Arabic transcripts were deemed sufficient.

## List of interviewees and roles

| Name and current country of residence | Role(s) in SM |
|---|---|
| **Anas Medani** *Canada* | Local Data Management Specialist |
| **Asia Mahmoud** *UK* | Local Coordinator and Collection Researcher |
| **Badreldin Elhag Musa** *USA* | Executive director of the Sudanese Association for Archiving Knowledge (SUDAAK), Project Partner |
| **Geoff Laycock** *UK* | Scan Data Experts, Digitisation Consultant |
| **Ibrahim Ahmad - Brahim Snoopy** *Kenya* | Photographer, Filmmaker |
| **Ikram Madani** *Czech Republic* | Director of the Natural History Museum, University of Khartoum |
| **Issam Hafeiz** *Kenya* | Photographer, Coordinator, Private Collection Owner |
| **Katharina von Schroeder** *Kenya* | Project Manager |
| **Katherine Ashley** *UK* | Consultant Project Manager |
| **Khadiga Ali** *Egypt* | Senior Librarian, University of Khartoum, Digitisation Supervisor |
| **Marilyn Deegan** *France* | Managing Director |
| **Mohamed Abbas** *Sudan* | Digitisation Trainer |
| **Robin Davies** *UK* | British Council Director, project's Senior Responsible Officer |
| **Wahbi Abdalrahman** *Sudan* | Project Lead, Nile Valley University |

## Current status of Sudan Memory project

This research focusses on Phase 1 of the Sudan Memory project: SM's inception in 2013 and throughout the phase funded by the British Council's Cultural Emergency Fund (£1,170,000) and the Aliph Foundation (US$655,000), (2017 – 2022). By 2022, SM had digitised 148,000 items comprising films, photographs, manuscripts, museum objects, audio files, stories related to some of the digitised material, a 3D, interactive, historic model of Suakin Island and all related metadata in both English and Arabic.

The digitised material is stored on King's Open Research Data System (KORDS), which is King's College London's research data repository. It provides long-term storage and access for datasets at project-end. Additional copies of the material are stored on hard drives kept by SM project team members. Some of these hard drives were still in Sudan when the conflict started in 2023 and so their whereabouts are currently unknown.

SM includes materials for which there are many different rights holders. Rights to the originals and digital surrogates are held by a variety of different individuals and organisations; some of the materials are considered orphan works. Given the legal risks involved, digitisation projects often require partners to transfer all copyrights to the digitising institution to the extent that is possible. SM departed from this practice for many reasons. First, only the copyright owner can transfer those rights, which was not feasible for any orphan works.

More importantly, however, this risk-averse practice is increasingly controversial for appropriating the rights and knowledge of originating communities through inequitable contractual practices. Because building trust was essential for the project to proceed, SM signed use and access agreements on a case-by-case basis with project partners. Collection holders gave non-exclusive permission to SM to include low-resolution digital images of their content on the SM website. All rights in the originals and any surrogates remain with the collection holders or with the original creator of the content. They are made available on the SM website for personal, educational and non-commercial access. This meant all rights remained with their originating communities and rights holders.

This trust was essential for the SM project to proceed. However, in light of the war, this causes some complications. The conflict has made it challenging or impossible to contact some of the legal rights owners. Additionally, some of the rights agreements were in Sudan in 2023 and so no record of these remains. This situation not only hinders possibilities for reusing the material but means transferring the content of SM to an institutional archive for safekeeping until the conflict is resolved is increasingly complicated as SM does not own the materials and legal rights to do this.

This SM history and inventory project was developed in response to not only the devastation in Sudan due to the war, but also as an important moment to consolidate the preservation of the digital materials collected by SM to support future reconciliation. We draw on the processes and 'learnings' to inform the recommendations set out below and to support the wider heritage sector.

# Key recommendations

Emerging from the interviews and through the research of Sara El-Nager and Sari Arraf, we have organised the key findings and recommendations through these themes:

- Mapping and scoping
- Emergency preservation and future recovery
- Community and capacity building
- Ownership and trust
- From objects to stories
- ‘Good enough’ digitisation

## Mapping and scoping

Effective digitisation depends on understanding what exists before intervention begins. Across the project, it became clear that listing, surveying, and documenting collections was not simply preparatory work but a critical component of preservation strategy. In contexts marked by fragility, incomplete catalogues, and uneven documentation practices, the absence of prior scoping complicates decisions about priorities, risks, and resource allocation. Mapping collections enables practitioners to make informed judgements about significance, vulnerability, and sequencing, particularly where physical condition, rarity, or risk of loss must shape digitisation choices.

> ***If we did the project again, the first thing would be to list all the manuscripts available at the University of Khartoum. I need to know what is there before I start.***
>
> ***Once a collection is identified, I can then prioritise contents according to the physical condition of each manuscript.***
>
> **Khadiga Ali**

### Recommendations and learnings:

The findings demonstrate that mapping and scoping are not preliminary or administrative stages, but foundational to effective digitisation in crisis contexts. The absence of systematic documentation of collections limits the ability to prioritise, assess risk, and allocate resources appropriately. The following recommendations therefore position mapping as a core preservation activity rather than a precursor to it.

- Treat mapping and listing as core preservation activities, recognising that documentation of existence and scope is itself an intervention in contexts of uncertainty or risk.
- Acknowledge that prioritisation requires prior knowledge of collections as decisions about sequencing, condition, and significance depend on understanding materials before digitisation begins.
- Allocate adequate time and resources for scoping work, resisting assumptions that digitisation can proceed effectively without systematically surveying available material.
- Understand collection mapping as a risk-management strategy, particularly where material fragility, displacement, or institutional instability shape preservation decisions.
- Document clearly the decision making and technical processes, including around rights and due diligence. Include information on who conducted this work and made decisions in case follow-ups are needed. This should be ongoing throughout all phases of the project.

## Emergency preservation and future recovery

Digitisation of cultural heritage in crisis situations is not about providing immediate access, but a way of making future recovery possible. The focus is preserving memories and cultural claims that can be restored to play a role in rebuilding when conditions change. Many tangible collections have been looted, damaged, and destroyed in the conflict, and the digitised version is now all that remains. The digital version is a survivable trace that makes it possible for future communities, scholars, institutions to reconstruct lost and buried memories, culture, and identity claims. Interviewees framed the work as being undertaken for a future Sudan, rather than the current one.

> ***Given Sudan's current situation, with destruction and loss of historical sites, digitisation has become even more critical. If our physical collections are lost, at least we will have digital records to rebuild from.***
>
> **Dr Ikram Madani Ahmed**

> ***War has proven that digitisation is essential. Many libraries and archives were looted or destroyed, documents lost forever could have been preserved if digitised earlier.***
>
> **Khadiga Mohamed**

> ***What we digitised earlier became extremely important later, because some of the physical archives no longer exist.***
>
> **Anas Madani**

> ***It becomes a requirement when the war ends to build on what has already been documented. Post war Khartoum for example, must be shown visually to tell its story of the war.***
>
> **Issam Hafeiz**

### Recommendations and learnings:

The research highlights that digitisation in crisis contexts is oriented less toward immediate access and more toward enabling future recovery, reconstruction, and cultural continuity. As many physical collections are lost or inaccessible, digital surrogates function as survivable traces of cultural memory. The recommendations below translate this future-oriented preservation logic into practical strategies.

- Maintain a clear register/inventory of digital material and rights holders.
- Prioritise long-term digital preservation from the outset, recognising that digitisation without sustained preservation planning risks reproducing precarity rather than mitigating it.
- Consider the role of 'archival sanctuary' by situating digital collections outside the immediate crisis zone for the duration of conflict or crisis, as a temporary strategy of care rather than displacement.[16]
- Assess ethical risks associated with cloud storage given that Big Tech companies' users service agreements permit them to train their AI systems. In many cases, these Big Tech companies are contributing to destabilisation, with some even developing the military technologies that are being deployed in the MENA region.
- Reflect on repatriation as a future-oriented obligation, developing plans for the eventual return of master digital archives and intellectual property to rights holders, originating communities or national institutions once conditions allow.

16 *Archival sanctuary* is a term coined by Hannah Ishmael during this research project.

## Community and capacity building

The most enduring impact of the digitisation project is the exchange of skills, training, and capacity building between/among local communities and institutions that persist beyond funding cycles and the project. The eventual decentralised nature of the project meant infrastructure and skills were widely distributed across collaborators in Sudan and the UK, which meant the project could continue in key regions even when it was interrupted elsewhere by power outages or security risks.

> *The Sudan Memory project provided exactly what we needed at the right time, not just equipment, but training and understanding of how to build a proper system.*
>
> **Dr Ikram Madani Ahmed**

> *Even after the project officially stopped, we continued working independently, using the equipment and skills we had learned.*
>
> **Wahbi Abdalrahman**

> *We could not work from a single centre. Mobile and regional hubs were the only ways to reach collections.*
>
> **Mohamed Abbas**

> *[For] Fatima Mohamed Al Hassan, to have built this amazing collection (The Darfur Women's Museum), in her home over years and years of hard work and collaboration with others demonstrated how just personal collections, personal, everyday objects can be put together and understood in this way that really sort of documents the history, the social history of a place and has so much meaning.*
>
> **Kate Ashley**

### Recommendations and learnings:

The findings emphasise that the most enduring impact of digitisation projects lies not only in the materials produced, but in the skills, knowledge, and infrastructure developed through collaboration. Training, decentralisation, and local participation were critical to sustaining work under conditions of instability. The recommendations therefore prioritise capacity building as a central, rather than secondary, project outcome.

- Embed training as a core, enduring component of projects, recognising that skills in scanning, metadata, and data management allow work to continue long after formal funding has ended.
- Support decentralised and regionally embedded teams whose autonomy enables digitisation and knowledge production to persist even amid conflict and disruption.

## Ownership and trust

Developing trust emerged as a prerequisite for digitisation, particularly when working with private and family collections. Experiences of previous, failed projects meant widespread fear that digitisation would mean loss of ownership, access, misuse, and unacknowledged extraction. Ethical debates recurred around what should be digitised, what should be publicly accessible, and who controls access or use. These became increasingly complicated when legal owners and copyright holders could not be traced.

> ***Families were often sceptical about sharing their archives because of past failed projects. We had to build relationships and demonstrate credibility over time.***
>
> **Wahbi Abdalrahman**

> ***Some staff members were hesitant about making certain collections accessible online. There is an ongoing debate about what data should be shared and what should remain controlled.***
>
> **Ikram Madani**

### Recommendations and learnings:

The research underscores that trust is a prerequisite for digitisation, particularly when working with private, vulnerable, or historically exploited collections. Concerns around ownership, control, and misuse shaped both participation and the scope of what could be digitised. The following recommendations reflect the need for sustained, ethically grounded approaches to ownership, consent, and relational accountability.

- Recognise trust-building as core project work, requiring time, negotiation, and ethical restraint, rather than treating it as a delay to technical progress.
- Approach digitisation through an ethics of care, accepting that responsible practice may involve working slowly, selectively, and resisting assumptions that all material should be made publicly accessible.
- Understand ownership as contingent and relational, acknowledging the need for frameworks that can accommodate uncertainty and collective care, particularly where owners' wishes cannot be traced or articulated during or after crises.
- Allow time for negotiated agreements around ownership and access, balancing legal requirements with cultural protocols and community expectations, and recognising that these processes cannot be meaningful if rushed.
- Approach sensitive forms of personal, cultural, and intellectual property as potential ricks when considering which material to make publicly accessible.
- Ensure mechanisms exist to review, restrict, or remove digitised materials if needed, acknowledging that consent, ownership claims, or cultural protocols may change over time and that responsible stewardship requires the capacity to accommodate such requests.

## From digital objects to stories

Sudan Memory evolved from a focus on digitising tangible heritage materials to documenting the knowledge ecosystems surrounding them. These include recording oral histories as well as contextual narratives as a part of the metadata that permit richer, more complex interpretations and are arguably as significant as the digital objects themselves.

> *Often the collection itself no longer existed, but the stories around it were incredibly rich. That made us rethink what preservation actually means.*
>
> **Kate Ashley**

> *Metadata and description are more important than scanning alone. Every manuscript has to be explained – ink, paper, condition, history.*
>
> **Khadiga Mohamed**

> *Documentation is not just about objects. It's about people, places, and everyday life that might disappear*
>
> **Issam Hafeiz**

> *If this project were to happen again, we would continue to use video to document and there would be more focus on Sudan's living heritage.*
>
> **Wahbi Abdalrahman.**

### Recommendations and learnings:

The findings show a significant shift from prioritising the capture of digital objects to recognising the importance of contextual knowledge, narratives, and lived experience. Oral histories, metadata, and interpretive materials emerge as essential to preserving meaning, not just form. The recommendations below build on this expanded understanding of preservation as a practice of documenting relationships and stories.

- Attend to context as an urgent but labour-intensive form of preservation, recognising that images, buildings, manuscripts, and oral histories require different forms of descriptive, technical, and interpretive care, often under conditions where material or knowledge is at risk of disappearance.
- Treat storytelling practices as core preservation methods, integrating photography, video, audio recording, and oral testimony into project designs as essential means of meaning, memory, and lived experience, rather than as supplementary documentation.

## ‘Good enough’ digitisation

‘Good enough’ digitisation emerged as a pragmatic and ethical response to working under conditions of political, infrastructural, and logistical instability. Rather than lowering quality, it involved making risk-based decisions about what could realistically be digitised, described, and sustained in context. The project recognised that insisting on idealised technology and resource-intensive digitisation models risked paralysis, and that a usable, responsibly managed digital surrogate was preferable to inaccessible or deteriorating material. In this sense, good enough was not merely technical adequacy but a commitment to ensuring that digitisation served people, communities, and future access, rather than becoming an obstacle to action.

> *Electricity shortages, unstable internet, and security issues affected the work constantly. We had to adapt every day.*
>
> **Anas Madani**

> *If we were to add in all the other things that, like a British Museum or a TNA, or a British Library would want… instead of digitising 150,000 things, we’d be digitising a thousand things. So, there’s a compromise to be set between… a broad range of content that we have actually at least digitised… which makes it findable, but it’s not brilliant. It’s good enough.*
>
> **Geoff Laycock**

> *I wouldn’t have bought some of the expensive equipment… I’d have bought larger numbers of good but lower cost and lower specification equipment… there’s less to go wrong…*
>
> **Marilyn Deegan**

### Recommendations and learnings:

The research identifies ‘good enough’ digitisation as a pragmatic and context-sensitive response. The recommendations below adopt this principle as an ethical and operational framework for practice in crisis conditions.

- Accept pragmatism as an ethical stance rather than a technical compromise, recognising that risk-based, context-responsive digitisation enables action where idealised standards would otherwise prevent work from happening at all.
- Design digitisation workflows around resilience rather than perfection, favouring approaches, tools, and levels of description that can be sustained under conditions of infrastructural fragility, political instability, and limited technical support.
- Develop protocols shaped by local purpose and future use, ensuring that digitisation practices serve communities, researchers, and long-term access needs, rather than reproducing Global North benchmarks that are misaligned with local realities.

# Ethical and legal context

## Intellectual property context

Emerging from this history and inventory research project, we have faced an additional challenge of managing the rights and intellectual property within the context of preparing the materials for transfer to an archive for long term preservation.

Due to the laws on Intellectual Property (IP), as expected, the SM project includes materials for which there are many different rights holders. Whilst this is standard within digitisation projects, due to the shifting context of the process of the collection of the materials and the impact of the war, there is now a situation where rights to the originals and digital surrogates are held by a variety of different individuals and organisations; including orphan works.

For many UK institutions that undertake digitisation projects with external partners, and given the legal risks involved in digitisation, these projects are undertaken on the basis that the parties involved transfer all the copyrights they hold in the materials to the digitising institution, to the extent that is possible. However, as only the copyright owner can transfer those rights, this is not feasible for any orphan works that may be included in the digitisation project.

More importantly, however, this risk-averse practice is increasingly controversial and consider as an appropriation of the rights (and knowledge) within the material from originating communities, creating and perpetuating inequitable contractual practices.

As noted, as part of the trust building process and as part of a more sensitive approach to the issue of ownership, SM developed a more fluid, alternative process where the assigning of use and access agreements were undertaken on a case-by-case basis with project partners. As such, SM did not have any rights transferred to the project, and collection holders gave non-exclusive permission to SM to include low-resolution digital images of their content on the 'Sudan Memory' website. All rights in the originals and any surrogates remain with the collection holders or with the original creator of the content.

Whilst this was necessary to ensure an equitable approach during the initial phases of the broader SM project, the changing context of the war has caused some complications with ensuring ongoing digital preservation of the material. Firstly, the conflict has made it challenging or impossible to contact some of the legal rights owners. Additionally, some of the rights agreements were in Sudan in 2023. Without clear rights records, transferring the content of SM to an institutional archive for safekeeping until the conflict is resolved is increasingly complicated.

## Legal rights and action points

Across all six discussion points, Sudan Memory worked to extend the ethics of care to intellectual property, cultural rights, and other legal matters arising during the project. The history and inventory project reveals that how the SM approached that task changed significantly over the SM project's lifetime since it began in 2013. Rather than trying to anticipate all risks in what would surely produce over-restrictive contracts, SM allowed ongoing experience, local preferences and the benefit of hindsight to shape our agreements, rights management, documentation and digitisation processes, and future proofing plans.

### Risk assessment and mitigation

Perhaps the most important takeaway is that 'risk' is itself a concept that required constant re-evaluation to update project standards, processes, and systems of care. This is partly because 'risk' has typically been evaluated from the digitising institution's position of any legal issues involved, leading to standardised and over-reaching contracts with partners involved. Parties may want clear answers before moving forward, including funders who want outputs made available online for public reuse. For a project of this type with so many unknowns, the real risk is in digitisation not going forward. Re-evaluating risk means accepting its possibility and sitting with the discomfort of uncertainties from rights clearance and public access to documentation standards and data storage.

Rather than centring institutional risk, the focus should be on identifying the appropriate ethics of care for the knowledges, individuals and communities therein. In this context, the risk management work means managing institutional concerns and expectations. Risks may never materialise; but even if they do, they should not prevent researchers and institutions with access to resources from undertaking this type of project.

### Rights management, documentation and digitisation processes

Staff should first ask whether the standard research and digitisation agreements are appropriate. Also relevant are contracts with third parties, such as funders, sub-contractors or other external partners. Part of that work involves explaining to third parties – including funders – why digital preservation is justified, even if digital access is restricted and open access is denied.

Similar questions should be asked of rights ownership and management. Under most copyright laws, new rights can arise in any new original materials produced during the project. For decades, institutional research and digitisation agreements have required that project partners assign any rights to the digitising institution as a risk management strategy.

While such terms are no longer viewed as good practice, one trend is to replace such assignments with obligations on open access. Funders sometimes condition project funding on open licensing to ensure outputs can be freely used for any purpose without permission. This raises different issues, however, by exposing the digitised cultural materials to new forms of appropriation, knowledge and wealth extraction, particularly given the likelihood of their ingestion for AI development. For similar reasons, project partners should not declare such outputs to be part of the 'public domain', that is, unprotected by copyright law.

Copyright is just one set of rights to consider for this type of project. And regardless of the copyright status, priority should be given to cultural rights and protocols which may never expire. Due diligence and rights documentation then shift to identifying the relevant ethics of care for the content, individuals, perspectives, and knowledges within the materials, rather than the narrowly conceived understanding of property rights in digital surrogates and objects themselves. Over the project's lifetime, SM shifted its focus from legal certainty – which is never truly certain – to legal processes for building and maintaining relationships with collaborators. Project agreements were either oral or signed, as preferred by collaborators, in respectful recognition of their value, however expressed. Local communities and rights holders set all access and use permissions to the extent possible. No one, including SM, may use Sudan Memory materials for any reason without permission from the rights holders, including in cases where they are unknown.

## Recommendations:

- Be prepared to advocate for new understandings of risk management to legal teams, funders, and other institutional decision makers, while both allowing and planning for unknowns.
- Centre self-determination by ensuring that free, prior, and informed consent is given before enabling access, applying rights statements, or open licenses.
- Respect cultural rights and protocols expressed by knowledge keepers and collaborators, including any that apply to the digitising institution, project and future research.
- Build multiple labels, notices and permissions into rights management and technical infrastructures, such as by applying the Rights Statements label when copyright has expired but other legal restrictions apply (eg, Other Known Legal Restrictions) alongside Local Contexts notices (eg, Open to Collaborate).
- Use the website terms of use to communicate and normalise that cultural rights, protocols and systems of care both apply to the materials and prevail over a work's copyright or public domain status.

## Next steps and future proofing

Although Sudan Memory has recorded its obligations to ensure compliance by current and future staff, the understanding is that these obligations may change at the request of originating communities. We view ongoing communication as part of the care work, alongside planning for eventual digital and intellectual property restitution. We are exploring what this means for the project, in practice. So far, this includes asking:

- What data, research, and intellectual property produced over the stewardship period should be included in any future transfer to originating communities?
- What documentation, preservation, rights management, and archiving processes should be in place to enable that transfer, when the time comes?
- What agreements or release forms are needed in the interim, including for researchers and third parties, to reduce obstacles to digital and intellectual property restitution?

We have started with the website terms of use and technical protection measures. In addition to clearly stating that cultural rights and protocols restrict the use of materials and trump whatever copyright law might permit in users' respective jurisdictions, we have installed technical protection measures such as robot.txt and for human verification. As next steps, we hope to engage with Local Contexts, update the website terms to include their engagement and disclosure notices, and implement a reliable take down policy alongside a right of reply procedure.

# Final reflections

- The Sudan Memory project's experience and learnings detailed in this report have value for future digitisation projects initiated in crisis contexts. In these contexts, digitisation should be understood as an adaptive, locally grounded system of care, not simply a fixed or standardised technical workflow. Future projects should focus on developing relationships, skills, and capacity building, rather than attending only to the digital materials produced. This will sustain preservation work beyond formal project and funding deadlines.
- As crisis contexts – whether environmental or human-generated conflicts – increasingly threaten cultural heritage worldwide, there is a growing need for frameworks that enable rapid and scalable 'good enough' digitisation responses that remain accountable to local knowledge and priorities. Questions of ownership and access will persist. Adopting flexible mechanisms capable of supporting future restitution and post-conflict recovery will make it possible to engage meaningfully with them.
- Given the rapidly changing digital environment, cultural heritage practice must engage more critically in future with the global digital infrastructures through which materials are stored, circulated, and reused. This includes addressing the implications of cloud platforms, data economies, and AI systems, to ensure that emerging technological environments support long-term, equitable models of care, stewardship, access, and use.

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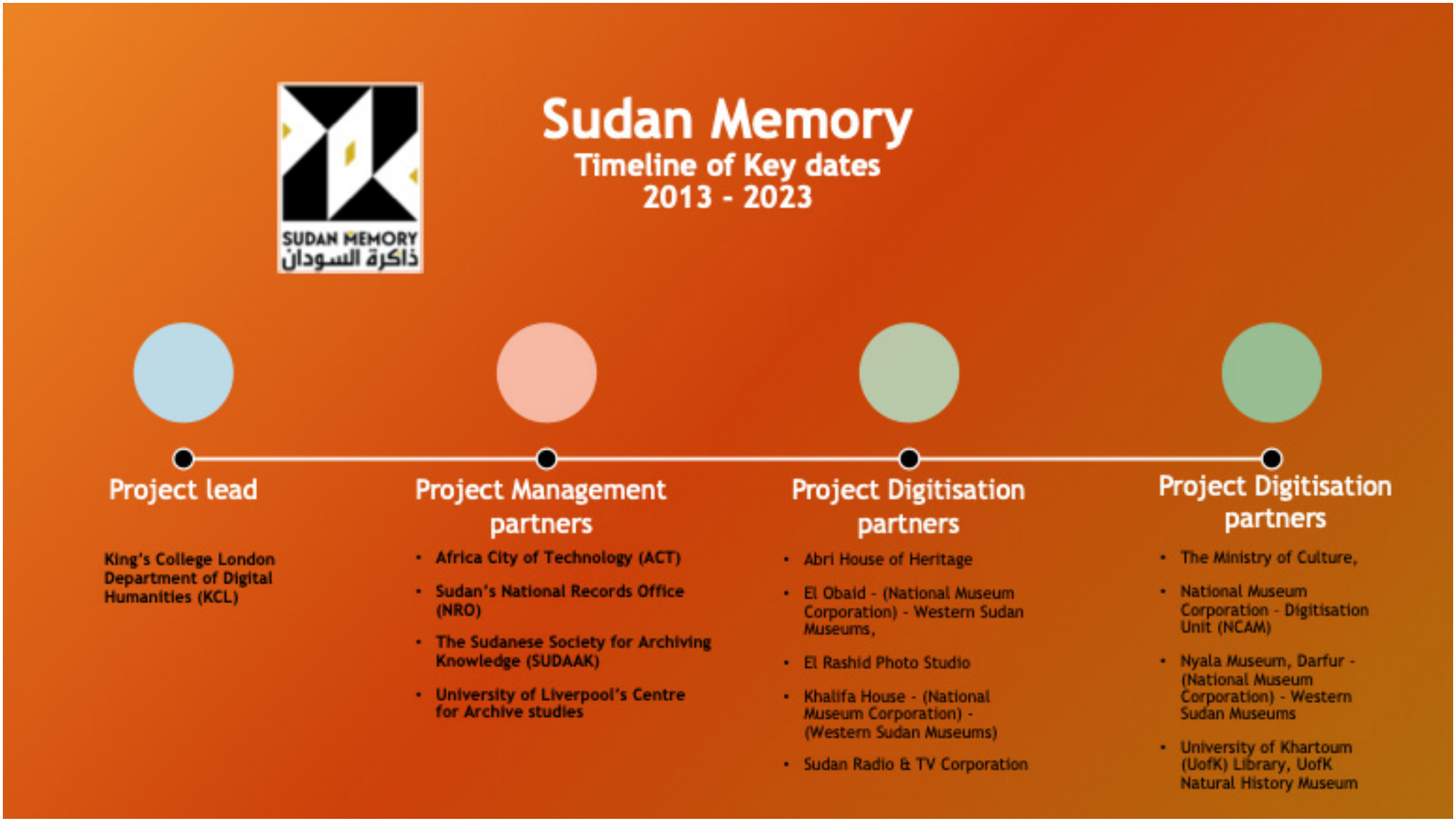
# Appendices

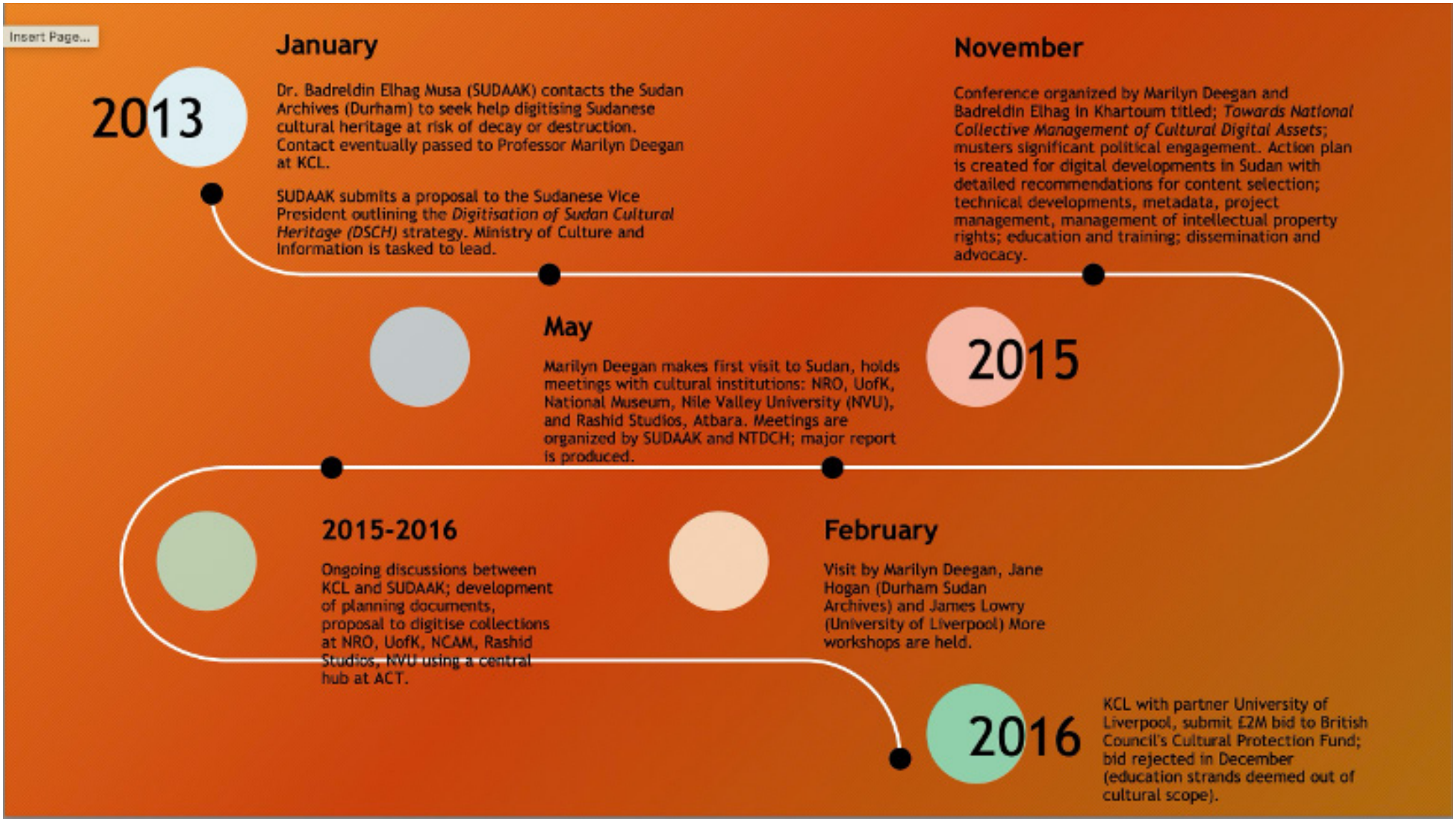
**Appendix 1:** Timeline of the Sudan Memory project

**Appendix 2:** History of the Sudan Memory project

**Appendix 3:** Snapshot of the Sudan Memory collections and inventory

## Appendix 1: Timeline of the Sudan Memory project

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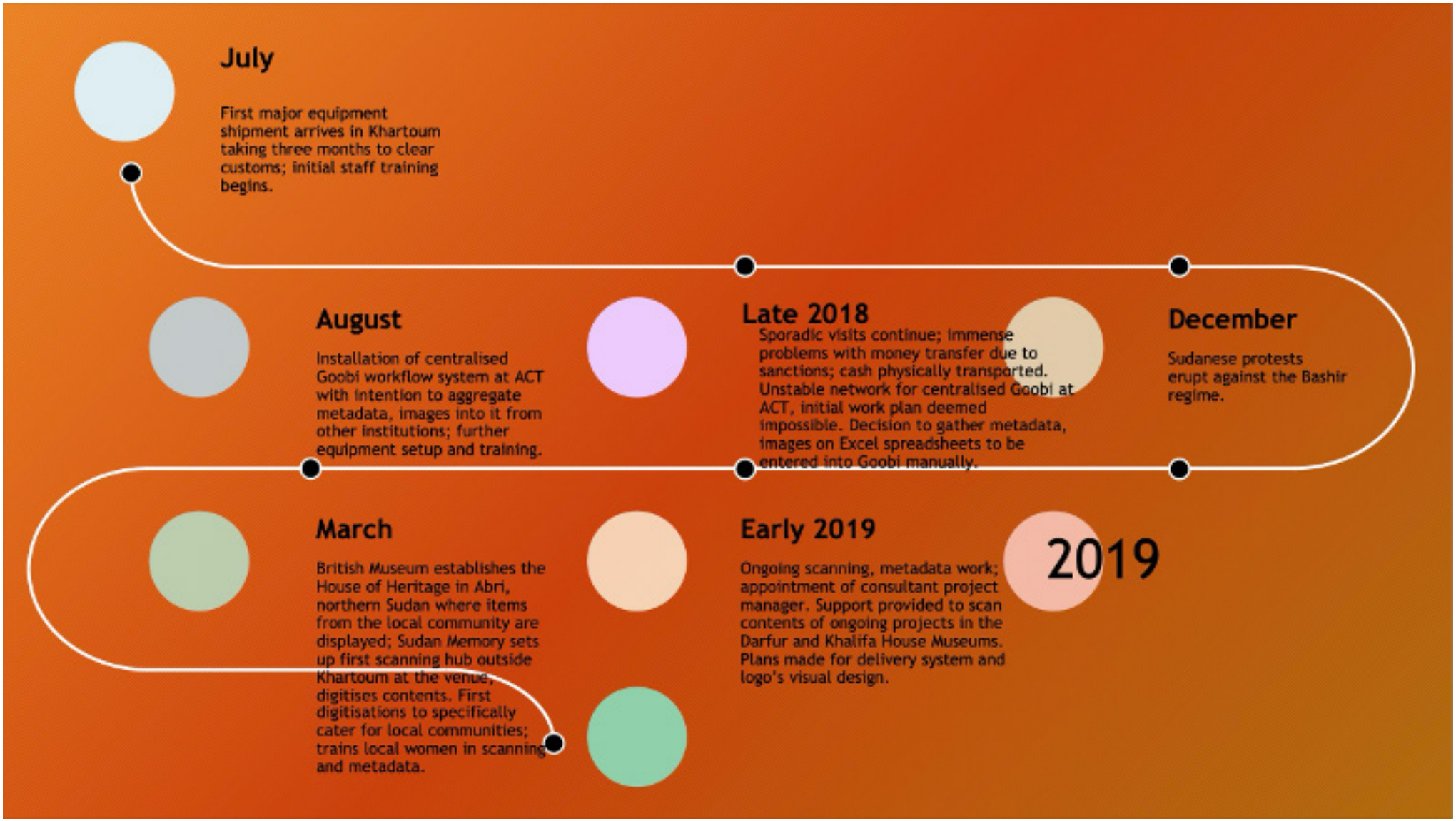
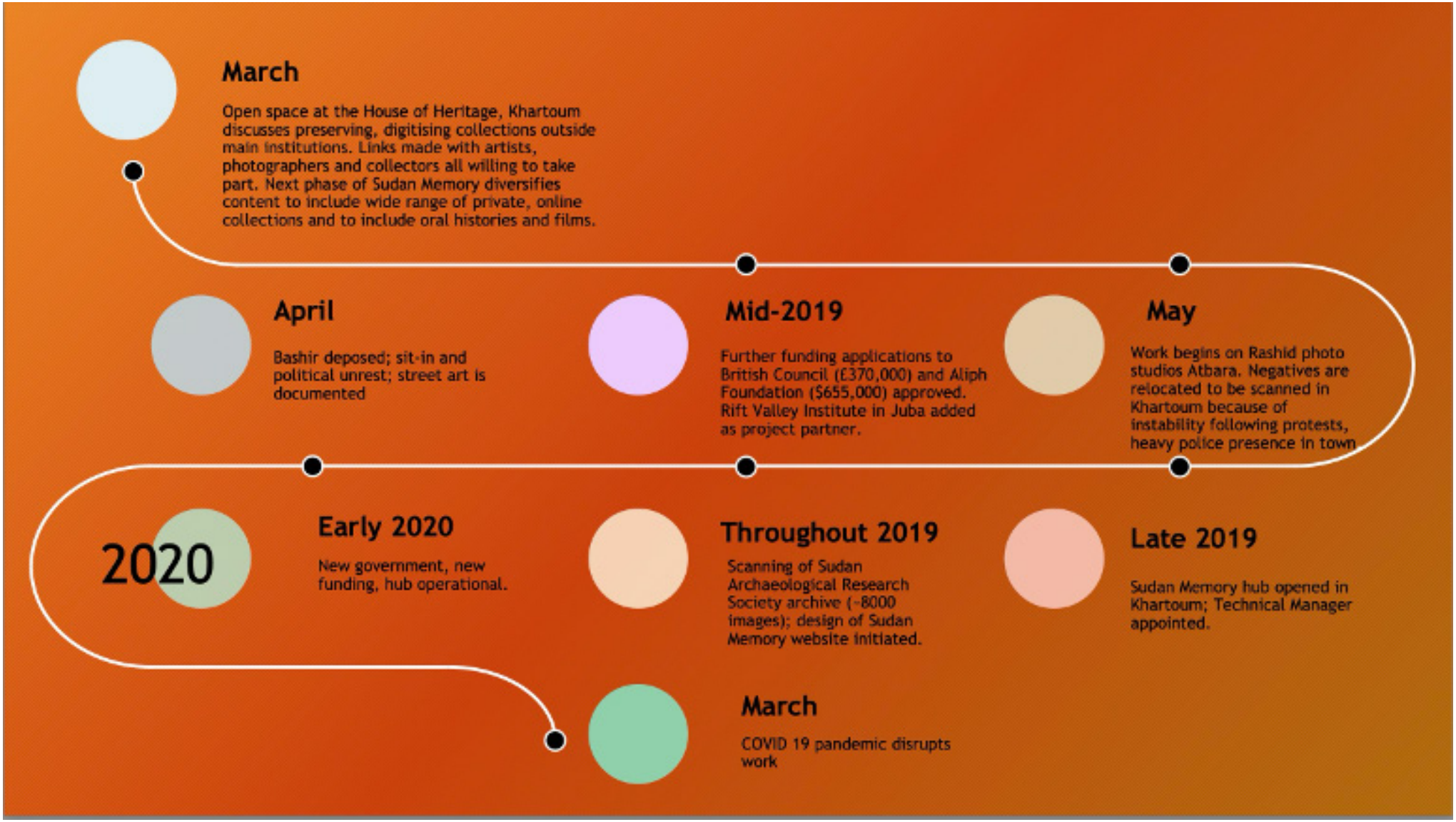
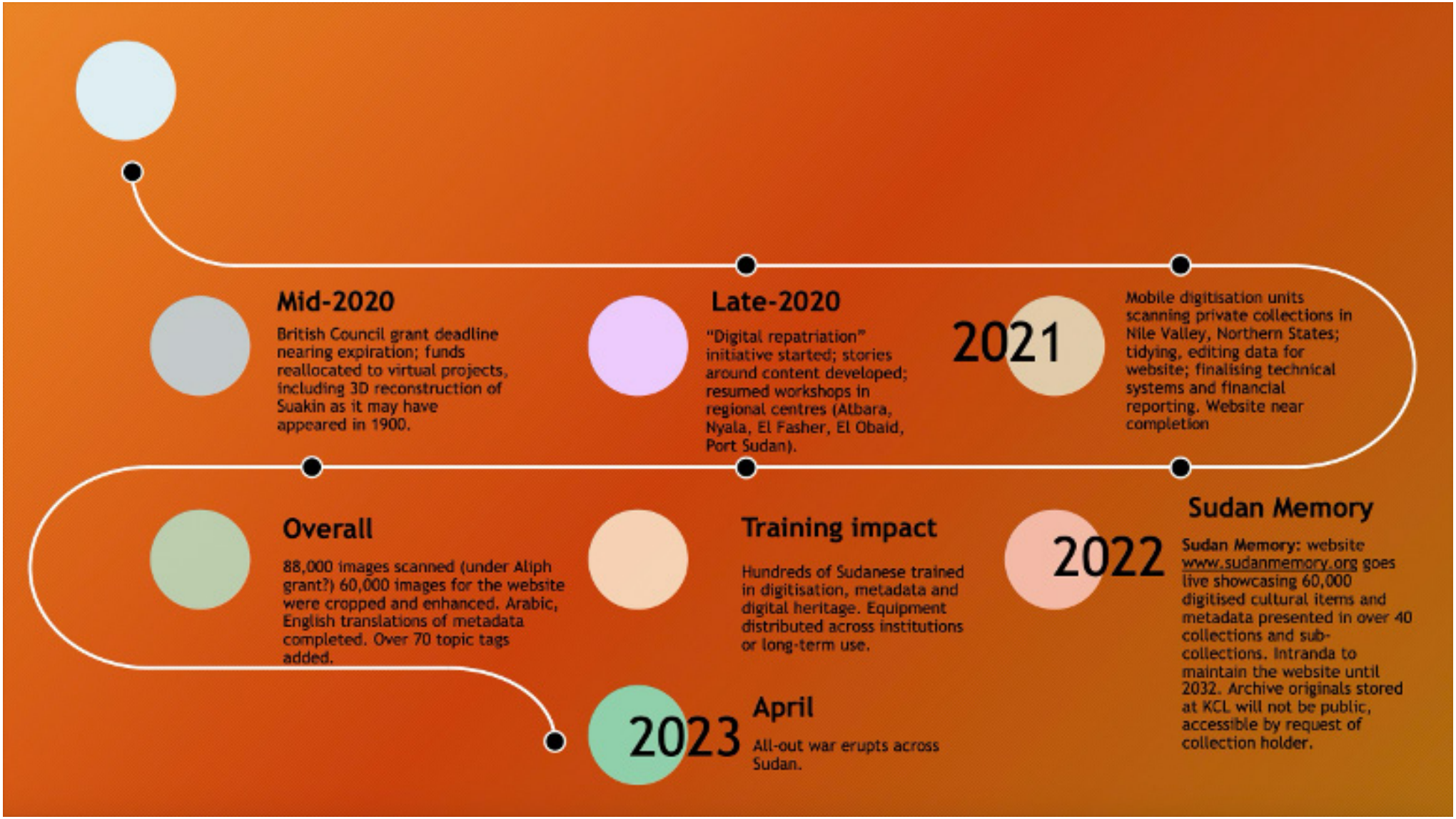
2013
January
Dr. Badreldin Elhag Musa (SUDAAK) contacts the Sudan Archives (Durham) to seek help digitising Sudanese cultural heritage at risk of decay or destruction. Contact eventually passed to Professor Marilyn Deegan at KCL.
SUDAAK submits a proposal to the Sudanese Vice President outlining the *Digitisation of Sudan Cultural Heritage (DSCH)* strategy. Ministry of Culture and Information is tasked to lead.
November
Conference organized by Marilyn Deegan and Badreldin Elhag in Khartoum titled; *Towards National Collective Management of Cultural Digital Assets*; musters significant political engagement. Action plan is created for digital developments in Sudan with detailed recommendations for content selection; technical developments, metadata, project management, management of intellectual property rights; education and training; dissemination and advocacy.
May
Marilyn Deegan makes first visit to Sudan, holds meetings with cultural institutions: NRO, UofK, National Museum, Nile Valley University (NVU), and Rashid Studios, Atbara. Meetings are organized by SUDAAK and NTDCH; major report is produced.
2015
2015-2016
Ongoing discussions between KCL and SUDAAK; development of planning documents, proposal to digitise collections at NRO, UofK, NCAM, Rashid Studios, NVU using a central hub at ACT.
February
Visit by Marilyn Deegan, Jane Hogan (Durham Sudan Archives) and James Lowry (University of Liverpool) More workshops are held.
2016
KCL with partner University of Liverpool, submit £2M bid to British Council's Cultural Protection Fund; bid rejected in December (education strands deemed out of cultural scope).

2017
New proposal
£800K project proposal (digitisation and archiving, with practical training) submitted and funded fully in October. Target to scan 58,000 images overall.
November
Visit by management team to Khartoum to initiate project; institutions go back on agreement of central scanning hub; project plan revised with donor's agreement to decentralize scanning.
December 1st
Project begins.
2018
January
Visit to Khartoum by Intranda (software partner, developer of Goobi, the project's archving system), Geoff Laycock (ScanDataExperts), to discuss setting up the project's technical infrastructure; plan revised following institutions' demand for their own equipment and training.
March-April
Marilyn Deegan makes 5-week visit to Sudan; assessments made for equipment needs; complex negotiations over permissions and rights (problem not with scanning per se but putting material online, a necessary requirement for donors to see results.
June
Film Archive digitisation project at Sudan TV brought into Sudan Memory; appointment of local project manager.


July
First major equipment shipment arrives in Khartoum taking three months to clear customs; initial staff training begins.
August
Installation of centralised Goobi workflow system at ACT with intention to aggregate metadata, images into it from other institutions; further equipment setup and training.
Late 2018
Sporadic visits continue; immense problems with money transfer due to sanctions; cash physically transported. Unstable network for centralised Goobi at ACT, initial work plan deemed impossible. Decision to gather metadata, images on Excel spreadsheets to be entered into Goobi manually.
December
Sudanese protests erupt against the Bashir regime.
March
British Museum establishes the House of Heritage in Abri, northern Sudan where items from the local community are displayed; Sudan Memory sets up first scanning hub outside Khartoum at the venue, digitises contents. First digitisations to specifically cater for local communities; trains local women in scanning and metadata.
Early 2019
Ongoing scanning, metadata work; appointment of consultant project manager. Support provided to scan contents of ongoing projects in the Darfur and Khalifa House Museums. Plans made for delivery system and logo's visual design.
2019


March
Open space at the House of Heritage, Khartoum discusses preserving, digitising collections outside main institutions. Links made with artists, photographers and collectors all willing to take part. Next phase of Sudan Memory diversifies content to include wide range of private, online collections and to include oral histories and films.
April
Bashir deposed; sit-in and political unrest; street art is documented
Mid-2019
Further funding applications to British Council (£370,000) and Aliph Foundation ($655,000) approved. Rift Valley Institute in Juba added as project partner.
May
Work begins on Rashid photo studios Atbara. Negatives are relocated to be scanned in Khartoum because of instability following protests, heavy police presence in town
2020
Early 2020
New government, new funding, hub operational.
Throughout 2019
Scanning of Sudan Archaeological Research Society archive (~8000 images); design of Sudan Memory website initiated.
Late 2019
Sudan Memory hub opened in Khartoum; Technical Manager appointed.
March
COVID 19 pandemic disrupts work


Mid-2020
British Council grant deadline nearing expiration; funds reallocated to virtual projects, including 3D reconstruction of Suakin as it may have appeared in 1900.
Late-2020
"Digital repatriation" initiative started; stories around content developed; resumed workshops in regional centres (Atbara, Nyala, El Fasher, El Obaid, Port Sudan).
2021
Mobile digitisation units scanning private collections in Nile Valley, Northern States; tidying, editing data for website; finalising technical systems and financial reporting. Website near completion
Overall
88,000 images scanned (under Aliph grant?) 60,000 images for the website were cropped and enhanced. Arabic, English translations of metadata completed. Over 70 topic tags added.
Training impact
Hundreds of Sudanese trained in digitisation, metadata and digital heritage. Equipment distributed across institutions or long-term use.
2022
Sudan Memory
Sudan Memory: website www.sudanmemory.org goes live showcasing 60,000 digitised cultural items and metadata presented in over 40 collections and sub-collections. Intranda to maintain the website until 2032. Archive originals stored at KCL will not be public, accessible by request of collection holder.
2023
April
All-out war erupts across Sudan.

## Appendix 2: History of the Sudan Memory project

Sudan Memory (SM) is the first mass digitisation project ever to be implemented in Sudan and its success has resulted in the preservation of a large quantity of Sudan's historic, social and cultural heritage. The project started work in December 2017, and by 2022 the team of international and local partners had digitised approximately 148,000 images, audio and video files comprising a vast range of items from government institutions and private collections in Sudan and abroad. These include films, photos, manuscripts, museum objects, audio files, stories related to some of the digitised material, a 3D, interactive, historic model of Suakin Island and all related metadata in both English and Arabic.

With two tranches of funding by the British Council's Cultural Emergency Fund totalling £1,170,000, and one from the Aliph Foundation of $655,000, SM was able to devise, adapt and implement a complex management system to capture and store images and related metadata and to create a public facing portal to showcase some of the digitised material (www.sudanmemory.org).

The need to digitise at-risk collections had been a concern for many in Sudan years before the project began. In 2013, the Executive Director of the Sudanese Society for Archiving Knowledge (SUDAAK), Dr Badreldin Elhag, contacted UK institutions to discuss concerns over the loss from decay or destruction of archival materials held at Sudanese government and educational institutions. From then until work on the project began, King's College London (KCL) appointed Professor Marilyn Deegan to work on formulating a plan of digitisation together with SUDAAK. Other Sudanese and UK partners (1) joined the project and conferences and workshops were organised in Sudan to discuss how it would be implemented.

In the early stages, partner institutions were tasked with selecting which parts of their collections they wanted digitised. An initial agreement for scanning to be performed at a central hub at the Africa City of Technology (ACT) had to be amended when institutions asked for work to be decentralised. Sudan Memory then set about ordering equipment and setting up scanning hubs and initiating training sessions for staff at these institutions to carry out the digitisation and input metadata. Consequently, while fewer scans were produced through decentralisation, digitisation became imbedded at these institutions as more people with low digital literacy could be trained.

Over time, less sophisticated scanning equipment such as flat-bed scanners were found to be more efficient than, for example, the overhead camera scanners. These could also be sourced locally helping to speed up procurement which could take months to clear customs when imported from abroad. Mobile digitisation units were created to access collections mostly held by private owners in rural parts of Sudan.

Agreements between SM and collection owners varied, depending on the latter's requirements, and ranged from verbal agreements to scan collection contents to proposals and Memoranda of Understanding, to more detailed agreements concerning copyrights and the use of watermarks. These also listed the responsibilities of SM to train and pay staff, and to provide specific equipment that would become the property of the collection owner. All agreements stipulated that the selected material would be scanned, and together with the associated metadata, would be stored safely on external hard drives eventually to be preserved through archiving. Collection owners also agreed that a number of low-resolution images of items digitised from their collections could be uploaded for public view on the portal, a requirement stipulated by the project funders. While discussions over scanning the collections were straightforward, putting them on a public platform was more tricky, with owners concerned over possible commercial download and use, some having been exploited in the past.

Throughout its duration the SM project had to adapt its plans to overcome a variety of challenges, some relating to the nature of work and technical infrastructure in Sudan and others to external factors such as the lockdown during the COVID 19 pandemic. Years of international sanctions against Sudan had resulted in the country's isolation and greatly affected all banking and technology transfers into the country. The political situation was extremely volatile after 30 years of military rule and increasing public anger and widespread protests eventually toppled the regime in 2019. Sudan's long stints of authoritarian rule had debilitated all government institutions, and created a civil service rife with political appointees, which led to the erosion of systems of governance and institutional methodologies. As a result, SM had to navigate an environment where public trust in official and government bodies, and their intentions, was low.

Many of the challenges SM faced were overcome through its reliance on local and international experts. For example, the technical infrastructure Goobi, developed by German company Intranda, was identified as the most appropriate for hosting all digitised materials and entering metadata in English and Arabic. A major change of plan in this regard occurred when the internet connection at ACT, which was where all data from the various institutions was due to be uploaded to Goobi, was found to be extremely unstable. The decision was therefore taken for images to be stored on hard drives and related metadata to be input on excel spreadsheets that would be uploaded manually to Goobi at a later date. Another important technical decision was deciding that because of instability in the country, it was necessary to store scanned materials on hard drives outside Sudan as well as in the originating institutions.

In total SM digitised the entire, or partial contents, of 43 private and public Sudanese and international collections in addition to SM's own documentation of the historic sit-in site during the 2019 uprising and short films about the making of the project (2). The digitised material is stored on two hard-drives currently being held at KCL (3).

Today, the significance of SM cannot be underestimated since war broke out across Sudan in April 2023 and the fate of many of the country's repositories of cultural material, whether government or private, remains unknown. Given the level of destruction that is gradually becoming apparent, there is no doubt that many of the items captured by SM no longer exist.

The SM project can be summed up as a collection of digitised images and metadata captured and preserved as a segment of Sudanese culture that could prove vital for rebuilding projects of national identity after the war. It is also the corpus of knowledge generated throughout the process of managing the digitisation of collections in an environment like Sudan and the adaptations and new opportunities that were found. Training of hundreds of staff to digitise and capture metadata, and the building of trust between these individuals and collection owners, will perhaps be the most enduring legacy of the project setting a solid foundation and blueprint for any future digitisation projects in Sudan.

## Appendix 3: Snapshot of the Sudan Memory collections and inventory

| Reference | Name of Institution/Collection | Description | Location |
|---|---|---|---|
| ABRI | Abri House of Heritage | Community museum | Northern Sudan |
| ABS | Rihab Baida Studio, Nyala | Private | Darfur, Western Sudan |
| AJR | Ajras Newspaper cultural pages | Private | Khartoum |
| ART | Art College | Educational institution | Khartoum |
| BCMS | Beja Cultural Studies Centre | Educational institution | Eastern Sudan |
| DHRC | El Fashir Heritage Centre | Museum | Western Sudan, Darfur |
| GET | Griselda El Tayib | Private | Sudan |
| HASB | Hassabu El-Sagheir | Private | Omdurman |
| HFC | Habibi Funk | Online | Germany |
| HOH | House of Heritage | | Khartoum |
| JAH | Jahoori/Gahoory | Private | Omdurman |
| NCAM | Hinkle Collection | Museum | Khartoum |
| NCAM | Khalifa House Museum | Museum | Omdurman |
| NCAM | Shikan Museum | Museum | El Obeid, Kordofan |
| NCAM | South Darfur Heritage and Civilisation Centre | Museum | Darfur, Western Sudan |
| NRO | National Records Office | Government institution | Khartoum |

| Sudan Memory archive statistics | | | |
|---|---|---|---|
| Total Storage Space Used | 4.66 TB | 7.61 TB | 12.27 TB |
| Total Files | 71776 | 138953 | 210729 |
| TIFF Image Files | 48048 | 98974 | 147022 |
| JPEG Image Files | 23456 | 37621 | 61077 |
| Moving Image Files | 64 | 819 | 883 |
| Audio Files | 0 | 31 | 31 |
| Metadata Files | 51 | 595 | 646 |
| Other Files (PDF, ZIP, TXT, etc.) | 157 | 913 | 1070 |

| Reference code | Title | Scope and content |
|---|---|---|
| SD SM ABRI | Abri House of Heritage | Collection of digital copies of photographs contributed primarily by local families from the town of Abri and surrounding area, located in the Amara West area of North Sudan. They depict individuals and groups of people in portraits and engaging in celebrations and everyday activities. The collection also comprises some landscape shots and images of buildings, as well as a small number of artefacts. |
| SD SM SRTC | Sudan Radio & Television Corporation | Collection of digitised versions of radio, video, and film recordings, including newsreels, reportages and documentaries from the Sudan Radio and Television Corporation Archive. This content dates back to the 1940s, providing a unique historical resource for Sudan. This is one of the one of the largest film archives in the whole of Africa, with around 13,000 film reels of mostly 16mm and 35mm. The collection includes footage of the first meeting of the Sudanese parliament in the run-up to independence; the independence ceremony; Queen Elizabeth visiting Sudan in 1965; regional dances and music; nature in different regions of Sudan; the industrialisation of the country in the 1960s and 70s; the Sudanese railways, that once had the longest network in the whole of Africa; cultural practices; and much more. |
| SD SM UOK SNHM | University of Khartoum Natural History Museum | In collaboration with Sudan Memory since 2018, the total Natural History Museum collection has been digitised. It comprises digitised images – primarily photographs – of flora and fauna of Sudan, corals, sharks, snakes, and more. |
| SD SM NRO | National Records Office | The Sudan Memory collection comprises a selection of scanned materials chosen by the NRO. This selection includes Arabic and English language content newspapers (including The Sudan Times, Sudan Government Gazette, Al-Ra'y al-Amm), manuscripts, magazines published between 1930s – 1980s (including Al-Nahda, Al-Fajr, Al-Mara'a al-Jadedah, Women in N Kordofan, Al-Manar, Hawa'a al-Jadida, Sawt al-Mara'a, Al-Sabah al-Jadeed, Al-Hayat, Omdurman, Huna Omdurman, Al-Khartoum, Al-Shabab wal Riyadah (youth and sport), Leather and plastic industries, Shillel Wino, Al-Kibar, Bakht al-Ruda, Dirasat Qutniyya), images produced in the early 1900s of various regions of Sudan, books, and administrative documents. Scanned material is watermarked. |

| Reference code | Title | Type of institution | Dates | Level of description | Extent | Name of creator | Language of material | Existence & location of originals | Existing use agreement yes/ no/ unknown | Type of agreement written / tacit / other | Rights holder known / unknown |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SD SM ABRI | Abri House of Heritage | Private | -- | Collection | 255 X Jpegs; 135.65mb | Abri Local Community | N/A | Personal Collections At Abri | Yes | Written | |
| SD SM SRTC | Sudan Radio & Television Corporation | Government | 1940s - 1970s | Collection | 80 X 2-Min Quicktime Videos;<br><br>8 Mpeg-4 Movies = ≈1.41 Gb | Sudan Radio & Television Corporation | Arabic; English | Unknown Since 2023 | Yes | Written | Known |
| SD SM UOK SNHM | University of Khartoum Natural History Museum | Educational Institution | 1920s - 'Today' 2020s? | Collection | Approx 900 Tiff Files; Size: 900 X 151 Mb = 135.9 Gb. | Various | Arabic; English | Unknown Since 2023 | Yes | Written | Known |
| SD SM NRO | National Records Office | Government | 1800s - 1980s | Collection | Newspapers (185 + Images); Manuscripts (155 + Images); Mahdia (589 + Images); Magazines From 1930s – 1980s (240 + Images); Images (1,515); Books (82). <4,000 Tiffs | Various | Arabic; English | Unknown Since 2023 | Yes | Written | Known |

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