Data Management Plan: *Imagining Futures through Un/Archived Pasts*

1. Types of Data

The project will produce text, images, videos, and 3D data. Text will be in HTML; images will be captured in TIFF format and disseminated as JPEG; video files will be created in HD1080i and disseminated as MP4. The 3D data, where possible, will be generated through photogrammetry using Agisoft Photoscan, saved as PLY and OBJ formats and disseminated as 3D PDF. All file types are standard and well supported. The project team and participants will experiment with 3D data capture, Omeka for archiving, and the Mazi Raspberry Pi system for decentralized storage.

2. Data Creation and Proposed Methodologies

2a. **Labs -** The four project labs establish knowledge centres that will generate various types of data. The following outlines the expected activities to be undertaken by the labs.

The Tanzania Lab (Lab 1) will establish a digital resource centre for knowledge production. This includes the recording of audio and video discussions of colonial violence and the digitisation of local archival materials, with training in hardware and software provided by CSM and the LDRC. The Tanzania and Baddawi Labs will also test the Mazi self-archiving tool (using Raspberry PI, wifi router and photogrammetry) as a documentation strategy. The Baddawi Lab (Lab 2) will host a writing workshop and photographic exhibition based on the images prepared as part of the work of the Tanzania Lab, and will collaborate with other Labs on the recording of performances. The Beirut Lab (Lab 4) will create a repository of master-plans and other documentations of the city.

The Imagining Ghanaian Futures Lab (Lab 3) will develop a public digital repository based on Omeka software, which is well set up for recording metadata about the items featured in the repository. The repository will be produced in collaboration with the A.G. Leventis Digital Resource Centre (Legon), and will form the basis of digital exhibitions produced by this Lab as well as informing the work of the Tanzania and Baddawi Labs. The Lab will work with local partners to produce translations of the digital repository materials. The Ghanaian Lab and the Leventis Centre will also be involved in collaborations with television and radio stations in Ghana to produce programmes about conflict management and peace-building.

The 'Mobile Virtual London Lab' will support the work of all four of the Labs above, focusing on skill-sharing through grassroots production, and exploring with them a range of digital practices including Mazi hyper-local networking tools, film auto-documentation, ELAN software for annotations, and open-source software for photogrammetry and post-processing of 3D models.

All relevant hardware and software for audio and video capture, photography, photogrammetry and 3D model processing is included in the project budget, and each of the Labs will have access to relevant training from members of the project team with experience in the hardware and software.

The project website will be set up and designed by a Research IT Developer and University of Exeter's Digital Humanities Lab (DH Lab), and will be hosted by Exeter. With advice from the Research IT Developer, the PI will upload text, images and video files to the project website with descriptions. Items will include objects selected from Imagining Ghanaian Futures Lab's repository and Tanzania Lab's digitised archival materials and videos. The choice of software for the project website complements its use for the digital repository described above, making the creation of featured exhibits straightforward. The DH Lab has wide experience of creating digital scholarly outputs [http://humanities.exeter.ac.uk/research/digital/].

2b. **Commissioned projects** may generate additional types of data not foreseen. This will be handled on a project-by-project basis and specific data management variations will be addressed within the sub-project template submitted to the Research Ethics Committee Chairs.

3. Short-term Data Storage

Data for release on the project website will be stored on the University of Exeter's secure cloud-based SharePoint service, which is supported by the University's central IT team. SharePoint is accessible off campus via VPN for all the Co-Is as they are Associate Members of the University through honorary fellowships. Where research partners or collaborators do not have honorary fellowships, they will be given Exeter IT Associate access, in order to be able to upload materials to SharePoint where needed. This means that the data can be backed up to SharePoint at any time that an internet connection is present. If needed, an external drive can be provided by the University for temporary offline backups.

3a. SharePoint has its own robust data storage procedures, and the University has signed up via JANET's terms and conditions to ensure that the data is stored in the EU and UK. The project website will be hosted on a high-availability server array, with SAN storage, providing a robust and secure platform. This is safeguarded by nightly incremental backups, with weekly off-site storage. The service is protected by extensive firewalling and security measures, with a dedicated central information security team.

Data which is not destined for the project website or for research may be stored locally (e.g. by the Labs) instead of needing to be shared with Exeter. The intent of the project is for partners to retain control over their data and Co-Is and partners working for different institutions will follow their own protocols. Consideration will be given to whether personal data needs to be retained, e.g. participants' consent videos may be able to be deleted after transcription and choices have been captured. The process for data management for each sub-project will be defined within the sub-project documentation shared for approval by the Research Ethics Committee Chairs.

4. Long-term Data Storage

4a. The data released on the project website will be deposited in the University of Exeter's free and publicly available institutional repository, Open Research Exeter (ORE) in the final month. It will be made clear in the informed consent process (through the scripts read to or information sheets shared with all participants) that identifiable data will be stored this way and may be re-used. ORE is able to hold any type of research content; the repository is well supported by the University of Exeter in accordance with its self-archiving policies; it is publicly searchable and browsable and free to access; and it will retain the submitted data indefinitely. For data that requires restricted access, this process will be established with ORE advisors at the beginning of the funded period.

4b. Data submitted to ORE will be retained indefinitely, in accordance with the University's policies [http://www.exeter.ac.uk/research/openresearch/selfarchiving/policies/]. The ORE team also has a commitment to continued readability and accessibility, and a takedown policy if needed.

4c. There are no long-term costs associated with storage. The data will be deposited in ORE as part of the University's commitment to making the project data freely accessible in the long term.

5. Data Sharing

5a. The data that this project is producing will be used for academic research and maintained for a period of at least 5 years. The data will be maintained as part of a local archive, with the local community maintaining rights and access. It will be made clear in the informed consent process (through the scripts read to or information sheets shared with all participants) that identifiable data will be stored this way and may be re-used.

5b. The data for release on the project website will be released at the end of the funded period. PI and CIs will be responsible for disseminating news of its release of this data via scholarly networks and social media platforms fitting with the access and rights afforded by the local archives.

5c. The project website will be live for a minimum of 5 years after the end of the funded period, and security updates to the website will be undertaken as part of the University's standard procedures.

5d. The data released on the project website will be made freely and openly available.

5e. There will be no additional costs for depositing or sharing the data.

6. Ethical and Legal Considerations

6a. For any data released on the website or used in the project's research outputs, participants will provide consent. This may be through signing a Contributor Release Agreement, or by giving oral consent, which will be recorded, in which they will agree that the project has permission to access, reuse and archive that contribution for the purposes described. There will be options given as to whether data may be used for different purposes (e.g. website and/or research) so the preferences selected by participants will be recorded and adhered to. The majority of the project's data will be archived by the participants themselves. Where appropriate and agreed, participants will be fully credited on the website and in the print outputs of the project. The project's plans will be submitted to Exeter's Research Ethics and Governance Team and Ethics Committees at the partnering institutions at the start of the funded period to ensure that we comply with the appropriate procedures (for details see the 'Ethics, Safeguarding and Risk' section).

6b. We do not foresee legal or ethical issues in releasing or storing the data, as all sensitive data will be anonymised or restricted (as appropriate) and the Contributor Release Agreement (written or oral, see above) will state clearly how the data participants contribute to the project is being stored and released. These aspects will all be resolved in discussion with the Ethics Committees, and no data will be stored or released without the explicit permission of the participants. It is expected that the majority of data generated will not be required to be anonymised or pseudo-anonymised. GDPR requirements will be followed.