Chao Tayiana Maina: The success of African Digital Heritage is a result of innovative, insightful and holistic approach

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Chao Tayiana Maina, a Kenyan historian and digital humanities scholar, talks with _Santosh C. Hulagabali_ on her tryst with sustaining cultural heritage using digital technologies and making the _African Digital Heritage_ a successful initiative. Chao is working at the intersection of culture and technology.

She is the Founder-Director of African Digital Heritage and has co-founded the Museum of British Colonialism and Open Restitution Africa as well.

Her work primarily focuses on the application of technology in the preservation, engagement and dissemination of African heritage. Her research work explores the possibilities of embedding intangible histories in 3D digital environments. She is the recipient of the Dan David Prize, and Google Anita Borg scholarship for women in technology.

In this interview for Open Interview, Chao shares her experiences and thoughts on initiating archival work for sustaining African heritage with the right blend of digital technologies. She specifically talks on what kind of digital technologies are being used in the archival work and how research, innovation, identification of skill-gap, training, outreach and user literacy play an important role in the entire archival exercise. Having worked with museums in different parts of Africa, she reveals that there is a positive response and tremendous need for sensitising the communities about the importance of preserving cultural heritage.

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• First of all, Open Interview compliments you for redefining the way cultural heritage is sustained using digital technologies. How was African Digital Heritage conceptualised, executed and what impact has been achieved so far?

The foundation of African Digital Heritage (ADH) is built on the notion that, for digital technologies to be successful within the heritage sector, they have to be holistic by not just focusing on the act of digitisation or putting all our efforts in the technicalities of digitisation but also on the decisions that are made around digitisation. It is also on the

role of the audience— what they are going to perceive on the use of this data and how it is going to be used on the archiving of the data. So taking into consideration the entire lifecycle of this information, right from conceptualising the digitisation to devising the technical solution for implementing, from how it is accessed to how it is archived and how people engage with it—are all a part of the digital process. This is how ADH approaches, because— to do it in that way, it would also mean that we are not just thinking of the now but we are also thinking about who is going to use it and how they are going to use it, where they are going to access it from and all. So that brings in an element of sustainability.

So far, the impact has been far reaching. We have worked with museums in different parts of Africa-in Kenya, Senegal, Uganda, South Africa, Tanzania, Guinea, and Ghana, where in we have observed a tremendous need for this kind of sensitisation within the African cultural heritage community, so we assume that it is a big impact.

We have produced a lot of reports, particularly around the skills that are needed to sustain digitisation— not just technical skills, but also skills such as fundraising, community engagement, stakeholder management and partnerships. These skills are necessary to make any digitisation-task successful. So, given the variety of institutions we have covered so far, we have made a significant impact on the training sector too.

Moreover, engaging with public audiences and sensitising them about history is extremely important. We received a lot of news coverage and media features highlighting our work– specifically the Mau Mau Detention Camps project. So, certainly the impact has been overwhelming and far reaching.

• Your organisation is actively experimenting with the new technologies— from virtual reality to mobile applications. Would we get to know what kind of technologies are being used in complex processes of building and maintaining digital heritage?

These technologies include virtual reality and creation of 3D reconstructions to archive the visual heritage of Mau Mau Detention Camps from the colonial period (i.e. 1952 to 1960).

We delved into audio as a medium for archiving and produced audio archives as well. For instance, The Myth of Development–Audio Archive. We produced this archive that was centred around conversations on developments within Africa–but from the perspective of history and contemporary explorations. We also did some 360° mapping and photography,

for instance– documentation of <u>Gede Ruins</u> where one can have a virtual tour. These are some of the technologies we have used and deployed so far.

• Indeed, that is a great development. Now, there is much discussion on application of revived AI tools/ technologies in many of the fields including libraries, museums, archives, etc. How has your organisation taken care of this (by using AI tools) in archiving historic and cultural heritage?

We are at the forefront in exploring how AI is going to change the digital heritage landscape. For now, it is not much about using the AI alone, but it is also about understanding how we are digitising, cataloguing the digitised data, and how the metadata of this dataset is going to influence AI perceptions.

We believe that for AI to accurately and sufficiently measure and represent African heritage, it cannot be just built only on datasets as datasets could be erroneous— where they have colonial bias and varying perspectives due to misrepresentation in many ways and it could be very dangerous.

• How does your organisation's holistic approach to digitisation engage the needs of audiences, question around technical inequality and issues around licensing **and access to data?**

Well, I would say that with any digitisation project, one of the core things that we ask our partners to identify is– who their audiences are, why would these audiences find this data important, how would they use this data and where would they access it from?

You can only build a successful digital project if you are building for someone in mind, and therefore understanding your audience is highly essential. In fact, we actually emphasise this and arrange training specifically for understanding the needs of audience. And once we are able to understand the needs of the audience, we are able to design digital products to suit their technical capacities. So, whether it is the kind of data infrastructure that they have or the kind of technical infrastructure that they have– you are designing to respond to the audience-profiles that you have identified.

For us, it is also very important to identify a primary audience and a secondary audience as well. The reality is that you will never be able to reach everyone equally at any point in time. Therefore, one has to be genuinely clear about the primary target-audience that has a kind of technical, data, and infrastructure-access that you will build for and also have the potential to reach a secondary audience that is not necessarily within this technical space. It is an issue of– how you design engagement around this data, how you invite people to use the data, how people are able to explore the actions taken from the data and things like that.

The license and access to data issues are still very challenging to navigate. Because a lot of this depends on the specific institution that holds this data. Most often these institutions are designing license agreements in ways that favour them and not the audiences. There is a sheer injustice when we look at licensing and access, especially of colonial archives and colonial material, because a lot of this information is not consensual, it do not take into account the perspectives of the people who are captured or represented in this data, and now it still imposes licensing for them to access. So there is still a lot of inequality around licensing.

This also has the potential to be weaponized against users, sources and minority communities. There has to be a conversation that is not just technical but also revolves around the obligations and ethical responsibilities such institutions have to make to make this data accessible, and how they do so because open access is not an answer for everything. So careful consideration has to be in place while designing license agreements and access around the protection and integrity of the data that minority communities hold and need to access.

• Digitisation, innovation, research and outreach are your organisation's focus areas. May we briefly know what is being digitised, what innovative ways are followed in digitisation, what kind of research goes into it and how outreach is being achieved?

We are focusing on a variety of things based on our experience in digitising. This could be archival records– particularly photos and text-based records, such as newspapers, documents, maps, etc. We also have audio-visual materials such as tapes, cassettes, magnetic reels and the likes. We have digitised buildings, where one can have virtual tours and digitised objects as well. There is quite a big range in that and moreover, oral history also is now being digitised.

I think for us, innovation is not just about using the latest or newest technology. It has to be backed with insight which can only be drawn from understanding the nature, and the cultural material that one is going to digitise— in what form does it exist, the legacies that it contains, the histories that it holds, the people that one is digitising for and all. So we have been persistently trying to push the boundaries of the technologies that we use, whether we are using 2D, 3D digitisation [watch] and virtual tour approaches.

Yes, it is important to know what kind of research goes into it. Primarily, it is necessary to understand the landscape that we are working on. Our research is primarily focused on several things such as understanding the nature of how archival records and objects are collected, catalogued and stored in the region, so that this can stand as the best practice

for digitization. Research also goes into other aspects such as skills and understanding— what kind of skill-gaps are in place in the cultural heritage industry, what training and support to institutions are necessary to work in the space. Hence, we have done a lot of research on these. We also do a lot of participatory grassroot-research, especially when it comes to oral histories and documentation of the lived experiences of people. This requires research that is embedded within communities by relationship-building with communities (for instance, Mau Mau Detention Camps).

Our outreach is achieved through our social media platforms where in we engage through multiple forms of media, texts, photographs, videos, 3D material, etc. We also have outreach in the form of physical exhibitions that we carry out every now and then. The other forms of outreach are- periodically organising talks, speaking engagements, conferences, and publishing of our research outcome as well.

• **How is your organisation working to archive 'African past' keeping in view the continent's diverse history? What kind of challenges and opportunities do you experience?**

Honestly, we are not trying to archive all of Africa's history on our own. Our ADH exists to support other institutions, community groups and individuals to be able to participate in the process of archival and digital reproduction on their own terms. Our goal is not exactly to bring all of African history in one place as it is going to be a gigantic task! For us, it is more important to empower people— through skills, research, infrastructure, and all— so that they would be able to do this work and reach out to their own audiences.

The challenges are many. A key challenge is— language barrier. In fact there is a language divide between Anglophone, Francophone, Lusophone, and Arabic.So such language differences make it difficult to reach everyone. Secondly, this field still being a new industry—resource allocation is a challenging task. A lot of our work is donor funded, so it is not being exactly budgeted for within our governments and cultural departments. Thus there is very little public resource-allocation going into this. The expense on technology should also be sustained constantly. We can't just digitise and leave. So we have to take care of maintenance, hardware, software, and other miscellaneous things. The maintenance of technology is a never-ending task and on top of it, people have to allocate time and resources too.

On the other hand, there are many opportunities as well.

I think digital technology helps to shift narratives on perspectives that were entrenched and that have been forced in many ways and presented as truth but in essence they are just perspectives that are starving specific power-interests. Digital technology also providesan opportunity to change that— such as suppressed histories, silenced histories are starting to emerge, in part due to the proliferation of digital technologies and the ease in which people can access material without having to get permission to do so. There are

opportunities for dialogue and engagement with our cultures and our histories with objects for people to be able to access data that has been for many years inaccessible whether it is in physical or digital form.

• How does your contemporary research explore emerging technologies and issues at the intersection of African heritage and digital technology?

Our research approach at the moment is based on identifying how we can create a methodology that can influence the building of these technologies. This methodology is grounded in our understanding of indigenous knowledge, indigenous ways of viewing culture, indigenous ways of passing history from one generation to another and how the technologies that we build can be based on these methodologies. So we are doing this. For example, in one of our projects, <u>Open Restitution Africa,</u> we are looking at–what restitution is from an African perspective. We are not just focusing on returning or moving an object from one storage box to another in a different museum, but also on understanding what complexities are involved in restitution–who is it benefiting and what happens after objects come back home. So, a lot of our research is grounded on a further understanding of indigenous methodologies and using that to develop an approach for building the digital technologies.

Basically, we do not start from the point of technology alone, instead, we start from the point of history and culture. This is constant in all our work in which we look at the specific nature of the history that we are dealing with the audiences and the circumstances we are in and then we build technology based on that.

Often, people start with the technical infrastructure that is the camera, photogrammetry scanner, and then begin to research on the history of the material culture. But when you approach it from this perspective, you are able to have more intentionality around the innovation. Simply, innovation and insight have to move together and this very well worked for our ADH.

• Your organisation is involved in a set of training programmes to harness digital skill for cultural preservation? What cultural skill-gapsdo you observe in Kenyan cultural heritage and how are you bridging it?

In 2019, ADH started <u>Skills for Culture</u> *Phase I* to understand the skill-gaps that exist in the Kenyan cultural heritage industry at a national level. We identified some skill-gaps pertaining to digitisation, digital cataloguing, archiving, documentation, dissemination of cultural heritage data, curatorial skills, audience engagement, copyright and licensing (*See* <u>report</u>). We bridged them by designing a series of five in-person training units per skill-set which included— documentation and preservation, presentation, transmission, engagement, interpretation andalso access and use of training programmes.

In 2022, <u>Skills for Culture</u> *Phase II* programme responded to skill-gaps identified at the county level. A co-created and publicly accessible <u>toolkit</u> was developed as a response to the findings of our research namely–issues on recognition and engagement, collaboration, relationship building and funding mechanism. This toolkit eliminates the constraints of having to deliver in person training and ensures that the targeted practitioners, more so those at county level, are self-taught at their own comfortable pace.

In 2023, <u>Skills for Culture</u> *Phase III*, as learnings garnered during both Phase I and Phase II, seek to build a community of practice and deepen relationships by taking on a more intentional approach where we sent a <u>call out on training and mentorship program</u> which was successful and ended up hosting and training 13 practitioners from 6 counties in Kenya (working in the different tenets of culture and heritage). The focus areas of the training included— fundraising, community engagement, strategic partnerships, designing county cultural mandate and copyright, IP, TK and TCEs.

• What is your message to those who are interested to make career in or volunteer for archiving or **digital heritage management?**

Well, I would say— definitely do it. There is so much work to be done. There are many differing perspectives that are yet to be explored. Further, I wish to add that there is enough history for everyone to history and it is important to have as many diverse perspectives while working in this area. Also, it is equally important to be genuinely intentional and passionate about the work which is specific to your community, yourself, your history or the goal of what you want your work stand for. So, I strongly believe that it is very important to be intentional about your approach, regardless of whether you are making a career or volunteering in the domain of archives.

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Note • *All the answers/ opinions expressed in this document are of the interviewee.*

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