

**Virtual Assembly: Safeguarding the Intangible Cultural Heritage
(ICH) of London's Oldest Nigerian Mosque and its Community
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Virtual Assembly: Safeguarding the Intangible Cultural Heritage (ICH) of London's Oldest Nigerian Mosque and its Community

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Abstract

This article introduces Virtual Assembly (2023), a research project that explores innovative approaches to creating an experiential digital archive designed to perform and preserve both the tangible and Intangible Cultural Heritage (ICH) of London's oldest Nigerian Muslim community. The project reconstructs the Old Kent Road Mosque, which served the Muslim Association of Nigeria UK (MANUK) from 1993 until its demolition in 2021. Built upon a point cloud scan of the mosque, Virtual Assembly combines digital modelling with co-creative storytelling to empower community-driven archival practices. The article critically examines challenges in the field of digital heritage, including the authenticity of representation, quality of community engagement, and tensions between grassroots participation and top-down decision-making in heritage preservation. Addressing these issues, the project builds upon the arts-based research methodology of 'site-integrity' (S-I), developed by the author, Julie Marsh and extends its application to digital spaces. Central to this approach is the question of how communities can leverage digital modelling to convey the complexities of their lived experiences and reclaim cultural narratives within these non-physical contexts. It underscores the project's contributions to future digital heritage practices, advocating for archives that prioritize ICH as living and emergent rather than static or reductive.

Keywords:

Digital modelling, co-creative, Intangible Cultural Heritage (ICH), Islamic architecture, living archive, Muslim Association of Nigeria UK

This article presents Virtual Assembly (2023), a research project that explores innovative approaches to creating an experiential archive of the former Old Kent Road Mosque in Southwark, London. The mosque, which served the Muslim Association of Nigeria UK (MANUK) from 1993 to 2021, was demolished in September 2021 to make way for a new six-storey mosque. Before its demolition, the mosque was LiDAR (Light Detection and Ranging) scanned, producing a highly accurate point cloud (3D laser scanned) model of the building. This model served as the foundation for Virtual Assembly, a research initiative aimed at capturing, performing, and preserving the Intangible Cultural Heritage (ICH) of London's oldest Nigerian Muslim community. The project was led by Dr. Julie Marsh, a researcher at the Centre for Research and Education in Arts and Media (CREAM) at the University of Westminster, alongside project technician Jonny Fuller-Rowell. Additional support was provided by David Scott, Florian Kooning, and Jules Rodrigues from the Fabrication Laboratory at the University of Westminster, and Max Čelar from the London-based experimental art and design studio Untold Garden. The project received funding from the UK Research and Innovation Quality-related Research Funding ([UKRI] QR).

Since UNESCO's 2003 general conference, there has been an increase in community-led projects in Europe that utilize digital technologies such as 3D scanning and modelling to

present and archive data related to ICH. These digital methods are often combined with audiovisual technologies to enhance the presentation of cultural elements.¹ Virtual Assembly is positioned at the intersection of academic and practical fields of ICH; specifically, Virtual Assembly is part of a group of projects that focus on under-represented religious ICH of diaspora communities. Similar to European ICH initiatives such as MEMEX (2019–22) and REACH (2018–20), Virtual Assembly adopts immersive, embedded storytelling practices.² Virtual Assembly also builds upon co-creative approaches to digital modelling, such as ScanLab Projects's Your Scans, Your Stories, Your Heritage (2020–21), with the aim of empowering communities to use emergent technology for sharing their heritage narratives.³

Despite advancements in effective technological approaches, there are still challenges that need to be addressed. These challenges are primarily concerned with the authenticity, quality of community engagement, grassroots participation, and the usability of technology.⁴ Moreover, although there is a push for greater community involvement in heritage practices, certain decisions still follow a top-down approach, leading to situations where communities lose control over how their cultural and religious expressions are represented and interpreted. Virtual Assembly aims to address these issues by using the arts-based research methodology 'site-integrity' (S-I) I developed, which actively engages communities in an ethical, co-creative approach to digital modelling. Central to the S-I methodology is the question of representation, which asks in the context of this project how communities can use digital media to capture and perform the complexities of their lived experiences. And what possibilities exist for storytelling through digital reconstructions and archiving?

This article critically reflects on the S-I methodology's practical application discussing the challenges and successes during the project's development. It evaluates the broader implications of Virtual Assembly, emphasizing its role in performing the lived experiences and embodied knowledge of its users through interactive elements and emergent dynamic content. The article evaluates the potential of an experiential archive that emphasizes community ICH as living and emergent for future digital cultural heritage practices.

Project Background

A number of Nigerian students came to London to pursue their education in the early 1960s, but it was not until the late 1980s that a more established Nigerian community developed, eventually leading to the establishment of the Muslim Association of Nigeria UK (MANUK). In 1993, MANUK acquired and renovated a former pub in Southwark, transforming it into the Old Kent Road Mosque and Islamic Cultural Centre [Figure 1]. By 2018, driven by religious commitment and a pragmatic response to a growing community, approval was obtained to construct a purpose-built, multi-storey mosque on the same grounds [Figure 2].

<Figure 1>

<Figure 2>

In 2020, prior to the original building's demolition, project technician Jonny Fuller-Rowell and I collaborated closely with the community to document the intangible social practices within the mosque through a site-specific installation titled *Assembly*. Made using the S-I methodology, automated motorized recording devices were designed in collaboration with the congregation to film the *juma* (Friday prayers), in both the main hall and female prayer

room from an ethical perspective. The camera travelled in the direction of the *qibla* from the entrance to the *mihrab* and utilized the ‘God shot’ by mounting a moving camera on a track installed on the ceiling of the mosque so as not to come in between the congregation in prayer and the imam [Figures 3 and 4]. The same filming device was then used for playback, the camera being replaced by a projector replaying the films to scale into the prayer spaces, with the respective congregations now becoming the audience for the work.⁵

<Figure 3>

<Figure 4>

<Figure 5 >

Films at two additional London mosques were made using the same filming method as part of the *Assembly* project and also exhibited as part of the Victoria & Albert Museum’s special project, *Three British Mosques*, for the 2021 Venice Architectural Biennale.⁶ This prestigious international exhibition, which featured architect Shahed Saleem’s 1:1 scale models of the three mosques alongside the *Assembly* prayer films and stills from digital LiDAR scans, marked a significant acknowledgement of the British Muslim aesthetic within European cultural heritage. This project was an important step in the development of Virtual Assembly, for the LiDAR scans of the three mosques, all made by the Fabrication Laboratory at the University of Westminster, were also later used as the foundation of the interactive models [Figure 5]. In October 2021, the *Assembly* films were presented as part of Art + Christianity’s *Faith on Film* series. During the panel discussion that followed, a congregation member in attendance asked how they could access the LiDAR scan of the mosque, prompting a conversation around access and ownership of the digital artefacts.⁷ This discussion was the catalyst for Virtual Assembly, a 3D interactive model that could host the films of prayer and oral histories for Old Kent Road Mosque congregation to access.⁸

Methodology

Virtual Assembly employs the arts-based research methodology S-I, an original mode of qualitative research that directly involves communities in the research process. Unlike traditional research methods, S-I prioritizes co-creation and lived experience, positioning participants as co-researchers and co-creators of knowledge rather than as research subjects. This collaborative approach fosters a sense of shared ownership of the research outcomes, making the process itself a transformative experience.⁹ This collaborative, artistic methodology employs technology to map representations of lived practices within the architectural site in synchronicity (temporal duration) and scale (spatial extension). This is achieved (temporally) by aligning the tracking motion of the original filming rig with a projected moving frame in the 3D model, and (spatially) by layering the projected image in 1:1 scale over the 3D representation of the mosque. This process enables an exact transfer of space and time as ‘a kind of matching of the world with its representations or, rather, a bringing of the two into critical conjunction’.¹⁰ The filmic representations shift from their retrospective dimension (a record of the past) toward that which is emergent, experiential, and live. This is enhanced by the fact that it is the audience itself that activates the event by entering the space, situating the viewer in the centre of a dynamic live setting.¹¹

Virtual Assembly applies the principles of the S-I approach to digital modelling by mapping pre-recorded films of prayer and oral histories into the architectural scan of the building. Interaction and navigation of the 3D environment were created in collaboration with

the Old Kent Road Mosque congregation, offering innovative ways to engage with their tangible and intangible heritage through digital reconstruction and storytelling. The project aims to generate outputs that clearly reflect grass-roots perspectives and voices, and relies on continuous reflection, testing, and re-making informed through feedback from the site community during the creative act. This gives community input equal importance to the artist's input throughout production. S-I produces research-driven artworks that democratize meaning-making and decentralize academic researchers as the so-called experts.¹²

At the start of the project, the mosque committee nominated a steering group with representatives from the women, men, youth, elders, and madrasa staff to co-facilitate the workshops, and to work directly with congregation members to ensure equal representation and maintain focus and momentum throughout the project. For example, the steering group organized a workshop to facilitate peer-to-peer interviews to generate audio recordings of oral histories and personal stories. Members were first trained to use audio recording equipment (a field recorder and a shotgun condenser microphone), after which the congregation took turns in the roles of both interviewer and interviewee [Figure 6].

<Figure 6>

Informed consent was obtained from all participants through an information sheet about the project's objective, methods, potential risks, benefits, and their rights as research participants. The team also made sure that the representative communities' perspectives, narratives, and experiences were accurately represented and respected through review and feedback sessions, and user testing.

Practical Approach

The design of the project went through several significant phases, relying heavily on the technical expertise of the Fabrication Laboratory at the University of Westminster and Untold Garden, a London-based art and design studio. This technical input was balanced with the feedback of the community-appointed steering group to produce two prototypes, which explored different modes of interaction, embedded content, and accessibility. During the production stages, congregation members were asked to test the models and provide feedback through anonymous questionnaires. This feedback significantly influenced the practical and technical development of the work, ensuring that it met the needs and expectations of the community. The iterative nature of this process allowed the technical teams to make adjustments, and refine the models based on the congregation's feedback. This collaborative approach enhanced the functionality of the models, and fostered a sense of ownership and connection among the congregation. Their contributions directly shaped the outcome of the project.

Prototype 1: Narrative Walkthrough

Prototype 1 was developed in collaboration with Max Čelar from Untold Garden. It utilized 3D creation tool Unreal Engine to create an interactive journey through the 3D scan of the mosque, accompanied by spatialized voice recordings from the congregation. This prototype was developed to maximize the potential quality of the original high-resolution LiDAR scan, which co-created a new kind of imagery rich with both high accuracy and ambiguity.¹³ While sensing technology is typically employed in scientific applications for precise data visualization, the point cloud has aesthetic potential as an 'active, creative agent and a storytelling tool'.¹⁴ The space between points in a point cloud creates a visual transparency

that evokes a ‘dreamlike and ephemeral visual ambience’ [Figures 7 and 8].¹⁵ To maximize this effect, the full resolution of the scan was utilized using a high-end computer with the ASUS GeForce RTX 4080, the most powerful graphics card available at the time.

<Figure 7>

<Figure 8>

<Figure 9>

<Figure 10>

In this version, the camera followed a fixed route around the mosque, providing a first-person viewpoint while following a defined path. The interaction was limited to moving forward or backward along a predetermined path using the up and down keys on a wireless controller. Additionally, the controller joystick provided the user with a panoramic view. This restriction had the advantage of giving the congregation more control over the storytelling and creation of their own narratives. The peer-to-peer audio interviews were curated within the virtual site using paper floor plans, onto which congregation members were able to manually position their audio content using numbered points [Figures 9 and 10]. For example, one audio recording of a congregation member describing their favourite place to pray was positioned at the exact location in the model. This approach empowered the congregation to curate and manage their own content, resulting in a more authentic representation of their own mosque. It was interesting to note that the women’s testimonies centred around personal experiences and what the mosque meant for them as a community, whereas the majority of male members discussed the practical workings of the space.

Prototype 2: Open-world Interactive Model

David Scott, Florian Kooning, and Jules Rodrigues from the Fabrication Laboratory at the University of Westminster created Prototype 2. They utilized A-frame, a web framework for building virtual reality experiences, to display a lower-resolution point cloud model, which the congregation could access online. This prototype innovatively integrated the original films of *juma* prayer into the model’s geometry, accurately mapping the figures in prayer to scale and positioning them as they were when originally recorded [Figure 11]. To add to the complexity, the original films moved through the site, from the back of each room toward the *mihrab*. This movement needed to be mirrored in the model for the film image to remain synchronized in both time and space. Therefore, the video plane in the model was programmed to move along the z-axis to replicate the original path of the camera. This innovative technique extended the boundaries of the film beyond the filmic space into the 3D representation of the mosque itself.

<Figure 11>

<Figure 12>

The congregations’ audio recordings of oral histories and stories were integrated into the model with locative triggers that were initially designed as floating orbs to indicate points of interaction. After the initial user testing phase, the icons were replaced by floating text that activated locative audio tracks, which aimed to create a more immersive experience [Figure

12]. The navigation around the model took an open-world approach, dissolving the religious and social customs that restricted men and women from entering certain spaces. In this model, men could freely enter the female prayer space and view prayer, and vice versa. This capacity for uninhibited movement provoked questions about how the virtual site interaction and navigation might contradict the social and religious discourses present in the physical site, and whether this virtual experience should mirror customs.

Research Exhibition

The last phase of the feedback process involved extensive user testing through a research exhibition held in March 2023 at Ambika P3, a gallery for contemporary art at the University of Westminster [Figure 13]. During the exhibition, the prototypes were displayed on large screens. This provided a dynamic environment in which congregation members and the general public could interact with the project in an immersive way.

<Figure 13>

The private viewing was accompanied by an artist talk and a panel discussion chaired by architect Shahed Saleem and included members of the Old Kent Road Mosque congregation and David Scott, director of the Fabrication Laboratory at the University of Westminster. Attendees were encouraged to provide responses through interactive feedback stations and digital comment forms. This multifaceted approach enriched the feedback and fostered a collaborative conversation among the artist, congregation, technologists, and the audience, yielding valuable insights that informed the project's final refinements.

Analysis of Feedback

Critical analysis of the prototypes centred on the qualitative feedback gained from the sixty congregation members and the general public who attended the research exhibition. Direct quotes from congregation members and visitors were used to assess the model's effectiveness and limitations. The congregation members provided unique personal insights reflecting their own experiences, values, and community needs. Their feedback was invaluable in understanding how well the prototypes aligned with the spiritual and communal goals of the congregation. In contrast, the general public's perspective offered a broader view, highlighting the prototype's functionality to those outside of the immediate community. Together, these diverse viewpoints provided a comprehensive evaluation of the prototypes, informing future improvements and potential applications. The feedback can be broadly categorized into two areas of investigation: the effectiveness of the model as an experiential archive; and the ethical considerations related to religious, social, and spatial representation.

Recollection of Personal Memories

The emotional response elicited by the digital models underscores their effectiveness as a tool for maintaining a connection to one's past and present. This connection is about visual representation, but it is also about the sensory and emotional experiences that are deeply intertwined with physical spaces. As one congregation member commented, 'Returning to the space now is a poignant reminder of its importance. It feels like you're truly experiencing it again. The scale of the representation is incredibly impactful – it's as if you can walk right into it'. Digital models provide a virtual platform for accessing and re-living personal memories, offering a unique and valuable way to preserve individual histories. One

congregation member vividly recalled childhood experiences tied to specific areas within the mosque:

Looking at this, it's like a time machine. I remember being three or four years old. There was an office where my dad used to go to talk with his friends. I can still hear his laughter coming from there. When I walk past that door in the virtual model, all I think of is my dad's laughter – it takes me right back in time. This quote highlights how digital models can powerfully evoke personal and familial memories, showcasing their effectiveness as tools for personal reflection and emotional connection to physical spaces [Figure 14]. The theory of embodied experience suggests that our interactions with spaces are deeply rooted in our sensory and emotional experiences. Digital models that accurately recreate the spatial and sensory aspects of physical environments can evoke similar emotional responses, allowing users to experience a sense of presence and connection even in a virtual context. As one congregation member reflected, 'Being able to be in it reminds you what that space meant to you. It's like you're actually there; it somehow moves out of the past, which is really effective'. The dual function of the digital model as a personal and historical record was emphasized by another congregation member, who explained:

When you experience the virtual site, you feel like you are coming home. It's like you have many embedded memories and histories in that building and in the space. I think it's historically important work, not just sentimentally, as our community was formed in that space and building.

<Figure 14>

Many of the commenters underscored the significance of art in preserving cultural heritage and providing a bridge between past and future generations within a religious community. As one congregant poignantly expressed:

My son has never had the experience of walking into this mosque. It's heartbreaking from a certain perspective, but this artwork will keep its memory alive for years to come. So, they can see where we came from and what we experienced and hopefully we can build on those strong memories and bonds for our kids and the future mosque.

Performative Memory

One congregation member highlighted how the digital model helped in recalling otherwise forgotten details:

The work showed the limitation of human memory; I realized I had already forgotten many of my embedded memories within this space which this virtual experience is reliving for me, the feeling of walking down a particular step or the bit of carpet where I usually pray. A photograph cannot do this, relive these sensations.

The 3D model doesn't just document the physical structure of the mosque, it encapsulates the lived experiences of the community members, turning abstract memories into tangible, navigable experiences. While 2D photographs fail to capture the dynamic and sensory-rich nature of memories associated with physical spaces, the 3D virtual model allows for a more immersive experience, enabling users to 'walk' through the space and reconnect with tactile

and spatial memories. This interactive experience helps people re-live the emotional and sensory connection to place, highlighting the transformative power of digital technologies in ICH safeguarding.

Within this framework, cultural heritage is regarded as performative memory, which has the potential to stimulate community-based reflections on past, present, and future identities. The importance of performativity has been recognized within the field of cultural memory studies ‘as an embodied and localized practice [...] from a linguistic to a performative turn’.¹⁶ Raphael Samuel, for example, has argued that memory is not simply a straightforward recall of the past. Rather, it is a dynamic and performative process, shaped by the present and expressed through various forms of cultural expression.¹⁷ Similarly, Astrid Erll and Ann Rigney suggest that ““remembering” should be understood as an active engagement with the past – performative rather than merely reproductive’.¹⁴

Religious, Social, and Spatial Representation

The public audience feedback reveals how art and interactive technology can effectively convey cultural and religious experiences. As one visitor noted, ‘I thought it was really emotional. I felt this sort of connection without experiencing the building first-hand. But I still got a sense of the type of community that embodied the space and how they had built these intense emotional connections to the built environment’. This sentiment reflects the power of the installation to transcend physical boundaries, allowing individuals to connect deeply with a place and its community, even without prior direct experience. As another visitor expressed, ‘I think there’s something fundamentally human about the artworks in that way’. This comment highlights how the digital models resonate with fundamental aspects of what it means to be human, from our emotional responses and our capacity for empathy to our desire for active engagement and shared understanding.

Virtual Assembly’s immersive quality is further highlighted by another visitor from the public who stated:

As soon as you enter the installation, you get the whole vibe of the mosque. Even though I’ve never been to the mosque personally, I feel like I’ve experienced it first-hand. There is no way that you cannot feel the whole experience – then you also have the joystick and the choice to look around; it is really immersive.

This feedback points to Virtual Assembly’s success in creating a fully immersive environment where visitors can explore and engage with the space on their own terms. The project provides a rich, multi-sensory experience that replicates a first-hand encounter. One visitor explained that ‘It’s not my religion, but I know people in my community who are Muslim, and I felt very welcome in the space. It was nice seeing other religious practices and how other regions and community events take place’. This comment shows how the installation welcomed individuals from diverse backgrounds and also educated them about Islamic cultural and religious practices, breaking down barriers and promoting inclusivity.

One participant noted that ‘It comes through very strongly, the level of engagement that the mosque community has with the project’. This statement attests to the project’s success in genuinely involving the mosque community, ensuring that their voices and experiences are authentically represented. The ability to engage with congregation members during the research exhibition added another layer of connection to the experience, as one visitor mentioned: ‘For me, I didn’t know what to expect, to be honest, and having the opportunity to talk to congregation members also experiencing the work was so impactful’. This feedback captures the way the installation brought to life the memories and experiences

of those who inhabited the space, creating a bridge between the past (the interactive models) and the present (the community interacting with the work).

One viewer raised concerns about the 'open world' nature of Prototype 2, noting, 'I could go in and out of different [gendered] spaces in the model, female and male, which was quite unusual'. This observation brings attention to the potential challenges and cultural sensitivities involved in digital modelling in faith spaces. The ability to freely navigate between traditionally gender-segregated spaces within the virtual model may challenge conventional boundaries and expectations, prompting important questions about how virtual representations can and should engage with cultural norms and practices. This feedback emphasizes the need to consider the implications of spatial design in virtual environments, particularly when they intersect with deeply rooted cultural and religious practices.

<Figure 15>

<Figure 16>

Overall, these comments illustrate the project's demonstrable impact on the diaspora faith community involved in the research, strengthening their sense of identity while enhancing social cohesion and cultural reinforcement within the wider community. It also highlights the installation's effectiveness in preserving cultural heritage while also making it accessible, relatable, and deeply moving for a public audience [Figures 15 and 16]. Through artistic co-creation, the project succeeds in generating a virtual space where individuals can connect with, understand, and appreciate cultural heritage that may be outside of their own lived experience.

Conclusion

Virtual Assembly recognizes the potential for technology as a medium for place-making. This echoes Anne-Marie Fortier's idea that technology can provide a break from traditional heritage presentations, which empowers communities to represent their heritage inclusively, authentically, and dynamically.¹⁵ For example, in Prototype 1, the audio testimonies reflected gender and spatial distinctions: the upper prayer hall, for male members, focused on the mosque's functional use, while the ground floor, for the female congregation, centred on the mosque's emotional significance. This shift challenges the traditional power dynamics in cultural representation and opens new possibilities for diverse and self-determined storytelling. As one participant stated:

In this project, filming technology has come to meet ethics. Ordinarily, a mosque would be seen as a sacred place where you hardly touch anything. The way technology has been used, in such that it did not disrespect the space, it worked with the space and our community to tell our individual and collective story.

Although technology has the potential to improve the preservation and sharing of cultural heritage, its effectiveness is dependent on how suitable and accessible it is for the communities that use it. The decisions about what to include in an archive, how to categorize and describe materials, and what to exclude or ignore are all shaped by cultural, social, and political contexts. Digital archives do not just store information; they actively shape knowledge, reflecting the biases, assumptions, and power dynamics of their creators. Virtual Assembly aims to innovate the way digital heritage sites are produced and presented to reflect the temporal, cultural, religious, and spatial dimensions of the site. This approach is guided by the S-I methodological framework, which prioritizes authentic and ethically responsible

representations of intangible cultural practices and heritage. By embedding co-created media into the digital site in ways that align with the actual time, scale, and customs of the site, the research aims to offer users a more immersive and meaningful experience that is more closely connected to the site and community's lived reality. The challenge is to reduce the gap between the technical expert and the cultural expert (i.e., the communities who use the spaces), recognizing that 'ICH should be recognized wherever it's practised by whoever thinks of themselves as a practitioner'.¹⁶

Virtual Assembly's contribution lies in its potential to facilitate the self-representation of communities' ICH as experiential: it is living and emergent. The S-I approach not only aligns with the UK Government's recent ratification of the 2003 UNESCO Convention on ICH, but also contributes meaningfully to the ongoing discourse on digital ICH in the UK. The research findings underscore the potential of the S-I methodology as a toolkit for broader adoption within the ICH research community. This is particularly relevant in refining the use of digital tools to support ICH and how we use it in a co-created way with groups who are often marginalized and under-represented.

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Figures and Captions

Jonathan Fuller-Rowell.

Figure 1: Outside view of Old Kent Road Mosque prior to demolition, 2020.

Muslim Association of Nigeria UK (MANUK).

Figure 2: Architectural rendering of proposed purpose-built Old Kent Road Mosque, [2020](#).

Jonathan Fuller-Rowell.

Figure 3: Filming in the female prayer room at Old Kent Road Mosque, 2019.

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Figure 4: Film still of Assembly in the female prayer room at Old Kent Road Mosque, [2019](#).

The Fabrication Laboratory Westminster, University of Westminster.

Figure 5: LiDAR scan of Old Kent Road Mosque, [2020](#).

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Figure 6: Old Kent Road Mosque congregation peer-to-peer interviews workshop, [2022](#).

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Figure 7: Outside view of Virtual Assembly interactive model, [2023](#).

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Figure 8: Interior view of the interactive walkthrough in the main prayer hall, [2023](#).

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Figure 9: Plan of the main prayer room for Old Kent Road Mosque congregation members to position audio recordings, [2023](#).

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Figure 10: Plan of the female prayer room for Old Kent Road Mosque congregation members to position audio recordings, [2023](#).

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Figure 11: Screenshot of Virtual Assembly with embedded film of prayer in the model, [2023](#).

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Figure 12: Screenshot of Virtual Assembly with embedded text and audio in the model, [2023](#).

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Figure 13: Virtual Assembly exhibition, Ambika P3 gallery, University of Westminster, London, 2023.

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Figure 14: Congregation member from Old Kent Road Mosque interacting with interactive narrative walkthrough, [2023](#).

Alex Brenner.

Figure 15: Congregation members from Old Kent Road Mosque interacting with the interactive narrative walkthrough, [2023](#).

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Figure 16: Public audience interacting with ‘open world’ model, [2023](#).

Endnotes

¹ Maria Skublewska-Paszkowska, Marek Milosz, Pawel Powroznik and Edyta Lukasik, '3D technologies for intangible cultural heritage preservation – literature review for selected databases', *Heritage Science* 10 (2022): [10.1186/s40494-021-00633-x](https://doi.org/10.1186/s40494-021-00633-x).

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⁵ Julie Marsh, 'Assembly: Investigating the Role That Artist Fieldwork Can Play in Islamic Sites of Worship', *Architecture and Culture* 10.4 (2022): 753–70. In this visual essay, I discuss how this project investigates the materiality of site via the projected image understood as a performative rather than a representational tool.

⁶ The project, curated by Shahed Saleem, Chris Turner, and Ella Kilgallon, explored themes of immigration, hybridity, and multiculturalism through these three adapted London mosques as case studies. See Victoria and Albert Museum, 'La Biennale di Venezia 2021: Three British Mosques', V&A, accessed November 23, 2023, <https://www.vam.ac.uk/articles/la-biennale-di-venezia-2021>.

⁷ The LiDAR scan is featured in Shahed Saleem, Christopher Turner, and Ella Kilgallon, eds., with contributions by Julie Marsh, *British Mosques* (London: Foolscape Editions and V&A, 2021), also held within the Victoria and Albert Museum digital archive.

⁸ Working in collaboration with the [Fabrication Laboratory at the University of Westminster](https://www.fabricationlab.ac.uk/), the LiDAR scans were stitched together to form a complete point cloud of the entire building. This then formed the foundations for the 3D interactive model that accurately represented the architectural space.

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¹⁵ Ibid.

¹⁶ Liedeke Plate and Anneke Smelik, *Performing Memory in Art and Popular Culture* (New York: Routledge, 2013), 6.

¹⁷ Raphael Samuel, *Theatres of Memory: Past and Present in Contemporary* ([London](#): Verso Books, 1994), [23](#).

¹⁴ Astrid Erll and Ann Rigney, eds, *Mediation, Remediation, and the Dynamics of Cultural Memory* (Berlin: Walter de Gruyter, 2009), 2.

¹⁵ Anne-Marie Fortier, 'Re-Membering Places and the Performance of Belonging(s)', *Theory, Culture & Society* 16.2 (1999): 41–64.

¹⁶ UNESCO, 'Convention for the Safeguarding of the Intangible Cultural Heritage', in 32nd Session: The General Conference of the United Nations Educational, Scientific and Cultural Organization (Paris: UNESCO, 2003), 1–15.