**Project Title:**

**Digital Mapping and Preservation of Fort Jesus in the coastal city of Mombasa**

**BACKGROUND**

Fort Jesus, located in Kenya’s coastal city of Mombasa, is a UNESCO World Heritage Site and one of East Africa’s most iconic monuments. In recent years, however, the fort has suffered from neglect, limited funding, and inadequate preservation efforts. Despite its prominence as a symbol of Kenya’s cultural and historical heritage, the site faces gradual deterioration.  
  
Constructed by the Portuguese in 1593, later occupied by the Omani Arabs, and eventually controlled by the British, Fort Jesus embodies the layered history of the East African coast, its trade, conflict, and cultural exchange. Today, it remains not only a landmark of Kenyan identity but also a vital site of global heritage.

***Rationale***

Given its visibility and historical importance, Fort Jesus requires a stand-alone preservation initiative that employs cutting-edge digital documentation technologies. This project will combine advanced digital mapping with accessible storytelling to safeguard both the physical structure and the intangible cultural legacy of the fort.  
  
The proposed work will ensure that Fort Jesus is preserved for future generations while also serving as a catalyst for broader heritage preservation efforts across Kenya and Africa.

**OBJECTIVES**

1. Digitally document Fort Jesus using drones, terrestrial and mobile scanners, and high-resolution photography.
2. Generate comprehensive architectural records including floor plans, elevations, structural drawings, and room-by-room surveys.
3. Produce a digital archive (point clouds, imagery, and video) to support long-term conservation and academic study.
4. Develop an interpretive “video diary” tracing the fort’s history through Portuguese, Omani, Swahili, and British occupations.
5. Publish scholarly and public materials to expand access and awareness of Fort Jesus’s heritage value.
6. Lay the foundation for broader preservation initiatives involving other coastal and inland heritage sites across Kenya and Africa.

**METHODOLOGY**

**Fieldwork**

1. Drone surveys for aerial mapping of the fort and its surroundings.
2. Terrestrial laser scanning (LiDAR) to capture structural details down to the level of individual blocks and bricks.
3. High-resolution photography and videography documenting artifacts, architectural details, and interiors.
4. Mobile scanning technologies for hard-to-reach or delicate areas.
5. Estimated timeline: 4–6 weeks for complete field documentation.

***Data Processing***

1. Development of point clouds for creating 3D models.
2. Production of floor plans, elevations, and construction detail drawings.
3. Integration into a GIS framework situating the fort within its regional context.

***Outputs***

1. Digital archive (point clouds, imagery, GIS data).
2. Video diary narrating the fort’s historical evolution.
3. Academic publication targeted at scholarly audiences.
4. General history publication accessible to the wider public.
5. Collaborations with digital media platforms (e.g., YouTube) to expand outreach and visibility.

**POTENTIAL FUNDING SOURCES**

As an independent initiative, the Fort Jesus project has strong potential to attract diverse funding streams and international collaboration. It offers stakeholders a prestigious opportunity to support a cultural preservation effort recognized by UNESCO.

1. Oman: Due to the Omani royal family’s historic occupation of the fort and Oman’s role in Indian Ocean trade.
2. Portugal: Through cultural heritage institutions with interest in colonial-era history.
3. UNESCO and international heritage organizations: For global heritage preservation.
4. Kenyan government and tourism authorities: Given Fort Jesus’s central role in Kenya’s cultural tourism.
5. Private foundations and universities: Especially those with archaeology, history, or African studies programs.

**EXPECTED IMPACT**

1. Conservation Support: Providing detailed digital documentation to guide restoration and maintenance.
2. Heritage Awareness: Enhancing public understanding of Kenya’s role in global history.
3. Tourism Development: Creating engaging digital media to attract both domestic and international visitors.
4. Academic Contribution: Generating high-quality research data for scholars of archaeology, history, and architecture.
5. Regional Leverage: Establishing Fort Jesus as a model project for the preservation of other heritage sites across Africa.

Fort Jesus is both a national treasure and a global heritage site whose preservation requires urgent and dedicated action. By combining advanced digital mapping technologies with rich storytelling, this project will protect the fort’s legacy, amplify its cultural significance, and inspire wider efforts to safeguard Africa’s historical sites.

*\*Ronald Elly Wanda, Grundtvig Africa House, Nairobi.*