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## **Student Presentation**

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# **An Archaeological Monitoring of Underground Water Tank Construction at Kasubi Tombs World Heritage Site, Uganda**

## **Introduction**

This paper presents the significant findings of archaeological monitoring during construction of an underground water tank and solar power line at Kasubi Tombs World Heritage Site. It was part of a decision by World Heritage Committee to carry out research on traditional skills and practices that are disappearing. UNESCO was also concerned that there were major developments at the site without archaeological studies. The construction of new buildings or the installation of water pipes and underground reservoirs require digging deep into the ground, hence, interfering with archaeological strata of the site. The joint World Heritage Centre/ ICCROM/ ICOMOS reactive monitoring mission 2014, recommended an archaeological research on the construction of the underground water tank and solar power line at the site. The main aim of the monitoring exercise was to make sure the construction does not negatively impact cultural materials that might be buried deep in the soil, hence, maintaining continuity of tangible and intangible values of the cultural heritage site.

## **History of Kasubi Tombs**

Buganda was one of several small principalities founded by Bantu-speaking peoples in what is now Uganda. It was founded in the late 14th century when the *kabaka*, or ruler, of the Baganda (singular *Muganda*; often referred to simply by the root word and adjective, Ganda) people came to exercise strong centralized control over his domains, called Buganda. By the 19th century, Buganda had become the largest and most powerful kingdom in the region. The local chiefs of conquered areas ruled as personal appointees of the *kabaka*, who had a sizable army at his disposal (Shillington, 2005). Foreign influences, including the Islamic and Christian religions, began to reach Buganda in the 19th century, especially during the rule of Muteesa I (1856–84).

The Kasubi tombs are located on the site of a former palace of King Muteesa I of Buganda. It only became a mausoleum after the king had died and was buried there. Muteesa I built the original conical house, known as *Muzibu-Azaala-Mpanga*, in 1882, just two years before his death (Kigongo, R. M, 1991). It is the burial grounds for four kings of Buganda (referred to as the *kabakas*). The Kings buried at the site are Muteesa I (1835–1884), Mwanga II (1867–1903), Daudi Chwa (1896–1939) and Sir Edward Muteesa II (1924–1969). The Tombs of Buganda Kings site encompass 30 hectares of Kasubi hillside within Kampala City. The site is the major spiritual centre for Baganda where traditional and cultural practices have been preserved. The Kasubi Royal Tombs are the most active sacred place in the Kingdom, where rituals are frequently performed. As a burial ground for the previous four Kings, it is so sacred that the king and his representatives carry out important rituals related to Buganda culture and communication links with the spiritual world are maintained (Farelus B, 2012).

The spatial organization, starting from the border of the site marked with the traditional bark cloth trees, leading through the gatehouse, the main courtyard, and culminating in the large thatched building, housing the tombs of the four Kabakas, represents the best existing example of a Baganda palace/burial site. At its core on the hilltop is the main tomb building, locally referred to as the "*Muzibu-Azaala-Mpanga*", which is the masterpiece of this ensemble. The latest building was the former Palace of the Kabakas, built in 1882 and converted into the royal burial ground in 1884. Four royal tombs now lie within the *Muzibu-Azaala-Mpanga*. The main tomb building, which is circular and surmounted by a dome, is a major example of an architectural achievement that was constructed with the use of vegetal materials comprised of wooden poles, spear grass, reeds and wattle. Its unusual scale and outstanding details bear witness to the creative genius of the Baganda and stand as a masterpiece of form and craftsmanship; it is an exceptional surviving example of an architectural style developed by the powerful Buganda Kingdom (Kigongo, R. M, 1991).

In 2001, the Kasubi Tombs were declared a UNESCO World Heritage Site. It is the only cultural heritage site designated by UNESCO in Uganda, although there are 2 natural heritage sites in Uganda. The Buganda tombs were added to the UNESCO World Heritage list in 2001, meeting criteria (i, iii, iv, and vi). That is, the Buganda tombs were agreed (i) to represent a masterpiece of human creative genius, (iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared, (iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history, and (vi) to be directly or tangibly associated with events or living

traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.

Unfortunately, on 16th March 2010, the main tomb house (*Muzibu-Azaala-Mpanga*) was set ablaze by an unknown assailant(s) for unknown reasons. It is currently under reconstruction. After the tragedy that weakened the Outstanding Universal Value (OUV) of the site, the property was placed on the List of World Heritage in Danger by the World Heritage Committee (Decision 34 COM 7B.53) during its 34th session in Brazil in July 2010. Though much of the tomb was entirely destroyed, the burials of the four kings were protected from the fire. A reconstruction process is ongoing with each of the 52 clans of Buganda working on a new inner thatch ring (52 rings) to be used in the replacement structure.

**Figure 1: Location of Kasubi Tombs**



#### **Background of the Underground Water Tank**

The project was conceived by UNESCO-JAPAN Initiative after the fire tragedy of 2010 at Kasubi Tombs. They provided training in disaster preparedness and response. Since those Asian countries like Japan are vulnerable to disaster, they have much experience in handling disaster issues concerning culture. The mission, code-named 'UNESCO-Japan mission', aimed to improve the disaster risk management of the site. According to their recommendation, the following have to be installed at the site: an underground water tank, fire extinguishers, CCTV cameras and security sensors.

The underground water tank is located south of the main house (*Muzibu-Azaala-Mpanga*), right between a residential house and Kasubi Muslim Primary School. It is a round shaped structure measuring 11m in diameter and 5m deep. The underground tank neighbours three burial grounds on the northern part, located 21.3m, 25m and 28m away from the site. Alongside the underground water tank, digging of a solar power line for the installation of a photovoltaic solar electrical plant was also on-going. It ran from the solar power house, measuring 1ft (0.3048m) wide, 3ft (0.9144m) deep, 600m long to the water pump and 35m long to the underground water tank. The site is located east of the main house. Besides this, there is a huge cultural mound, which is a monumental heap of soils built during the time of Muteesa I, but its content is unknown. It stands, right in the northern front.

### **Objectives of the Archaeological Monitoring**

The major objectives of the archaeological monitoring were to;

- (a) Provide a watching brief during topsoil stripping and other earthwork excavations,
- (b) Identify any finds, features or deposits of archaeological potential,
- (c) Establish the character, condition and extent of any finds, features or deposits of archaeological potential,
- (d) Isolate and protect any identified finds, features or deposits of archaeological potential, and
- (e) Report the discovery and extent of identified archaeological remains and outline the impact of the development on these remains.

### **Monitoring Process and Observations**

The monitoring process involved observing the day to day activities that were carried on the Underground Water Tank and Solar Power Line. The process involved training construction workers on chance finds procedure, interviews, site surveys and rescue archaeological excavation. Equipment

used included but was not limited to trowels, sieve, tape measures, GPS, camera, munsell soil colour chart, notebooks, graph book, pens, pencils, dustpans, machete, artifact bags, ruler, masking tape, drawing board.

Through the training on chance finds procedure, one construction worker (*Ssenkaazi Joel*) was able to identify a metal object protruding in the middle of his apportioned solar power line digging. He reported the finds to his site supervisor who in turn informed the Department of Museums and Monuments through the monitoring team. The Commissioner of the Department of Museums and Monuments then recommended professional rescue excavation to salvage the cultural materials therein. This formed the basis for rescue archaeological excavation on the site.



***Plate 1: On-Site Chance Finds Procedure Training in Progress***





**Plate 2: 1-Progressive Drawing; 2-Gilbert, Charles and Mr. Kigongo posing with the Rescued Artifact; 3-Layout of the Trench; 4- Other artifacts from the Trench**

### **Rescue Archaeological Excavation**

A test pit excavation measuring 1x1m was placed on the solar power line. This was to rescue the metal object that was identified by one of the site workers. A systematic excavation approach was adopted going by 10cm intervals while sieving all the soils coming from each level. All the artifacts recovered were bagged and labeled for further studies and progressive planning of the trench and drawings were also done at almost every level.

As the excavation progressed, the initial 1x1m excavation became too small as more of the object was being exposed. Therefore, there was a need to extend it to allow safe recovery. An extension of 50cm east and west respectively was made. At the end, the trench became a 2x1m and was excavated up to the sterile layer at level 9 (80-90cm).

### **Results of Rescue Archaeological Excavations**

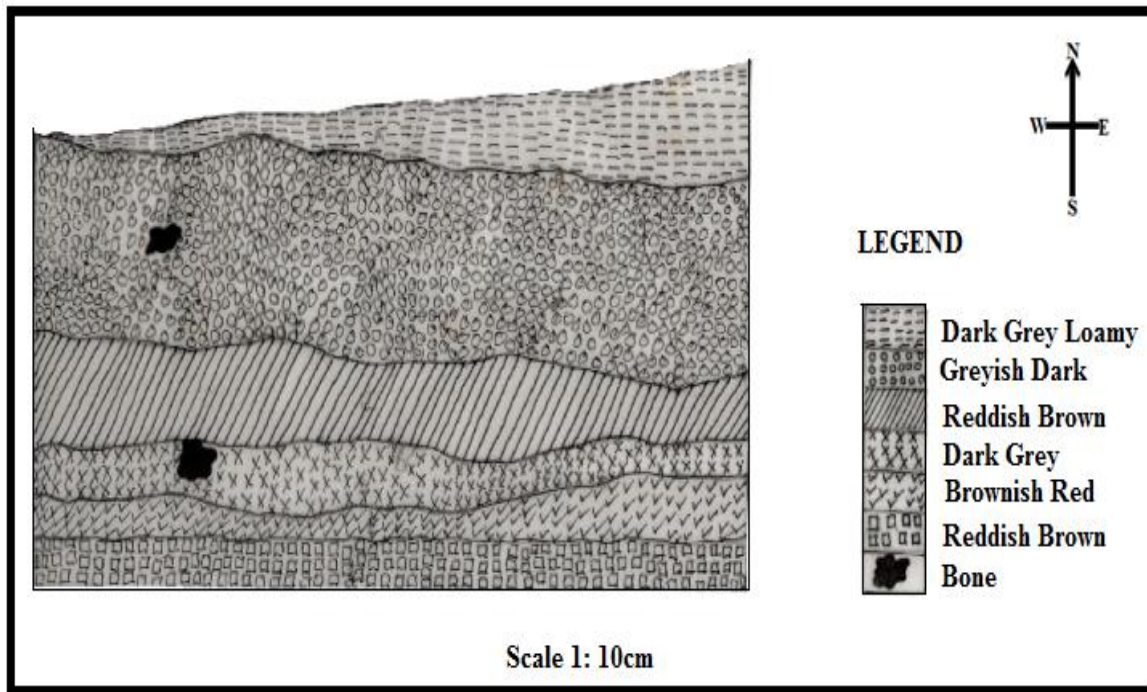
The trench was productive from the surface level, where potsherds, bones and metal pieces were recovered. Level 1 (0-10cm) yielded a number of potsherds, bones, metal pieces and a single bead. Level 2 (10-30cm) down to level 4 (30-40cm) contained potsherds, bones, metal pieces and 2 pieces of smoking pipes. Between level 5 (40-50cm) and level 6 (50-60cm), there was a relatively low occurrence of potsherds and bones but high numbers of metal pieces continued to be discovered.

Level 7 (60-70cm) had few potsherds and bones but again a high number of metal pieces. Level 8 (70-80cm) yielded some pottery and a few metal pieces but no bones. Level 9 (80-90cm) was the sterile layer; while no artifacts were recovered from this layer, it was excavated to confirm the presence or absence of artifacts. For more detailed information on the recovered artifacts see Table 1.

**Table 1: Material Inventory from Solar Power Line Site**

Site Name	Level (cm)	Artifact							
		Pottery		Bones	Metal	Beads	Smoking Pipes	Charcoal	Slag
		Decorated	Und.						
KASUBI TOMBS SOLAR POWER LINE	Surface	07	27	11	18	-	-	-	-
	1 (0-10)	09	42	29	12	01	-	-	-
	2 (10-20)	08	20	13	-	-	-	03	-
	3 (20-30)	14	29	33	01	-	-	-	-
	4 (30-40)	07	18	16	-	-	02	-	-
	5 (40-50)	06	06	13	10	-	-	-	-
	6 (50-60)	-	02	-	22	-	-	-	02
	7 (60-70)	01	13	10	35	-	-	-	-
	8 (70-80)	01	04	-	05	-	-	-	-
	9 (80-90)	-	-	-	-	-	-	-	-
	<b>TOTAL</b>	<b>53</b>	<b>161</b>	<b>125</b>	<b>103</b>	<b>01</b>	<b>02</b>	<b>03</b>	<b>02</b>

**Figure 2: Northern Wall Profile of Solar Power Line Excavation**



**Plate 3: 1, 2-Knotted strip (Plaited Grass Roulette); 3-Carved (mamillated); 4-Composite Impression**

### **Significance of the Archaeological Finds**

The archaeological finds from the two sites cement the gap in dating the history of Kasubi tombs. The site has been orally dated to the 13<sup>th</sup> century and the partial analysis dates the site to the early iron working period and probably to Stone Age period. Some artifacts will act as touristic attractions, especially the rescued drum (*Pipa*) which could have probably been one of the first drums in



Uganda. All the materials collected were properly bagged and labeled and, hence, the research values are kept intact. Future researchers can, therefore, refer to them for more in-depth studies. Archaeological finds at Kasubi Tombs have indicated that the cultural environment is deeply interconnected with the history of the site. Without the cultural environment, the history of Kasubi cannot be complete. For example, the underground water tank site produced artifacts that are much younger than the ancient artifacts from the solar power line site. This is still important because it gives information about change and continuity. It also indicates that Kasubi has been occupied and settled probably earlier than the 13<sup>th</sup> century, as relatively dated by roulette pottery. It is said that, from Kintu (first Buganda King) to Muteesa II, there were 35 kings but the information available does not specify the periods of each king's reign (Kigongo, R.M 1991, p.6). The only source of dating the occupational periods would probably be archaeological data which might be buried in Kasubi or elsewhere in Buganda. There are also probably more artifacts related to external trade with the outside world as illustrated by glass beads. Glass beads were said to have been one of the major trade commodities brought to Buganda by the Arabs from the coast of East Africa.

### **Impacts of the Construction Projects on Archaeological Materials**

Based on the general objectives of the archaeological monitoring exercise outlined, it was discovered that work on the site had already started long before the monitoring exercise was commissioned. Again, two projects (underground water tank and photovoltaic solar power line) were ongoing concurrently and involved earth movements and striping of the topsoil, hence dislodging the archaeological material context. The construction of the solar power house was also completed without any Cultural Heritage Impact Assessment (CHIA). The solar power line construction was half complete, which caused the destruction of numerous cultural materials, especially pottery that was exposed along the solar power line.

At the underground water tank site, digging was to proceed at intervals of 10cm for proper monitoring, until the end of the occupational layer. Simple tools such as hoe, spade, pick axe and machete were recommended. This approach was not taken since it was fallaciously believed that it would "delay completion of work". Instead, a grader (excavation machine) was employed and work was completed in a day with massive destruction of cultural materials. Nevertheless, a number of archaeological materials such as pottery, metal objects and bones were collected.

Artifacts such as pottery, bones, slag, smoking pipes, charcoal were destroyed, especially at the solar power line site, where work started long before monitoring exercise was commissioned. Debris from the underground water tank construction was haphazardly deposited, burying some archaeological

materials. As highlighted in the 'Significance of the Archaeological Finds' section, these objects are vital to the history and culture of the site, and their destruction could lead to irreparable loss of elements of the cultural environment and information regarding the history of the site

### **Recommendations**

- Cultural Heritage Impact Assessment (CHIA) for the entire site should be conducted and included in the upcoming master plan.
- Proper inventory of all burial sites and graves within the Kasubi Tombs should be generated to avoid unnoticed destruction.
- There should be timely archaeological pre-assessment of each and every projects proposed to take place within the site.
- Effective communication should be developed between the project undertakers and the assigned archaeologist(s) to avoid interference.
- Kasubi Tombs staff and the project undertakers should be adequately trained in chance finds procedure; to help them identify, report, protect and conserve any archaeological materials stumbled on. The Department of Museums and Monuments has done that with other development partners across the country.

### **Conclusion**

Kasubi Tombs World Heritage site is a very important landmark in the history of Buganda and Uganda at large. The monitoring exercise has revealed that a great number of reconstruction and improvement projects are ongoing since the fire tragedy of March 2010; unfortunately, none of the projects have ever received a Cultural Heritage Impact Assessment (CHIA). As a result, archaeological heritage which is non-renewable is being destroyed in great quantities. The site management is, therefore, urged to consider carrying out Cultural Heritage Impact Assessments for the entire site, for every project. Nevertheless, this monitoring exercise has recovered vital cultural materials that can aid in the reconstruction of the history of Buganda.

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