The *Mtepe* ‘Shungwaya’ Sails Again

By Professor Abdul Sheriff,
Khamis A. Abdalla & Ame I. Mshenga

<table>
<thead>
<tr>
<th>Kilichoundwa kwa kamba (1)</th>
<th>A vessel sewn with coir ropes</th>
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<tr>
<td>Na misumari ya miti</td>
<td>And fixed with wooden pegs</td>
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<tr>
<td>Hakipakii sambamba</td>
<td>Is not loaded the same way</td>
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<tr>
<td>Na Mkele hakipiti</td>
<td>and does not go beyond Mukalla</td>
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<tr>
<td>Ngololo angaksiwamba</td>
<td>It is infested with <em>ngololo</em> insects</td>
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<tr>
<td>Hukila kivutivuti</td>
<td>Gradually eating it</td>
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*The mtepe* was a uniquely Swahili double-ended vessel in which the planks were sewn with coir ropes instead of being nailed, like the one mentioned in the *Periplus of the Erythraean Sea* in the 1st century. The last such vessel was built in the 1930s in the Lamu archipelago, its original homeland, and is now extinct. A life-size vessel was built in Zanzibar in 2003 as a centrepiece for an exhibition on the Dhow Culture of the Indian Ocean in the House of Wonders Museum. It was designed and built on the basis of intensive research by Abdul Sheriff using all the available sources, and an illustrated summary was prepared and translated into Kiswahili for the benefit of the prospective dhow builder.(2) With the help of Ahmed Shaikh Nabahany, a foremost expert on Swahili culture in Mombasa, a dhow builder, Fundi Mohammed Bwana of Kizingitini was located in Lamu. The construction of the *mtepe* was supervised by Khamis Abdalla and Ame Mshenga. The following is an account of how it was built, and the discrepancies that crept in between what we had gleaned from written sources and contemporary photographs and drawings, and the memory of the dhow builder about what he was told by his grandfather when he was a young boy.

**The history of mtepe**

Sewing was a common method of dhow construction in the western Indian Ocean before the coming of the Europeans in the 16th century. The raw materials - wood and coir rope - were easily available in the Indian Ocean, and Ibn Battuta in the 14th century gives the probable reason for the method:

>The Indian and Yemenite ships are sewn with them [coir ropes], for that sea is full of reefs, and if a ship is nailed with iron nails it breaks up on striking the rocks, whereas if it is sewn together with cords, it is given a certain resilience and does not fall to pieces.(3)

In the 19th century Captain Owen gives a very accurate description of a *mtepe*, although he called it a *dau*: 

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(1) *Hukila kivutivuti* is a Swahili phrase meaning *gradually eating it*.

(2) This illustration is prepared and translated by Abdul Sheriff for the benefit of the prospective dhow builder.

(3) Ibn Battuta's quote is from *The Travels of Ibn Battuta*.
Fig. 1 Drawing of the Mtepe on the Zanzibar beach, 1882/3 (Source: Revoil 1888)

Fig. 2 A Mtepe on the Zanzibar beach, c.1890 (Source: Peabody Musiem)

Fig. 3 Mtepes in Mombasa harbour. (Source: Martin. 1978)
Fig. 4 & 5 Stem (fashini) of the Mtepe under construction, at 50° and 30°

Fig. 7 The Mtepe being rolled in to the House of Wonders

Fig. 6 Fundi Mohammed Bwana of Lamu
They are generally sixty feet long by about fourteen broad, their stem terminating in a long sharp point, with a lofty and overhanging stern … Their planking is more frequently secured to the ribs by coir lashing than by either nails or bolts, … Their huge square sail of canvas or matting, has a yard above and one below… yet, notwithstanding their uncouth appearance, they are very swift, and sail much closer to the wind than most vessels.(4)

Richard Burton says it was ‘a favourite from Lamu to Kilwa … and swims the tide buoyantly as a sea-bird’ carrying from 12 to 20 tons.(5)

These literary sources are reinforced by a series of accurate drawings and photographs of mtepe on the beach at Zanzibar by the French traveller G. Revoil in 1882/3 and a contemporary photograph in the Peabody Museum, which show their characteristic shape and the cargoes they carried. (Fig 1 & 2)

The mtepe was elaborately decorated in the traditional Swahili colours of red, white and black that can be produced easily from locally available raw materials. The sides of the prow, the stem and the rudder were all carved, and brightly painted in delicate geometrical designs. Burton adds that ‘The swan-throat of the arched prow is … necklaced with strips of hide and bunches of talismans, it bears a red head [which] has the round eyes painted white.’ There were ‘male’ and ‘female’ mtepe, the latter being more decorated with earrings and kohl. The master fundi chose to build us a ‘male’ mtepe.

As an ancient vessel there are naturally a lot of myths associated with it. The most persistent tradition links it with Shungwaya, the legendary home of the North-East Bantu-speaking people. According to Pearce, it carried the flag of ‘a certain ancient Persian Sultan named Ali, who lived at Shangaya’ whom he associates with the Shirazi tradition of the Swahili coast.(7)

The mtepe were primarily built in the Lamu archipelago. James Emery, who had served as a governor at Mombasa (1824-6), recorded that the mtepe arrived in March from Pate loaded with grain and departed for Zanzibar and the Mrima coast to the south, while those departing in April were bound northwards to their home ports. Prins estimated that at least 30 mtepe were then involved in this trade along the coast, and perhaps another 20 or so that may have restricted their trading to the home waters of the Lamu archipelago.(8) (Fig 3)

The mtepe also carried slaves as shown by Erik Gilbert since they could sail closer to the shore to escape British cruisers. In 1877 two mtepe were condemned by the Vice-Admiralty Court in Zanzibar for involvement in the slave trade.(9) Moreover, the Revoil drawing shows they also carried local pottery in large numbers, as well as cattle, salt, and firewood, but coconuts were strictly excluded because it was believed they would loosen the coir ropes. The Peabody photograph shows piles of mangrove poles on the beach, and by the 20th century they had become the raison d’etre of the mtepe.

The captain and crew were generally Swahili or Bajuni from northern Kenya, but the owner was often an Arab or an Indian. In the larger boats the crew consisted of up to 15 seamen whose job was to punt the boat through shallow waters of the mangrove swamps, and to bail water out every half hour. They were not paid a wage, but as elsewhere in the western Indian Ocean, sailors worked on a profit-sharing basis.(10)

The mtepe is now extinct. The last one was wrecked in 1935, and Villiers saw its hull rotting on a Lamu beach in 1939. The only surviving relics of this proud Swahili vessel are 10-12 planks that now form the ceiling of the guardroom in the Fort Jesus Museum. As Gilbert concludes, it had survived for so long because ‘it was well suited to the particular conditions
of several niche markets in the local economy … where its combination of shallow draft, large
cargo capacity, seaworthiness, and ability to endure repeated beachings enabled it to out-per-
form nailed-hull craft.’(11)

Building a mtepe

There are several models in various museums in Zanzibar, Kenya and Europe, but few of
them appear to be accurate judging from contemporary photographs and drawings. In 2002
we decided to undertake to build a life-size mtepe as part of a comprehensive exhibition on the
Dhow Culture of the Indian Ocean which included exhibitions on:

The Maritime Habitat, its exploitation and conservation;
The Swahili Coastal Culture along the length of the East African coast; and
The Monsoon Culture across the Indian Ocean.

A complete account of the exhibition has been published in the book Zanzibar Heritage,
but although the texts were written by the Zanzibar Museum team as a whole and revised and
edited by Abdul Sheriff, the Danish Consultant Jesper Kirknaes, in a case of gross plagiarism,
published it in his own name.(12)

The mtepe was built at the Forodhani seafront with the sea in its background. Here the con-
struction process was in full view of the public, and an explanation board was placed beside
it. In fact a lot of local people and foreign tourists were attracted, including other dhow
builders from the main dhow building centres, such as Nungwi, who came to marvel at the
revival of this lost art.

In deciding on the size of the mtepe, we followed the measurements of a mtepe that had
been captured in 1877 which measured as 97 ft (29.5 m) long, 24 ft (7.4 m) wide, and 9.5 ft
(2.0 m) deep, and its girth was 40 ft (12.2 m). However, to fit in the inner courtyard of the
House of Wonders diagonally, we had to make it half the size approximately.

The first task was to lay the keel (utako), which was done on 17th April 2003, and as usual
it was accompanied by elaborate ceremonies, including recitation of a maulidi by children of
the a Quranic school. It also involved the sacrifice of a black goat as an offering to the miz-
imu spirits of the place. Muangaa wood was used for the keel, and about 40 men and women
hauled the timber on to its supports made of coconut trunks half buried in the ground. It was
planed with adze (tezo), and grooves were made near the two edges at the top to receive the
first planks, using a chisel (patasi). The master fundi marked the lines for these grooves using a
string moistened with a blue solution.

The mtepe is pointed at the stem (mli ya mbe) and stern (mli ya nyuma). According to Lydekker
both consisted of several V-shaped pieces of wood (zitwa, sing. kitwa, head) which were placed
on top of one another and sewn from the keel to the topmost timber. The whole was then
strengthened by posts sewn in front of the zitwa and called fashini.(13) This method was used
perhaps increase its flexibility, but in our case single solid timbers were used. This was the first
departure from the traditional method.

The second departure was much more serious. In May 2003, the stem and the stern posts
were laid. They were shaped and two grooves were made in them as in the case of the keel to
hold the planks. A photograph of the work in progress was sent to Sheriff who was then on
research leave in Berlin. Whereas the Revoil drawing and Peabody photograph showed the
stem at only about 30 degrees from the ground level, both the stem and stern of the mtepe had been set up at 50 degrees. (Fig 4 & 5) This would have drastically changed the shape of the mtepe. The fundi had to be persuaded to replace the stem post with another at the right angle.

All the sources are unanimous that the building of the mtepe used the ‘shell-first’ method in which planks were sewn together from the keel upwards according to a pre-conceived shape, and then the frame was inserted and lashed to the planks.(14) However, when Sheriff returned in July, he realised that the fundi was following the ‘frame-first’ method now used to build nailed dhows, and ribs were inserted onto which planks were pegged at the same time and sewn to each other, the third departure from the traditional method. The fundi said he could not see how else he could have obtained the shape of the hull without having the ribs in place since the planks had to be bent with oil and fire to obtain the shape. (Fig. 6)

The ribs (mataruma) were fashioned out of crooked branches and natural bends. They had to be joined at both ends of their V-shapes (sajari) since they were not long enough, and those joined on top are called balgamu. At this stage the mtepe began to assume its skeletal shape.

The next stage was to put on the planks. Each side of our mtepe has nine planks with an average width of 20 cm. All the descriptions had insisted that the planks were cut out of mkoko (mangrove) or mlilena timber.(15) The Fort Jesus planks are about 20 cm wide, but most of the mangrove poles nowadays are rarely more than half that size. To use narrower mangrove planks would have meant double the number of stitches and would have made the mtepe look unauthentic. We were therefore forced to use mtondoo planks.

About 70 planks imported from Tanga on the coast of Tanzania mainland were used. An ancient method was used to curve them to required shapes. Fire from waste pieces of wood was prepared and the plank was smeared with dirty gear oil to soften it and prevent it from burning. It was then placed on a blazing fire and curved using a special vice cut out of a coconut trunk that had a slit to allow the plank to pass through, while a pole was tied to the plank at the other end as a lever to help bend it gradually. (See Fig. 7 & 8 in Roosje de Leeuwe’s article.)

It is clear from Nabahany’s poem, composed specifically to preserve the knowledge of dhow building, that each planks had a name and specific characteristics. The first is called mali-ki that fits into the groove (wadiri) on the keel, and the others pieces that followed were kitanda (bed) and dauri (topmost plank), etc.(16) They were laid edge to edge, and fastened together by the insertion of small wooden pegs (nguruthi) hammered in vertically at an angle, which were the main element holding the planks together in place of nails or bolts. In this vessel more than 3,000 pegs were used.

To drill the holes to put these pegs the master fundi used an ancient bow drill (kekeo) which consists of a stick and a string round the wooden handle of the bit, and the stick was moved as in a violin to rotate the bit.

The process of fastening the planks to each other, to the ribs and to the stem- and stern-posts with wooden pegs, as well as caulking (kalafati) and sewing had to be done simultaneously. Caulking consisted of loose coir fibre, drenched in shark oil, and hammered into the seam. On top of this a packing of thick paste made of pounded mangrove bark was laid, intended to act as a preservative of the coil by reason of its tannin content. Over this a layer of crushed and dried stems of doum palm (mkoma) leaves (miyaa) were finally placed. All these components were sewn into position whenever two planks were stitched together by cross-stitching which pressed the caulking against the seams.
Sewing was done by passing the rope through the holes like lacing a shoe. In the actual process of sewing, two men worked together, one sitting inside passing the needle, and one standing outside pulling the rope through and twisting it round a forked stick (daradaki) which was used as a lever to stretch the rope. As soon as the rope was tightened enough, the man inside knocked a peg to wedge the rope.

In this way six feet of planks were sewn at a time, going first from right to left and then reversing. When this length of sewing was completed, a wedge was driven into each hole from the inside and snapped off but left in position. The vessel is held together by three to four thousand stitches. The sources had stated that whatever cord showed on the outer side of the hull was then cut away flush, except along the keel and for a short distance at the stem and stern, but the fundi insisted that this would weaken the stitching, and we therefore had to let them remain.(17)

At the eighth plank the lower cross beams (himar, ‘sailor’s donkeys’) were fitted to prevent the hull from sagging. There were six such cross beams, and there was another cross beam (mafundo) over each himar about a foot from the top, fixed by sewing with coir lashings, and subsequently plugged with wooden pegs.(18) Over this plank came a flat plank running the whole length of the sides of the hull called tampisi to enable seamen to move easily, and to increase strength of the vessel. At this stage another sacrifice was needed. A black goat was slaughtered on one of the himar cross beams, allowing its blood to seep down to the keel.

Although existing sources and models do not show or mention anything about laying lengthwise floor planks or stringers (fitari) about three inches wide by half an inch thick above the ribs, these were laid about a couple of inches apart. They started to be fixed when the master fundi had just finished fixing the fifth plank of the hull, perhaps to keep the cargo slightly above the bilge, which may have been useful when carrying perishable goods, but not with mangrove poles which was its major speciality in the 20th century.

Both in front and in the rear the mtepe carries small wooden decks, and there was an awning of palm thatch on the rear deck with two bedsteads underneath, hanging like hammocks for the captain and mate. On the starboard quarterdeck there was a wooden crate filled with sand that served as a kitchen stove.(19) For this mtepe the fundi opted to carry the head of a bird on the stem post, and a sternpost rudder (shikio) fastened to the stern post by coir ropes (zikana). In smaller dhows like this mtepe, the tiller is fixed to the rudder blade horizontally. (See Fig. 9 above)

When beached, a mtepe was never allowed to heel over as it would have strained the sewing. It was propped up by supports or stilts tied to the sides. It is also equipped with oars (kasia) made of thin mangrove poles with pieces of shaped flat wood tied on to one end. The mtepe were also punted with mangrove poles (pondo) in shallow waters. Finally, it carried wooden anchors, consisting of four hook-like timbers lashed together, and the shaft between them were filled with stones to increase the weight.(20)

The mast (mlingote) was traditionally a plain mangrove pole that was held in place by two stays (ayari), the heel fitting into a step (msitamu) attached to the keel. The mast was tied to the cross beams to give it additional support. It stood a little forward of midship, and it raked forward to allow free movement of the mat sail when it was raised or lowered.(21) It was impossible to get a mangrove pole to fit the size of the mtepe. Eventually we obtained one of teak (msaji) wood.

The mtepe carries a matting sail (utanga) that was plaited from miyaa, the fibre of the mkoma
palm in Pemba. Two two-inch pipes were kept apart half the width of the desired sail, and the strip was stitched around them continuously. On completion one side was cut and the borders were hemmed with a three-quarter inch rope. The sail is attached at the top and bottom to yards (formali).

There was considerable discussion about the size of the sail. From the Peabody photograph it appears that the width of the sail was about half the length of the mtepe. Since our mtepe was about 14 meters long, the width of the sail would have come to about seven meters. However, the fundi was adamant that it should not extend by more than about half a meter on each side of the gunwales. A broader sail would make the vessel very unstable, and it was difficult to contradict him. Since the width of the built mtepe was 3.5 meters, we settled on something approaching five meters.

Finally we had to decide on the name of the mtepe since in Swahili culture, as in many other maritime cultures, vessels have their own personalities. It was thought that as an artefact of a tradition, it was only appropriate that it should refer to its heartland in the Lamu archipelago. When we offered different suggestions, the eyes of Fundi Mohammed brightened at the reference to ‘Shungwaya’ that he unhesitatingly recommended. It was thus painted in Arabic and Roman scripts on the two sides of the prow.

The launch and installation in the House of Wonders

Construction of the mtepe was completed, and it was agreed to launch it with the highest tide on 25th December, 2003 when the official ceremonies were organised. The museum team insisted that a life-size mtepe was constructed to show that it was a truly seaworthy Swahili vessel rather than merely a large model. However, at the last moment the Director decided not to launch it directly into the sea for fear that it may sink and cause embarrassment in front of the invited dignitaries. So it was merely lowered on to the sandy beach on that day.

The launching involved elaborate ceremonies. Children from various madrasa with their teachers recited the Quran and maulidi. The master fundi gave some money as a reward (kitoweyo) to his assistants so as to get their blessing. Then a turban was placed on the fundi’s head and an ada (customary gift) was given to him. When all that had been done, he stood behind and talked to the vessel and blessed it, and then he hit at the turusi (buttocks) of the mtepe with a hammer to allow it to go down. (Fig. 7)

We decided to invite a 50-strong team of dhow builders and women from the major dhow-building centre of Nungwi to participate in the launch ceremonies. The vessel was originally built facing away from the beach, but it is taboo for it to move backwards. So it had to be turned around and then moved using mangrove rollers over a temporary wooden bridge down to the beach.

Harambe shouts, drum beats and dances kept the scene very joyous. The women had prepared wreaths of fragrant flowers (vikuba) to be put around the necks of the master fundi and the museum team. This was the biggest feast in the whole process, and it needed the sacrifice of a bull. Its meat was used to prepare biriani for all those who were invited. The owner was supposed to be thrown into the water unless he paid a customary gift, and there was a rumour that Sheriff, as the project leader, would have to tossed into the sea. In the event he escaped the drenching.

The argument about launching the mtepe into the sea was reopened thereafter. It was ultimately launched into the sea on 23rd February, 2004. Fundi Mohammed was chosen as the
captain. We were not quite sure how it would sail with its square mat sail. Because the wind had suddenly shifted that morning to the north, we first had to tow it out to sea with a motorboat for about a mile, but then it sailed beautifully for its first voyage in Zanzibar harbour after more than 70 years. It also moved amazingly fast towards the harbour in only about ten minutes. Water did leak in as was expected, but not unusually, and it could be bailed out by a couple of people with ordinary buckets. (Fig 8 & 9)

The whole mtepe was then lifted out of water and transported on a trailer to the House of Wonders. Shifting it into the central courtyard was a major and delicate engineering exercise. It was 3.5 meters wide while the main gate of the House of Wonders is only about 2.5 meters. A visiting German engineer, Peter Peetz, volunteered his services, and devised an elaborate protective cage for the mtepe, and a system of wooden rails and iron rollers to roll it lying on its side into the middle of the museum. It was truly amazing that the whole exercise was completed without damaging the vessel or the marble floor, and without anybody getting hurt. Its mast, hut and sail were then reassembled.

‘Shungwaya’ now very appropriately stands in the middle of an exhibition on the maritime
culture of the Indian Ocean in the House of Wonders Museum. Although in its construction all the traditional processes were not followed to the letter, the final product is very faithful to the pictorial representations that we had found. Its master builder had come from its original homeland in the Lamu archipelago, and his assistants and the museum staff involved in the project were from different parts of the Swahili coast. Its hull planks came from Tanga; its ropes from Makunduchi in southern Unguja; its mast was brought from Bububu; its sail was woven in Pemba; and the mangrove bark came from the Tumbatu island. In its construction it united the whole Swahili coast, and is therefore an authentic and fitting memorial to an important artefact of the Swahili civilisation which is now sadly extinct.

Footnotes
1. A local poem recorded by Nabahany from Lamu.
17. Hornell 1941:32.
19. in Prins 1982:90.