



**1995 Technical Review  
Summary**  
*by Yildirim Yavuz*

## **Conservation of Lamu**

**Lamu, Kenya**  
221.KEN



**Architects**  
*Usam Ghaidan and Francesco Siravo*

**Planners**  
*Ann Pulver and Philip Jimbi Katana*

**Client**  
*National Museums of Kenya*

**Completed**  
*1992 and ongoing*



*Lamu island is located along the east coast of Kenya, north of Mombasa*

*The small town of Lamu on the northern coast of Kenya in East Africa was one of those independent city-states that was established in the 14th century by the sea-faring Arab merchants who traded along the coasts of the Indian Ocean and beyond, as far as China. The existing urban conglomeration dates back to the 18th century, when the city flourished anew under the protection of the Omani Sultanate, after the decline of the Portuguese rule in East Africa. The town of Lamu (most probably "La Amu" in Arabic) is located on one of the main islands of the so-called Lamu Archipelago, across the Island of Manda. The islands in the archipelago are separated from each other and from the mainland by narrow channels where mangrove trees, fed by sea water, grow on the shores.*

*Thriving mainly on the exports of produce from mangroves, which have been restricted recently, and a limited amount of international tourism, Lamu has been able to preserve its original 18th and 19th century urban character to a large extent due to its remote location, and the lack of motor vehicles on the island.*

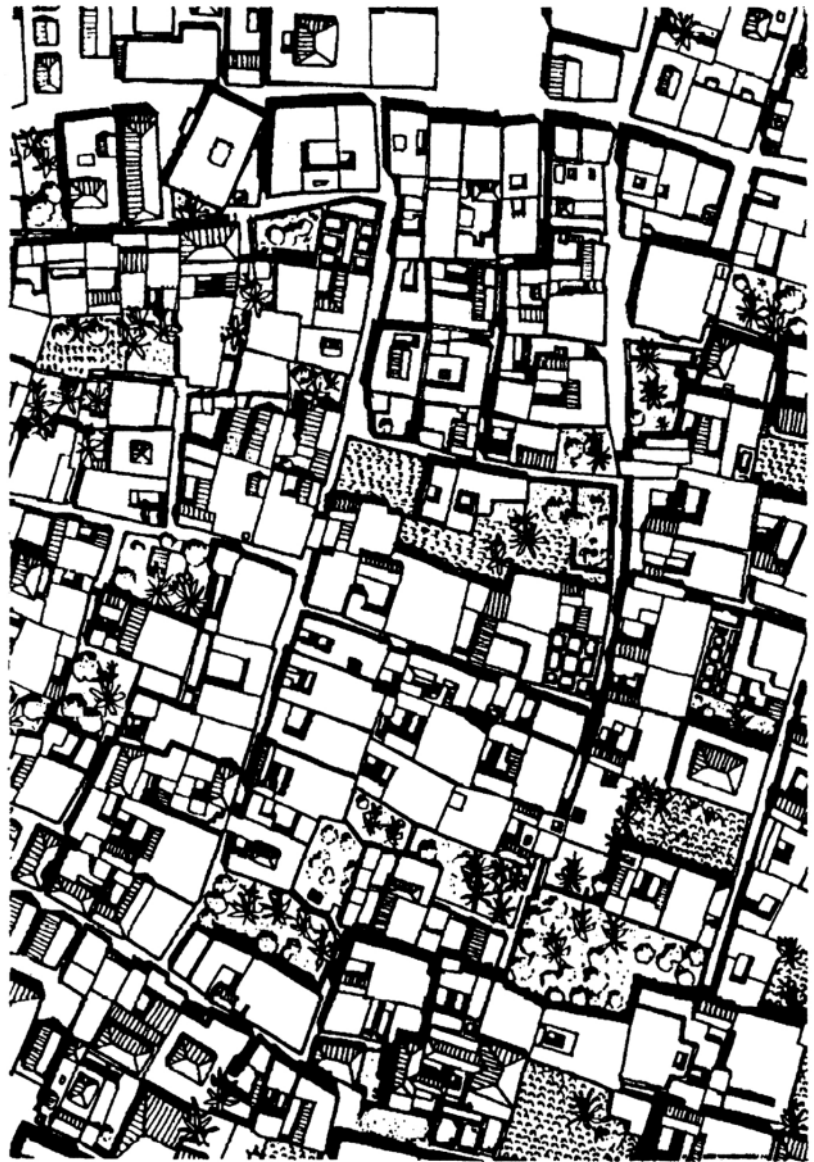
*Being the oldest living town in Kenya and the only Swahili settlement to have retained its original urban structure, Lamu became the subject of a conservation, restoration, and sensitive urban development programme, one that was initiated and sponsored by the Kenya National Museums and the Ministry of Lands and Settlements in 1975. In the same year, a study group prepared the first report on the conservation of the town. The study pointed out the architectural and planning features of Lamu, identified the monuments which were to be protected and restored, recommended a zoning for the island and also provided a set of building by-laws to control and guide development.*

*After the passing of the Antiquities and Monuments Act by Parliament in 1983, Kenya attained the legal framework to safeguard its monuments and places of historical value. As a result, and upon the invitation of National Museum of Kenya through UNESCO, another group of local and foreign experts prepared a second proposal for the conservation and restoration of the town between 1985 and 1986.*

*The implementation of the conservation plan of the town and the restoration of its buildings started in 1987, together with the establishment of the Lamu Town Planning and Conservation Office in the Lamu Fort in July 1987. Since then, many projects programmed by the Office have been implemented through international funds such as the restoration and conversion of Lamu Fort into a cultural centre for the townspeople, landscaping of the town-square, restoration of ten typical Lamu houses, and the restoration and rehabilitation of the old German post office.*

*These initial implementations seem to be leading towards new attempts to restore other buildings in the town through private funding, since external public funds seem to be increasingly difficult to obtain.*

*Site plan displays  
relief of stone town*



## Context

### Historical background

The seafaring tradesmen of the Indian Ocean from Indonesia to East Africa have caused the intermingling of different cultures in various countries bordering this great sea basin. The coast of East Africa came into contact with these distant peoples and cultures almost 2,000 years ago, when Arab, Indian and Persian merchants brought various products to be exchanged for ivory, gold, iron, timber and slaves. The coast was settled by Arab merchants more permanently between the 9th and the 12th centuries, building several trade centres from Mozambique to Somalia. Bringing along their new religion and marrying the local women, they bred a new Arab-African race with a mixed culture that was called "Swahili", from the Arabic word "Sahil" for coast.

More than 30 independent city-states flourished along the East African coast at the height of Swahili civilisation, one of which was Lamu, located on an island just off the northern coast of modern Kenya. Though Lamu itself was established during the 14th century on its present site, archaeological excavations in nearby perished cities such as Manda and Shanga indicate that Swahili settlements were established on the other islands of the archipelago as early as the 9th century. By the 15th century, Lamu had turned into an important city-state, prospering in the trade of timber,

ivory, and ambergris in return for products from across the other side of the Indian Ocean. As a result, together with other Swahili settlements on the coast, Lamu acted as an intermediary between the African people of the interior and the sea traders of Arabia, Persia and India, creating a network of maritime, urban settlements on the coast with a distinct, amalgamated culture of Afro-Islamic origin.

The long established prosperity of Lamu, together with those of the other coastal settlements, were temporarily disturbed by the arrival of the Portuguese in 1497, who had

reached the Indian Ocean from around the southern tip of the African continent. The Portuguese, having found the new sea route to the East, established dominance over the Indian Ocean trade with the help of their fast ships which were equipped with heavy firearms. Exacting tribute from the coastal trading towns, they also stopped at these ports to re-supply and responded with force if (they) met with resistance. They sacked Mombasa twice in 1505 and in 1528. They attacked both Lamu and Pate in 1506. They changed the traditional trading patterns in East Africa where they monopolised



*Seafront houses restored for the District Commissioner's residence (left) and the Kenya Wildlife Services offices (centre)*

shipping, suppressed coastal commerce and levied customs duties on exports. Hence, Swahili city-states gradually declined in their prosperity.

In the mid-17th century, the Sultanate of Oman, a new seafaring nation, came to the help of the Swahili ports and expelled the Portuguese from this coast in 1698. After the capture of Mombasa, the Omanis took the power in most of the East African coast north of Mozambique. Under their protection, the commercial life of the cities here was revived gradually and the building activity was expanded as a result. During the Omani protection, economic and political conflicts continued to disturb the peace between the city states. The cities of Mombasa and nearby Pate fought

with Lamu at the turn of the 19th century for its domination. After a victorious battle fought in front of the small, neighbouring town of Shela in around 1810, when forces of Pate and Mombasa were finally beaten, weary Lamu asked for permanent protection of the new Sultan of Oman; Seyyid Said ibn Sultan Al-Busaidi. To this end, the Sultan built the fort in the town in 1821 to house a military garrison which he sent for protection, together with a "Liwali" (from Arabic al-wali): a governor to organise the social life of the city. The city was never again independent to conduct its own free life.

In 1840, the Sultan Seyyid Said transferred his capital from Oman to Zanzibar, to be able to control the wealth of the East African trade

personally. Thus, Zanzibar became the new centre of political and economic activity on the Swahili coast, dominating all other port cities that previously had been independent. Trying to resolve the financial problems of trading with the interior, the Sultan allowed rich Indian merchants to settle in the coastal towns. In Lamu, these new merchant families from India were responsible for building the large houses with shops underneath them on the long bazaar street of the town that runs parallel to the present-day waterfront.

During the last quarter of the 19th century, colonial ambitions of European powers divided Africa into small territories of various imperial influences. Leaving Zanzibar and a ten-mile-wide strip of the coast as far north as the southern edge of the Lamu Archipelago to the Sultan of Oman, the British and the Germans divided the rest of the rich interior land among themselves. Later, in 1890, after some years of political struggle, Zanzibar, the coastal strip north of Zanzibar, and the Lamu Archipelago were all added to the concessions of the British East Africa Company and came under the influence of the British Empire. In

*Elevation recreates 19th century façades and street activity along the east side of Market Square*



*Conservation of Lamu, Lamu, Kenya*

*Seafront residence  
under restoration;  
former headquarters of  
the County Council*



1898, after the failure of the British East Africa Company, The British Foreign Office decided to join the coast and the interior to form a single administrative unit, under the name of The East Africa Protectorate, which was divided into provinces and districts. Under the protectorate, Lamu town became the headquarters of Lamu District and was administered by a British official together with the Islamic “liwali”.

After the completion of the Mombasa-Lake Victoria railroad in 1901, the British administration concentrated its attention on the interior and moved its seat of government to Nairobi. Because of the railway terminus, Mombasa became the main port of the East African coast, reducing Lamu to the position of an unimportant, local fishing village that had stagnated due to the decline of both trade and agriculture. As a result, the population of Lamu district fell more than 40 per cent in a decade between 1914 and 1923, making the town an obscure and remote regional centre in which the people occupied themselves with simple agriculture, fishing, livestock raising, government employment, commerce, and the mangrove trade.

The town once more began to grow in population in the early 1960s due to immigration from the troubled Somali border areas. By the beginning of the 1980s, it had reached a population of about 12,000, of which only 5,000 lived in the historical core while the rest settled in the fast growing surrounding districts.

Recently, the political troubles in Somali to the north have again affected the region adversely, and terrorist activity and raids have pushed further numbers of the rural

population into Lamu town for protection. As a consequence, the town's population has almost doubled to 25,000 within the last decade, expanding the low-income, make-shift mud housing districts surrounding the historical, high-income, stone-built central area of the settlement.

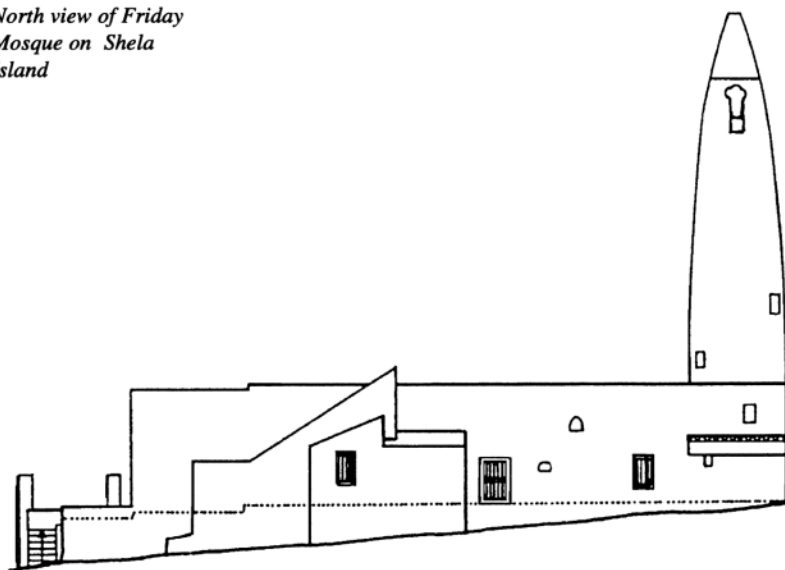
### Local Architecture

Lamu town comprises two different sections. The historical central area, called “Mkomani,” is built with large, one-or-two storey coral stone houses built along narrow, winding streets that are generally paved in concrete. Traditionally, the urban elite occupy this area. The newcomers and socially undistinguished population, on the other hand, live in the older “Langoni” district to the south of the central area and in the “Gardeni” district to the west, a more recent settlement. These two districts, which are growing at a constant pace, are built on old, private agricultural lands that used to surround the town before the influx of the migrant population. The houses here are built on very small, rented plots with wattle walls plastered with mud. They are covered by thatch roofs of palm leaves, locally named “Makuti”. With their wide, hanging eaves, and rectangular hip forms, the “makuti”

are very reminiscent of the roof structures found in Indonesian and Indochinese indigenous architecture, and they may well have been an influence from that part of the Indian Ocean. The urban fabric in Langoni and Gardeni is very congested with no pavements on the extremely narrow lanes and no infrastructure. Since these two areas were developed in an unplanned way, the temporary mud and wattle structures were exempt from building regulations. Nevertheless, in time many of them were transformed into permanent buildings with concrete block walls and roofs made of metal and chosen for their great resistance to fire hazards.

The historical district of Lamu; the so called “Mkomani” district, measures roughly 750 metres by 280 metres along the edge of the sea, covering an area of roughly 15.6 hectares. Most of the stone houses here are built in a north-south axis so as to catch the north-east monsoon wind that cools the town during the hot and dry season. The town is built on a rough grid of streets that runs parallel and perpendicular to the coastline. The main street of the town is a market street that runs parallel to the sea, about 30 metres inland from the water's edge today. At the beginning of the 19th century, when the ruling Omani Sultan allowed

*North view of Friday  
Mosque on Shela  
Island*



Indian merchants from Gujarat to settle in the town, this market street that is locally called "Usita wa Mui" and was the waterfront at the time, was aligned with the houses of these merchants, with shops and storage areas on the ground floors. The street, almost 750 metres long, has about 140 buildings on both sides today, most of them equipped with shops underneath and stone benches (mabaraza) in front, that are used by shop owners and shoppers to sit and chat or watch the activity in the street.

Later, in the mid 19th century, when the trade activity doubled, the growth of the town was concentrated on the waterfront, where the land was reclaimed from the sea. Initially the land on the eastern side of the market street was reclaimed, upon which were built the so-called veranda-type houses of richer merchants. Gradually the rest of the waterfront was completed with similar buildings. The present sea wall was finally constructed after the First World War. The major part of the town that lies behind the market street was built during the 18th and 19th

centuries. The streets here are very narrow and they are used only by pedestrians, while transport of goods is by donkeys. Both rainwater and waste water is drained through open channels that run on one side of these streets and alleyways, inclined towards the sea. The streets are usually shaded and cool because of the corridor effect they create. Here and there they are bridged by upper level rooms or passages that sometimes connect two opposite houses,

forming a cluster for a single family.

Most of the houses are built over the entire area of the building plot they occupy. Their width is almost always about ten metres. Their length however, varies according to the number of stone bearing walls that are built parallel to each other, thus creating a set of parallel galleries for living. The bearing walls, 2.70 to 3.00 metres apart, are crossed over with mangrove joists that are placed about 20 centimetres apart. These are sometimes made with better quality timber which is trimmed regularly and always painted in red, black and white.

The galleries closer to the courtyard are reserved for daily use, while the innermost gallery is used as the main bedroom which may be closed by large doors. The end walls of the galleries, the edges of the large, rectangular openings in the parallel bearing walls, the large blank rear wall of the innermost gallery and the walls of the lavatories and washrooms are exquisitely decorated with gypsum plaster, carved in



*The Friday  
Mosque; view over  
the roof tops of  
Shela Island,  
adjacent to Lamu*

geometric patterns and series of square, rectangular or small, arched niches. These display a particularly rich configuration on the back wall of the bedroom gallery where they are called the "zidaka".

The entrance to each house is treated like an iwan that opens onto the street as a shaded sitting room for men. This part of the house is called a "daka" and it is equipped with stone benches lining the walls. The two-ply main entrance doors are heavily carved around their frames as well as on their centre posts. The inner foyer, that is entered through the door from the "daka", is locally called "tekani" and is sometimes equipped with stone benches too, for the use of women visitors.

The kitchens are always built on the very top, at the flat roof level, so as to prevent the cooking odours from disturbing the living and sleeping quarters, and they are usually covered by a thatched roof that allows the rising smoke and fumes to filter through.

Most of the houses are equipped with a well in one corner of the courtyard. One of the minimum of two bathrooms is usually placed near the courtyard for the use of the males, while the women's bathroom is located at the back, to be entered from the bedroom. All the bathrooms are provided with a private chamber for a pit latrine and a separate entrance area that is equipped with a large, stone trough for storing water.

In contrast to the local and regional architectural characteristics of these stone houses, the so-called veranda houses of the waterfront reflect a taste for 19th century colonial eclecticism. Though the building and planning techniques and materials are similar, the added verandas and frontal porches of the houses have been built in various styles. Here one can observe colonnades in neo-classical forms, built to bear the weights of upper level verandas, arcades designed with various arch forms local or foreign,



and even some cast iron frontal structures, reminiscent of early industrial architecture, adding variety and colour to the wealthy neighbourhood of the waterfront.

### Climate

The town of Lamu, located approximately 2.5 degrees south of the Equator, on the eastern coast of Kenya, has a humid, tropical climate, with an average yearly rainfall of 762- 1,016 millimetres. The rains are known to be rather heavy every three or four years and relatively light in the intervening period. In spite of the humid and relatively rainy climate of the coastal districts, the inland areas of the district to the west and north have a more semi-arid climate with limited and sporadic rainfall. Consequently, semi-arid savannah vegetation is observed in the western districts as compared to the ever-green thickets, low grass and shrub covers and mangrove forests of the Lamu region. The monsoon rains of the Indian Ocean arrive in Lamu between April and May and last until July or August, when the climate is cooler. The hot and dry season is between January and March, when the heat can go up to as much as 50 degrees centigrade. The easterly winds from the sea can occasionally be of hurricane force. However, the

*Lamu Fort after restoration; view of courtyard and harbour beyond*

town itself is well protected from these winds by the island of Manda across the channel. During the hot and dry season, the town is cooled by a north-easterly wind called "Kaskazi".

### Site

The island of Lamu has four small settlements, including the district capital of the town of Lamu itself. The small fishing village of Shela is within walking distance south of the capital and can be considered as a suburban district. The village of Matondoni is situated on the northern shore of the island, facing the main land across a narrow channel, while the very small settlement of Kipungani is on the western coast, facing various small and uninhabited islands. High sand dunes cover one third of the island to the south, which is open to the sea and, hence, to the high winds from it. These sand dunes, which have an average height of 20 metres, protect the hinterland from the effects of the sea and they

also act as a filter for fresh water which is collected underneath them. The northern part of the island is partially cultivated, while the shore here is covered by thick mangrove forests. The largely deserted Manda Island across from Lamu and the Pate Island further north contain the ruins of early Islamic settlements such as Manda, Takwe, Pate and Shanga, all of which are important archaeological sites for valuable information on the early history of the West African Coast.

### Topography

Lamu District, of which Lamu town is the administrative centre, is one of the six subdivisions of Kenya's coastal province, covering an area of 6,814 square kilometres. The coastline here extends 130 kilometres

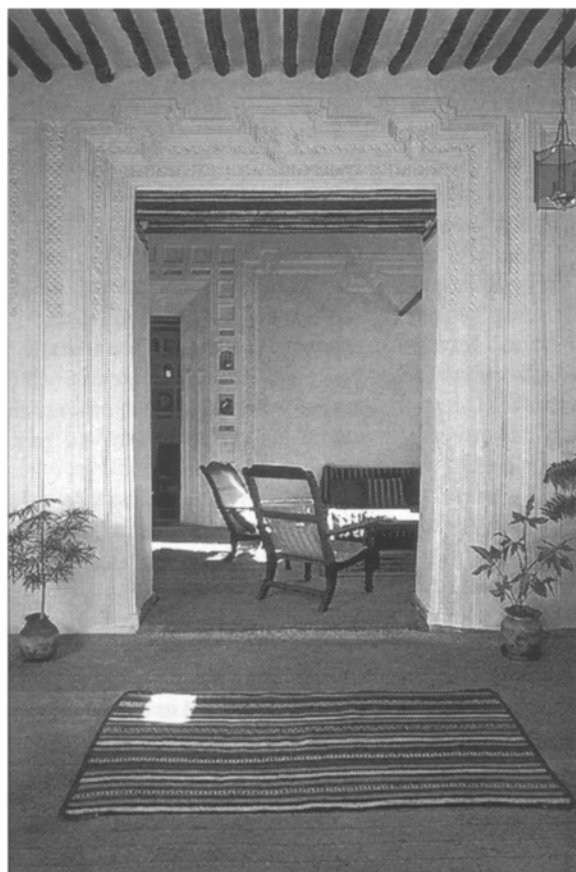
from the Tana river to the border of Somalia in the north. The inland area consist of a low, flat plateau while the Lamu Archipelago, separated from the mainland by narrow channels, consists of flat coral deposits which might have been the old delta of the Tana river, whose course was channelled to a more southerly position during the last century.

The town of Lamu has been built over a sand dune that slowly rises from the sea-shore to approximately 10 metres on the ridge, which lies in a north-south direction behind the last houses of the Mkomani district. The rough grid of streets in Lamu lies perpendicular and parallel to the inclination of this sand dune so as to allow the surface drainage of rain water as well as waste water to run towards the sea.

## Programme

### General Objectives

The implementation of the Lamu Conservation Programme began in 1987 with the establishment of the Lamu Town Planning and Conservation Office under the direction of the National Museums of Kenya (NMK). The programme was initiated in 1975 by the National Museums and the Ministry of Lands and Settlements, who decided to conserve the town of Lamu, which was found to be the oldest and most important historical settlement of Kenya, retaining its original urban and architectural qualities. Being the very first conservation programme in Kenya, it has affected the preparation of other similar programmes for other coastal towns in this country, such as the restoration and conservation programme of Mombasas' monuments that is at the implementation stage. The programme comprised various objectives such as the preparation of a detailed survey of the social, economic and physical setting of the town, execution of a detailed plan for its conservation with proposals for necessary national and regional legislative bodies, and the preparation of planning and restoration policies, design guidelines, training programmes for craftsmen in traditional building crafts, and lists of public and private buildings that might have priority in restoration. One major objective of the programme was to restore and conserve the town without hindering the social and economic development of the citizens. Long-term objectives of the conservation programme also included co-ordination between local and central government agencies, definition of land-use policies for the town and application of strict building permits to this end, and the promotion of traditional building techniques and craftsmanship, which also might have a positive effect on



*Utalino house;  
interior view of  
salon and wooden  
ceiling after  
restoration*

the local economy through new traineeships in traditional crafts.

### Functional requirements:

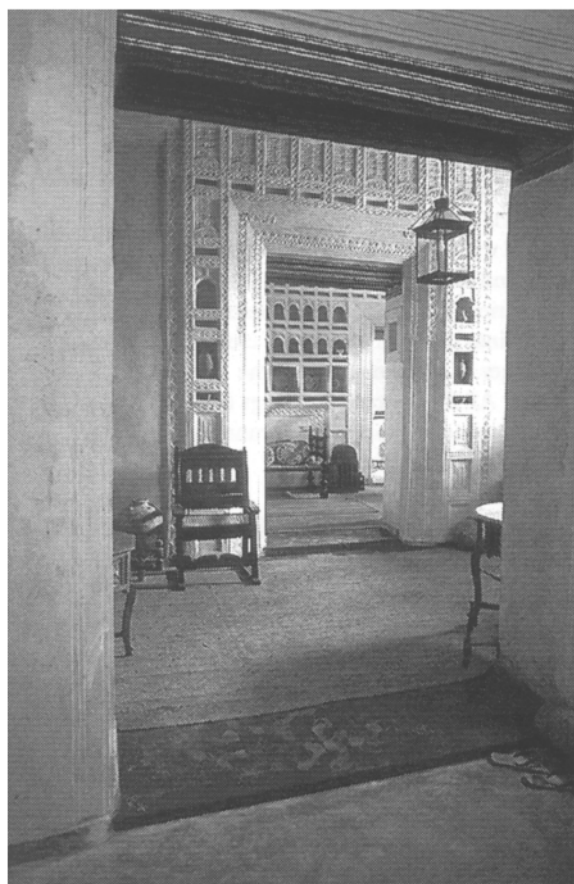
The Lamu Town Conservation Programme proposed the restoration, reorganisation and adaptive reuse of various public and private buildings and areas within the town. Among these, Lamu Fort was to be restored and transformed into a community centre and museum. The public square and the market place around it were to be reorganised as the town centre and a new town gate from the jetty was to be designed in front of the square. The waterfront was also to be redesigned and landscaped for the recreation of the towns people. Besides these public areas, ten private houses were envisioned as restoration projects using public funds donated by international organisations. All of these projects have been implemented and a new list of project proposals with various functions and public or private ownership has been prepared by the Conservation Office, which is in the planning or implementation stage.

## Description

### Building data

Since 1987, when the implementation of the Lamu Conservation Programme started, the restoration and reorganisation of a total of 15 public and private buildings and two public areas has been completed while various other projects are in the process of being implemented. Among these, rising above the town and market squares, the fort is the largest building in Lamu, measuring approximately 40 metres on each side, and covering an area of 1,600 square metres. The massive, two-storey building is built on an incline and is reached by wide steps that rise to its single entrance from the town square

*Utalino house  
after restoration:  
view from court-  
yard leading to  
private quarters*



on the east. Roughly square in plan, the fort has a central courtyard and two round bastions placed diagonally from each other, on the north-west and south-east corners. The flat roof of the fort is protected by crenellated parapets. A rectangular penthouse on the northern side of the building adds to the height of the fort, which reaches almost 20 metres at this point. The central court is surrounded by an arcade on three sides at ground level and a closed corridor on the upper level, while the fourth side on the north is occupied by a single flight stairway. A veranda is built on the ground level of the building, overlooking the town square to the east.

The town square is a rectangular space of approximately 1,000 square metres. The bazaar street, which runs parallel to the sea, cuts across the square on its eastern side, while the

western edge of it is occupied by the fort. Pedestrians enter the square from each of the four corners as well as from the main town entrance on the sea side, at the direction of the customs jetty. The town square is shaded by two very large trees that have been planted symmetrically on the two sides of the fort entrance.

The town square is diagonally connected to the market square, which is situated on the south side of the fort. This square, approximately 1,600 square metres, contains the fish, meat and vegetable markets of the town. It is overcrowded with two sheds for fish and meat, and open stands for vegetables, protected from the sun by large, cloth awnings.

One of the most vital open spaces for public use in Lamu is the sea front. The promenade area here extends with a dirt road as far as Shela. However, the most vital part

of the 750 metre sea front in front of the old town is the central portion which is about 400 metres long, lined with some of the most prominent and newly installed flush lavatories. These seem to add extra water into the pits, which may create a danger of contamination of the wells. All the restored buildings in Lamu are now equipped with running water and electricity.

## Origin of:

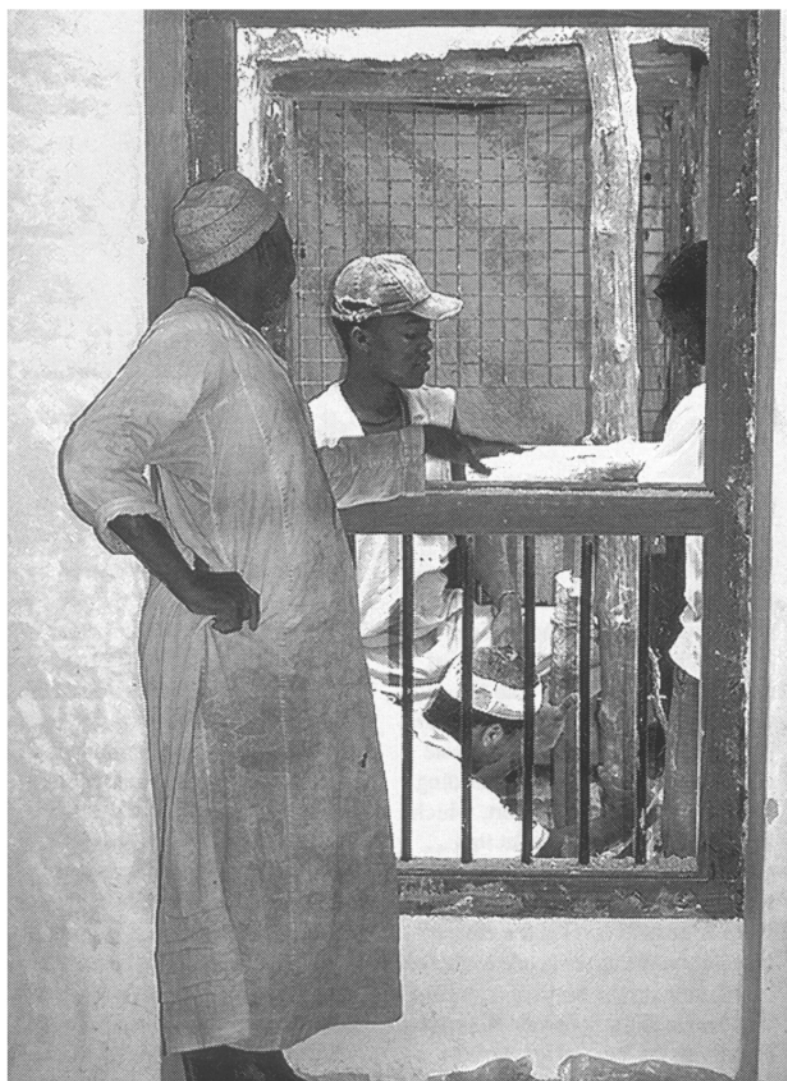
### Technology, materials, labour force, and professionals

With the guidance of the Lamu Town Planning and Conservation Office, which was established in 1987 as a department of the National

Museums of Kenya, 40 young apprentices from the local community were trained in carpentry, masonry, plaster and wood carving, during the renovation of the first traditional Swahili house which was chosen to be restored as a pilot project. Consequently, all other restoration projects were carried out by these local craftsmen. At present these artisans have all been employed by the private sector, while some of them have established their own enterprises. Those trained in plaster carving who have been particularly successful, are still practising their art in new private houses and hotels not only in Lamu but in various other cities of the Kenyan coast as well.

In the meantime, the Conservation Office emphasised the advantages of the use of local lime and coral stone which was cheaper, flexible and more resistant to the tropical climate. During the initial years of the programme, the restoration of Lamu Fort served as a demonstration ground, where traditional materials and techniques were tested. As a result of their successful application here, a steady increase in their local use was achieved. This was also stimulated by an increase in the price of cement during this period. While the supply of mangrove posts was local, hardwood was brought from the forests in the south.

The first scientific study for conservation of Lamu town was completed in 1976, by a group of multinational architects, designers, surveyors, and students from the Nairobi University. The present conservation plan was prepared in 1985-1986 by two architects sent by UNESCO, together with a local expert in restoration who had been trained in ICCROM. Between 1987 and 1990, a town planner/architect from the Netherlands was employed for the implementation of the programme. Further Dutch assistance was given after 1990 for technical and legal consultation.



*Supervisor and Craftsman - both trained at the fort - during restoration of the "German" post office*

## Constuction Schedule and Costs

### History of project

The initial attempt to conserve Lamu was started in 1972, when an inter-governmental working party was set up to investigate the future of the Lamu District in terms of water supply, sewage system, and building stock and standards, so as to ensure the preservation of the traditional architecture and urban and social fabric of the town. In 1975, a study group under the supervision of architect Usam Ghaidan carried out the first phase of the recommended study, which was published in 1976 as: "LAMU, A Study in Conservation". This study was updated in 1983-1986 by a UNESCO associated architect, F. Siravo, and his colleague, Ann Pulver, with particular attention to the infrastructure problems and building guidelines. Their study was published in 1986 under the title "Planning Lamu" and it became the basis of the conservation and restoration programme.

In 1986, the National Museum of Kenya invited a Dutch architect/planner to assist the implementation of the conservation plan. The Lamu Town Planning and Conservation Office was established in Lamu Fort in 1987, where the restoration process had already started. In 1988, the Kenyan staff for the Conservation Office was appointed and in-service-training and overseas training began. By 1992, the Lamu Fort, the town square, ten stone houses and the entrance area in front of the customs jetty were restored and various parts of the sea front began to be renovated. Today, in Lamu and in Shela several private houses owned by foreign settlers have also been restored or are in the process of being restored. Among these, are a private house on the sea front that has been renovated as a donkey

sanctuary and the old German post office, which is being renovated by funds from the German government through their embassy in Nairobi.

### Costs and Financing

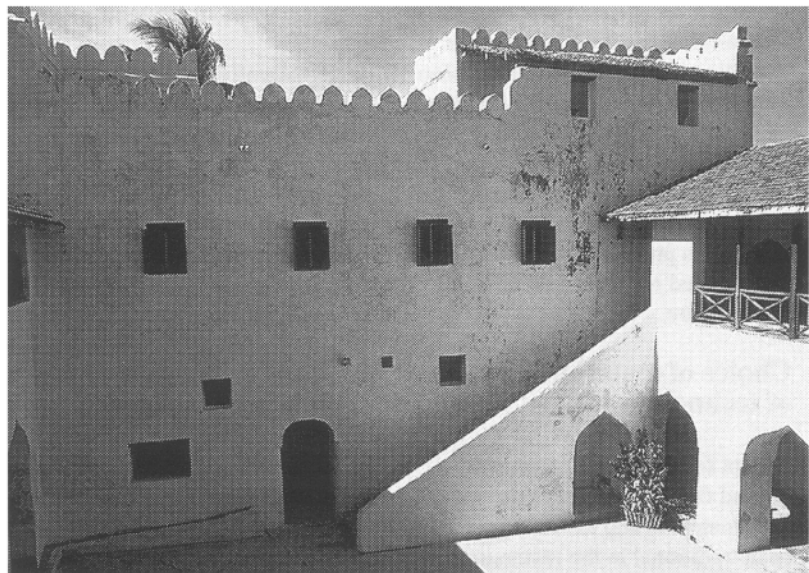
After an initial budget of US\$ 93,000, the total funds raised for the restoration of buildings in Lamu up to now has been approximately US\$ 520,000.

Since 1986, various international donors have contributed funds to the Lamu Conservation project. These are:

- NORAD (Norway), who financed the restoration of the Lamu fort. (KSh. 8,500,000 = approximately US\$ 200,000)
- SIDA (Sweden) financed the landscaping of the town square and the design and execution of the

natural history exhibition in the fort. (Amount of donation unavailable)

- The Ford Foundation has financed the training of various craftsmen abroad. (US\$ 125,000)
  - The Ford Foundation has financed the restoration of a pilot project, a block of ten houses and the landscaping of the town entrance. (US\$ 185,000 + US\$ 20,000 for consolidation)
  - The European Council has recently approved financial support for a three year programme for the revival and development of Swahili culture. (KSh 30,000,000 = approximately US\$ 715,000 to be divided equally between Lamu and Mombasa. Not implemented yet)
  - The German Embassy in Nairobi has provided funds for the restoration of the old German Embassy. (KSh 2.700,000 = approximately US\$ 65,000 In progress.)
- The breakdown of the restoration costs of the group of ten houses is as



*Inner courtyard  
at Lamu Fort  
located in the  
centre of town*

follows:

- Restoration and rehabilitation of the houses	US\$ 120,000
- Project staff salaries	US\$ 27,000
- Environmental development (pavement etc.)	US\$ 22,000
- Community education	US\$ 4,000
- Strategic analysis for tourism	US\$ 3,000
- Preparatory expenses	US\$ 4,000
- Restoration equipment	US\$ 2,500
- Office Supplies	US\$ 2,500
<b>Total</b>	<b>US\$ 185,000</b>

According to the above breakdown, the average restoration cost of one single house in Lamu is approximately US\$ 18,500.

### Functional assessment

Most of the restored buildings of Lamu are being used according to their original functions. One major exception is the fort, which has been transformed into a community centre and a museum. Another is the donkey sanctuary that has been converted from a private house. The old German post office, where the restoration process is still continuing, will be used as a commercial building in future.

### Choice of materials and level of technology

Except for the use of concrete in ground floor slabs, the choice of both materials and technology has been traditional in the restoration of Lamu buildings. During the interventions in the fort and in the houses, utmost care was taken to retain as much of the original material as possible.

The ageing of the restored buildings in Lamu is expected to be

in direct proportion to the qualities of the traditional materials that have been employed in the restoration. The fort which was carefully finished with a new plaster coating inside and out, is beginning to show signs of creeping humidity on the walls.

### Users

The ten restored houses are mostly being used by their owners except one deliberately transformed into a museum, to display the interiors of a Swahili house to visitors. The fort, which has been transformed into a cultural centre, is used very efficiently by the townspeople, particularly by the school children who are brought here by their teachers. The library is also used by the students. The central court is used for meetings and weddings, particularly by the women. The upper level corridor is used for adult education classes and the coffee shop overlooking the square is very popular among the male members of the local population.

Apparently, at the outset, the Conservation Programme for Lamu was received as evidence of a strange and foreign ideology by the local community. It was perceived as an official hindrance, depriving the community of their rights to develop their own buildings. The completion of the town square project in 1988, however, affected the local population positively and the citizens began to accept that the programme would not hinder, but rather, stimulate development and the community would definitely benefit from the conservation plan. The training of craftsmen was another issue that had a positive effect on the local population. At present, the people seem to be willingly supporting the idea of a conservation plan which develops tourism and opens up the road to economic development, even though they are looking for loopholes in the

legal constraints that might allow them extra privileges when they begin to develop their own buildings.

## Project Personnel

### Client

National Museums of Kenya  
Richard Leakey, Director (now retired)  
Omar Bwana, Deputy Director at present

### Architects

Usam Ghaidan (Co-ordinator of 1975-76 study)  
Francesco Siravo (Head of 1983-85 study)

### Planners

Ann Pulver (restoration expert)  
Philip Jimbi Katana (restoration expert)

*Yildirim Yavuz  
May 1995*