

MOMBASA IN THE LAND AND SEA EXCHANGES OF EAST AFRICA <sup>1) 2)</sup>

With 12 Figures and 2 Tables

IRENE S. VAN DONGEN

*Zusammenfassung: Mombasas Rolle im Land- und Seehandel Ostafrikas.*

Dieser Aufsatz untersucht das historische Wachstum und die Ausbreitung von Mombasa, schon seit langem ein bedeutender Seehafen Ostafrikas. Besonders betont wird die Entwicklung des Hafens während der europäischen Herrschaft in Ostafrika, die nun ihrem Ende zu geht. Die drei wichtigsten Faktoren, die zu dieser bemerkenswerten Entwicklung Mombasas beigetragen haben, sind: a) die Ortslage der Stadt, die sowohl für die Hochseeschifffahrt als auch für die Anlage der Stadt besondere Vorteile bot; b) die Art und Weise in welcher schwerere Güter in Ostafrika transportiert wurden und die zur Folge hatte, daß der Fluß des Handels sich in Mombasa brennpunktartig konzentrierte; c) der wirtschaftliche und soziale Fortschritt im Hinterland vom Mombasa im Vergleich zum Hinterland anderer Häfen Ostafrikas.

Die Tabellen I und II zeigen die Verteilung des ostafrikanischen Handels nach Art und nach Gütern zwischen Mombasa, Dar es Salaam, Tanga, Lindi und Mtwara. Figur 3 zeigt die Lage der Ursprungsgebiete des Seehandels im Hinterland. Ein eigener Abschnitt beschreibt die gegenwärtig zur Verfügung stehenden Hafeneinrichtungen auf der Mombasa-Insel, am Kilindini Terminus der Tiefwasserfahrrinne und im Hafen von Alt-Mombasa, der immer noch von Segelschiffen und einigen Küstenschiffen benutzt wird.

Es kann gezeigt werden, daß sich die Stadt Mombasa parallel mit der Zunahme des Umschlages des Hafens bedeutend ausdehnte, und daß im Vergleich zu ihrer ursprünglichen einfachen Rolle, das Einfallstor zum ostafrikanischen Plateau zu sein, eine Differenzierung ihrer Funktionen eingetreten ist. Im Laufe der Jahrzehnte vollzogen sich auch viele Veränderungen der überseeischen Beziehungen Mombasas mit der Außenwelt, einschließlich der Küstenbeziehungen. Es steht außer Zweifel, daß die sogenannte Kolonialperiode viel Wohlstand nach Mombasa gebracht hat. Natürlich erhebt sich nun die Frage, welche Auswirkungen die bevorstehenden politischen Veränderungen auf Mombasa haben werden, und welche Folgen der Bau neuer Eisenbahnlinien, der soeben durchgeführt wird, auf den Zustrom des ostafrikanischen Handels zum Hafen haben wird. Nachdem die Mombasa-Insel offiziell nicht zum Gebiet von Kenya, sondern zu dem Teil des ostafrikanischen Küstenlandes gehört, das nach wie vor dem Sultan von Zanzibar, dem ehemaligen Beherrscher Ostafrikas, untersteht, ist der Besitz von Mombasa selbst noch Gegenstand von Verhandlungen zwischen den unabhängigen ostafrikanischen Staaten.

On the eastern African coast, one of the prominent trading areas of the ancient and modern world, Mombasa has stood as a focus of maritime commerce for nearly one thousand years. The initial settlement was presumably founded in 975 by a group of exiled Shirazi (Persian) princes. In the ensuing centuries, contenders for the possession of the port-city were many and Mombasa was repeatedly laid waste in outbursts of warfare. Thus, five hundred years of the Shirazi Zenj empire were ended by Portuguese seizure of the port in 1505, which initiated two centuries of in-

tense Arab-Portuguese rivalry in those parts of eastern Africa. Subsequently, the Omani sheikhs of southeastern Arabia gained control of Mombasa and ruled it from Muscat until 1832, when their capital was removed to Zanzibar. As a historical seaport of some renown (Fig. 1), Mombasa was also eclipsed at times by other Asian and Portuguese outposts on the western margins of the Indian Ocean, all living on the monsoon navigation between Africa and Asia. Chief among these were Mogadishu, Patta, Lamu, Malindi, Zanzibar, Kilwa Kisiwani, Mozambique Island, and Sofala, the farthest point down the eastern African coast where the influence of the monsoons could be felt<sup>3)</sup>.

The trading colonies of the East African seaboard functioned largely in ignorance of their backcountries, although a faint pattern of barter trade was woven across the mainland through a chain of willing tribal intermediaries. At the ocean end of overland trails ivory, gold, some spices, and Negro slaves were received for shipment overseas while certain products of Asian origin such as cloth, ironware, and beads found their way to the interior. As a rule, the inhabitants of coastal settlements showed little inclination to penetrate deep inland until the first half of the 19th century when their hunt for slaves reached the region of the great African lakes. But, by that time, the Masai warriors had swept

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<sup>2)</sup> East Africa, as understood in this paper, applies essentially to the three land units which were until recently known as British East Africa.

<sup>3)</sup> See L. W. HOLLINGSWORTH, *A Short History of the East Coast of Africa*, London, Macmillan and Co. Ltd., 1959, 182 p; C. R. BOXER and C. DE AZEVEDO, *Fort Jesus and the Portuguese in Mombasa*, London, Hollis Carter, 1960, 144 p.

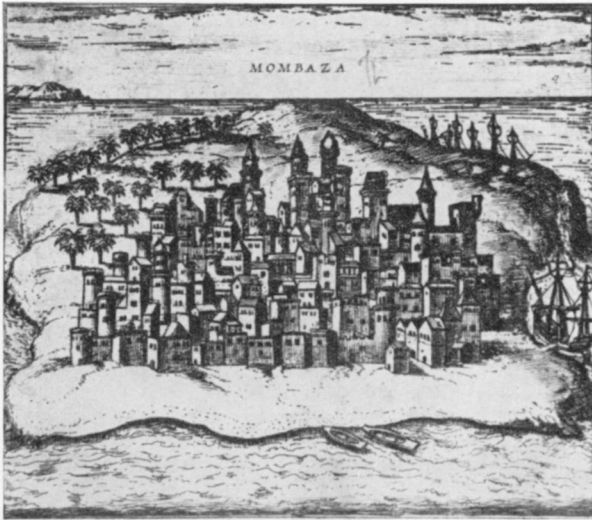


Fig. 1: Port-city of Mombasa in olden times (From *Illustriorum Italiae Urbium Tabulae cum Appendice Celebriorum in Maris Mediterranei Insulis Civitatum*, Amsterdam, Joannis Janssoni, 1617?).

from the north into the savanna plateaus of the present central Kenya, displacing the former Bantu occupants<sup>4</sup>) and constantly seeking to enlarge the grazing grounds for their herds of cattle. Reports of their fierce attacks on the slave caravans caused the disruption of the tenuous system of communications from Mombasa. Arab dealers thereafter favored the routes lying through central Tanganyika and conveyed groups of captured slaves to the leading regional emporium at Zanzibar from new embarkation points on the East African shore, just opposite Zanzibar and Pemba islands. The most important were Bagamoyo and Pangani, which again bid to eclipse Mombasa.

The fortunes of Mombasa as an ocean head were changed entirely, however, when the interior of East Africa began to be opened by the European powers after the Berlin Conference in 1885 and the Anglo-German Agreement in 1890. The present area of Kenya was occupied by Great Britain in 1895, being known as the East Africa Protectorate until 1920. During the decade 1892-1902, the British consolidated into an-

<sup>4</sup>) It is generally assumed that five or six centuries after the time of Jesus Christ, a wave of Bantu peoples had spilled into East Africa, wresting living space from the original Bushmanoid hunters and some Nilotic tribes which had descended in the pre-Christ era from the Ethiopian highlands. (G. P. MURDOCK, *Africa. Its Peoples and their Culture History*. New York, McGraw Hill Company, 1959, pp. 204—208, 306—313, 331—334.) The mixture of some of these Bantus with the former Azanian inhabitants of the coast, described in the famous *Periplus of the Erythrean Sea*, and with the Arab immigrants, formed the present Swahili populations of the East African seaboard.

other Protectorate the various kingdoms of the present Uganda. After the First World War, Great Britain's authority extended by virtue of a mandate of the League of Nations to the former German Colony of Tanganyika which became a United Nations Trustee Territory under British administration after the Second World War. Through various administrative changes, Mombasa Island and the adjoining mainland strip, 10 miles in width and 52 miles in length, have continued to belong nominally to the former ruler of East Africa, the Sultan of Zanzibar, but have been leased to the British government against the payment of a yearly rent of £ 10,000. De jure, the coastal belt has been a separate political entity known as the Kenya Protectorate. De facto, it was absorbed economically within British East Africa, for Mombasa Island had become the only overseas trade gateway both to Kenya and Uganda and also served some parts of Tanganyika. At mid-20th century, all ancient port competitors to Mombasa had gone, and the terminal reigned supreme over the other modern regional points of land-sea transfer: Tanga, Dar es Salaam, Lindi and Mtwara (see Table I).

What causes have contributed to this pre-eminence of Mombasa, what position does the seaport hold at present in relation to other regional heads and what appears to be its future prospects in the light of latest events in East Africa? This paper attempts to provide some answers to these questions. As Kenya, Uganda, and Tanganyika are entering the age of independence, the ownership of Mombasa Island with its precious portuary facilities looms as a highly controversial point on the regional scene. Tanganyika may actually prefer to let its trade now passing through Mombasa accrue to domestic sea terminals. Landlocked Uganda has a certain measure of choice between the Kenya and Tanganyika coasts, although the routes via Kenya and Mombasa are shorter and of long-standing usage. But Kenya views with alarm the possibility of not having absolutely free access to the seaboard it has come to consider its own. The forthcoming African government has been insistent upon the incorporation of the coastal strip within the confines of the new Kenya state. On the other hand, the arabicized coastal populations strongly oppose this arrangement, claiming a resumption of effective rule by Zanzibar, while the purely Bantu tribes living near the coast waver in their choice of allegiance. A Commission appointed in 1961 to investigate the future of the Kenya Protectorate, and the Lancashire Conference in London during early 1962 were unable thus far to break the deadlock of opposing opinions.

### Main factors in the Rise of Mombasa

Outstanding among the various causes which assisted the remarkable growth of Mombasa since 1895 have been the following: 1) the maritime and land advantages of its natural site, which permitted easy development of modern portuary facilities; 2) the sequence of the heavy transport layout in East Africa, early providing an excellent system of feeding routes to the ocean head; 3) the size, population, and economic progress of its hinterland as compared to the hinterlands of other East African ports.

### *Natural Site and Its Utilization*

From Ras Kiambone to the border of Somalia to Cape Delgado in northern Mozambique, the coastline of East Africa (see Fig. 3) offers a good example of a recent submergence shore showing frequent drowned valleys, a generally narrow coastal lowland, and, fringing the shore, a wide barrier reef of coral. The Kenya seaboard shares in these features<sup>5</sup>). In the days of sailing ships with a moderate size and draft, the submerged river mouths provided adequate shelter for visiting vessels and were accessible through constricted openings in the barrier reef where the stream's discharge adversely affected the coral growth. The settlements that developed beside such harbors frequently chose an insular site for easier defense against possible hostile attacks by the mainland tribes — witness, beside Mombasa itself, the port-cities of Lamu, Patta, and Kilwa; other factors influencing their establishment were the presence of a fresh water supply, the availability of some cultivable land to grow immediate food needs, and sometimes the presence of good building materials. The basic factor in their existence, however, was the system of alternating monsoonal winds operating off the African and Asian shores. From about December into February the gentle northeast monsoon brought to East Africa the trading ships from southern Arabia, the Persian Gulf, and the western shores of India. During the months of May to October, a reversal in wind direction occurred and the rougher southwest monsoon sped the visitors home to the Asian mainland after the leisurely completion of their trade exchanges.

Gradual tightening of anti-slavery laws in East Africa, after the first abolition bill was passed in the British Parliament in 1817, cut the

monsoon trade considerably after 1870, while the advent of the steamship on the international maritime scene called for roomier and deeper anchorages than those afforded by most East African creeks. On the Kenya coast the former port-cities of Lamu, Patta, and Malindi with their silted sea arms and shallow waters were eventually downgraded to the status of minor shipping points visited only by the monsoon „dhows“ and coasters; only Mombasa could offer modern ocean carriers a superior harbor. In Tanganyika, three new ports — Tanga, Dar es Salaam, and Lindi — arose under the German administration to handle the seaborne trade of the northern, central, and southern portions of the territory respectively. Of these three, only Dar es Salaam had fair marine features. When the East African territories were assembled under the rule of a single nation, the natural advantages of Mombasa were already being complemented by much better handling facilities and feeder routes so that these elements came to operate in favor of the Kenya terminal even in regard to Tanganyika's trade. Deepsea shipping frequently called at Mombasa with cargo destined for coastal points in Tanganyika, and the representatives of the main steamship lines serving the East African seaboard had their head offices in Mombasa city. From the Kenya terminal, the cargo was distributed to Tanganyika either by coaster or, in the case of Tanga, by the connecting rail. This applied particularly to regional supplies of petroleum fuels.

Mombasa Island is 3 miles in length and 2.5 miles in width, and is set into an indentation of the mainland (Fig. 2). Access to it is provided by a 1.2-mile opening in the coral shelf, between the Andromache and the Leven reefs. The entrance channel branches into two winding deepwater passages which follow the lines of natural drainage. In places, these passages are constricted by some coral growth, but the latter does not present a serious obstacle to navigation and the channels are fairly well kept free of silt by the normal scour. Known officially as Mombasa Harbour, the inlet to the east is narrower (some 300 yards across, on the average), somewhat shallower, and more open to the sea. At its northern end, it forms a large lagoon called Port Tudor which has a number of side-creeks but which has never been of great value as harborage because of the difficulties in manoeuvring a ship into it through too many channel bends. The inlet to the west, known as Kilindini Harbour, is wider and deeper starting with its seaward section. Beyond the Kilindini reef, it expands to an average width of 600 yards and deepens to 6—20 fathoms. The name of Kilindini actually means „the place of deep waters“. Port Reitz, a spacious westward

<sup>5</sup>) See H. L. SYKES, "The drowned valleys of the coast of Kenya", *The Journal of the East Africa and Uganda Natural History Society*, Nos. 38 and 39, May—August 1930, pp. 1—9, and October 1931, pp. 1—9.

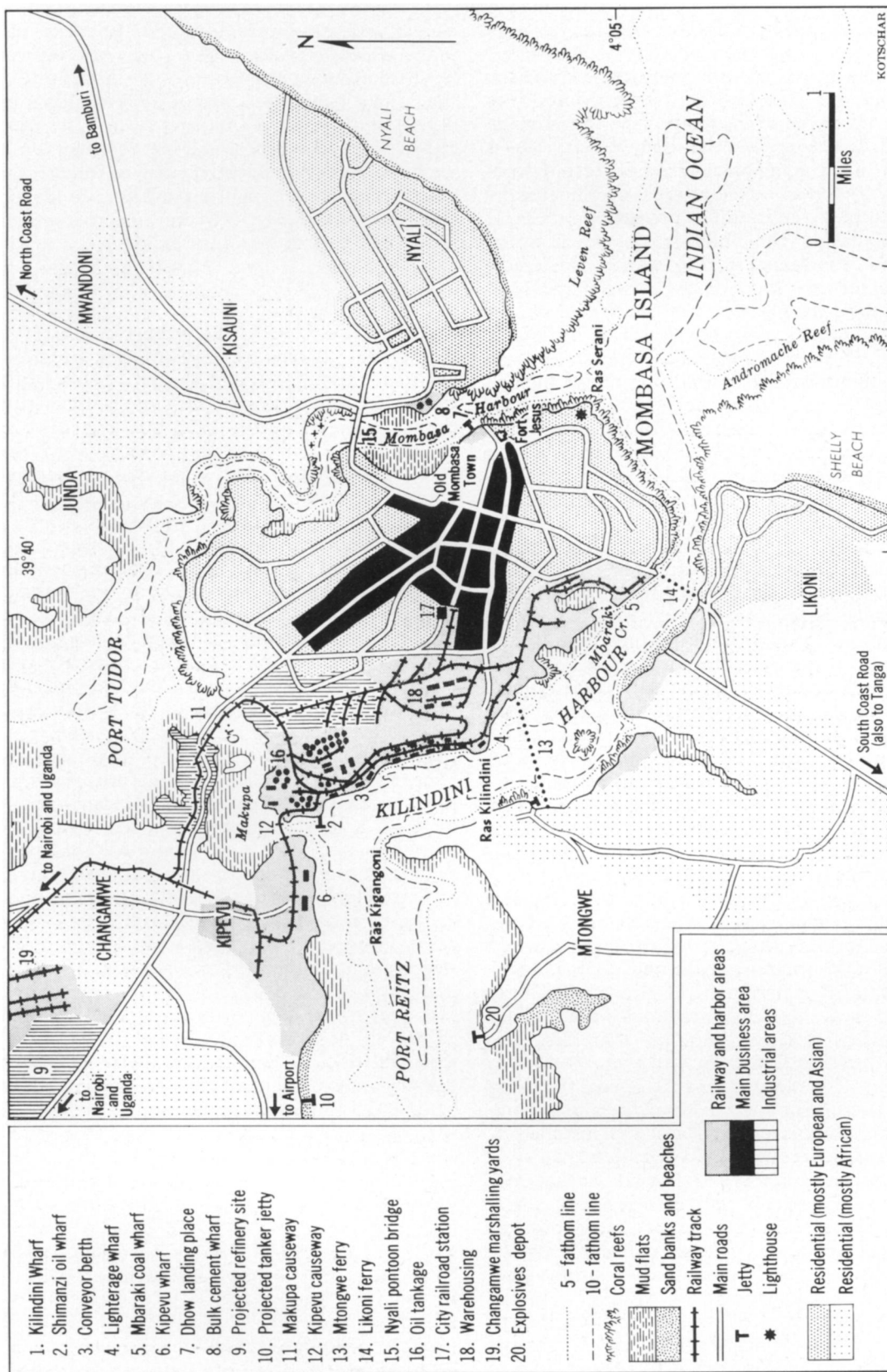


Fig. 2: Mombasa Island and its harbors.

appendage with 5—15 fathom depths, is able moreover, to provide extra room for anchorage.

The eastern arm was the one used by ancient sail navigation because the western inlet was found troublesome to negotiate with the prevailing wind directions and the high velocity (2—4 knots) of the in-going tidal current. The old port-city of Mombasa was clustered on the south-eastern shore of the Island drawing upon its coral stone foundation for building the town walls, houses, and the famed Fort Jesus that was erected by the Portuguese governors between 1593 and 1635 to guard the harbor entrance. Water was secured from nearby wells and much of the island was planted to coconut palm and citrus fruit whose requirements were well met under the annual rainfall of 50—60 inches characterizing that section of Kenya's coastal belt. The primitive landing facilities in Mombasa Harbour — which still serves what remains of the historical monsoon trade as well as some steam coasters (locally called "schooners") and coastal dhows — met the transport needs of the East Africa Protectorate up to 1898. The need for better handling of the construction materials arriving from 1895 on for the construction of the Uganda Railway, however, soon led to the installation of a small jetty at Mbaraki in the Kilindini arm.

Makupa Creek, separating Mombasa Island from the mainland, was early bridged to support the rail line inland. In 1907 a lighterage wharf was added on the western island shore as hopes blossomed for the success of African cotton cultivation in Uganda and a fruitful development of Kenya by immigrant European settlers. In 1913, the Magadi Soda Company built their own small wharf for the needs of soda traffic. Construction of the first two deepwater berths on the Kilindini island shore was started in 1921; friable sand and sandstone formations outcropping there allowed easy excavation of port space and depths alongside demanded a minimum of dredging. Thereafter, deepsea shipping operations at Mombasa were concentrated in Kilindini Harbour. During the ensuing interwar years, quayage was increased to five deepwater berths, coal handling facilities were provided at Mbaraki, and a separate wharf for petroleum fuels was installed at Shimanzi. The Second World War saw the building of two more berths. After that war, serious congestion gripped the port as a result of a tremendous increase in the import flow brought about by a heightened consumer demand, by the requirements for the internal development programs, and by a temporary stockpiling at an up-country depot of British military equipment evacuated from former Asian bases. A phasing scheme, particularly in regard to cement, had to

be adopted, and several long-term port expansion plans were drawn. Another pair of deepwater berths entered construction stage in the mid-fifties. Their completion was delayed by some mishaps but they were finally put into service in 1958. Saturation of available frontage on the west shore of Mombasa Island was thus reached, and further wharf expansion in Kilindini Harbour could be obtained only by turning to the mainland shore, as will be seen later.

#### *Development of Feeder Routes to Mombasa*

The basic layout of the present transport system feeding Mombasa (Fig. 3) was practically completed by the early 1930's. In a former study, the gradual unfolding of the East African transportation pattern up to 1953 was examined, and the reader is referred to that work to avoid repetition<sup>6</sup>). Only a condensed version of the events will be presented here.

The building of the rail route to the interior, begun from Mombasa Island in 1896, was not designed to open the East Africa Protectorate which adjoined the coastal possessions of the Sultan of Zanzibar, but to consolidate Great Britain's hold on the distant kingdom of Buganda on the northern shores of Lake Victoria. The densely populated and relatively advanced Buganda was at the time a focus of rival British-German-French political interests and of anti-slavery missionary activities. In contrast, the lands of the East Africa Protectorate, across which the railroad was to pass, lay seemingly empty, as a recent epidemic of small-pox, a famine, and a locust visitation had decimated those Kikuyu and Kamba populations that had escaped the hand of the Masai.

At the end of 1901, the 589-mile line, known as the Uganda Railway, reached Kisumu on the eastern shore of Lake Victoria where a small steamer had just begun to circulate. This immediately re-oriented to Mombasa whatever overseas traffic was then forthcoming from or destined for the lake margins. Formerly, it had gone through Mwanza, on the southern lake shores, and over the Arab caravan route of central Tanganyika to and from the port of Bagamoyo<sup>7</sup>). A

<sup>6</sup>) I. S. VAN DONGEN, *The British East African Transport Complex* ("University of Chicago, Department of Geography Research Papers", No. 38), Chicago, December 1954, 175 pp., particularly pp. 10—73. The official history of East African railroads is also covered by M. F. HILL in *Permanent Way*, Vol. I (1951) and Volume II (1959), Nairobi, East African Railways and Harbours, 582 p. and 296 p.

<sup>7</sup>) See V. C. R. FORD, *The Trade of Lake Victoria*, ("East African Studies", No. 3), Kampala, East African Institute of Social Research, 1955, 66 p., particularly pp. 18—20 and 36—37.

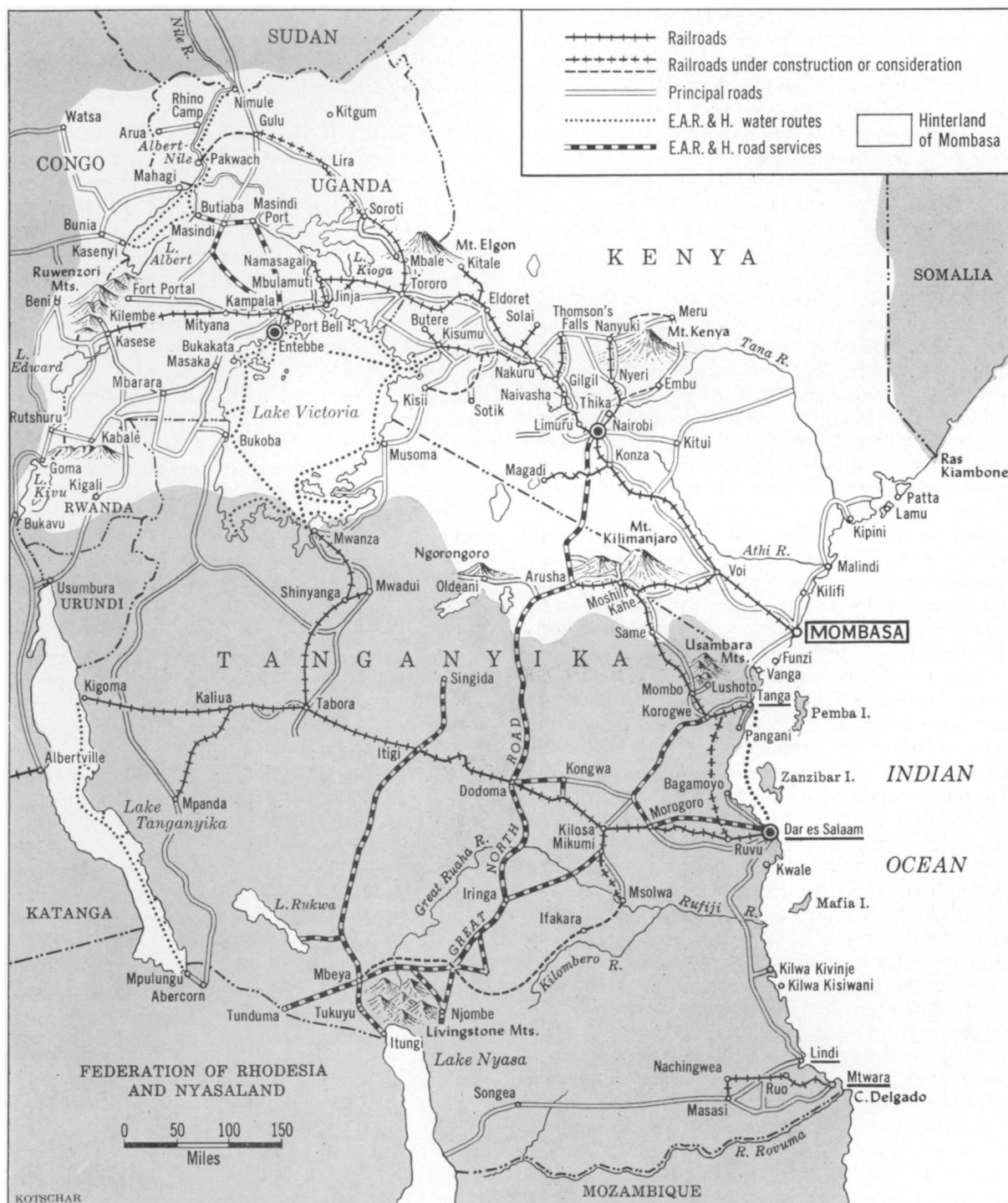


Fig. 3: The East African transport network. Approximate limits of Mombasa's hinterland are shown in date of 1961.

trickle of foreign trade involving the northern and western reaches of Uganda moved also along the waterway of the Albert Nile and the Nile proper through Sudan und Egypt.

Actually, the very first rail building in East Africa had been undertaken by Germans from Tanga in 1893, also in the direction of Lake Victoria, but that railroad progressed so slowly that it was to

arrive at Moshi, 219 miles inland, only in 1911. Another German line was begun, in 1904, from Dar es Salaam, aiming at opening the central plateau of Tanganyika and eventually at securing through its Lake Tanganyika terminal a share of the mineral flow expected to cross the lake from Belgian Katanga. Offshoots toward Ruanda-Urundi and Lake Victoria were contemplated. The 113-mile central Tanganyika line reached Kigoma just on the eve of the First World War. In the meantime the British had been able to reinforce the pull of the Uganda route to Mombasa. The navigable expanse of Lake Kioga was tied to services available on Lake Victoria by a 61-mile line, the Busoga Railway, between Namasagali and Jinja; Lake Kioga was further linked to the waterway Albert Nile-Lake Albert by means of road services operated by the railway administration between Masindi Port and Butiaba. Additionally, a 91-mile branch had been laid in Kenya from Konza to Magadi Lake to exploit the lake's vast deposits of sodium carbonate.

During the First World War, an offshoot was built by Kenya troops from Voi on the Mombasa mainline to Taveta, close to Tanganyika's border to facilitate the movement of military supplies. In the British attempt to carry the offensive into German territory, that rail was extended to link with the existing northern Tanganyika railroad from Tanga to Moshi. The connection was not lifted at the end of the war and, thus, one of the most economically promising parts of Tanganyika, the fertile northeastern highlands around Mt. Kilimanjaro, was drawn into the transport orbit of Mombasa where it has remained until today.

In the interwar years, rail construction of a new trunk line was begun in Kenya branching to the west of Nakuru and reaching progressively Eldoret, Tororo across the Uganda border, and Mbulamuti on the Busoga Railway. Jinja, the Lake Victoria head of the Busoga line, was linked in 1929—32 with Kampala, allowing at last a through-rail movement from the heart of Uganda to the Kenya seaboard. That traffic flow had previously been subject to two transshipments, one at Port Bell and another at Kisumu. Branches were also built in Kenya and Uganda from Nairobi to Nanyuki (145 miles), Gilgil to Thomson's Falls (48 miles), Rongai to Lake Solai (27 mi.), Leseru to Kitale (41 miles), Kisumu to Butere (43 miles), and Tororo to Soroti (200 miles). By 1938, the *Kenya and Uganda Railways and Harbours*, a governmental body, controlled a heavy transport network consisting of 1,625 miles of open-rail track, 3,853 miles of waterway routes, and 75 miles of motor services all converging on Mombasa. During the same interwar period, rail construction in Tanganyika was limited to two

branches off the central mainline, one from Tabora to Mwanza, the other from Manyoni to Kinyangiri (the latter was later lifted due to insufficient traffic offering). By 1938, the *Tanganyika Railways and Ports*, also a government agency, controlled 1,481 miles of open-rail track, 289 miles of lake routes, and serviced certain points along the coast by small steamer. Whatever overseas trade offering moved on the Tanganyika heavy transport system, however, had to be shared between the three Tanganyika ports and with Mombasa, since the latter had secured most of the traffic of the Lake Victoria shores and of the Kilimanjaro-Meru region <sup>8</sup>).

After the late 1930's, the attention of local transport planners was definitely directed away from rail construction to the expansion of motor transport. Uganda already enjoyed a fairly reputable road net which had yet to be brought to standards sufficient to meet the requirements of postwar traffic. Kenya and Tanganyika, on the contrary, had long suffered from poor and mediocre roads and the absence of good road-building materials rendered the task of improvement very slow. To provide some badly needed long-distance transportation at low cost to the users, the railway administration introduced their own motor services on a few routes in Tanganyika. Before another significant phase of rail laying in East Africa was again started during the late fifties only two railroad projects succeeded in obtaining official approval for implementation. Each was urgently required for the exploitation of important mineral resources. The so-called Western Extension of 208 miles from Kampala to Kasese allowed the working of copper-cobalt ores in the foothills of the Ruwenzori Range, at Kilembe; the 141-mile branch from Kaliua on the central Tanganyika rail opened the lead mines of Mpanda. The rail and port construction in the Southern Province of Tanganyika in 1948—52 was an entirely private project of the ill-fated *Overseas Food Corporation*. When their Groundnut Scheme collapsed, both Mtwara port and the rail line to Nachingwea were rather reluctantly taken over by the *East African Railways and Harbours (E.A.R. & H.)* successor in 1948 to the former Kenya-Uganda and Tanganyika transport bodies within the framework of the new *East Africa High Commission*.

During the late 1950's and 1960—61, while fully engaged in the improvement of territorial road systems, the East African authorities under-

<sup>8</sup> The competition for the trade of these two areas between the two transport administrations of East Africa is best described in J. R. FARQUHARSON, *Tanganyika Transport*, Dar es Salaam, Government Printer, 1945, 96 p.

took for the first time since the thirties, widespread rail construction. A long-debated link of central Tanganyika with the Southern Highlands Province, to join eventually with the Rhodesia Railways, via Tunduru, began to be implemented by sections. A first 44-mile section from Kilosa to Mikumi was completed in 1960, and work started for an extension to Msolwa to bring into full productivity the promising Kilombero valley; possibly the line is to be continued later to Mbeya. A rail extension was begun in Uganda from Soroti to Lira (76 miles) and subsequently to Gulu, with ultimate plans to link further with the waterway of the Albert Nile, near Pakwach. A 45-mile cutoff between Jinja and Bukonte was also laid, to improve operation and to shorten the distance on the mainline route to Kampala. In Kenya, several secondary branches are now being planned: one of 100 miles from Kisumu rail to Kisii, and two shorter ones from the Nanyuki rail to Meru (in Kenya) and to Embu<sup>9</sup>). But the most significant recent rail building, in so far as Mombasa is concerned, has been the laying of a 117-mile connection between the northern line of Tanganyika and the central line just west of Dar es Salaam; we will elaborate on the potential consequences of this construction for the future of Kenya's terminal in the final section of this study.

### *The Hinterland of Mombasa and its Trade*

By the late 1950's, the hinterland of Mombasa (see Fig. 2) was embracing in British East Africa a land area of some 368,000 square miles with a population of 15 million, of which about 0.5 million were non-Africans (Asians and Europeans). It contained 34 urbanized population centers of varied size with some 645,300 residents of all races. The combined overseas trade of that area handled by the port in 1960 could be roughly valued at £ 185.5 million (U.S. \$ 522.2 million)<sup>10</sup>). By comparison, the four Tanganyika ter-

minals shared between them a national hinterland of some 347,000 square miles in area, but with a population not exceeding 7.5 million of which 140,000 were non-Africans; urbanized population centers contained therein were only 12 in number. After many economically depressed years, the seaborne overseas trade of that hinterland had finally reached in 1960 the sum of £ 81.1 million (U.S. \$ 220.0 million)<sup>11</sup>). As a consequence, the volume of goods trade flowing through Mombasa in that year represented 70 per cent of all land-sea transfers on the East African seaboard (see Table I). Dar es Salaam, the main Tanganyika port, drew sufficient strength from servicing the needs of Tanganyika's capital city and the largest share of national territory to claim 22 per cent of East African maritime exchanges. But Tanga, handicapped by Mombasa's capture of the Moshi-Arusha area, and Mtwara and Lindi, engaged in strenuous competition for the meager traffic flow of the undeveloped southern area, could account respectively for only 5.2 per cent, 2.5 per cent, and just below 1 per cent of the East African total<sup>12</sup>). Regional goods movements involving the interior and the rail terminals of Mombasa, Dar es Salaam, Tanga, and Mtwara were of the ratio of 119:28:5:1. In passenger traffic, Mombasa was likewise ahead of other East African seaports with about 60 per cent of all East African entries and departures by sea.

The economic strength of Mombasa's hinterland has been derived for several decades: a) from the cotton and coffee (chiefly the *robusta* variety) grown in Uganda (Fig. 4 and 5) which were providing in recent years for as much as 80 to 87 per

gold transfers; 17 cities and townships with an estimated 1960 population of 466,80 persons. Northeastern Highlands of Tanganyika (Moshi and Arusha districts), and most of Tanganyika's shores of Lake Victoria — Area 34,800 sq. mi.; estimated population 1,600,000 (c. 1,552,000 Africans, 15,000 Asians and other non-whites, 4,250 Europeans); about £ 7.3 million of coffee exports, the amount of imports being unobtainable from local statistical sources; 2 townships, Moshi and Arusha, with a recorded 1957 population of 13,760 to which should probably be added 1/2 of Mwanza's population of 19,811.

Sources: E. A. High Commission, E. A. Statistical Department, Quarterly Economic and Statistical Bulletin, No. 52, June 1961, Tables A. 1—A. 3, pp. 2—4; Uganda 1960 Statistical Abstract, Table U. B. 3 (b), p. 7; Kenya Statistical Abstract 1959, Table 14, p. 12; Tanganyika Statistical Abstract 1959, Table C. 8, p. 19. Entebbe Nairobi, and Dar es Salaam, 1961 and 1959.

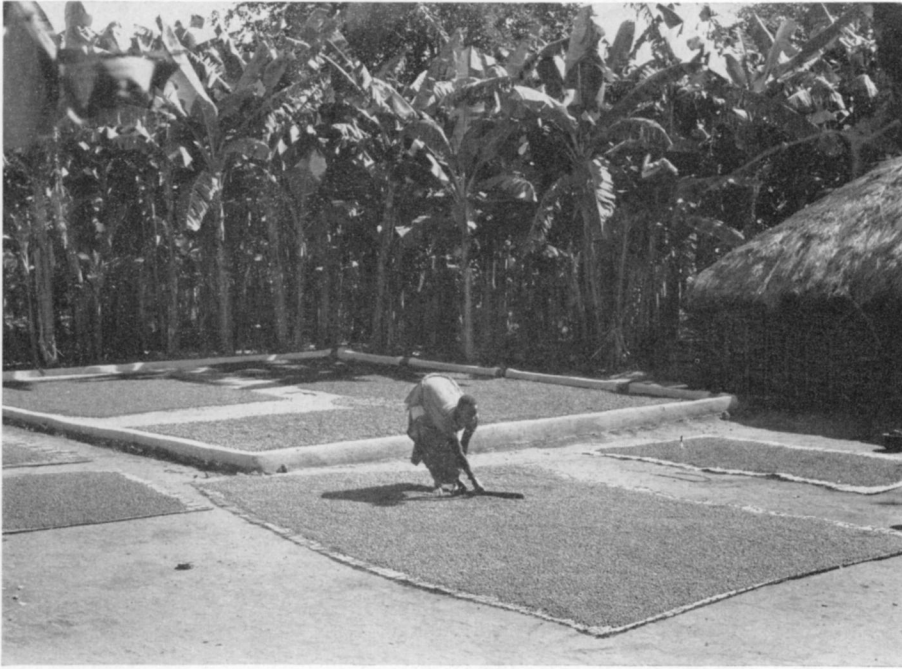
<sup>11</sup>) A definite distinction is to be made for Tanganyika between general overseas trade and seaborne overseas trade, because the national diamond production, equivalent in certain years to over 10 per cent of total export value, is shipped to the U. K. by air.

<sup>12</sup>) See I. S. VAN DONGEN "Tanga, Lindi, Mtwara — Outlets of Northern and Southern Tanganyika", forthcoming.

<sup>9</sup>) On these new rail extensions, see Uganda, Northern Communications — A Report on Rail and Road Communications in the North and North-West of the Uganda Protectorate, Entebbe, Government Printer, 1956 138 p; Kenya, Report of the Committee to Carry Out the Economic Survey of South Nyanza and Kericho District: — With a view to advise whether the Economic potential would Justify Rail Development, Nairobi, Government Printer, 1957, c. 150 p.

<sup>10</sup>) The component parts of Mombasa's hinterland contributing to these totals being as follows: Uganda — Area 94 000 sq. mi.; estimated population 6,682,000 (6,590,000 Africans, 80,500 Asians and other non-whites, 11,700 Europeans); external trade of £ 69 million, exclusive of gold transfers; 15 cities and townships with a recorded 1959 population of 158,200 persons. Kenya — Area 225,000 sq. mi.; estimated population 6,551,000 (6,264,000 Africans, 219,000 Asians and other non-whites, 67,700 Europeans); external trade of £ 110.1 million exclusive of





*Fig. 4:* In recent years green coffee grown by African farmers has been the most valuable Uganda export via Mombasa. Here, the robusta bean is being sun-dried on straw mats prior to dispatch to a hulling and conditioning plant.  
Courtesy *Uganda Department of Information*



*Fig. 5:* Cotton has always been the most voluminous, and was for long the most valuable export commodity of Uganda. This raw cotton awaits transport to a central ginnery from which it will be forwarded in bales to Mombasa.  
Courtesy *East African Railways and Harbours*

cent of the Protectorate's export earnings; b) from the plantation crops of Kenya such as coffee (mostly the *arabica* variety), sisal, tea (Fig. 6) and pyrethrum, which similarly have supplied lately from 60 to 70 per cent of that territory's annual export values; and c) from coffee raised in the two tributary areas of Tanganyika — principally Bukoba on the western shore of Lake Victoria and the Moshi-Arusha region in the north. The share of mineral production on the national export list has always been small from both Kenya and Uganda. The agricultural exports of the two territories have enabled them, in turn, to finance the purchase of their import needs from overseas. These have comprised a wide range of consumer goods, petroleum fuels for the ever-expanding requirements for motive power, and capital equipment for both the government and the private sectors of economy in order to complete a succession of territorial development programs initiated in the late 1940's.

In contrast with some other ocean terminals of the middle African belt, e.g. Beira, Lobito, Lourenço Marques, or even Dar es Salaam, Mombasa has owed little of its growth to the movement of transit trade to and from extra-national areas, the term national being synonymous with British East Africa. Only a limited export volume, again chiefly in coffee, has been forthcoming from the parts of ex-Belgian Congo adjoining Uganda or

from former Ruanda-Urundi. Even fewer imports for those countries have moved through Kenya and Uganda. In the 1950's, total Belgian African transit traffic was 11,000 tons; the highest volume on record, in 1959, was 24,000 tons, whereas Dar es Salaam benefited through the same period from as much as 65,000—90,000 tons of Congo transit shipments per year<sup>13</sup>). Prior to 1958, the Congolese trade passing through Mombasa was either trucked from the port of Goma, on the northern shore of Lake Kivu, to Kampala rail-head, via Mbarara-Masaka, or shipped from Kaseseni and Mahagi ports across Lake Albert, via the Butiaba-Masindi-Namasagali route. Since then, the Congolese traffic has largely favored the Kasese terminus of the Western Extension in Uganda, new feeder roads for that purpose having been constructed by the Belgian administration just before their departure from the Congo.

A more favorable natural environment for agriculture, notably in regard to adequate annual rainfall, has permitted Uganda to lead in the

<sup>13</sup>) Specific exports and imports of Belgian Africa at Mombasa and Dar es Salaam were examined in W. A. HANCE and I. S. VAN DONGEN, "Matadi, Focus of Belgian African Transport" and "Dar es Salaam, the Port and its Tributary Area", *Annals of the Association of American Geographers*, Vol. 48, Nos. 1 and 4, pp. 41—72 and 419—435, notably Table 2 in Matadi article.



Fig. 6: Africans picking tea at a plantation in Kenya. Tea is one of that country's leading overseas exports passing through the terminal of Mombasa.

Courtesy *East African Railways and Harbours*

Table I: Comparative trade, passenger, and shipping movements at main East African Ports in 1938, 1948, 1958 and 1960 \*)

Harbor ton = 2,240 lbs.

			1938	1948	1958	1960
Volume of cargo handled (in 1000 harbor tons)	Mombasa		1,251.5	2,344.1	3,022.3	3,265.7
	Dar es Salaam		185.0	504.0	920.0	1,053.6
	Tanga		130.0	205.6	274.4	297.6
	Lindi		30.0	102.0	51.5	45.3
	Mtwara **)		n. a.	28.4	81.7	88.6
Passengers landed and embarked (in 1000 persons)	Mombasa				76.3	83.5
	Dar es Salaam				47.7	46.3
	Tanga		n.a.	n. a.	6.1	5.4
	Lindi				9.6	3.4
	Mtwara **)				3.0	1.8
Number of ships entered ***) (units)	Mombasa	Deepsea	493		925	1,030
		Coastal	218	806	230	300
	Dar es Salaam	Deepsea	707	806	686	802
		Coastal			517	361
	Tanga	Deepsea	604	647	425	492
		Coastal			296	166
	Lindi	Deepsea	140	127	29	17
		Coastal			127	144
	Mtwara **)	Deepsea			99	85
		Coastal	78	56	63	66
Registered tonnage of shipping entered ***) (1000 net tons)	Mombasa	Deepsea	2,172.7		3,827.8	4,392.7
		Coastal	81.7	2,433.0	56.8	78.2
	Dar es Salaam	Deepsea	1,710.3	1,136.2	3,079.2	3,481.7
		Coastal			146.9	128.4
	Tanga	Deepsea	941.9	852.8	1,785.2	2,065.3
		Coastal			92.2	66.3
	Lindi	Deepsea	221.5	215.2	84.4	151.3
		Coastal			71.3	63.1
	Mtwara **)	Deepsea			343.6	319.3
		Coastal	88.8	91.1	38.6	32.1

\*) Sources: 1938 — Kenya and Uganda Railways and Harbours, Report of the General Manager on the Administration of the Railways and Harbours for the Year Ended 31 December, 1938, Part I & II, Nairobi, Government Printer 1939, pp. 56—59; Tanganyika Railways and Port Services, Report of the General Manager on the Administration of the Railways and Port Services for the Year Ending 31 December 1938, Dar es Salaam, Government Printer, 1939, pp. 45, 48—49. 1948 — East African Railways and Harbours, Reports of the Commissioner for Transport, East Africa High Commission, and the General Manager on the Administration of the East African Railways and Harbours for the Year Ended 31 December, 1948, Nairobi, Government Printer, pp. 50, 117—118. 1958 and 1960 — East African Railways and Harbours, Chief Ports Manager's Annual Reports 1958 and 1960, Mombasa, E. A. R. & H. (mimeo), 1959 and 1961 Statements Nos. 4, 10—11 and Nos 45.

\*\*) For 1938 and 1948 the data shown are relevant to Mikindani harbor which handled in these years the trade later directed to the new Mtwara deepwater port.

\*\*\*) Steam and motor ships other than motorized "schooners" and dhows.

volume of exports at Mombasa. Kenya's agricultural output has been restricted by the arid and semi-arid conditions prevailing over three-fifths of the national land space. Also a significant share of its produce, notably from the European farms in the Highlands of central Kenya, and from the African-maize granary of the Nyanza Province on the eastern shores of Lake Victoria, has been diverted from possible overseas destinations towards the feeding of urban centers and deficiency-areas in the other two territories. In

contrast, Uganda has been consistently outdistanced by Kenya in the volume of overseas imports through Mombasa. This has reflected in part, the population structure of Uganda consisting mainly of small African farmers who have only a limited cash income and who live largely on food staples raised in their own holdings. Moreover, the figures of imports ascribed to Kenya have sometimes included as much as 30 to 40 per cent of goods which eventually find their way to Uganda through the large distributory firms lo-

Table II: Comparative volumes of selected commodities handled at main East African Ports in 1960\*)

In thousand harbor tons (1 ton = 2,240 lbs.)

	Mombasa	Dar es Salaam	Tanga	Lindi	Mtwara
A. Exports					
Green coffee	173.0	26.7	0.4	0.9	—
Cotton fiber	164.6	79.8	—	—	—
Cotton seed	2.1	4.9	0.8	—	—
Sisal, fiber and tow	102.6	110.8	198.1	12.0	5.6
Tea	33.6	10.0	2.5	—	—
Pyrethrum, flower and extract	4.6	—	—	—	—
Wattle, bark and extract	22.7	6.3	1.5	—	—
Oilseed and cake	74.8	27.4	0.9	0.4	—
Maize, grain	27.5	25.4	8.0	—	—
Maize, meal	5.5	0.9	—	—	—
Beans	116.7	0.3	0.9	0.7	1.3
Cashew nuts	4.7	10.0	—	5.4	25.6
Groundnuts	11.6	11.0	0.1	2.4	0.9
Hides and skins	18.6	9.2	0.3	—	—
Timber	9.1	5.3	3.0	—	10.6
Meat, canned and frozen	3.8	5.7	3.7	—	—
Butter	4.2	—	—	—	—
Fruit, canned	5.3	0.1	—	—	—
Cement	54.0	—	—	—	—
Soda ash	115.0	—	—	—	—
Other mineral products**)	22.9	14.8	—	—	—
Scrap metal	37.7	9.5	1.2	—	—
Total exports	1,215.7	474.8	236.3	30.5	62.0
B. Imports					
General cargo	928.2	332.6	44.4	14.8	9.9
Petroleum fuels in bulk	1,023.6	234.7	16.7	—	15.9
Coal	42.7	1.3	—	—	—
Total imports	2,021.5	567.5	61.1	14.8	25.8
C. Transshipment cargo					
All goods	28.5	11.3	0.2	0.0	0.8

\*) Source: E. A. R. &amp; H., Annual Report of the Chief Ports Manager for 1960, Mombasa, 1961, Statements Nos. 4, 8, 9.

\*\*) Copper ingots for Mombasa, lead concentrates for Dar es Salaam.

cated in the cities of Nairobi and Mombasa<sup>14</sup>). The nascent manufacturing in Kenya has also called for the importation of certain raw materials for products which are again marketed partly in other East African countries<sup>15</sup>). Lastly, the higher incomes and more sophisticated tastes of the larger non-African element in Kenya has created demand for many goods whose consumption is still restricted in Uganda<sup>16</sup>).

<sup>14</sup>) Such arrangements are made possible by the existence of a common East African Customs agreement (See T. A. KENNEDY and D. WALKER, "Imports and the Uganda Economy", in Saben's Commercial Directory and Handbook of Uganda, 1960-61, Kampala, 1960, pp. 37-50).

<sup>15</sup>) In 1960, close to one-third of Kenya's total export value was directed to Tanganyika and Uganda in the form of tobacco and wheat products, clothing and footwear, cement, beer, tea, butter and ghee, soap and cleansing preparations, sisal bags, aluminum ware, steel doors and windows, etc. Uganda sold only 10 per cent and Tanganyika only 5 per cent of their total exports to sister territories of East Africa (E. A. Quaterly Economic and Statistical Bulletin, No. 41, March 1960, Table C. 19 [a]).

<sup>16</sup>) The economic and social background of Kenya is well covered in recent works by M. F. HILL, *Planter's Progress*

In Table II are indicated the comparative shipments of typically East African export commodities passing through the five main regional sea-ports. Clearly apparent is the control by Mombasa of almost the entire coffee trade of East Africa, aided by the marketing and green-bean processing arrangements along the feeder routes to the port; most of the small volume of coffee ex-

— The Story of Coffee in Kenya, and Cream Country and The Story of Kenya Cooperative Creameries, Ltd., Nairobi, East Africa Standard Ltd. 1957, 210 p. and 118 p.; E. HUXLEY, *No Easy Way — A History of the Kenya Farmers' Association and Unga, Ltd.*, Nairobi, East Africa Standard, 1958, 225 p., and "A New Earth — An Experiment in Colonialism", London, Chatto & Windus, 1960 228 p.; Kenya, *Economic Survey 1960*, Nairobi, Government Printer, 1960, 46 p.; Kenya Tea Board, *Tea in Kenya*, Nairobi, 1959, 48 p.; N. C. POLLOCK, "Industrial Development in East Africa", *Economic Geography*, Vol. 36, No. 4, October 1960, pp. 344-354. For Uganda, see C. C. WRIGLEY, *Crops and Wealth of Uganda: A Short Agrarian History*, Kampala, East Africa Institute of Social Research, 1959, 84 p.; varied articles in Saben's... op. cit., and International Bank for Reconstruction and Development, *The Economic Development of Uganda*, Baltimore, Johns Hopkins Press, 1962, 475 p.

ported through Dar es Salaam is actually of non-domestic origin and represents transit shipments from Rwanda-Burundi and some areas of ex-Belgian Congo. Furthermore, it can be seen that Mombasa handles two-thirds of all ginned cotton exported from East Africa, all pyrethrum, close to three-quarters of all tea and wattle exports, and the largest share of hides and skins shipments, oilseed cake, and maize meal. The port is also the leading East African outlet for manufactured foods or products of mineral origin. Despite the importance of Kenya's sisal production, both Tanga and Dar es Salaam overtake Mombasa in the level of East African sisal trade and some Tanganyika ports also show higher timber or cashew nut shipments.

Before and immediately after the Second World War, Mombasa handled almost four times as much general cargo imports as Dar es Salaam. The subsequent rise of manufacturing plants in Kenya eliminated the need for imported cement, beer, and a number of hardware items. By 1960, the volume of general imports at the Kenya port was down to less than three times Dar es Salaam's level. In the receiving of bulk petroleum fuels, however, the 4 to 1 proportion between the two ports continued to prevail, partly because of ship bunkering functions at Mombasa and a considerable distribution therefrom of petroleum fuels in coastwise trade. Petroleum products in bulk account actually for one-third of total Mombasa portuary traffic and one-half of all imports. Previously high in-shipments of coal have been drastically reduced by the almost universal switch to petroleum as a source of motive power, and now coal is brought only for a few needs of E.A.R. & H. and of the cement plant in the vicinity of Mombasa.

#### Inland Sources of Mombasa's Flow

The E.A.R. & H. trunk line to the interior is the main route of the inward and outward goods flow through Mombasa. Only 2.5 per cent of the port's total exports are delivered to the Kilindini wharfs by motor transport, much of it in movements between the city and the port. Westward of the seaboard where Mombasa Island is located, a broad stretch of waterless, almost barren country (Fig. 7) separates the coastal strip from the productive interior highlands, and is not conducive to traffic offering to short-distance road haulers; on the other hand, restrictive motor licensing in Kenya prohibits long-distance trucking along the alignment of rail routes. Within the coastal strip itself, truck carriers over the North and South Coast Roads, which connect with

Mombasa Island by means of Nyali pontoon bridge and Likoni Ferry (see Fig. 2) have to meet the competition of coastal vessels in moving the limited traffic offering of a few European sisal or coconut estates, and the copra output of scattered African villages. Only the plant of *British Standard Portland Cement Co., Ltd.* at Bamburi, 8 miles east of Mombasa, accounted in the last years for substantial transfers by road to the Kilindini port area until, in 1961, bulk loading installations for cement were completed on the mainland shore of the Old Mombasa Harbour at English Point. The share of imports which do not use the rail route is somewhat larger, however, because of the importance of Mombasa city as a consuming center for overseas goods.

In the absence of more precise data as to the exact points of origin and destination of East African trade passing through Mombasa, the records of freight tonnages handled at various rail or lake stations on the E.A.R. & H. system represent the most valid and accurate source of information as to the specific areas in the hinterland of the port, which contribute the most to its trade. These records are presented graphically in Fig. 8. Both the total volume of goods traffic at each point, and the specific volume of that point's interchanges with Mombasa are indicated therein on the basis of 1959 figures, the total volume being useful in indicating the generally productive or unproductive stretches of Mombasa's backcountry. One may note that, in that particular year, some 3.8 million tons of public traffic were moved on the combined Kenya-Uganda and northern Tanganyika sections of the E.A.R. & H. system, which are directly connected with Mombasa; of that total 55 per cent had passed over the Kilindini wharfs.

It can be seen from Fig. 8 that Nairobi, Kampala, and Magadi are by far the most important contributors in tonnage to Mombasa movements. This reflects, for the first two localities, the size and the consuming power of their urban population together with significance of their import-distributory and export-collecting roles as the leading commercial cities of Kenya and Uganda (see Fig. 9). Import movements at these two stations are actually twice as heavy as the export movements. Magadi traffic is made essentially of outgoing shipments of sodium carbonate from the lake.

The townships of Nakuru (the heart of the Kenya's Rift Valley), Eldoret (another center of white-farming on the Uasin-Gishu Plateau of Kenya), Kisumu (the headquarters of populous Nyanza Province), and Jinja (the present industrial hub of Uganda) can also be singled out for the volume of their interchanges with Mombasa

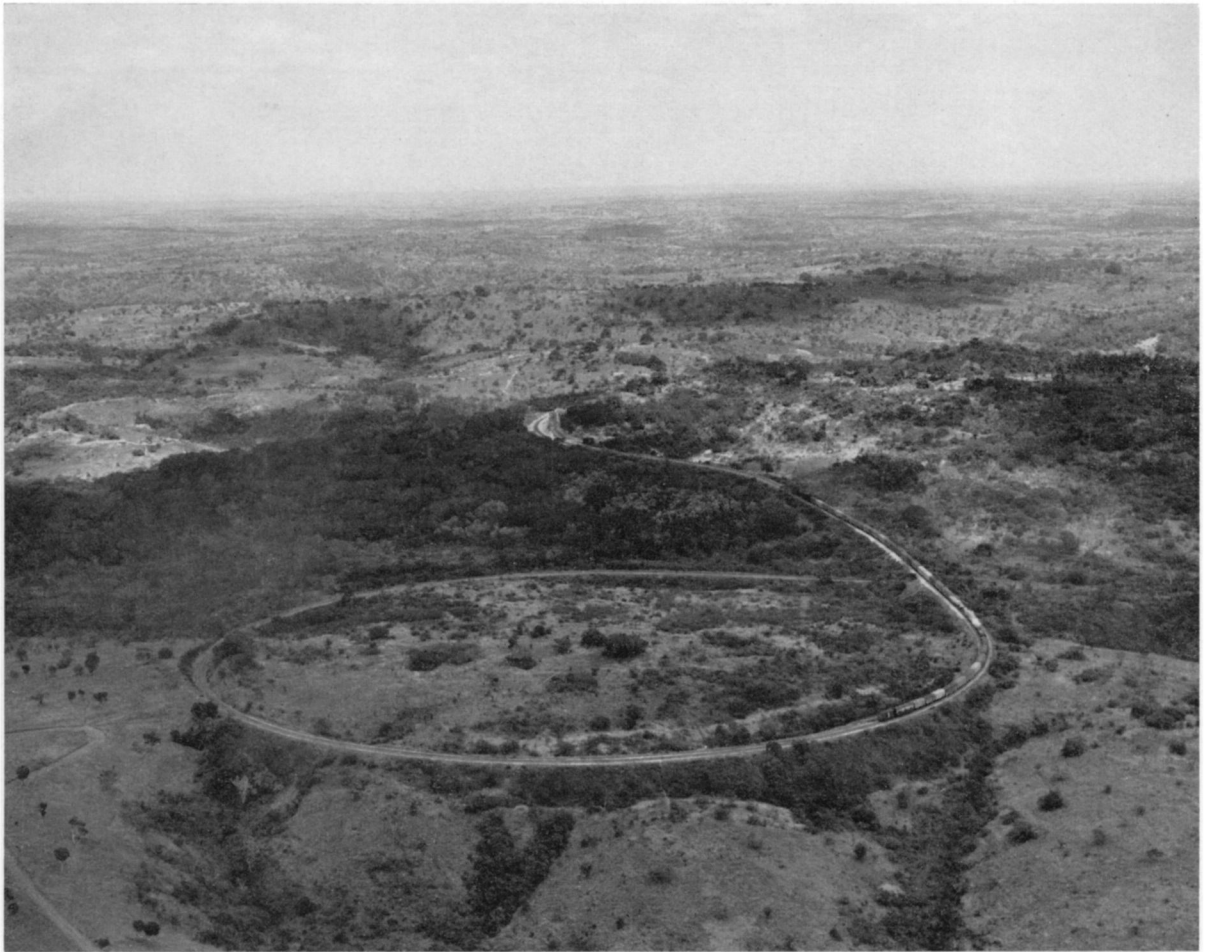


Fig. 7: E. A. R. & H. main line in the semi-arid subcoastal zone which extends behind Mombasa. Note the barren, hilly character of the countryside which the rail has to traverse before reaching the productive areas of Kenya and Uganda.

Courtesy East African Railways and Harbours

for the same reasons as Nairobi and Kampala, but the tonnages involved are considerably lower due to lesser size of these population centers and more limited radius of their economic influence. Jinja also presents a better balance between incoming and outgoing movements, because its shipments overseas include not only some processed crops but as well the output of the Kilembe mines, received by rail from Kasese, in form of copper concentrates, and smelted at Jinja into blister copper with the power available from the nearby Owen Falls hydroelectric plant.

The points of Thika, Nanyuki, Kitale, Lumbwa, Mbale, and Soroti are, on the other hand, notable as export contributors to Mombasa because they function as mainly as local collecting centers for sisal, coffee, maize, tea, hides, or cotton crops obtained in the surrounding rural areas. The significance of Athi River station is due to

outgoing shipments of canned and frozen meat from the *Kenya Meat Commission* plant and some cement from a plant installed there in the mid-fifties. Fig. 8 also brings out fairly conspicuously the importance of traffic derived by Mombasa from Moshi and Arusha in northern Tanganyika, which could be served by the port of Tanga; the function of Kasese as the Congolese transit traffic head; the contribution to Mombasa port movement by the existing steamer and barge services on Lake Victoria, picking up and delivering freight at such points as Bukakata, Bukoba, or Kisumu Pier; and the low traffic offering to Mombasa along the combined Lake Kioga-Lake Albert-Albert Nile route. Although the steamer based on Butiaba ascends the Albert Nile as far as Nimule, there are no direct bookings whatsoever for Mombasa beyond Rhino Camp.

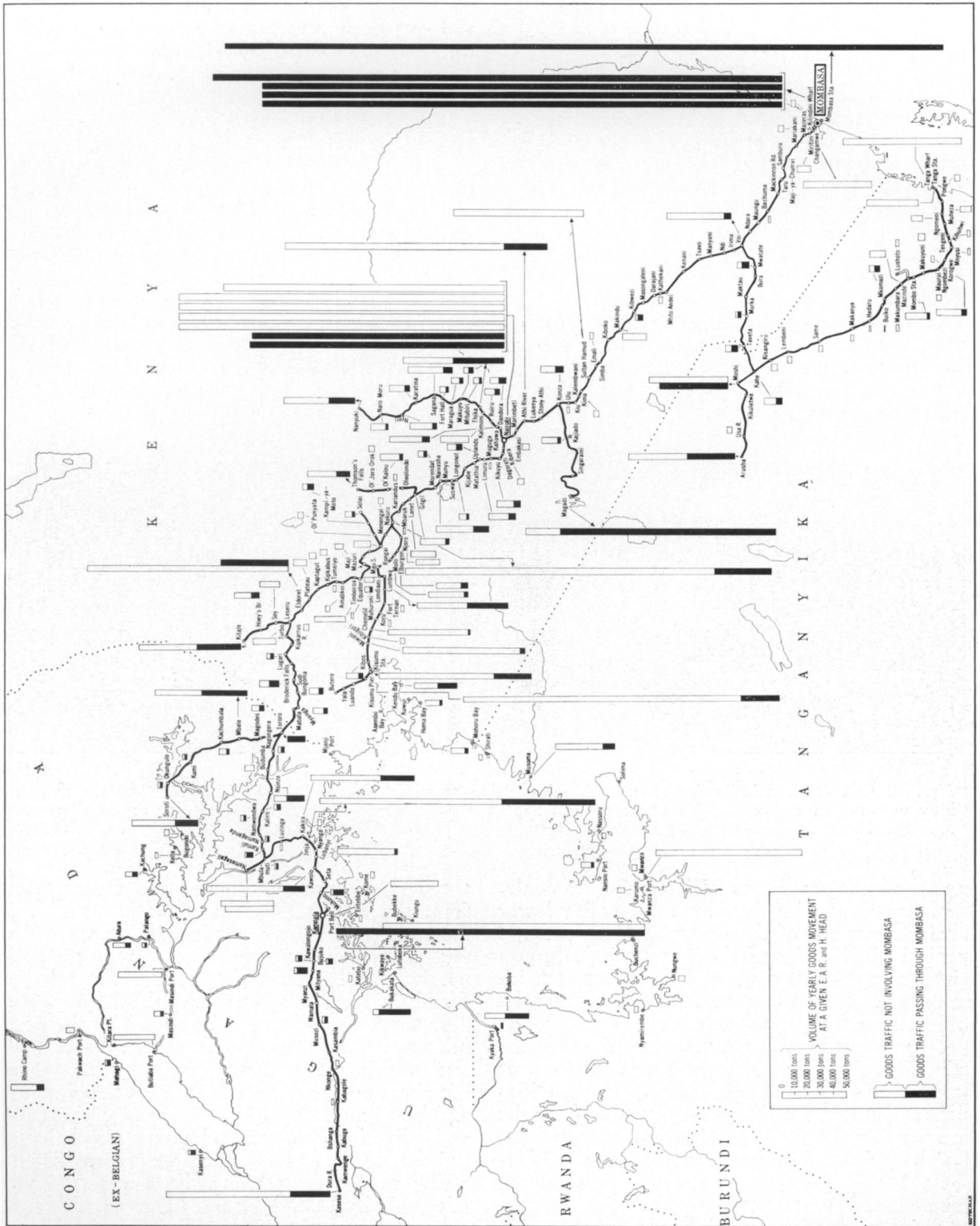


Fig. 8: Traffic exchanges of Mombasa with localities in its hinterland.

## Present portuary facilities of Mombasa

### *Kilindini Harbour*

To serve the trade of the port's tributary area, the terminal facilities in Kilindini Harbour (see Fig. 2) now comprise: a) a section of deep-water wharfage extending along the western-northwestern shore of Mombasa Island from Ras Kilindini up to the entrance of the Makupa Creek; b) a lighterage wharf adjoined by sundry port installations which occupy the western shore south of Ras Kilindini down to the entrance of the Kilindini arm; and c) the new Kipevu deep-water wharf on the mainland, north of the entrance into Port Reitz, which is connected with the wharfs on the Island over the Kipevu causeway. Little remains today of various installations put up by the British Admiralty, during the Sec-

ond World War, just opposite the main wharf and on the southern shores of Port Reitz, except for a few short jetties and an explosives depot.

The main deepwater quay, known as the Kilindini wharf, is 5,290 feet in length with 33-foot minimum alongside depths and offers berthing accommodation for nine ocean-going vessels (Fig. 10). In the lower port area, which was repeatedly re-modelled through the last decade, are nine goods sheds totalling 608,000 square feet of covered space (inclusive of a cold store for perishables, having a 700-ton capacity, and of a new passenger hall where baggage undergoes customs inspection). Extensive space for stacking cargo that can be left exposed is available around the sheds. The grounds and sheds are well served by a grid of rail tracks and an imposing array of mechanized equipment comprising mobile and fixed cranes, trailers, fork-lifts and platform-



Fig 9: Nairobi, the capital of Kenya, is the leading inland destination of the import flow through Mombasa and over the E. A. R. & H. mainline. In the foreground is seen a section of the city's railroad station with the E. A. R. & H. head offices occupying the lower center.

Courtesy *East African Railways and Harbours*



trucks; palletization is widely used<sup>17</sup>). In the port's higher level zone, on a bluff, more sheds extend the covered storage capacity by about one-half; one of the sheds, formerly owned by Magadi Soda Company, is equipped with two gravity conveyors to expedite the loading of bagged soda ash and maize. At the northern end, the Kilindini wharf passes into the Shimanzi oil wharf with a jetty for receiving bulk petroleum fuels which are pumped into tank farms at the rear, belonging to the three main distributors of petroleum products in East Africa: *Shell Co. of East Africa, Ltd.*, *Caltex (Africa) Ltd.*, and *Standard-Vacuum Oil Co. (E.A.), Ltd.*; the pack-

aged fuels and lubricants are disembarked into an adjoining stacking area.

The lighterage wharf is 1,280 feet in length, with nine lighter-handling points, and there are five storage sheds with some 186,300 square feet of total floor space. The part played by lighterage operations at Mombasa, however, is relatively minor as compared to a number of large African ports. In 1960, total capacity of the 28 lighters, barges, and pontoons available was 6,500 tons of cargo, with 4 tugs for towing. Downstream from the lighter wharf are located some small dockyards with a slipway that can handle craft up to 2,200 tons; usually it deals with port tugs, pilot boats and some coasters. Still further toward the Kilindini entrance is a coal wharf with a storage capacity up to 12,000 tons.

The new deepwater wharf at Kipevu on the mainland has a quay of 2,400 feet for four ves-

<sup>17</sup>) See East African Railways and Harbours, Annual Report 1961, Nairobi, E. A. R. & H. and Government Printer, 1962, p. 54 for a detailed inventory of Mombasa's cargo handling equipment.



Fig. 10: A detailed view of the Kilindini deepwater wharf area on the western side of Mombasa Island. Lower right section shows a part of the lighterage wharf. In the distance can be seen the Makupa causeway and the expanse of Port Tudor.

Courtesy East African Railways and Harbours

sels. Only two of its berths, however, have been equipped with sheds (160,000 square feet of covered space in total) and are in service. The remainder of the wharf was left in an unfinished state, at its inauguration in 1961, as a reserve for future port development. Total handling capacity for dry cargo should at present approximate 2.5 million tons per year in Kilindini Harbour with the Shimanzi wharf accounting for another million tons capacity for bulk petroleum fuels. In this regard, Mombasa is in the process of undergoing great changes, for an agreement was signed in 1959 between the Kenya government and the Shell Oil interests for constructing a large refinery at Changamwe, behind the Kipevu shore. The establishment of this refinery, which should go on stream in 1963-64, means that instead of receiving finished fuels Mombasa will be receiving large quantities of crude oil for processing. Consequently, a crude oil wharf is in the process of being built in Port Reitz and a deep access channel is to be dredged through Kilindini Harbour to allow the entry of up to 65,000-ton tankers. Now the western arm can be used only by vessels not exceeding 45,000 tons. The same Changamwe area will be utilized for the redeployment of E. A. R. & H. rail marshalling yards as soon as the freight haulings off Mombasa Island reach a total of 150,000 tons per month.

The organization of cargo handling in Kilindini Harbour differs sensibly from that in some other African ports where all the operations are performed by the port's own administration. While the E. A. R. & H. own and maintain the port installations and deal with the incoming and outgoing cargo inside the transit sheds and in wharf-rail transfers, the moving of goods between the ship and the shed is done by a private firm of contractors, *Landing and Shipping Co. of East Africa Ltd.* All work aboardship is performed by stevedoring companies on contract to the shipping firms or their agents. Private initiative is also prominent in the warehousing of cargo which is now allowed to remain at low rates but for a minimal period of time in the E. A. R. & H. transit sheds in order to keep the traffic flowing. Substantial warehousing capacity was erected, after 1956, in different locations on the high level zone, about one third of overseas imports usually remaining for some time in Mombasa before being shipped inland.

The port labor force has, since the late 1950's, consisted of about 6,000 men employed permanently and semi-permanently in the operations at Kilindini, which are normally handled on a two-shift basis. Sporadic strikes on several occasions disrupted the smooth functioning of the terminal after formation of the *Mombasa Port Workers'*

*Union* in the mid-fifties. In 1959, a Board of Inquiry was set up to examine the working conditions; publication of its report enabled remedying some grievances and improvements were achieved in the labor situation although pressure for higher wages continues. All unskilled and semi-skilled port laborers are Africans, one-third being derived from coastal tribes and two-thirds from tribes of the interior. Clerical port staff is half-Asian, half-African. The supervisory and executive European personnel numbered about 200 in 1961.

### *Mombasa Harbour*

On the eastern side of Mombasa Island, port facilities available for foreign trade shows and the heterogeneous motorized or sail craft belonging to Greeks, Indians, and Africans who engage in unscheduled coastwise carriage in East Africa have not been improved for some time (Fig. 11). They consist of two short jetties, a concrete reinforced slope with flat recesses for stacking cargo, and an old customs house; the area is simply fenced off from the town streets. There is no connection with the main rail system of Mombasa Island so freight is moved by private trucks loading and unloading in the cramped open space in front of the port's gate. Ship to shore transfer is all done manually by African labor, there being no cranes.

No reorganization of the old port's operations or improvement of installations is planned. The monsoon dhow visitors from Asia and the Somali dhow trade have been steadily dwindling<sup>18</sup>). The few regular coastal steamers which service the East African seaboard and the outlying islands in that part of the Indian Ocean normally use Kilindini Harbour. Unscheduled carriers are not demanding and work the cargo mostly with their own crews to keep expenditures at a minimum. Since 1961, however, a specially-built small steamer, the *Baobab* of *Southern Line, Ltd.*, has been coming in to load cement for coastwise and island distribution at the wharf built in the mainland, just across the dhow port, by the Bamburi company. The two cement silos, located there and having a total capacity of 4,000 tons, are supplied directly from the plant by the company's 15-ton trucks.

### Mombasa City

From the old "Walled Town" of Mombasa which still thrives around the dhow harbor, in the shadow of Fort Jesus, and shelters in its twisted

<sup>18</sup>) 307 foreign dhows (ranging in capacity from 50 to 300 tons) and 1,051 local dhows (usually from 1 to 10 tons) entered the old port in 1948. By 1958, only 71 foreign dhows and 631 local dhows were registered. (Information courtesy Mombasa Old Port Customs.)



Fig. 11: The old port in Mombasa Harbour, on the eastern side of Mombasa Island, showing some monsoon dhows at anchorage and "schooners" moored before the landing jetty. The Old Town clusters on the shore.

Courtesy East African Railways and Harbours

alleys the less-prosperous Arab, Indian, and Swahili residents of the port-city, the urban growth has extended in the last five decades to the entire Mombasa Island. Not long ago it began to overflow the bounds of the insular site with European residential development consolidating in the Nyali section of the mainland and African housing going up in the Kisauni, Mwandoni, and Changamwe sections (see Fig. 3). The upsurge in population has closely paralleled the rise in volume of the modern port's trade. In the 1920's, with the trade nearing 500,000 tons, Mombasa's population approximated 20,000. Between 1938 and 1958, the trade increased from 1.25 million to 3.0 million tons and the population passed from 53,000 to 145,000 persons. With the expansion, in 1959, of the area under the control of the municipal government from the previous 33 square miles to 100 square miles, Mombasa municipality was estimated to contain in 1960-61 some 160,000 people of whom 116,000 lived on the Island proper. A master plan for further development foresees 200,000 residents by 1970 and 250,000 by 1980<sup>19</sup>).

<sup>19</sup>) At present, the racial composition of Mombasa's population is: Africans 62 per cent, Indian and Pakistani 18 per cent, Arab 13 per cent, Goans 1.2 per cent, Euro-

Until about a decade ago, Mombasa city functioned essentially as an important transit point on the seaboard with local shipping and trade handling interests acting as intermediaries to facilitate the flow of goods to and from the interior over the single E. A. R. & H. rail route. Retail trade, chiefly in the hands of Indians and Arabs, catered to the necessities of the Island's inhabitants and passing tourists. At the end of the first rail climb onto the East African plateau (some 5,400 feet in 330 miles), Nairobi, which had expanded from a railroad camp put up in 1899, stood as the real gateway to the productive areas of Kenya and Uganda, and represented the "center of gravity" of East Africa in administrative functions, commerce, land and air routes, conglomeration of non-native population, and cultural amenities<sup>20</sup>). Nascent regional manufacturing was also showing a tendency to concentration in Nairobi, before it was realized that the processing of some foreign raw materials at the place of the break of bulk on the seaboard was more economical since it avoided

peans 3.0 per cent, others 2.8 per cent (All information on the city's population is courtesy Municipal Council of Mombasa).

<sup>20</sup>) See R. W. WALMSLEY, Nairobi — The Geography of a New City, Nairobi, The Eagle Press (East African Literature Bureau), 1957, 56 p.

extra rail charges and allowed an easier distribution of surplus production to a number of markets in the Indian Ocean area.

The expansion of industrial activities at Mombasa is evidenced by the records of electric power and water consumption for industrial uses between the years 1948 and 1958. During that period, the electricity consumption rose from 4.8 million to 38.5 million kwh; water consumption increased from 369.3 million to 618.8 million gallons. A survey made in Kenya in 1957 placed industrial employment in Mombasa at 21 per cent of the industrially-employed labor force of the nation and the number of establishments at 22.5 per cent of the national total<sup>21</sup>). The corresponding percentages for Nairobi were 60.5 and 58.5 per cent respectively. Products manufactured in Mombasa and vicinity now include cement (Bamburi), steel door and window frames, aluminum ware, metal containers, matches, paper bags, glass bottles, bricks and tiles, paints and polishes, insecticides, beer, processed meats, vegetable oils and soap, various types of flour, confectionery, ices and soft drinks. There is also some coffee curing associated with the flow of East African coffee via the port, grain conditioning, wood and coir industries. The radius of distribution of these Mombasa's manufactures reaches well beyond the East African frontiers to Zanzibar and Pemba, the Seychelles, Aden, Somalia, Ethiopia, Comores and Madagascar, and sales are sometime made in the Rhodesias, via the Mozambique seaboard. The industrial significance of Mombasa should further increase in the future for it is planned to set up, in addition to the petroleum refinery at Changanwe, an aluminium-rolling mill and a rayon textiles factory.

#### Mombasa and its sea exchanges

Indian Ocean shipping, particularly from the northwestern and northern margins of that ocean, has long played a major role in the maritime life of Mombasa for Arab, Persian, and Indian vessels are believed to have visited the eastern African seaboard as early as A.D. 80, even before the foundation of the port-city. Remains of Chinese coins and pottery, found in coastal excavations, are also conducive to thinking that some trade with the shores of the Pacific, through the Malacca Straits, took place in the Middle Ages. The Atlantic Ocean navigators entered the local scene with the arrival of Vasco da Gama at Mombasa in 1498, after his rounding the Cape of Good Hope on his way to the Indies. Henceforth, intermittent

sea contacts were maintained with the European coast of the Atlantic until the first regular steamship service was inaugurated in the 1870's between England and Zanzibar, as the latter island was then the entrepot for East African overseas trade. The North American Atlantic, Gulf Coast, and Pacific seabords established firm shipping connections with East Africa in the 1930's. But the sea links with the South American realm continue to be almost non-existent.

The increase in number and registered tonnage of shipping entering the five main East African ports from 1938 to 1960 can be seen in Table I. Of all the terminals, Mombasa gained most in shipping traffic during the period. At present, at least 23 steamship lines<sup>22</sup>) engaged in deepsea trade maintain monthly or more frequent schedules of calls at the Kenya head, several of them having actually multiple service routes involving the port. Most of these deepsea vessels, tankers excepted, now call both at Mombasa and Dar es Salaam, though the volume of cargo loaded and unloaded per shipping entry at Dar es Salaam is only about one-third of Mombasa's volume. Tanga has not been able to attract much deepsea shipping because of its closeness to Mombasa and because of the existence of alternate rail route from its hinterland from the better equipped Kenya port.

Fig. 12 shows ship and cargo movements at Mombasa by rational registry for 1938 and 1960. The section relevant to cargo carriage applies strictly to dry goods and packaged fuels because detailed port records do not effect a breakdown by national marines for bulk petroleum products; usually, however, the tankers supplying Mombasa are British or Dutch. The impressive overall show of the British shipping at the port is the outcome of the political control of Kenya and Uganda by the United Kingdom, the first rank occupied by the metropolitan country in regional overseas trade, and the strength of the British merchant marine on the world seas. British connections with Europa are largely via Suez. Western Germany is at present the second leading commercial partner of Kenya and the fourth of Uganda, but German

<sup>21</sup>) Kenya Colony and Protectorate. Kenya Survey of Industrial Production, 1957, Nairobi, Government Printer, 1959, principally tables 18 and 19, pp. 75 and 76.

<sup>22</sup>) These lines being: *Union-Castle Mail Steamship Co., Ltd.* (U.K.); *British India Steam Navigation Co., Ltd.* known as B.I.S.N.; *Bank Line Ltd.* (U.K.) inclusive of *Indian-African Line* and *Pakistan-African Line*; *Clan-Hall-Harrison Lines* (U.K.); *Holland-Afrika Lijn*; *Royal Inter-Ocean Line* (Neth.); *Nedllyod Line* (Neth.); *K. P. M. Line* (Neth.); *Deutsche Ost-Afrika Linie*; *Messageries Maritimes* (Fr.); *Lloyd Triestino* (It.); *Compagnie Maritime Belge* or C. M. B.; *Scandinavian East Africa Line* (Norw.); *Svedel Line* (Swed.); *Osaka-Shosen-Kaisha* (Jap.); *Nippon-Ysen-Kaisha* (Jap.); *Baron-Ino Line* (Jap.); *East Shipping Corporation, Ltd.* (India); *Zim Lines* (Israel); *Christensen Canadian African Lines* (Norw.); *Farel Lines* (U.S.A.); *Robin Line* (U.S.A.); and *Lykes Lines* (U.S.A.).

shipping has never been able to recover in East Africa the relative position it held before the Second World War, and much of the cargo exchanged with Germany is now transported by Dutch vessels. The Dutch operate with particular energy at Mombasa, though their own trade with the northern half of East Africa does not exceed 3.5—4 per cent of the total regional trade value. Besides four Dutch-registry lines connecting with Europe (either via Suez or via the Cape), North

America (both the Atlantic and the Pacific coast), the Persian Gulf, and the Far East and Australia — as well as bringing much of bulk petroleum to Mombasa by tankers — they are active in coastal trade with a small steamer and barges. For the French as well as for the Italians, Mombasa is not so much a cargo port as stepping stone on their important sea routes to Madagascar and southern Africa respectively.

The traditional orientation of East Africa toward the Asian shores has resulted in a considerable variety of sea routes being offered in that direction as far eastward as Japan; in fact, the number of possible service routes to Asia exceeds the number of service routes available in the direction of Europe but the frequency of schedules is lower. Over two-thirds of the passenger flow through Mombasa is also in interchanges with Asia, specifically India since the proliferating Indian community occupies a position of prominence in the commercial activities of East Africa and travels either for business or family reasons by sea. The still underdeveloped state of many Asian countries with the corresponding lack of internationally significant merchant marines has not, however, allowed Asian shipping to reach thus far a forceful expression at Mombasa, except for Japan. The tonnages of cargo loaded and unloaded in exchanges with Asia have, furthermore, shown marked fluctuations. For instance, the customarily large exports of Uganda's cotton to be worked in Indian textile mills had to be curtailed in the mid-fifties because of currency difficulties; only very recently was India able to move again to second rank in Uganda's trade. Although Japan remains the third trading partner of Kenya, it lost a good share of its prosperous textile market in Uganda when the *Nyanza Textiles, Ltd.* began, in 1956, to manufacture cotton yard goods at Jinja. Nonetheless, Iran and the Persian Gulf countries continue to be the main source of East African fuel requirements and China has bid lately for a substantial share of Uganda's cotton exports.

United States' shipping entries doubled in number and net registered tonnage from 1938 to 1960, as that country moved in 1960 to fourth place in Kenya's and third place in Uganda's overseas trade, through large purchases of coffee, pyrethrum, and sales of machinery or transport equipment. In total volume of seaborne cargo handled by Mombasa, the three U.S. lines were yet unable to increase their share over the last 22 years by more than 50 per cent. North American shipping services Mombasa via the Cape as an extension of their run to South Africa, and for each of their lines Mombasa is the turning point for the voyage homeward.

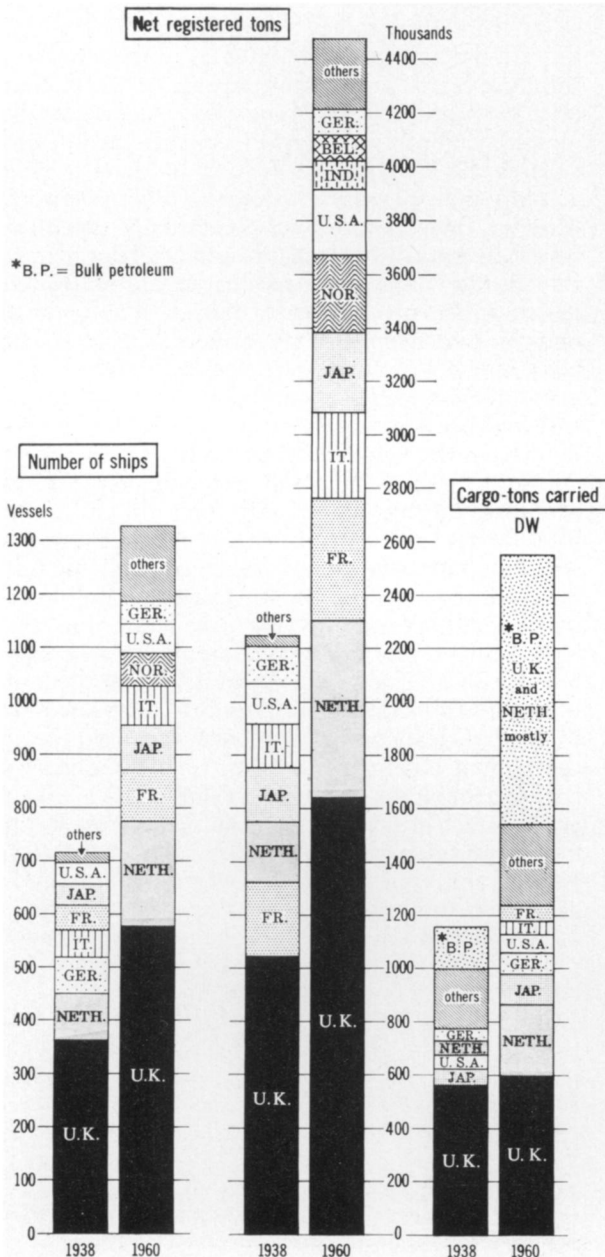


Fig. 12: World shipping at Mombasa, 1938 and 1960.

Coastwise trade in East Africa is more significant along the Tanganyika seaboard than that of Kenya owing to a greater length of coastline and more coastal population centers. In both cases, it ranges beyond the East African coast to the outlying islands of Zanzibar and Pemba, the Seychelles and the Comores, and even includes at times Mauritius, Reunion, or Madagascar southward, and Somalia or Aden northward. The distribution of Bamburi cement, for example, to these destinations is done by the small steamers of *Southern Line, Ltd.* which has operated since 1953 the most efficient coastwise services for freight from Mombasa. A bi-monthly schedule by a coaster of B. I. S. N. that ensured passenger and freight transport between Mombasa and the Tanganyika ports was finally abandoned in 1960, after some 30 years of operation, because most of the potential passenger traffic offering was more and more attracted by the inter-territorial services of the *East African Airways (E. A. A.)* operating from Mombasa's airport at Port Reitz. Passenger transport between the coastal localities in Kenya normally takes place by private car or Indian bus.

If one includes sailcraft, "schooners" and monsoon dhows together with the regular coastal steamers in the total of vessel entries at Mombasa the number of coastal shipping movements at the port would approximate the number of deepsea movements. The shipping tonnage involved in coastal trade is, of course, much lower — less than 2 per cent of Mombasa's total shipping tonnage; the volume of coastal cargo loaded and unloaded may reach 3 to 4 per cent of all port cargo movement. The main outgoing commodities on the coastal routes continue to be petroleum fuels, bulk cement, and certain foods from Kenya. Incoming commodities collected on the Kenya seaboard at Lamu, Kipini, Malindi, Kilifi, and Vanga are largely mangrove poles ("boriti") for African house construction, citrus and mango fruit, straw mats, copra, some cotton and cashew nuts. Most of these items are destined for local consumption rather than transshipment overseas. From the Tanganyika seaboard may also come fresh produce or, occasionally, sisal. Somalia and Aden usually send in salt, bottled gas (from the refinery in Aden), cattle and goats; ivory from poachers in the Northern Frontier Province of Kenya, which is smuggled into Somalia, also reaches the special ivory auctions at Mombasa under the Somali label. The monsoon dhow trade with Asia, which could at present almost be considered as an extension of East African coastwise trade, involves dates, clay products, and carpets inward; and coconuts, soap, "boriti" poles, rope, and cloth outward.

## The Future of Mombasa

The uncertainties of the political climate in East Africa overshadow the future of Mombasa. One can only speculate about the next ten or fifteen years ahead. Yet it is certain that some important regional factors will have their say in determining the prosperity or stagnation of the seaport. These factors are the recent transport developments leading to a potential competition between the Kenya and Tanganyika seaboards for the routing of overseas trade, the general level of economic activities in Mombasa's hinterland, and the outcome of negotiations on the administrative status of Kenya's coastal strip.

### *Potential Competition between Kenya and Tanganyika Seaboards*

Foremost among recent transport developments in East Africa is the present construction of Mnyusi-Ruvu link between the northern and central rail systems of Tanganyika — which also means a connection between the Kenya-Uganda and the main Tanganyika systems because of the existence of the Voi-Kahe link. Although it was officially designed to encourage inter-territorial exchanges and to enable the E. A. R. & H. to effect a free movement of freight cars through East Africa in order to cope with the seasonal rushes of produce movements, which occur at different times in the northern and southern halves of that area, the new link may play a far-reaching role for Mombasa in case separatist national policies prevail in the future instead of Kenya, Uganda, and Tanganyika being held in some form of federation. The loss of revenue due to the capture of the Moshi-Arusha traffic by Mombasa to the detriment of Tanga has long been a sore point for Tanganyika transport. Up to now, conditions at Tanga did not encourage the northern Tanganyika coffee shippers to switch to another ocean head. But, once a new national route is offered toward Dar es Salaam whose port was at last provided with excellent deepwater facilities in 1955, that coffee flow may be routed there, if railage rates are favorably construed. Coercion on the part of Tanganyika government may be also employed.

Another development with possible influence on Mombasa is the opening of a modern lake port at Mwanza in 1960. These works and the improvement of wharfs at Kisumu head which handles the ever increasing traffic on Lake Victoria were needed to expedite lake interchanges, and to fit the E. A. R. & H. plans to establish a ferry-service for freight cars between these two points as a complementary measure to the movement over the new Mnyusi-Ruvu link. But in a divided East

Africa, Uganda, which has often chafed under the thought of dependence on Kenya for access to the world markets, could easily be tempted to divert some of its trade via the new facilities at Mwanza to the central Tanganyika route, as in pre-European times — not to speak of the Bukoba coffee which is also likely to use Dar es Salaam.

*Economic Prospects  
in the Hinterland of Mombasa*

Traffic losses in regard to the Moshi-Arusha and Bukoba areas, together with a possible reduction in Mombasa's volume of coastwise trade with Tanganyika — which would follow upon construction of a proposed petroleum refinery and a cement plant at Dar es Salaam — would not be welcomed by Mombasa. Nevertheless, even if a shrinkage in size of the former port's hinterland did occur, a satisfactory growth in traffic could still be achieved<sup>23)</sup> provided the African leaders of Kenya and Uganda are sufficiently concerned with strengthening their national economies rather than with encouraging disruptive tendencies for the sake of tribal or racial supremacy. Such healthy advances have been made in the African agricultural sector in Kenya, under the Swynnerton Plan started in the mid-fifties, that a substantial rise is assured in the exports at the Kenya seaboard of tea, coffee, and several other crops. Many of the European settlers and firms who have so greatly contributed in the past to Kenya's development would join in a general effort to maintain an economically viable new state, were the necessary assurances for personal protection and preservation of their enterprises given. Outside sources of capital, European and American, would certainly be attracted under a stable government, to finance further Kenya development resulting in an expansion of traffic at Mombasa.

The same considerations apply to Uganda where the premises of a substantial expansion exist in cotton cultivation for which, very probably, markets could be found in the Asian countries. The new Soroti-Gulu rail, for example, is bound to have a bolstering effect in a few years

<sup>23)</sup> In an E. A. R. & H. report, *The Economy of East Africa — A Study of Trends* prepared by the Economist Intelligence Unit, October 1955, pp. 230—234, an annual future rate of increase of 3.9 per cent for exports and 4 per cent for imports was forecast for Mombasa during the period 1954 to 1974.

on the northern Uganda overseas traffic offering. Chances are also that the Congolese transit trade via the Uganda heads will show increases, once peace is restored in the Congo Republic.

*The Ownership of Kenya's Coastal Strip*

As mentioned earlier in this paper, no agreement as to the future political status of the Kenya Protectorate has thus far been reached. Continuation of the present lease arrangement does not appeal to Kenya's African politicians, being considered as a legacy of the former colonial rule. Outright annexation by force by an independent Kenya will almost certainly arouse the fighting spirit of the arabicized coastal population — for Mombasa still represents the leading Arab community on the eastern African seaboard — and would restore to the Island its former surname, *Mvita* (the "Island of War"). In the ensuing strife, the superb port facilities might be damaged and the flow of trade to and from interior would be choked. A negotiated sale of the coastal strip by the Sultan of Zanzibar to Kenya government for £ 775,000 (U.S. \$ 2.2 million) has also been suggested in a recent report<sup>24)</sup>. The latter would call for mutual cooperation and trust between the two governments, and for guarantees on the part of the Kenyans as to the treatment of local Arabs; unfortunately this cooperation and trust have thus far been lacking.

In an East African Federation offering fair partnership to all mainland components as well as Zanzibar, Mombasa Island could find an enviable place as the mainland's chief gateway to the ocean lanes. In a divided East Africa a certain order in the regional transport flow and the protection of the valuable regional transport system inclusive of Mombasa can still be expected as long as the *East African Railways and Harbours* body continues to operate; since the independence of Tanganyika, in December 1961, the former *East Africa High Commission* of which it was a part was transformed into the *East African Common Services Organization*. What would happen to the terminal of Mombasa, if the disruptive forces in its hinterland shatter the whole established economic fabric of East Africa, can only be the object of purely fortuitous conjecture.

<sup>24)</sup> Summarized in *Kenya Calling* (Weekly News Digest), Nairobi, 23d December 1961.