

Unimproved Site Valuation For Rating Purposes As Practised In Mombasa, Kenya

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This article, which is based upon one which was published in the *Chartered Surveyor* for October, 1956, shows how a system which is extensively used in North America and Australia was adapted for use for the first time in East Africa.

THERE are but few natural harbours on the East African seaboard and, of those that do exist, Mombasa is by far the best. It was the natural coast terminal of the railway to Uganda, which was built about the turn of the century, and now forms the gateway to the whole of Kenya and Uganda as well as to parts of Tanganyika and the Congo.

Mombasa is an island about 5½ square miles in area, inset into the coastline, almost surrounded by deep water anchorages and approachable by the largest ships by a gap in the coral reef. It was the Headquarters of the Eastern Fleet after the fall of Singapore in 1942.

For thousands of years, the Old Harbour on the east of the island has been visited by dhows from Arabia and the Persian Gulf, which come south on the north-east monsoon in December to February and return to their home ports when the monsoon swings southwards in April. This traffic still continues and many coastal craft also use the Old Harbour.

The modern deep water harbour has been built on the western side of the island at Kilindini and has recently been extended to the adjacent mainland at Kipevu. There are now two lighterage berths, 11 deep water berths in operation, two completed but held in reserve, plans exist for 4 more and construction has just begun on a tanker terminal which will feed the new oil refinery.

In 1926 the old Township Committee which controlled local affairs was abolished and a Municipal Board, on the lines of an English local authority, came into being. Under some recent boundary revisions, this authority is now responsible for a total of about 81 square miles of land, all of which has to be assessed for rating on the capital value of unimproved sites.

With the establishment of the Municipal Board there was enacted a town planning scheme which laid down a network of roads over the island and brought some measure of order to the frequently chaotic old plot boundaries. The scheme defined industrial areas and residential areas and generally laid the foundations of the (reasonably) well planned town that occupies the island today.

Development on the mainland has lagged behind, mainly because of indifferent communications, but several square miles have been planned in detail and a road system has been devised for much of the remainder.

DEVELOPMENT

The original unimproved site rating assessments came into force in 1929, which was a time when land values were comparatively easy to fix, because compensation was being assessed for land lost under the town planning scheme. It so happened that compensation appeal courts were sitting at the same time as valuation courts and, as the same piece of land was often the subject of appeal in both courts, the true value was relatively easily determined — on occasion after amusing scenes in the two courts.

At that time the greater part of the island consisted of large plots of an acre upwards; but as population rose, these became progressively sub-divided until today there is little available land which has not been split up for building purposes. In some cases, fragmentation has been carried to excess: there are instances in the central business area of plots only 50 feet square, which is not conducive to the best development. These criticisms are easy to make now but the future trend must have been difficult to foresee 30 years ago and a more enlightened policy is followed today.

The fact that no sub-divisions can take place without a survey and that all titles are registered may slow down development, but it certainly makes a valuer's task much easier as he knows the details of every sale and lease within a short time of the transaction taking place. The actual registration of titles is done by Government, but the closest co-operation with the Municipal Valuation Department is always maintained.

Until 1954 rates were levied on the island only, but since then the mainland areas have progressively been brought into rating and the complexity of the valuation work greatly increased. Today, the smallest plot to be valued is about 12 square feet in area and the largest 3.250 acres: to maintain a realistic proportion between these two extremes is something of a puzzle.

VALUATION

Until 1947, an improvements rate was levied in addition to one on land, there being a considerable differential between the two. Following an enquiry at that time,

the improvements rate (the only one ever levied in Kenya) was dropped and a site value levy only has since been imposed.

The rate is levied as a percentage of the unimproved capital value and has ranged from under 1 per cent. in the early days to as high as 3½ per cent. It has been the practice to re-value at three yearly intervals and in consequence it has been possible to keep the rate percentage low despite vastly increased municipal costs, due to the fact that values have (until recently) continued to rise.

The problems of valuation fall naturally into fairly clearly defined categories and each will be examined in turn. The categories are:—

1. The old town.
2. The residential areas.
3. The factory and warehouse area.
4. The native locations.
5. The mainland.
6. The business area, which presents a number of special problems of its own.

1. The Old Town. This is on the site of the former walled city of Mombasa and the dwellings which sprang up immediately outside the walls. It covers about 130 acres which are split up into nearly 2,000 plots. Some of these plots are an acre or more in extent, but the vast majority average about 1,000 square feet. Practically all are built up and many have no road access, the inhabitants coming and going along passages which may be only 3 feet wide.

Valuation in an area such as this presents many headaches which have been considerably eased by the use of the unit-foot system (described in detail later) for those plots fronting on to the office and shopping thoroughfares. There are usually a few sales of vacant sites to form a guide elsewhere and these are used when available.

2. The Residential Areas. As a general rule the European prefers a larger plot for his house than the Arab or Asian: hence sites for the former average about ½ acre in extent and for the two latter a tenth of an acre or less. On the mainland, where land prices are lower, larger plots are the rule. Prices rose enormously until about 1958, when a politically-inspired and ever-deepening slump set in. However, one plot which changed hands in 1942 for £500 was sold again ten years later for £5,500. Up to 1957 half acre plots were fetching up to £8,000 per acre and in the more closely subdivided districts as much as three times that figure. It follows that much recent development has been by means of flats, as landlords would otherwise get but a poor return on their outlay.

From a valuation viewpoint the residential areas have, so far, presented little difficulty, as there are still enough sales of vacant plots to enable a fair picture to be obtained.

3. The Factory and Warehouse Area. This falls into two parts, the larger consisting of plots held on 99-year leases from the Railways Administration, and the smaller in freehold title. In the latter, sales of vacant plots are again the guide and these are also used for the Railway area by means of comparing rents payable for warehouses and computing back to a residual value for the land.

4. Native Locations. These plots are in a class of their own, being built up with 'temporary' buildings of mud and wattle construction. These are built — and often occupied—by tenants-at-will, who pay a few shillings a month in ground rent.

Statutory provisions make it virtually impossible for the freeholder to evict the tenants-at-will, and as a result the income from these plots remains static. Naturally, valuations have to follow suit, though they will rise very considerably when any of the plots are freed from restrictions and become available for permanent development.

5. The Mainland. The greatest diversity in types and sizes of plots is to be found on the mainland. There are three areas which have been well planned and laid out in plots for residential user. A large area has been compulsorily acquired and developed as an African housing estate, a further area of some hundreds of acres has been similarly acquired and is to be the site of the oil refinery and an adjacent industrial area, and there are also very large acreages occupied by the Port and Airport. The balance consists of plots of every conceivable size and shape, some with factories on them, others with houses, shops, huts, developed as farms or just sheer bush. It is possible to find places within 3 miles of the centre of Mombasa where it is hard to believe there is a town within 100 miles.

Values naturally vary immensely: until recently a readily accessible sea-front plot would be worth up to £2,500 per acre, whilst, at the other end of the scale, a plot out in the blue, remote from any foreseeable development, might be worth as little as £2 per acre. In all cases, however, there are ample sales data for valuation purposes.

6. The Business Area. This has been left until last as it requires much more detailed treatment, including an exposition of a system of valuation which, as far as I am aware, is not used elsewhere in Africa.

Enough has already said to show that plots may vary considerably in size, shape, frontage and depth; also that land values in the centre of the town are high, perhaps as much as £5 per square foot for the pick of the sites.

Twenty years ago, when values and rates were perhaps a tenth or less of what they are now, it did not matter particularly if a plot was 80 or 110 feet in depth, if it tapered from a wide frontage, if it was of more or less irregular shape or presented any other peculiarities. Such variations were overcome in the days of the earlier valuation.

tion rolls by the application of common sense rule-of-thumb methods. But as prices rose and valuations with them, it became obvious that anomalies existed and the problem arose of finding some method of valuation which would be applicable to all the central area plots.

SOMERS SYSTEM

At this juncture my attention was drawn to the unit-foot system of valuation, which was originally devised in Philadelphia by W. A. Somers some 80 years ago. Since then the Somers system and sundry variations upon it have become more or less universally used in the United States, Canada and Australia, in all of which countries rates are levied upon unimproved site capital values, with or without an additional rate upon improvements.

A start was made by computing vacant plot sales in unit foot terms and it was soon found that the system could be used in Mombasa and that its application would lead to that basic principle of rating: uniformity of assessment.

The variations of the unit foot system in most general use adopt a standard plot depth of 100 feet, which is assumed to have a value of 100 units: a 50 foot plot is worth 72.5 units, a 150 foot plot 115 units and plots of other depths a value which is derived from a curve that can be plotted graphically through the three basic values. For valuation purposes, although a plot can if necessary be split into single feet of depth, normal practice is to value in zones 10 feet deep. It is at once apparent that such a system will deal with plots of any size or shape.

Upon getting down to the 1956 re-valuation discrepancies began to appear and it became clear that either the system would have to be scrapped or the tables re-computed. The latter course was adopted and the tables now used are mathematically perfect for any plot up to 700 feet deep.

CORNER INFLUENCE

It is well known that corner plots in business areas are of greater value than plots having single street frontage (for example, if plots 50 ft. x 100 ft. are standard, three shops can be built on a single street frontage and seven or eight at a corner), and it is this enhancement with which the system copes particularly well. If the two streets are of equal value, a line bisecting the angle between them will be an 'equal value line' and the corner plot can be valued in two parts, one in respect of each street. The sum of the two valuations gives a basic value for the plot and, in practice, an additional 5 per cent for corner influence' is usually found justifiable in the case of the ordinary small business plot.

At the junctions of streets of unequal values, the difference is that the equal value line will cut the lower-valued frontage at some distance from the corner and

will not bisect the angle between the streets. A complete series of tables has been computed for intersections between streets of values varying by up to 10 times, and valuation proceeds with simplicity by using them.

In the comparatively few cases in which a plot fronts on streets at both front and rear there is, somewhere, a line of equal value between those streets. This point is found by using a specially prepared slide rule and graph (or it can readily be computed) and, once the line has been found, each of the two portions is valued by reference to its own particular frontage. The ultimate problem — a plot entirely surrounded by streets of differing values — is readily solved by plotting upon a large scale the relevant equal value lines and then proceeding to compute the value of each portion in turn.

IRREGULAR SHAPES

With plots of irregular shape the mid-line of each 10 foot zone is plotted and valuation proceeds zone by zone until the whole plot has been covered. It may, of course, be necessary to make an end allowance if a plot is of particularly awkward shape or very large in size.

To give three simple examples of the working of the system:—

Assume a street of 10s. per unit foot value, three rectangular plots each of 50 foot frontage, plot A 65 feet deep, plot B 100 feet deep and plot C 130 feet deep.

The valuation of plot A is as follows:—

$$\begin{aligned} \text{Value} &= \text{Unit foot value} \times \text{frontage} \times \text{depth per-} \\ &\quad \text{centage for 65 feet.} \\ &= 10 \times 50 \times 82.9729 \\ &= 41,486 \text{ shillings} \\ &= \text{£}2,075 \text{ nearly.} \end{aligned}$$

For plot B, the same formula gives

$$\begin{aligned} &10 \times 50 \times 100 \\ &= 50,000 \text{ shillings} \\ &= \text{£}2,500. \end{aligned}$$

For plot C we have

$$\begin{aligned} &10 \times 50 \times 109.8596 \\ &= 52,929.8 \text{ shillings} \\ &= \text{£}2,745 \text{ nearly.} \end{aligned}$$

If these valuations are converted to shillings per square foot we find:—

Plot A	3,250 sq. ft.	at 12s. 9d. per sq. ft.
Plot B	5,000 " " "	10s. 0d. " " "
Plot C	6,500 " " "	8s. 6d. " " "

It is a firmly held conviction that no valuer, using ordinary English methods, could ever arrive at a result like this — the standard 10s. per square foot would be easy to attain but to fit the other two plots accurately into the framework makes the use of depth tables based, not empirically, but upon sales, imperative.

I should very much like to have the chance to use the system in a really big town — there is obviously an opti-

mum frontage (which may well vary according to the value of the street) above and below which plots become progressively less valuable. Unfortunately, however, Mom-basa is not sufficiently large for worth-while research into this problem.

However, the system as used here ensures uniformity of assessment by high-lighting the most valuable portion of

each plot — *i.e.* that nearest the frontage, the part from which the greatest revenue can be derived by way of rent, and by taking into account the progressively less valuable land the further one goes back from the street.

Uniformity of assessment being a *sine qua non* of any equitable rating system, the unit foot system must be employed in any town where a site levy is made.

State Land Purchase Plan

Extract from *Signposts for the Sixties*, a policy statement
by the National Executive Committee of the Labour Party

THE case for public ownership of building land is not new. It was first made by John Stuaurt Mill a century ago. Had his advice been followed then, our cities today would be better planned and the public revenues, local or national, enormously greater — with no increases in taxation.

Since Mill made his proposals, a series of partial attempts have been made to tackle the problem—all of them unsuccessful. It is now clear that public ownership of building land is the only way in which we can expand and renew our towns and villages without being held to ransom by the landowner and the speculator.

But how shall we proceed? What land is to be acquired, and on what terms?

It will not be necessary either to acquire land which continues to be used for agriculture or to purchase the freeholds of existing houses and other buildings, so long as it is not proposed to pull them down. We can ignore, too, small sites not offered for sale, on which the owner simply wishes to build a house or garage for his own use.

We are concerned here only with land which is proposed that private building or rebuilding should be permitted. It is the price of this kind of land which has risen so alarmingly in recent years and it is the freehold of this land which should be transferred to public ownership.

It can be done most simply in this way:

A Land Commission would be set up to purchase the freehold of land on which building or rebuilding was to be authorised. Actual permission for private development would not be granted until the freehold had been acquired by the Commission, or the Commission had decided not to buy the land—for example, because the change was too unimportant to justify public purchase.

The price paid by the Commission for the site would be based on its value for its present use, together with an amount sufficient to cover any contingent losses by the owner and to encourage the willing sale of land.

Having acquired the freehold, the Commission would lease the site where it was approved for private development, on terms which ensured that the community obtained the benefit of a future rise in the value of the land. The Commission might also, in suitable cases,

follow the precedent of the insurance companies and negotiate a share in the rents of the buildings to be erected. In the normal case, since the initiative will have come from the persons who wish to develop, it should be easy for the Commission to reach agreement with them.

The Commission would also buy land required by local authorities or by other public agencies. It would then either lease or sell the land to the authority concerned. Indeed, while it would exercise general supervision, it could appoint other public bodies as its agents to purchase and hold land.

Although the transfer of the freehold of building land to public ownership would be gradual, the new system would at once stop the uncontrolled rise in land values and the exploitation of the public by the private speculator and landowner. It would also steadily increase the public revenue over the years. A fair share of this would go to the local councils and thus help to ease the problem of local government finance.

Public ownership of building land would also immensely facilitate town and country planning. At present—because existing controls are purely negative—local authorities find it almost impossible to compel a number of different private concerns to build in accordance with their plans. But when building sites are publicly owned, the authorities will be able to ensure that they are developed to a single comprehensive design—even where the development is private.

As soon as the Land Commission has been established, therefore, the local authorities should be invited to revise their planning in the light of the assistance and facilities to be provided by the Commission.

Public ownership of building land will thus remove the main obstacle to planning. But to solve the related problems of housing, transport and industrial location a series of further steps are required.

The steps listed include promotion of municipal house building, easier house purchase, municipal acquisition and modernisation of old houses, repeal of the Rent Act, more New Towns, "sensible spreading" of employment through public control over siting of offices and factories and formation of a small central planning staff to co-ordinate the plans of the local authorities and various Government departments.