PUNJAB P.W. D. PAPER.

No. 79.

A note for the use of the Lahore Improvement
Trust Committee and of the Lahore Improvement Trust when formed, with special
reference to the City of Lahore
inside the walls.

BY

B. M. SULLIVAN, F.R.I.B.A., A M.T.P.I., O.B.E., Superintending Architect, Punjab.



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A note for the use of the Lahore Improvement Trust Committee and of the Lahore Improvement Trust when formed, with special reference to the City of Lahore inside the walls.

Definition of town planning.—Town planning is the co-ordination and due arrangement of all social services such as housing, sanitation, traffic, public buildings, recreation areas and so forth. The demand of Indian towns for sanitation is really, I believe, a demand for town planning.

English Town Planning Acts of 1909 and 1919—These Acts deal with new developments in the area of the town or adjacent to its area. They do not apply to remodelling existing towns, re-planning badly planned areas or driving new roads through old parts of the town. When the town plan has been made the developments are not made at once. It simply fixes the lines upon which private individuals or local authorities will proceed with developments, as such occur. All Urban Local Authorities in Great Britain with upwards of 20,000 inhabitants are required to prepare town planning schemes within three years of January 1923. Agitation is constantly at work to widen the powers of these Acts to cover the present exceptions, such as built-up areas.

Punjab Town Improvement Act, 1922.—This Act places the widest powers in the hands of a Trust to deal with every nature of area, built-up and otherwise.

Civic Survey.—This is the essential preliminary if properly conceived town improvements are to result. It consists of detailed information in graphic form which has been laid down by H. V. Lanchester as follows:—

- Physical characteristics.—Plans showing geological formation, contours, surface utilization, rain-fall and prevalent winds.
 - Archæology.—Maps showing extent of city at various dates, particulars of buildings, tanks, etc., to be preserved on account of historic interest or beauty.
- Recreation.—Information regarding parks, gardens, recreation grounds, public entertainment buildings, libraries, baths, etc., and waste land used or available for recreation.
- Education.—Map showing University, Schools, Hostels, Museum Zoological Gardens, etc., and possible extensions.
- Hygiene, Density and growth of population and Services.—General Death-rate.—Plague, cholera, tuberculosis and infant death-rate per birth-rate. Prevalence of malaria. Hospitals and provision for dealing with epidemics. Existing density and that existing at earlier dates. Area built on. Sanitation, lighting, etc.
- Industries and commerce.—Shop areas, office areas, railway and transport areas. Location of trades.
- Traffic.—Census of traffic on main and minor roads under various authorities with particulars of these. Statistics of passenger and goods railway traffic.
- Valuation. Plans showing the value of land in various districts.
- Distribution of castes and occupations.—Plans showing this information.

Machinery for carrying out the work of the Trust.—Except for disjointed fragments of information, obtained for other purposes at different times, lying in various offices of the Government and the Municipality little of the civic survey as described above, exists.

Note.—A valuable item has been obtained by the public spirited action of the Lahore Municipality in obtaining Government of India survey plans of Lahore City and the congested areas around it and of the Civil Station.

I'do not attach value to the attempts at lay-out plans prepared by the officers of the Municipality, except as proof that properly conceived lay-out plans are needed. Such as exist are, as far as I am aware, of areas outside the city. I have been unable to obtain any from the Municipality of the inside of the city. Beyond small local improvements obvious to any one, it is impossible to make reasoned detailed suggestions without a civic survey. It cannot be prepared by a committee of men already busy on their own work though, apparently, this is the idea in the terms of reference to the Labore Improvement Trust Committee. Besides lack of time, lack of expert knowledge forbids. It cannot be obtained by bringing out a town planning expert for two or three months. The first thing he asks for is the civic survey. It does not exist. Thereupon he writes a general report, much of it valuable, and goes away. The whole scheme of improvements thereupon dies for lack of driving force. Both these things happened in the case of Professor Geddes' report to the Municipal ty. On the other hand top-heavy trusts have been formed with great powers and funds to carry out programmes laid down in more or less general terms. Such trusts have carried on, I believe, more or less blindly under a chairman presiding over engineers, doctors and so forth, but without one properly trained town planner permanently among them to collect information, to plan, to revise plans as conditions and passage of time require, to estimate and advise.

How can the civic survey be made and kept up to date, town improvement plans be prepared, the programme laid down and the work carried out with continuity and economy? I believe the answer is simple. A whole time town planner, trained especially in this subject at Liverpool University or elsewhere, should be employed by Government on terms similar to those of the Government specialists. He should be attached to the Trust. (I do not like the word Trust as it is associated with large loans and heavy spending, extravagant advertising and claims, ending as often as not, in a blow-up "and general apologies all round. This is followed by a natural disinclination of Government to try any more improvements. However, as the word is used in the Punjab Town Improvement Act I continue with it). The town planner should be given his staff of draughtsmen, estimators, overseers and clerks. The Trust should associate with itself a committee of Government officials, experts in their respective capacities. For instance, a civil engineer, a sanitary engineer, a doctor, a lawyer, an irrigation officer, an architect and a valuation expert. The town planner would work with this committee in preparing his scheme for submission to the Trust. The Trust would sit periodically to consider schemes and ways and means. They would be provided with funds by Government. I see no necessity for the Trust to raise loans or to work on a heroic scale. If the Punjab Government made a recurring annual grant of, say, rupees four lakhs, plus additional sums when times were good, all financing necessary would have been done. The first thing which the town planter would be asked to do would be to prepare a civic survey. At the same time, he could undertake the execution of obvious minor items of improvements if these were pressing. When he had completed the civic survey, or carried it to the point at which he considered it possible to prepare his plans and programmes he would do so in consultation with the Committee of the Trust. The Trust would consider the proposals in their final form and would carry them out, as they stood or revised, over a period of years. Besides dealing with Lahore he would deal with any existing town requiring his services as well as new colony towns.

The above goes to show that all that is wanted is a body like the existing Sanitary Board plus a fully qualified town planner and his staff permanently attached to it. With this agency and a tribunal based on that described in Section 58 of the Punjab Town Improvement act everything required can be done. The purposes of the Punjab Town Improvement act are of the highest value. They stand in danger of being stultified by the elaboration and cost of the machinery proposed to carry them through.

Profits to Government on town improvements.—One has heard it stated that town improvement trusts have only to proceed with improvements for large profits to result. It may be worth, while to consider this a little more closely.

Built-up and congested areas.—Suppose, for argument, one lays down that an uncongested area contains no more than 12 houses to an acre. In many cases there are 50 or more. If such areas are cleared and reduced to 12 houses per acre there must be a heavy loss. The value of the cleared site, conditioned by the number of buildings which would be placed upon it would be less than the purchase price. In addition, there is the risk of the cleared sites being vacant for a considerable time. One may as well, therefore, disabuse one's mind of the hope of money profits accruing from the results of town planning in built-up areas. The profit here consists of the well being of the people.

Unbuilt-up areas.—Here we know that profits accrue, This happens in its simplest form by putting water upon arid land. If, in addition, other social services are supplied greater profits should arise. The nearer one approaches the towns the less the profit, owing to the cost of land and property acquisition. I should expect a money loss on some improvements over the unbuilt-on environs of Lahore and profit on others. The general result would be an initial loss but of a smaller nature than on improvements inside the city. These remarks may be truisms but they should be stated or disillusion will result.

The above are general notes. The following were made subsequent to visits recently made to the city in the company at various times of the President of the Municipality, the Medical Officer of Health and the Municipal Engineer with a view to noting requirements to place before the Improvement Trust when formed.

Lahore City—Consists of a congested nucleus, bounded by the high railway embankment and the low lands beyond it on the East; the Fort and the Chota Ravi and the low lands up to the Ravi on the North and West; and the Civil Station on the South. (See plan No. 1.) The results caused by the difficulty of lateral expansion, are as follows:—

- (a) Extension upwards of houses to a considerable height, above fifty feet in many cases. (See photographs Nos. 1 and 21.)
- (b) Narrow bazars and kuchas. (See photographs Nos. 1 and 2.)
- . (c) Encroachments on bazars and kuchas, making them still more narrow. (See photographs Nos. 3, 4 and 5.)
 - (d) Expansion in the direction most easily followed where amenities exist, i.e., down existing roads. Thus, satellite areas to the city have formed themselves such as Anarkali, Gwalmandi Nila Gumbad Mohalla, Kila Gujar Singh and so forth. (See plan No. 1.)
 - (e) Encroachments into the gardens surrounding the city. These gardens are its most valuable and practically sole lung. (See photographs Nos. 6, 7, 8 and 20.)

Town improvement survey required.—A comprehensive town improvement survey for the whole of the city and of the satellite areas, together with the Civil Station is required. It should take into consideration the draining of the low lying lands and opening up land to the East through the railway embankment to let congestion out on that side. (The railway embankment is pierced by a few inadequate openings.)

Areas visited in the City.—The areas visited in the City with notes taken on them are as follows:-

ing from Bhati Gate via Bhati Gate and Lakkar Mandi Bazar to Kucha Behlwanan— First Tour .- Entering from

Open space at the junction of Kucha Behlwauan and Khari Khui might be acquired.

Property at the corner of Bhati Gate Bazar and Nur Moballa projecting into Nur Moballa might be acquired.

At the end of Kucha Mota Singh, cattle occupy a considerable area.

Property here might be acquired to contect Kucha Sachian and Kucha Raugrezan with the park at the back, which should be opened up.

Two kuchibindis block the lane Kucha Miser Beli Ram.

A kucha bandi blocks Kucha Chirimaran from Kucha Kababian.

Ram to Kucha Sachhian and Kucha Rangrezan and back. Through Mohalla Choprian to Lohari Mandi Bazar, passing Chauk Lohari Mandi and Said Metha Bazar to Kucha Miser Beli Ram. Through this Kucha to its junction with Lohari Mandi Bazar. Through Lohari Mandi Bazar, passing Chauk Lohari Mandi to Chauk Jhanda and Kucha Kalloo, an insanitary and congested area. Then via Mori Gate Bazar to Kucha Chirimaran and Kababian getting out into Lohari Gate Bazar. From Lohari Gate Bazar through Lohari Gate to the Circular Road.

Bullocks kept for griading wheat, etc.
In Kucha Kharasian cattle are standing.

Cattle in Gandi Galli.

In June Mori Bazur almost opposite Kirpa Ram Kucha an obstruction should be removed.

Kucha Hawagaran and back, a narrow and densely populated lane.

Chauk Wachhowali should be widened.

Cattle in Kucha Chah Tilian.

Possiblity of opening Kucha Katta Sebgal in Bazar Mcchi Gate?

Possibility of opening Kucha Babian in Bazar Mochi Gate?

Possibility of opening Kucha Kaghzian in Mochi Gate?

Possibility of opening Haveli Mian Khan into Kucha Pir Gilanian?

Two overhead roofings in Kucha Sheikh Wasawan.

Catt'e in Gandi Galli.

Roofing in Kucha Sadhuan.

The insanitary condition of Chank Wazir Khan and its squalid stalls and encroachments generally should be taken

Second Tour .- Via Lohari Gate and Lohari Mandi Bazars into Kucha Kharasian, returning to Lobari Mandi Bazar from the other opening of the same kucha. Through Lohari Mandi Bazar to Gandi Galli, opposite Nihal Chand's garden. Through Chauk Sutar Mandi and Mohalla Mohlian to Jaure Mori, an insanitary and congested spot often flooded by sullage water. Through Kucha Nawab Abdul Majid to Bazar Chauk Matti and Kucha Dogran. Then via Papar Mandi Bazar to

a long narrow lane, very congested with numerous coverings over the lane. Then to Khari Khui, a congested and insanitary spot. Passing

Khari Khui to Bazar Sammian and to Kucha Kasurian Kaghzian and back to Bazar Sammian.

then via the same Bazar to Nur Mohalla and its bye-lanes. From Nur Mohalla to Bazar Chomala, whence through Bhati Gate Bazar to Kucha

Mota Singh. From this Kucha, through Mohalla Jalotian to Kucha Nagarchian and bye-lanes of Mohalla Jalotian. Then via Kucha Basti Ram to Kambo Vera, passing the Victoria Girls' School

and the Lady O'Dwyer park via Kucha Balak

Via Machhi Hatta Bazar to Jaure Mori Bazar again and through it to Bazar Wachbowali. Then to Kucha Chah Tilian, a long narrow lane with small off-shoots full of encroachments occu-. pying almost the whole of the passage way. Out of Kucha Chah Tilian via Chauk Wachhowali Bazar and passing Machhi Hatta Bazar to Kucha Katta Sehgal, a long lane leaving only one opening into Machhi Hatta Bazar. Then to Kucha Babian, through the small lane leading from Kucha Katta Sehgal. Through Kucha Babian to Machbi Hatta Bazar and to Kucha Kaghzian via Mochi Gate Bazar to Haveli Mian Khan getting to its other end from Kucha Pir Gilanian. Back to Chehl Bibian into Lakkar Mandi Bazar, to Chauhatta Mufti Baqir and Kucha Sheikh Wasawan and back. To Gandi Galli through Chauhatta Mufti Baqir. Chrough Gandi Galli and Kucha Jasuhan to Kucha Sadhuan and to Bazar Sirianwala. From Bazar Sirianwala to Kucha Kakkizian viá Bazar Tezabian. Through Kucha Kakkizian to Bazar Kakkizian at the back of Wazir Khan's mosque towards its west. Then to Bazar Chauk Old Kotwali, whence to Chauk Wazir Khan and to Delhi Gate via Delhi Gate Bazar.

Third Tour.—From Akbari Gate to Ekki Gate and on to the Police Hospital.

Bullock Carts stand at Ekki Gate causing a serious encroachment on the belt of City gardens.

Roofing on lane in Kucha Namadga-ran. (A very narrow lane which needs widening).

An area at the junction of Chauhatta Basti Bhagat and Kucha Kundrawan might be acquired.

Open area at the end of Lambi Galli

might be acquired.

Only about 11 ff. width between houses in Eucha Colonel Chet Singh,

Property at the corner might be acquired for widening Bazar Naughara.

Projection at the junction of Rara Talian and Mochi Bazar might be acquired, up to a small lane beyond Kucha Bazurg Shah. Roofing over Kucha Bazurg Shah.

Possibility of joining Jamadar Ghali with Haveli Kabli Mall ?

Cattle at the corner of Haveli Kabli-Mall and Kucha Kundi Garao.

Çattle in Kucha Rundi Gerav.

A new house permitted though the lane is very narrow.

Possibility of acquiring the area between Baraz Hatta and Bansawala Bazare ?

Property might be acquired for widening at the junction of Tehnik Read and Said Metha Bazar.

បញ្ជាស់ស្ដាញ នៅ និកសភា

and old police lines and back. Enter Akbari Gate Bazar, and through Akbari Mandi Bazar to Niwan Katra, Haveli Misran, and Akbari Mandi proper. Then to Kucha Namadgaran and back to Akbari Mandi Bazar. To Bazar Delhi Gate, whence through Kucha Charakbgaran to Katra Mali Teli. To Chauhatta Basti Bhagat up to Kucha Kandr wan, then through Chauhatta Basti Bhagat to Kucha Lambi Galli. Through Bazar Naughara to Kucha Colonel Chet Singh and back; then through the same bazat to Kucha Patpattian and back. Through Mochi Bazar to Kucha Rara Talian, then through Rara Tellian to Bazar Chuni Mandi. Via the same bazar to Kucha Jamadar and Haveli Kabli Mall. Through Haveli Kabli Mall to Kucha Kurdi Garan gelting out in Bazaz Hatta to Kinari Bazar. To Kucha Tobian, getting out into Sua Bazar then through Sua Bazar to Chatta Bazar. To Lange Mandi Bazar and back through Bazar Hatta, Dabbi Bazar, Kashmiri Bazar and up to Delhi Gate Bazar. where the Akbari Mandi Fazar joins. Through Akbari Mandi Bazar to Akbari Gate

Note: - Roofs over lanes and kuchabandis abound. It is impossible to list them all here. The above routes and points for widening, etc., are noted on plans in my office.

The outstanding points resulting from the above inspection are as follows:-Congested state of the City.—Except for a small area on the East of the City the whole of it is seriously congested. This is aggravated by-

- (a) almost numberless encroachments of buildings, steps and tharas. (See photographs Nos. 3, 5 and 21.)
- (b) complete blocking of kuchas by means of folid brick bandis. (See photograph No. 9.)
- (c) partial blocking of kuchas by brick bandis with doors in them which may, or may not, be opened during the day. (See photographs Nos. 1 and 10.)
- (d) cattle, which crowd, the streets on their way to and from pasturage. (See photograph No. 2.)
- (e) milch and other cattle, which stand and lie in the kuchas and waste spaces, making it impossible, in certain places, to get through at all. (See photographs Nos. 11 and 12.)
- (f) heaps of building materials from demolitions, stacked and lying in chauks, presumably waiting to be sold. (See photographs Nos. 13 and 14.)
- (g) kuchas having been built over at first floor leve's. (See photograps Nos. 5, 16 and 21.)
- (h) electric light standards placed well out into the bazars. (See photograph No. 4.)

Insanitary state of the City.—The high buildings and the narrow lanes often ending in blind alleys and the blockage due to the building up over lanes from first floor levels upwards, cause pocket after pocket of foul and stagnant

air. This condition is fourd throughout the city. As far as it is possible, under existing conditions, it appears that efforts towards good sanitation are great. The paved lanes and streets are swilled down and swept and the bazars are cleaned. No effort of this nature, however, can cope with house refuse thrown into the street and loose cattle by the thousand in the refuse thrown into the street and loose cattle by the thousand, in the lanes, bazars and chauks. The difficulty is complicated by the existence of kuchas where it is impossible, for lack of space, for soil carts to go. From such places all refuse must be carried out by hand. It is noticeable how clean and swept the insides of the houses are and how squalid outside. Inside is usually found a court with the building round it. Outside is a dirty wall and a more dirty parrala covered with old kerosine oil tins. Through this rotting channel, is discharged sullage, frequently over the joints of the water supply pipes. (See photographs Nos. 1 and 17.) Generally speaking it may be said that, in spite of great efforts to prevent it, the greater portion of the city is insanitary.—

> Requirements.—(a) The removal of all kucha bandis and the consequent provision of more police, if necessary.

The removal of buildings over kuchas.

Opening up of blind alleys.

The widening of bazars and lanes.

Note. - Where cost of widening lanes is prohibitive it is often easy to obtain parallel routes by opening up and widening kuchas and opening the dead ends of blind alleys.

(e) The opening up of small areas for public gardens.

(f) The provision of a satisfactory sewerage system and water supply. This is in hand.

- (g) The careful re-arrangement of electric light standards and the removal of tangles and nests of wires from the streets. Underground cabling with inspection manholes is little, if any, more expensive than overhead wiring. Collapse of buildings in the city upon the wires has occasionally plunged large areas in darkness for long intervals. Underground cables would obviate this and greatly improve the working width and the appearance of the streets. The effect upon the city caused by the existing electrical arrangements is shown upon photograph No. 4. The buildings are of character and charm but lapsing into decay. What encouragement has the owner to keep them in repair when their appearance and that of the whole neighbourhood is blighted by such erections as that shown in the photograph? No country in Europe would permit such horrors to deface its thoroughfares for one moment.
- The removal of existing and prevention of future encroachments in bazars, streets and lanes.
- Rules regulating the amount of building per acre and the amount of building on individual sites.
- (j) The prohibition of the use of cattle for purposes of grinding wheat, pressing oil, etc., inside houses. With an adequate supply of electric current there appears to be no reason why these insanitary proceedings should continue. Photograph No. 18 shows an oil press worked by cattle on the ground floor of a dwelling house.
- (k) The solving of the problem of milch cattle belonging to gujars and private owners inside the city. Suggestions have been made that these cattle should be prohibited inside the city and a dairy farm provided outside it. It appears to me that one cannot sweep away what is an obvious necessity unless a dairy farm can be started first to supply milk reliably and regularly to the city at a price no higher than that under the present system. My idea would be to provide, at various centres in the city, properly constructed and drained cattle standings and milking sheds under frequent inspection, connected with sufficient through routes for the cattle to be driven to pasturage

These standings would be let to gujars. If, at the same time, a person or syndicate could be persuaded to take up the provision of a dairy farm to supply milk to the city, the Punjab Government might assist such an enterprise. It would be inadvisable for the Government itself to onter upon it, as such adventures rarely succeed. It should run on its own account and produce its own profits, the Government helping with the provision of land and in the many indirect ways in which it can give assistance. As such farms succeeded the city cattle standings could be closed.

(1) The protection of historical and beautiful buildings and their surroundings. An example of such a need is the Masjid Wazir Khan inside the Delhi Gate. The survey plans show clearly the quadrangle which originally existed outside it. This quadrangle is now full of temporary booths, and the small open space that is left is largely filled with a mound of rub-bish, thrown out from the courtyard of the Masjid. (See photographs Nos. 13, 14 and 15 and plan No. 2.) The booths and rubbish should be removed and the quadrangle tidied as an amenity for the public and a setting to this building.

(m) The proper construction of the grain godowns and provision of suitable paving in the various grain mandis. An instance of this requirement is the Akbari Mandi where grain lies in heaps among the dust. (See photograph No. 19.) It has been suggested that two mandis should be provided outside the city. My own observation leads me to believe that the grain sellers in the mandis are mainly concerned with the retail trade. One can no more remove them than the milch cattle, without

damage to the life of the city.

(n) The taking over of areas on the East side of the City for the

provision of open spaces, dwellings and shops.

(o) The removal of all encroachments from the belt of gardens surrounding the city, including the wired-in portions, and the proper upkeep of these gardens. (See photographs Nos. 6, 7, 8 and 20.)

Conclusion. - Walking about the city day after day it becomes evident that its outstanding qualities are virility, wealth and growth, just as evident here as in the Civil Station. As provision has already been made for good here as in the Civil Station. As provision has already been made for good water and sanitary services it should not be enormously costly to carry out the remaining improvements necessary. Wherever one goes one notices plots with ruins upon them or derelict open spaces which, at small expense, could be used to provide valuable arteries or to connect them. In many places the acquisition of one or two small properties means the opening up of bazars at present congested by 'bottle necks.' There is no need to acquire great areas of land and property in order to drive wide straight roads through the city, as is second to acquire great and takes no account of sometimes suggested. This is unskilful and costly and takes no account of the inhabitants and their trades which are displaced. It takes away the characteristics of the city and causes hardship. Careful observation on the ground will show the town planner many cases where he can acquire properties cheaply from which he may form chanks and connecting streets running, like a string of beads, along the lines of least resistance. Given the town planner, his civic survey, his town plan and his programme, a Board, provided by the Government with a small recurring grant, and acting with continuity of policy should be able to make Lahore into an ideal city with an expenditure of not more than Rs. 15 lakhs spread over ten years. Some of this expenditure would be recovered but neither balance of profit and loss nor of profit is to be expected.

I regret that this note is not so connected as I would have wished, but it has been put together against time and with much other work in hand. If

it appears desirable it can, when time permits, be expanded.

B. M. SULLIVAN, Secretary, Lahore and Amritsar Improvement Trust Committee.

The 22-4-27.